IV. ENVIRONMENTAL IMPACT ANALYSIS
B. AIR QUALITY

1. INTRODUCTION

This section addresses the air emissions generated by the construction and operation of the proposed project. The analysis also addresses the consistency of the proposed project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan, and the City of Los Angeles General Plan. The analysis of project-generated air emissions focuses on whether the proposed project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold.

2. ENVIRONMENTAL SETTING

a. Regulatory Framework

A number of statutes, regulations, plans, and policies have been adopted that address air quality issues. The proposed project site and vicinity are subject to air quality regulations developed and implemented at the federal, state, and local levels.

(1) Authority for Current Air Quality Planning

A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the proposed project are discussed below.

(a) Federal Clean Air Act

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for areas not

meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The project site is within the South Coast Air Basin (Basin), which is an area designated as non-attainment as the area does not meet NAAQS for certain pollutants regulated under the CAA.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which are most applicable to the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

Title I requirements are implemented for the purpose of attaining NAAQS for the following criteria pollutants: (1) ozone (O_3); (2) nitrogen dioxide (NO_2); (3) sulfur dioxide (SO_2); (4) particulate patter (PM_{10}); (5) carbon monoxide (CO); and (6) lead (Pb). Table 7 on pages 242 through 243 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in September 2006 to include an established methodology for calculating $PM_{2.5}$ as well as revoking the annual PM_{10} threshold. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. The CAA sets certain deadlines for meeting the NAAQS within the Basin including the following: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2024; (3) PM_{10} by the year 2006; and (4) $PM_{2.5}$ by the year 2015. Nonattainment designations are categorized into seven levels of severity: (1) basic, (2) marginal, (3) moderate, (4) serious, (5) severe-15, (6) severe - 17, and (7) extreme.[37] On June 11, 2007, the USEPA reclassified the Basin as a federal "attainment" area for CO and approved the Basin's CO maintenance plan.[38] It should be noted that the Basin met the PM_{10} standards in 2006 at all stations except for western Riverside.[39] The Basin fails to meet national standards for O_3, PM_{10}, and $PM_{2.5}$ and therefore is considered a Federal "non-attainment" area for these pollutants. Table 8 on page 244 lists the criteria pollutants and their relative attainment status.

Title II of the CAA pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

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[37] *The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.*

[38] *"Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule."* Federal Register *72 (11 May 2007):26718-26721*

[39] *South Coast Air Quality Management District, Draft 2007 AQMP.*

Table 7

Ambient Air Quality Standards [a]

Pollutant	Averaging Time	California Standards [a]		Federal Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Ozone ($O^{3)}$	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—[j]	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.08 ppm (157 µg/m^3) [h]		
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—[j]		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No Separate State Standard		35[j] µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15 µg/m^3		
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10mg/m^3)	Non-Dispersive Infrared Photometry NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)[k]	Annual Arithmetic Mean	0.030 ppm (56 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	0.18 ppm (338 µg/m^3)		—		
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (80 µg/m^3)	—	Spectrophotometry (Pararosaniline Method)
	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)		—	—	—
Lead (Pb)	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	—
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption

Table 7 (Continued)

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [a]		Federal Standards [b]		
		Concentration [c]	Method [d]	Primary [c,e]	Secondary [c,f]	Method [g]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		**No Federal Standards**		
Sulfates (SO_4)	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride [i]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

[a] *California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter (PM_{10} and $PM_{2.5}$) and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.*

[b] *National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.*

[c] *Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.*

[d] *Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.*

[e] *National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.*

[f] *National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[g] *Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.*

[h] *New federal 8-hour ozone and fine particulate matter standards were promulgated by USEPA on July 18, 1997. Contact USEPA for further clarification and current federal policies.*

[i] *The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

[j] *This table includes updated PM_{10}, $PM_{2.5}$, and O_3 standards that were adopted in September of 2006.*

[k] *The NO_2 standard was amended on February 22, 2007, to lower the 1-hr standard to 0.18 ppm and establish a new annual standard of 0.030 ppm..*

Source: California Air Resources Board, February 22, 2007.

Table 8

South Coast Air Basin Attainment Status

Pollutant	National Standards	California Standards
Ozone (1-hour standard)	N/A [a]	Non-attainment
Ozone (8-hour standard)	Extreme	N/A
Carbon Monoxide	Attainment	Attainment [b]
Nitrogen Dioxide	Attainment [b]	Attainment [b]
Sulfur Dioxide	Attainment [b]	Attainment [b]
PM_{10} (24-hour standard)	Serious	Non-attainment
PM_{10} (annual standard)	N/A [c]	Non-attainment
$PM_{2.5}$	Serious	Non-attainment
Lead	Attainment [b]	Attainment [b]
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment [b]
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride	N/A	N/A [d]

N/A = not applicable

[a] *The NAAQS for 1-hour ozone was revoked on June 15, 2005 for all areas except Early Action Compact areas.*

[b] *An air basin is designated as being in attainment for a pollutant if the standard for that pollutant was not violated at any site in that air basin during a three year period.*

[c] *The NAAQS for annual PM_{10} was revoked on September 21, 2006.*

[d] *In 1990 the CARB identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the CARB does not monitor or make status designations for this pollutant.*

Source: USEPA Region 9 and California Air Resources Board, 2007.

(b) California Clean Air Act

The California Clean Air Act (CAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. Table 7 shows the CAAQS currently in effect for each of the criteria pollutants as well as the other pollutants recognized by the State. As shown in Table 7, the CAAQS include more stringent standards than the NAAQS for most of the criteria air pollutants. In general, the California standards are more health protective than the corresponding NAAQS. In addition, the California Air Resources Board (CARB) has established standards for other pollutants recognized by the State, such as sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

Table 8 provides a summary of the Basin's attainment status with respect to state standards. The Basin is designated as attainment for the California standards for sulfates, and unclassified for hydrogen sulfide and visibility-reducing particles. Because vinyl chloride is a

carcinogenic toxic air contaminant, the CARB does not classify attainment status for this pollutant.

(c) California Air Resources Board Air Quality and Land Use Handbook

The CARB published a draft version of the *Air Quality and Land Use Handbook* on February 17, 2005, to serve as a general guide for considering impacts to sensitive receptors from facilities that emit toxic air contaminant (TAC) emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene, and for operations with two or more machines provide 500 feet.

(d) South Coast Air Quality Management District

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. The 2007 AQMP employs the most up-to-date science, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. Policies and measures currently contemplated by responsible agencies to achieve federal standards for healthful air quality in the Basin are built upon in the 2007 AQMP Plan. It also 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 2007 AQMP Plan builds upon improvements accomplished from previous plans, and aims to incorporate all feasible control measures while balancing costs and socioeconomic impacts for the attainment of air quality standards. However, it highlights the significant amount

of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under federal Clean Air Act.

The 2007 AQMP relies on a comprehensive and integrated control approach aimed at achieving the $PM_{2.5}$ standard by 2015 through implementation of short- and mid-term control measures and achieving the 8-hour ozone standard by 2024 based on implementation of additional long-term measures. These reductions are expected to be achieved through implementation of new and advanced control technologies as well as improvement of existing control technologies. Control techniques requiring substantial levels of committed funding for implementation would also fall under this category of long-term emission reductions. The 2007 AQMP control measures consist of four components: 1) the District's Stationary and Mobile Source Control Measures; 2) CARB's Proposed State Strategy; 3) District Staff's Proposed Policy Options to Supplement CARB's Control Strategy; and 4) Regional Transportation Strategy and Control Measures provided by Southern California Association of Governments (SCAG). Overall, the Plan includes 31 stationary and 30 mobile source measures. The District's control strategy for stationary and mobile sources is based on the following approaches: 1) facility modernization; 2) energy efficiency and conservation; 3) good management practices; 4) market incentives/compliance flexibility; 5) area source programs; 6) emission growth management; and 7) mobile source programs.

The SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to construction or operation of the project. For example, SCAQMD Rule 403 requires the implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. The full text of SCAQMD Rule 403 is included in Appendix B of this Draft EIR.

The SCAQMD published the *CEQA Air Quality Handbook* (the Handbook) in November 1993 to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the Handbook with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that the lead agency avoid using the screening tables in the Handbook's Chapter 6, because the tables were derived using an obsolete version of CARB's mobile source emission factor inventory, and the trip generation characteristic of the land uses identified in these screening tables were based on the fifth edition of the ITE Trip Generation Manual, instead of the most current sixth edition. Additionally, the lead agency should avoid using the on-road mobile source emission factors in Table A9-5-J1 through A9-5-L. The

SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the URBEMIS 2007 model.[4]

In addition, the SCAQMD has published a guidance document called the Localized Significance Threshold Methodology for CEQA Evaluations (June 2003) that is intended to provide guidance in evaluating localized effects from mass emissions during construction. This document was also used in the preparation of this analysis. Recently, the SCAQMD adopted additional guidance regarding $PM_{2.5}$ in a document called Final-methodology to Calculate Particulate Matter $(PM)_{2.5}$ and $PM_{2.5}$ Significance Thresholds (October 2006).

The SCAQMD has also adopted land use planning guidelines in the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 2005), which also considers impacts to sensitive receptors from facilities that emit TAC emissions. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

(e) Regional Comprehensive Plan and Guide

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development, and the environment. SCAG is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. As the designated MPO, SCAG is mandated by the federal government to develop and implement regional plans that address transportation, growth management, hazardous waste management, and air quality issues. With respect to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) for the SCAG region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation components of the AQMP and are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

(f) Potential Health Impacts

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due

[4] http://www.aqmd.gov/ceqa/oldhdbk.html.

to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in the prevalent air quality.

The following pollutants are regulated by the EPA and therefore are subject to emission reduction measures adopted by federal, state and other regulatory agencies.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds and nitrogen oxides (NOx) under favorable meteorological conditions such as high temperature and stagnation episodes. An elevated level of ozone irritates the lungs and breathing passages, causing coughing, and pain in the chest and throat thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower the lung efficiency.

Carbon Monoxide (CO): Carbon monoxide is primarily emitted from combustion processes and motor vehicles because of incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of moderate levels of carbon monoxide can cause nausea, dizziness, and headaches, and can be fatal at high concentrations.

Particulate Matter (PM_{10} and $PM_{2.5}$): The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than ten microns (PM_{10}) and even smaller particles with a aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), are trapped in the nose, throat, and upper respiratory tract. These small particulates enter the body and could potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulate could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Nitrogen Oxides (NOx): Major sources of NOx include power plants, large industrial facilities, and motor vehicles. Nitrogen oxides are emitted from combustion processes and irritate the nose and throat. It increases susceptibility to respiratory infections, especially in people with asthma. The principal concern of NOx is as a precursor to the formation of ozone.

Sulfur Dioxide (SO_2): Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide

aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Sulfur dioxide potentially causes wheezing, shortness of breath, and coughing. High levels of particulate appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Lead (Pb): Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

(g) Global Climate Change

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena, however some data indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (human) emissions of greenhouse gases (GHGs) is currently one of the most important and widely debated scientific, economic and political issues in the United States and the world. There continues to be significant scientific uncertainty concerning the extent to which increased concentrations of GHGs have caused or will cause climate change, and over the appropriate actions to limit and/or respond to climate change.

GHGs are those compounds in the Earth's atmosphere that play a critical role in determining the Earth's surface temperature. Specifically, these gases allow high-frequency solar radiation to enter the Earth's atmosphere, but retain the low frequency energy which is radiated back from the Earth to space, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. It is increasingly becoming accepted that increased concentrations of GHGs in the Earth's atmosphere are linked to global climate change, such as rising surface temperatures, melting icebergs and snowpack, rising sea levels, and the increasing frequency and magnitude of severe weather conditions.

GHGs include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Carbon dioxide is the most abundant GHG. GHGs are the result of both natural and anthropogenic activities. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation, transportation, heating, and cooling are the primary sources of GHG emissions. According to the California Energy Commission (CEC),

emissions from fossil fuel consumption represent approximately 81 percent of GHG emissions and transportation creates 41 percent of GHG emissions in California.[5]

Our understanding of the fundamental processes responsible for global climate change has improved over the past decade, and our predictive capabilities are advancing. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system, the uncertainty surrounding climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change, and with respect to the appropriate actions to limit and/or respond to climate change. In addition, it is impossible to link a single development project with future specific climate change impacts.

In response to growing scientific and political concern regarding global climate change, California has recently adopted a series of laws to reduce both the level of GHGs in the atmosphere and to reduce emissions of GHGs from commercial and private activities within the State. In September 2002, Governor Gray Davis signed Assembly Bill (AB) 1493, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. However, setting emission standards on automobiles is solely the responsibility of the federal EPA. The CAA allows States to set state-specific emission standards on automobiles if they first obtain a waiver from the USEPA. The USEPA has not yet ruled on California's request for a waiver, thereby possibly delaying CARB's proposed implementation schedule.

In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as AB32, into law. AB32 commits the State to achieving the following:

- 2000 GHG emission levels by 2010 (which represents an approximately 11 percent reduction from business as usual)
- 1990 levels by 2020 (25 percent below business as usual)
- 80 percent below 1990 levels by 2050

To achieve these goals, AB32 mandates that CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions

[5] *http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF*.

from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Senate Bill (SB) 1368, a companion bill to AB32, requires the California Public Utilities Commission (PUC) and CEC to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

California Senate Bill 97 (SB 97), passed in August 2007, is designed to work in conjunction with CEQA and AB32. SB 97 requires the Office of Planning and Research (OPR) to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof. These guidelines must be transmitted to the Resources Agency by July 1, 2009, to be certified and adopted by January 1, 2010. The OPR and the Resources Agency shall periodically update these guidelines to incorporate new information or criteria established by CARB. SB 97 will apply retroactively to any EIR, negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized. Exempt from adequately analyzing the effects of GHGs in an EIR, negative declaration, mitigated negative declaration, or other document required by CEQA, are transportation projects funded under the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, and projects funded under the Disaster Preparedness and Flood Prevention Bond Act of 2006.

There has also been activity at the federal level with respect to the regulation of GHGs. In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that that not only did the EPA have authority to regulate greenhouse gases, but that the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO_2 and other GHG as pollutants under the CAA. To date, the EPA has not developed a regulatory program for greenhouse gas emissions.

b. Existing Conditions

(1) Regional Context

The proposed project is located within the South Coast Air Basin (Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. Its terrain and geographical location determine the distinctive climate of the Basin, as the Basin is a coastal plain with connecting broad valleys and low hills.

The southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter

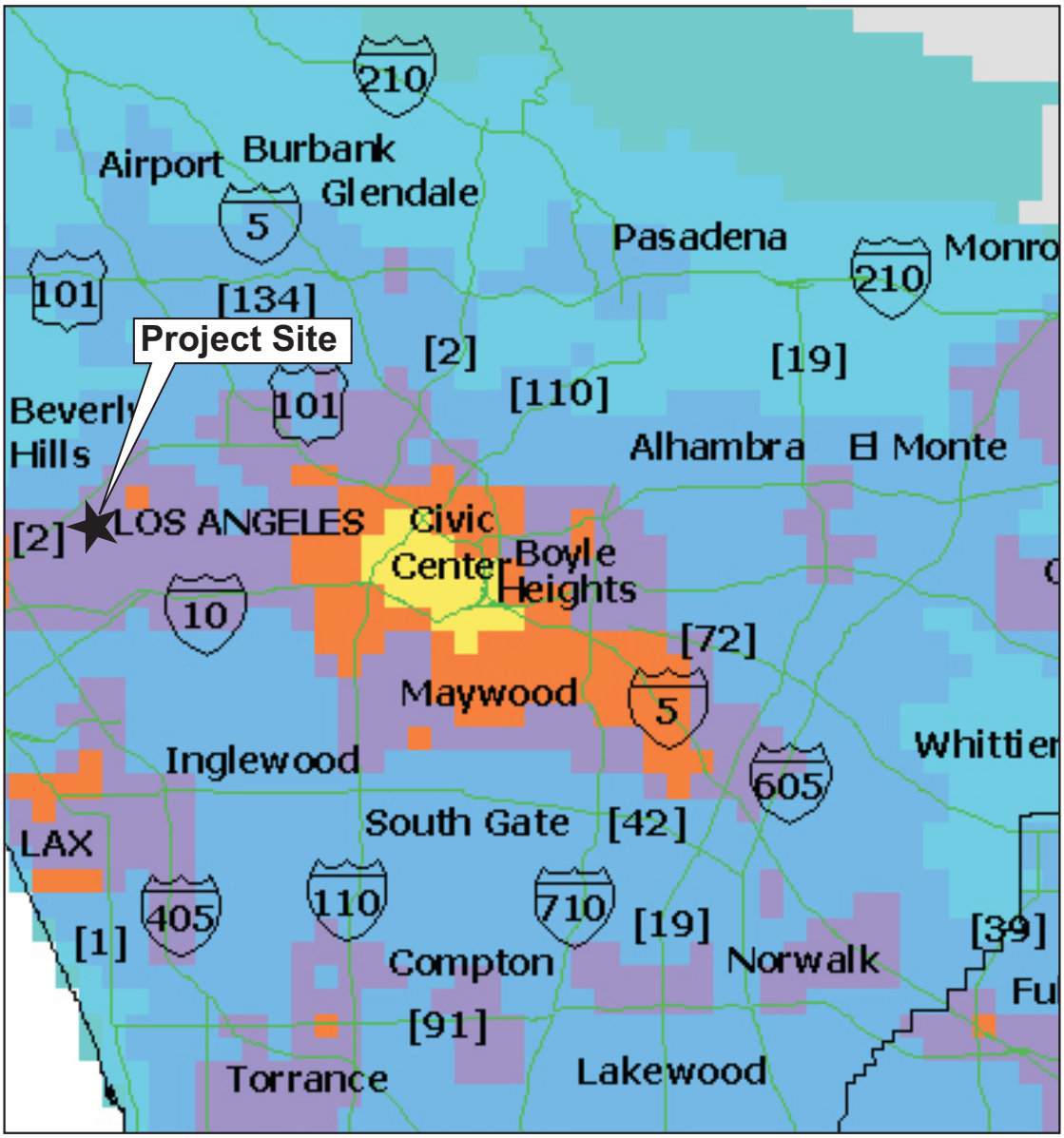
storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts throughout the Basin occur from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California.

The SCAQMD published a Basin-wide air toxics study called the Multiple Air Toxics Exposure Study (MATES II) in March 2000. The MATES II represents one of the most comprehensive air toxics studies ever conducted in an urban environment. The study was aimed at determining the cancer risk from toxic air emissions throughout the Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Basin. The study concluded that the average carcinogenic risk in the Basin is approximately 1,400 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 70 percent of all of the risk is attributed to diesel particulate matter (DPM) emissions, approximately 20 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 10 percent of all carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations). The SCAQMD is in the process of updating the MATES II with a MATES III. The MATES III was slated to end in April 2005. Due to the unusually high levels of rainfall during the study period, air toxics monitoring data collected to-date indicate a much cleaner year than normal. As such, the SCAQMD extended the MATES III air toxics monitoring element to April 2006, and released the draft report in 2008. Until MATES III is officially adopted, the results of MATES II are most appropriate.

The CARB prepares a series of maps that show regional trends in estimated outdoor inhalable cancer risk from air toxic emissions in an ongoing effort to provide insight as to the relative risk. The estimates represent the number of potential cancers per million people based on a lifetime of breathing air toxics (i.e., 24 hours per day outdoors for 70 years). The Year 2001 Central Los Angeles County map, which is the most recently available map to represent existing conditions, is provided in Figure 44 on page 253. As shown in Figure 44, the cancer risk within Central Los Angeles ranges from 100 to 1,500 cancers per million, while the vast majority of the

Total Risk (diesel + nondiesel)
Central Los Angeles: 2001 Cancer Risk Per Million
All Sources



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Source: Air Resource Board, 2006.

Figure 44
Total Cancer Risk for Central Los Angeles County

area is between 500 and 1,500 cancers per million.[6] Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

The data from the SCAQMD and CARB provide a slightly different range of risk. This difference is primarily related to the fact that the SCAQMD risk is based on monitored pollutant concentrations and the CARB risk is based on dispersion modeling and emission inventories. Regardless, the SCAQMD and CARB data show that there is an inherent health risk associated with living in urbanized areas of the Basin, where mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors to the overall risk.

(2) Local Area Conditions

(a) Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the South Coast Air Basin and has divided the Basin into air monitoring areas. The project site is located within the "Coastal" air monitoring area. The monitoring station most representative to the project site is the West Los Angeles/Veterans Administration Hospital Monitoring Station (Northwest Coastal LA County) located at Wilshire Boulevard and Sawtelle Boulevard, approximately 3 miles northwest of the project site. Criteria pollutants monitored at this station include O_3, CO, and NO_2. The most representative Coastal monitoring station for obtaining ambient data for PM_{10} and SO_2 is the Hawthorne Monitoring Station (Southwest Coastal LA County). This station is located at the intersection of West 120th Street and La Cienega Boulevard in the City of Hawthorne, approximately 10 miles south of the project site. The most representative Coastal monitoring station for obtaining ambient data for $PM_{2.5}$ is the Long Beach Monitoring Station (South Coastal LA County). This station is located at 3548 North Long Beach Boulevard in the City of Long Beach, approximately 21 miles south of the project site. The most recent data available from these monitoring stations encompasses the years 2001 to 2005. The data, shown in Table 9 on pages 255 and 256, show the following pollutant trends:

Ozone, O_3. During the 2001 to 2005 reporting period, the maximum 1-hour ozone concentration was recorded in 2003 at 0.13 ppm. An exceedance of the California 1-hour ozone standard of 0.09 ppm was recorded once in 2001 and once in 2002 as compared to 11 times during 2003. The National standard of 0.12 ppm was exceeded one time, reported in 2003. The maximum eight-hour ozone concentration recorded during the reporting period was 0.11 ppm, also reported in 2003. During the 2001 to 2005 reporting period, the National 8-hour average standard of 0.08 ppm was exceeded once in 2003, 2004, and 2005.

[6] http://www.arb.ca.gov/toxics/cti/hlthrisk/cncrinhl/riskmapviewfull.htm.

Table 9

Pollutant Standards and Ambient Air Quality Data[a]

Pollutant/Standard	2001	2002	2003	2004	2005
Ozone					
O_3 (1-hour)					
Maximum Concentration (ppm)	0.10	0.12	0.13	0.11	0.11
Days > CAAQS (0.09 ppm)	1	1	11	5	7
Days > NAAQS (0.12 ppm)	0	0	1	0	0
O_3 (8-hour)					
Maximum Concentration (ppm)	0.08	0.078	0.105	0.089	0.09
4th High 8-hour Concentration (ppm)	--[a]	0.074	0.083	0.078	0.077
Days > CAAQS (0.07 ppm)	1	1	11	5	7
Days > NAAQS (0.08 ppm)	0	0	1	1	1
Particulate Matter					
PM_{10} (24-hour)					
Maximum Concentration ($\mu g/m^3$)	75	121	58	52	66
Days > CAAQS (50 $\mu g/m^3$) [b]	8	12	3	2	5
Days > NAAQS (150 $\mu g/m^3$) [b]	0	0	0	0	0
PM_{10} (Annual Average)					
Annual Arithmetic Mean, NAAQS (50 $\mu g/m^3$)	37	37	30	31	30
Annual Geometric Mean, CAAQS (20 $\mu g/m^3$)	34	34	N/A[c]	N/A[c]	N/A[c]
Particulate Matter					
$PM_{2.5}$ (24-hour)					
Maximum Concentration ($\mu g/m^3$)	73	63	115	67	51
Days > NAAQS (65 $\mu g/m^3$) [d]	1	0	3	1	0
$PM_{2.5}$ (Annual Average)					
Annual Arithmetic Mean (NAAQS (15 $\mu g/m^3$) and CAAQS (12 $\mu g/m^3$))	21	20	18	18	15
Carbon Monoxide					
CO (1-hour)					
Maximum Concentration (ppm)	4	4	5	4	3
Days > CAAQS (20 ppm)	0	0	0	0	0
Days > NAAQS (35 ppm)	0	0	0	0	0
CO (8-hour)					
Maximum Concentration (ppm)	3	3	3	2	2
Days > CAAQS (9 ppm)	0	0	0	0	0
Days > NAAQS (9 ppm)	0	0	0	0	0

Table 9 (Continued)

Pollutant Standards and Ambient Air Quality Data

Pollutant/Standard	2001	2002	2003	2004	2005
Nitrogen Dioxide					
NO_2 (1-hour -CAAQS)					
Maximum Concentration (ppm)	0.11	0.11	0.12	0.09	0.08
Days > CAAQS (0.25 ppm)	0	0	0	0	0
NO_2 (Annual Average—NAAQS)					
Annual Arithmetic Mean (0.053 ppm)	0.03	0.02	0.02	0.02	0.02
Sulfur Dioxide					
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.04	0.07	0.03	0.03	0.04
Days > CAAQS (0.25 ppm)	0	0	0	0	0
SO_2 (24-hour)					
Maximum Concentration (ppm)	0.01	0.01	0.01	0.01	0.01
Days > CAAQS (0.04 ppm)	0	0	0	0	0
Days > NAAQS (0.14 ppm)	0	0	0	0	0
SO_2 (Annual Average)					
Annual Arithmetic Mean, NAAQS (0.030 ppm)	0.001	0.002	0.001	0.003	0.002
Lead					
Maximum 30-day average ($\mu g/m^3$)	0.04	0.02	0.17	0.02	0.01
Maximum calendar quarter ($\mu g/m^3$)	0.04	0.02	0.10	0.01	0.01
Sulfate					
Maximum 24-hour Concentration ($\mu g/m^3$)	15.6	14.6	14.3	11.4	11.7

[a] *ppm = parts per million; $\mu g/m^3$= micrograms per cubic meter; N/A = not applicable; -- = Data not available*
Data presented for O_3, CO, NO_2, is from the Northwest Coastal LA County (SRA-2) Monitoring Station. Data for PM_{10} and SO_2 is from the Southwest Coastal LA County (SRA-3) Monitoring Station. Data for $PM_{2.5}$ is from the South Coastal LA County (SRA-4) Monitoring Station.
Ambient data for airborne lead is not included in this table since the Basin is currently in compliance with state and national standards for lead.

[b] *Measurements were collected every six days. Measured days count the days that a measurement was greater than the level of the standard.*

[c] *Insufficient data available to determine the value.*

[d] *In September 2006, the 24-hr $PM_{2.5}$ standard was changed from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. The data representing days above standard applies to the old standard.*

Source: California Air Resources Board, Ambient Monitoring Data 2001–2005.

Particulate Matter, PM_{10}. The highest recorded 24-hour concentration during the reporting period occurred in 2002 and was 121 micrograms per cubic meter ($\mu g/m^3$) of air particulates. During the reporting period, the California 24-hour PM_{10} standard of 50 $\mu g/m^3$ was

exceeded between two and 12 times annually, with the highest number of exceedances occurring in 2002 and two exceedances in 2004. No exceedances of the National standard occurred between the years 2001 to 2005. The highest annual arithmetic mean recorded was 37 $\mu g/m^3$ in 2001 and 2002 and the highest annual geometric mean recorded was 34 $\mu g/m^3$ also in 2001 and 2002. It should be noted that California has modified its standard to be based on the arithmetic mean rather than the geometric mean and discontinued the prior standard in 2003. The maximum recorded arithmetic mean concentrations exceeded the California standard of 20 $\mu g/m^3$ but not the National standard of 50 $\mu g/m^3$. The California annual arithmetic mean standard was exceeded every year between 2001 and 2005, but the National standard was not exceeded during the same period.

Particulate Matter, $PM_{2.5}$. The highest recorded 24-hour concentration of $PM_{2.5}$ during the reporting period was 115 $\mu g/m^3$ in 2003. The National standard in place during 2001 through 2005, of 65 $\mu g/m^3$, was exceeded from zero and three times annually, with 2002 and 2005 reporting no exceedances. In 2006, the USEPA lowered the standard to 35 $\mu g/m^3$. The highest annual arithmetic mean recorded was 21 $\mu g/m^3$ in 2001. Annual average ambient levels exceeded the California standard of 12 $\mu g/m^3$ during all five years, and exceeded the National standard of 15 $\mu g/m^3$ in all years but 2005.

Carbon Monoxide, CO. The highest 1-hour CO concentration was 5 ppm, reported in 2003 and the highest 8-hour CO concentration was 3 ppm, reported in 2001, 2002 and 2003. Neither the California nor the National CO standards were exceeded during the 2001 to 2005 reporting period.

Nitrogen Dioxide, NO_2. The highest 1-hour concentration of NO_2 was recorded in 2003 and was 0.12 ppm. The highest annual arithmetic mean during the 2001 to 2005 reporting period was 0.03 ppm, recorded in 2001. Neither the California nor the National NO_2 standards were exceeded during the 2001 to 2005 reporting period.

Sulfur Dioxide, SO_2. The highest 1-hour concentration of SO_2 was 0.07 ppm, recorded in 2002 The highest 24-hour concentrations recorded were 0.01 ppm in 2001 through 2005. No exceedances of the California or the National SO_2 standards were recorded during this reporting period.

Lead, Pb. The highest 30-day average concentration of lead was 0.17 $\mu g/m^3$ recorded in 2003, below the California 1.5 $\mu g/m^3$ standard. The highest calendar quarter concentration was 0.10, also in 2003, below the National 1.5 $\mu g/m^3$ standard. The data demonstrates that the area is currently in compliance with California and National standards for Pb, as no exceedences were recorded.

Sulfates. The maximum 24-hour concentration of sulfates was 15.6 $\mu g/m^3$ recorded in 2001, below the 25 $\mu g/m^3$ State standard. These data confirm that the Basin is currently designated as attainment with respect to the State standard for sulfates.

Visibility Reducing Particles. The Basin is currently designated as "unclassified" with respect to the State standard for visibility reducing particles. Continuous monitoring is not currently performed within the Basin for this standard.

Hydrogen Sulfide. The Basin is currently designated as "unclassified" with respect to the State standard for hydrogen sulfide. The CARB does not perform or require ambient monitoring of this pollutant.

Vinyl Chloride. The Basin is currently designated as "unclassified" with respect to the State standard for vinyl chloride. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the CARB does not perform or require ambient monitoring for this pollutant.

(b) Existing Health Risk in the Surrounding Area

As shown above Figure 44 on page 253, the project site is located within a cancer risk zone of 750 to 1,000 in one million. However, the visual resolution available in the map is 1 kilometer by 1 kilometer and, thus, impacts from individual facilities for individual neighborhoods are not discernable on this map. In general, the risk of the project site is comparable with other areas in the Los Angeles area.

(c) Sensitive Receptors and Locations

Some population groups including children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to air pollution than others. Sensitive land uses in the project vicinity are shown in Figure 45 on page 259 and include the following:

- Residential units west of the project site. Single- and multi-family residences along Fox Hills Drive, approximately 100 feet west of the project site, on the west side of Century Park West.

- Residential units north of the project site. Apartments on the north side of Santa Monica Boulevard approximately 350 feet northwest of the project site. There are also single-family residences on Club View Drive, Ensley Avenue, and Warnall

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No scale

Figure 45
Closest Sensitive Receptor Locations

Source: Westfield, LLC, 2006.

Avenue, behind the existing commercial buildings on Santa Monica Boulevard, approximately 350 feet from the project site.

- Residential units south of the project site.[7] Multi-family residences within Century Woods Condominiums, located approximately 800 feet south of the project site at the northeast corner of Century Park West and Olympic Boulevard.

- Residential units east of the project site. A residential high-rise apartment building, known as 10131 Constellation, is proposed to be constructed along Avenue of the Stars, just north of Constellation Boulevard. The building is proposed to be located approximately 400 feet east of the project site, and is depicted in Figure 45.

3. PROJECT IMPACTS

a. Significance Thresholds

(1) Construction Emissions

The following factors are set forth in the *City of L.A. CEQA Thresholds Guide* (2006), for consideration on a case-by-case basis for evaluation of significance:

Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

Fugitive Dust

Grading, Excavation and Hauling:

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

[7] *These residential units are not depicted in Figure 45, which only shows the closest sensitive receptor locations.*

Heavy-Duty Equipment Travel on Unpaved Road:

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

Other Mobile Source Emissions

- Number and average length of construction worker trips to project site, per day; and
- Duration of construction activities.

While these factors are important inputs in determining the amounts and nature of air pollution emissions generated by a project during construction, they do not constitute a threshold to which the resultant emissions may be compared for purposes of determining significance. Based on criteria set forth in the SCAQMD Handbook, the project would have a significant impact with regard to construction emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X, (2) 75 pounds a day for VOC, (3) 150 pounds per day for PM_{10}, (4) 55 pounds per day $PM_{2.5}$ (5) 550 pounds per day for CO, and (6) 150 pounds per day for SO_X.[8]

In addition, the SCAQMD has developed methodology to assess the potential for localized emissions to cause an exceedance of applicable ambient air quality standards. Impacts would be considered significant if the following would occur:

- Maximum daily localized emissions are greater than the Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for CO and NO_2.[9]
- Maximum localized PM_{10} or $PM_{2.5}$ emissions during construction are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed 50 $\mu g/m^3$ over five hours (SCAQMD Rule 403 control requirement).

[8] http://www.aqmd.gov/ceqa/handbook/signthres.doc.

[9] *South Coast Air Quality Management, LST Methodology:* http://www.aqmd.gov/ceqa/handbook/lst/Method_final.pdf.

(2) Operational Emissions

Thresholds of significance regarding operational emissions are set forth in the *City of L.A. CEQA Thresholds Guide (2006),* which states that a project would normally have a significant impact on air quality from project operations if any of the following would occur:

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC, (2) 55 pounds per day for NO_X, (3) 550 pounds per day for CO, (4) 150 pounds per day for PM_{10} or SO_X[10] and (5) 55 pounds per day for $PM_{2.5}$.[11]

- Either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:

  – The proposed project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or

  – The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.

- The project creates an objectionable odor at the nearest sensitive receptor.

These thresholds will be applied to the proposed project.

In addition to the above thresholds established by the City, the SCAQMD has established the following thresholds by which to determine whether a project would have a significant operational air quality impact:

- The project would not be compatible with SCAQMD and SCAG air quality polices if it:

  – causes an increase in the frequency or severity of existing air quality violations;

  – causes or contributes to new air quality violations;

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[10] *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993.*

[11] *South Coast Air Quality Management District, Final-Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds, October 2006.*

- delays timely attainment of air quality standards or the interim emission reductions specified in the AQMP; or

- exceeds the assumptions utilized in the SCAQMD's AQMP.

(3) Toxic Air Contaminants

The following factors are set forth in the *City of L.A. CEQA Thresholds Guide (2006),* for consideration on a case-by-case basis in making a determination of significance:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.

Based on these factors and criteria set forth in the SCAQMD Handbook, the project would have a significant toxic air contaminant impact, if:[12]

- The project emits carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of ten in one million or an acute or chronic hazard index of 1.0.
- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.
- The project would be occupied primarily by sensitive individuals within a quarter mile of any existing facility that emits air toxic contaminants which could result in a health risk for pollutants identified in District Rule 1401.

(4) Greenhouse Gas Emissions

No air agency, including the SCAQMD, or municipality, including the City of Los Angeles, has yet established project-level significance thresholds for GHG emissions. In addition, the regulations required to meet the goals under AB32 are still under development, but

[12] *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), April 1993.*

are expected to be finalized by January 1, 2008, and implemented no later than January 1, 2010. CARB's list of discrete early action measures that can be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: 1) a low-carbon fuel standard, which reduces carbon intensity in fuels state-wide 2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and 3) increased methane capture from landfills, which includes requiring the use of state-of–the–art capture technologies. At this time, there are no available standards by which the approval of a real estate development project can be judged to support or hinder attainment of the State's goals relating to GHG abatement.

The City of Los Angeles recently published *"Green LA, An Action Plan to Lead the Nation in Fighting Global Warming" (LA Green Plan)*, outlining the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. According to the LA Green Plan, the City of Los Angeles is committed to the goal of reducing emissions of CO_2 to 35 percent below 1990 levels. To achieve this, the City will:

- Increase the generation of renewable energy;
- Improve energy conservation and efficiency; and
- Change transportation and land use patterns to reduce dependence on automobiles.

The extent to which the proposed project supports the City's goals will be discussed qualitatively.

b. Project Design Features

The following design features result in a reduction in air pollutant emissions and are proposed as part of the project.

- The proposed project would add high density housing within a major commercial office and mixed land use area, which could serve to reduce vehicle miles traveled to facilities in the vicinity of the project site (e.g., Century Plaza Towers, MGM building, AIG SunAmerica building, Century City Hospital, banks, markets, restaurants, and the Roxbury Recreational Center).
- The proposed project would create a community-based, livable, walkable and diverse mixed-use development district to shop, dine and entertain while promoting pedestrian use and public transportation.

- The proposed project would provide access improvements to reduce vehicular queuing and interference with traffic flows on the adjacent streets, while providing separate pedestrian access to enhance safety.

- All stationary-source emissions sources (e.g., boilers and emergency generators) would utilize Best Available Control Technology (BACT) to meet SCAQMD requirements.

- The proposed project would be designed and built in accordance with the criteria of the Leadership in Energy and Environmental Design (LEED) program. At a minimum, the project would be designed and constructed to achieve the "Certified" level of the LEED Rating System established by the US Green Building Council (USGBC) to promote sustainability. LEED standards would be incorporated into the project through the following measures that would reduce energy and water usage and thus reduce associated GHG emissions:

    - Exceed baseline standards for energy efficiency by utilizing such design methods and technologies as high performance glazing on windows, appropriately-oriented shading devices, and enhanced insulation to minimize solar and thermal gain. These design features would reduce the project's heating and cooling loads, thus reducing the GHG emissions associated with necessary energy inputs.

    - Apply energy-saving technologies and components to reduce the project's electrical use-profile. Examples of these components include compact fluorescent light bulbs (CFL), energy saving lighting schemes such as motion-detection controls (where applicable), energy efficient heating and cooling equipment, and "Energy Star" appliances for both residential and commercial tenants.

    - Pursue solar powered renewable energy opportunities on parking shade structures and rooftops of new buildings.

    - Reduce the energy associated with heating and cooling loads through the use of such techniques as high-albedo (or reflective) roofing (such as light-colored, build-up "white" roofs) and/or "green" (or vegetated) roofs. These roofing technologies increase the reflectance of the roofs, and thus reduce GHG emissions from heating and cooling equipment. In addition, these roofs can mitigate the heat island effect by reducing the absorption of solar energy.

    - Evaluate the potential for on-site electricity generation, likely through roof-mounted photovoltaic panels. On-site electricity generation from non-GHG-

emitting energy sources would reduce the project's grid energy needs and thus substantially reduce its GHG emissions.

- Use commissioning and energy efficiency audits, which are processes that ensure that the project's lighting, mechanical, heating, cooling, ventilation and other energy and water-consuming systems are operating at their designed levels of efficiency.

- Raise tenants' and residents' awareness of their individual energy usage and of their conservation opportunities through the use of individual sub-meters to the extent feasible. This effort would potentially include a move-in informational pamphlet or orientation for the residents and tenants.

- Promote the use of alternative transportation, such as mass-transit, ride-sharing, bicycling, and walking to reduce Vehicle Miles Traveled (VMT) by the residents, employees, and shopping center patrons for trips originating within the immediate district of Century City and its surrounding neighborhoods. Westfield, in conjunction with other businesses in Century City, would evaluate the feasibility of a local shuttle for the area, including shopping-center employees and patrons. Westfield has also been involved in the planning for district-wide improvements to the pedestrian network as part of the larger Century City Greening Plan. Taken together, all of these proposed and potential programs and design features should give residents and employees of the immediate district better access to non-automotive options which should reduce VMT versus the baseline condition and result in a reduction of GHGs and other pollutants resulting from automobile emissions.

- Establish programs and incentives to decrease employees', visitors', and residents' dependence on private, traditional fuel automobiles, and thus VMT, for longer-distance trips to and from the project. Such programs could include preferred parking for carpools, vanpools, motorcycles, and alternative-fuel vehicles, electric vehicle charging stations in preferential and noticeable locations; low-cost mass-transit passes, bike storage areas, showers, and lockers for employees biking to work. The project design would provide for a subway knock-out panel (KOP) and street-level portal which would offer the opportunity for a future subway line to connect directly to the shopping center. Additional programs to be evaluated include: kiosks that provide easy access to bus route and car-sharing information, access to a ride-share matching program, and upgrades to bus-waiting areas along the project's perimeter. Taken together, all of these proposed and potential programs and design features should give residents and visitors to the project better access to non-automotive options which would reduce VMT versus the baseline

condition and result in a reduction of GHGs and other pollutants resulting from automobile emissions.

- Utilize trees and other landscaping where appropriate and feasible to shade the project's structures, open-spaces, and parking areas and as a means to capture (sequester) carbon dioxide emissions.

- To the maximum practical extent, ensure that reusable materials are re-used and recyclable materials are recycled. During the demolition and construction phases of the project, this would involve establishing targets for reuse and recycling of demolition materials and for the volume of recycled materials used to construct the development as well as monitoring the construction to ensure that these are met. Specific applicable benchmarks within the LEED criteria include: diversion of 50 percent of the construction waste from land-fills; use of recycled or recycled-content material for at least 20 percent of the project's construction material total; and use of regionally-sourced material for at least 10 percent of the project's construction. Once the project is operational, this would involve implementing recycling and waste reduction programs and strategies for tenants, shoppers, and residents.

- Reduce water usage and demand (versus "business as usual") by installing WeatherTRACK irrigation, which regulates irrigation schedules based on landscape needs, local weather conditions, plant type, soil type, and sun exposures; variable flush toilets; high efficiency no-touch fixtures including waterless urinals where appropriate; a high-efficiency, low-water consuming cooling tower/chiller for plant operations; and landscaping with drought-tolerant or native plants. On-site reductions in water use would reduce the amount of energy necessary to transport the water to the site, and thus reduce the project's energy demands and associated GHG emissions.

- Create a sustainable performance section in the Tenant Criteria Manual to include targets that encompass both the tenants' improvement of their individual spaces, their continued operating practices, and any programs designed to facilitate employees' non-automotive transportation decisions. In addition, a green tenant recognition program would be established to help Westfield and the public recognize tenants and retailers that go above and beyond the minimum environmental targets outlined in the Tenant Criteria Manual.

c. Methodology

The evaluation of potential impacts to local and regional air quality that may result from the construction and long-term operations of the proposed project is conducted as follows:

(1) Construction Impacts

Daily regional emissions during construction were forecasted by assuming a conservative estimate of construction (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile-source and fugitive dust emissions factors derived from URBEMIS. Details are presented in Appendix B of this Draft EIR.

Construction of the project was assumed to occur within five phases over an approximate four-year period, beginning in early 2009 and ending in late 2012. Existing buildings to be removed as part of proposed construction activities would include structures in the central, northern, and eastern portions of the shopping center and the office buildings at 1801 Avenue of the Stars and 1930 Century Park West. The recently completed shopping center improvements within the western portion of the project site would remain. Phases relating to geographic locations within the site that are not specific with regard to timing have been identified. Phase A of the project is anticipated to include construction of the shopping center uses and residential uses in the northeast portion of the site at 1801 Avenue of the Stars. Phase B would include construction of new retail uses along the remainder of the Santa Monica Boulevard frontage within the northern portion of the site together with the new parking facility at 1930 Century Park West within the southwestern portion of the site. Phase C would include construction within the southern portion of the site. Phase D of the project would include construction within the more central portion of the site. In addition, Phase E would include construction of the new office uses, which are anticipated to be located above the retail uses within the northern portion of the site along Santa Monica Boulevard (constructed as part of Phase B) along with approximately 19,000 square feet of retail uses within the project site. Construction activities within these five general phases are expected to overlap. To provide a conservative analysis, the project's air quality impacts were analyzed assuming the maximum overlap of construction phases (i.e., it was assumed that all construction phases would be complete in the first four years following entitlement). Demolition would involve a total of 459,055 square feet of retail space and 360,964 square feet of office space. To provide for the new improvements, grading activities would include approximately 21,420 cubic yards of cut, 1,895 cubic yards of fill, and 19,607 cubic yards of cut for foundations. Of this grading, approximately 39,132 cubic yards would be expected to be exported.

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emissions rate

look up tables and project specific modeling, where appropriate. LSTs are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each SRA and distance to the nearest sensitive receptor. For PM_{10} and $PM_{2.5,}$ LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each source receptor area (SRA) and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The LST mass rate look-up tables only apply to projects that are less than or equal to five acres. If the project exceeds five acres or any applicable LST when the mass rate look-up tables are used as a screening analysis, then project specific air quality modeling model may be performed. The SCAQMD recommends that the Industrial Source Classification Short-Term (ISCST3) model be used for the project specific analysis.

A complete listing of the construction equipment by phase, construction phase duration, emissions estimation model and dispersion model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix B of this Draft EIR.

(2) Operational Impacts

The URBEMIS 2007 software was used to forecast the daily regional emissions from mobile- and area-sources that would occur during long-term project operations. In calculating mobile-source emissions, the URBEMIS 2007 default trip length assumptions were applied to the average daily trip (ADT) estimates provided by the project's traffic consultant to arrive at vehicle miles traveled (VMT). Stationary-source emissions were compiled using procedures outlined in the Handbook.

Localized CO concentrations were evaluated by using the CALINE4 microscale dispersion model, developed by Caltrans, in combination with EMFAC2007 emission factors. Localized PM_{10} concentrations related to operation of proposed project stationary-source combustion equipment are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and related project description to identify any new or modified stationary-source combustion equipment sources. If it is determined that the proposed project would introduce a new stationary-source combustion equipment source, or modify an existing stationary-source combustion equipment source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed project impacts. All emissions calculation worksheets and air quality modeling output files are provided in Appendix B of this Draft EIR.

(3) Toxic Air Contaminants (TAC) Impacts (Construction and Operations)

Potential TAC impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and project description to identify any new or modified TAC emissions sources. If it is determined that the proposed project would introduce a potentially significant new source, or modify an existing TAC emissions source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed project impacts.

(4) Greenhouse Gas Emissions (Construction and Operations)

Although no numerical thresholds of significance have been developed, the California Climate Action Registry (CCAR) has prepared a protocol for calculating and reporting GHG emissions from a number of general and industry-specific activities.[13] This guidance has been used to address GHG emissions from the project. However, it is important to note that there is no specific guidance defining the extent to which direct and indirect emissions resulting from a single proposed development project should be addressed and analyzed as part of the CEQA assessment process. To be consistent with guidance from the SCAQMD for calculating criteria pollutants from construction activities, only GHG emissions from on-site demolition and construction activities and off-site hauling and construction worker commuting are considered as project-generated. Furthermore, it is reasonable and consistent with criteria pollutant calculations to consider only the GHG emissions resulting from the incremental increase in usage of on-road mobile vehicles, electricity, and natural gas upon implementation of the project as project-related. In addition, since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are usually calculated on an annual basis.

On-site construction equipment emissions were calculated using the OFFROAD2007 model. The OFFROAD2007 model, which was created by the CARB, accounts for Los Angeles County specific construction equipment in its emission inventory. The output values used in this analysis were adjusted to be project-specific, based on usage rates, type of fuel, and construction schedule. These values were then applied to the construction phasing assumptions used in our criteria pollutant analysis to generate GHG emissions values for each construction year (refer to Appendix B). Mobile source emission methodology for on-road construction emissions, associated with worker commute and delivery of materials, utilizes a VMT rate calculated by URBEMIS2007 in order to generate values for annual emissions. Emission factors are derived from the EMFAC2007 model using light duty automobile (LDA) factors for worker commute and heavy duty truck (HDT) factors for deliveries (see Appendix B for more details).

[13] *California Climate Action Registry, General Reporting Protocol Version 2.2, 2007.*

Mobile source emission calculations associated with operation of the proposed project utilize a projection of annual vehicle miles traveled, which is derived from the traffic study. These values account for the daily and seasonal variations in trip frequency and length associated with retail land-uses and residents traveling to and from work and other activities that require a commute. Net emission values were calculated based on the incremental increases from the existing conditions to the proposed project buildout conditions. Mobile source calculations also utilize EMFAC2007 to generate emission factors for CO_2 and CH_4. These emission factors are then applied to the annual VMT calculated in the traffic study. It should be noted that greenhouse gas reduction factors from *Alternative Compliance Strategies*, contained in AB1493, were not applied in the EMFAC2007 software. Therefore, such emissions are likely overstated as emission factors for fleet mixes containing post 2009 vehicles would not emulate reductions that would otherwise go into effect as a result of SB1493.

The consumption of fossil fuels to generate electricity and to provide heating and hot water creates GHG emissions. Future fuel consumption rates are estimated based on specific square footage of the dwelling units and commercial/retail units, as well as predicted water supply needs of the proposed project. Natural gas and electricity usage factors derived from the Handbook are used to project fuel consumption rates. Embodied energy rates associated with the proposed project's future water supply needs were calculated using factors derived from the California Energy Commission (CEC). GHG emission factors from the CCAR protocol are then applied to the respective usage rates, to calculate annual greenhouse gas emissions in metric tons. It is difficult to identify the specific generating source of electricity particularly since the Los Angeles DWP produces power at City-operated plants and also imports power during peak demand periods. Thus, the emission factors used in this analysis represent a State-wide average of known power producing facilities, utilizing various technologies and emission control strategies, and do not take into account the DWP's unique emissions profile. In addition, these emission factors do not reflect targeted future reductions in GHG emissions under SB 1368 or the *LA Green Plan*. Thus, these emission factors are considered conservative and representative.

The California Energy Commission's estimate for energy intensity of the water use cycle in Southern California was used to calculate the energy usage related to water conveyance. Emission factors from the CCAR Protocol, Version 2.2 were implemented in calculating the associated GHGs. Not all GHGs exhibit the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the equivalent mass of CO_2, denoted as CO_2e. Mass emissions are calculated by converting pollutant specific emissions to CO_2e emissions by applying the proper global warming potential (GWP) value.[14] These GWP ratios are available from the USEPA and published in the CCAR Protocol. By applying the GWP ratios, project related CO_2e emissions can be tabulated in metric tons per year. The CO_2e values are calculated

[14] *CO_2e was developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) 1996.*

for all four construction years as well as existing and project buildout conditions in order to generate a net change in GHG emissions for construction and operation (Appendix B).

(5) Odor Impacts (Construction and Operations)

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) as necessary. The screening-level analysis consists of reviewing the proposed project's site plan and project description to identify new or modified odor sources. If it is determined that the proposed project would introduce a potentially significant new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed project impacts.

d. Analysis of Project Impacts

(1) Construction

(a) Regional Construction Impacts

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the project site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as dozers, loaders, and cranes. During the finishing phase, paving operations and the application of architectural coatings (i.e., paints) and other building materials would release volatile organic compounds. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

In order to provide a conservative analysis, it is assumed that all construction activities would be complete within the first four years following entitlement. This assumption is conservative as it represents the minimum timeframe anticipated for construction and provides for the maximum overlap of construction stages (e.g., demolition, site preparation, building construction) within the project's overall development period. This is of particular importance as construction emissions are directly related to the duration and intensity of construction activities (i.e., emissions increase as the amount of construction increases). Emission rates representative of certain stages of construction (i.e., construction worker trips and delivery vehicle trips) can also decrease over time in response to the use of vehicles or equipment that emit lower levels of pollutant emissions. The three groups of construction activities (i.e., demolition, site preparation/excavation, and building construction/finishing) and the equipment that would be used during project construction are provided in Appendix B of this Draft EIR.

The emissions levels in Table 10 on page 274 represent the highest daily emissions projected to occur on any one day for each individual geographic construction phase. Overlap of several of the phases is anticipated. Specifically, it is anticipated that construction activities within Phases A and B and Phases A and C would overlap. In addition, Phase D is also anticipated to have overlap with Phase E. Thus, impacts associated with overlap of these geographic phases were evaluated. In addition, a worst case scenario was also evaluated which assumes that construction activities within all phases occurs simultaneously. Under this conservative scenario, the combined maximum daily emissions from each individual phase were evaluated. As presented in Table 10, under the most conservative scenario in which all Phases would overlap, construction-related daily maximum regional construction emissions would not exceed the SCAQMD daily significance thresholds for PM_{10}, $PM_{2.5}$, or SO_X. However, maximum regional emissions would exceed the SCAQMD daily significance thresholds for VOC, CO and NO_X during periods of heavy use of heavy-duty construction equipment. Therefore, regional construction emissions resulting from the project would result in a significant short-term impact. As shown in Table 10 these impacts would be reduced if less overlap of the project phases occurs.

It should be noted that the emissions estimates presented on Table 10 do not take into account recently promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007 aims to reduce emissions by installation of diesel soot filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators to begin compliance in 2010. By 2020, the CARB estimates that diesel particulate matter would be reduced by 74 percent and smog forming oxides of nitrogen by 32 percent, compared to what emissions would be without the regulation. Thus, actual emissions from the proposed project would likely be less than those presented above.

(b) Localized Construction Impacts

The conservative estimate of maximum on-site daily emissions for CO, NO_X, PM_{10} and $PM_{2.5}$, was compiled for each phase of construction. In addition, as discussed above, overlap of several of the phases is anticipated. Specifically, it is anticipated that construction activities within Phases A and B and Phases A and C would overlap. Thus, localized impacts associated with overlap of these geographic phases were evaluated. In addition, a worst case scenario was also evaluated which assumes that construction activities of all phases occurs simultaneously.

The SCAQMD LST methodology provides screening level thresholds for project sites smaller than five acres. Since the overlapping phases may exceed 5 acres, the localized effects from the on-site construction emissions of CO, NOx (NO_2), PM_{10} and $PM_{2.5}$ were analyzed using the ISCST3 dispersion model. The project-related localized emissions that were used to perform

Table 10

Unmitigated Proposed Project -
Estimate of Construction Emissions [a]
(pounds per day)

Regional Emissions						
	CO	**NOx**	**PM_{10} [b]**	**$PM_{2.5}$ [b]**	**VOC**	**SOx**
Individual Phases						
Phase A	214	186	18	7	443	<1
Phase B	186	160	13	6	162	<1
Phase C	93	76	11	3	104	<1
Phase D	107	76	17	4	105	<1
Phase E	55	41	2	1	65	<1
Max Overlap of Phases A, B and C [c]	437	368	30	13	462	<1
Max From All Phases Combined [d]	656	540	60	22	879	<1
SCAQMD Daily Significance Thresholds	550	100	150	55	75	150
Over/(Under)	**106**	**440**	**(90)**	**(33)**	**804**	**(150)**
Exceed Threshold?	**Yes**	**Yes**	**No**	**No**	**Yes**	**No**
Localized Emissions						
Individual Phases						
Phase A	174	129	17	6	439	<1
Phase B	171	141	12	6	160	<1
Phase C	84	64	11	3	103	<1
Phase D	89	67	17	3	103	<1
Phase E	51	39	2	1	63	<1
Max Overlap of Phases A, B and C [c]	378	282	29	11	453	<1
Max From All Phases Combined [d,e]	563	441	58	20	867	<1

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the URBEMIS model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[c] *Maximum regional PM_{10} and $PM_{2.5}$ emissions occur during combined excavation of Phase A and construction of Phase B during Year 2009. Maximum regional CO and NOx emissions occur during combined construction of Phases A, B and C during Year 2010.*

[d] *A worst-case scenario assuming simultaneous construction of all phases was also evaluated. Maximum emissions from each phase were totaled to account for possible shifts in construction scheduling.*

[e] *Localized significance thresholds only apply to projects that are less than five acres. For projects larger than five acres, dispersion modeling is recommended. Please refer to Table 11 for dispersion modeling results.*

Source: PCR Services Corporation, 2007.

the dispersion modeling are presented in Table 11. The results of the dispersion modeling are presented in Table 11 on page 275. As shown in Table 11, PM_{10} and $PM_{2.5}$ localized impacts would exceed the SCAQMD recommended threshold. Localized CO and NO_2 concentrations would remain below thresholds under the most conservative construction scenario in which all phases overlap. The maximum PM_{10} and $PM_{2.5}$ concentrations of 35.4 $\mu g/m^3$ and 13.9 $\mu g/m^3$

Table 11

Unmitigated Proposed Project –
Localized Construction Dispersion Analysis

Pollutant and Averaging Period[a]	Residential West	Residential North
PM_{10} (24-hr) – (ug/m3)		
Project Incremental Concentration	35.4	18.4
LST Threshold	10.4	10.4
Over/(Under)	25.0	8.0
Exceed Threshold?	**Yes**	**Yes**
$PM_{2.5}$ (24-hr) - (ug/m3)		
Project Incremental Concentration	13.9	7.2
LST Threshold	10.4	10.4
Over/(Under)	3.5	(3.2)
Exceed Threshold?	**Yes**	No
CO (1-hr) - (ug/m3)		
Project Incremental Concentration	3,127	1,779
LST Threshold	18,400	18,400
Over/(Under)	(15,273)	(16,621)
Exceed Threshold?	No	No
CO (8-hr) - (ug/m3)		
Project Incremental Concentration	550	435
LST Threshold	7,692	7,692
Over/(Under)	(7,142)	(7,257)
Exceed Threshold?	No	No
NO_2 (1-hr) - (ug/m3)		
Project Incremental Concentration	254	136
LST Threshold	302	302
Over/(Under)	(49)	(166)
Exceed Threshold?	No	No

[a] *All modeling runs assume maximum emissions from each phase are occurring simultaneously.*

Source: PCR Services Corporation, 2007.

respectively, occurs at residential uses on the west side of Century Park West, approximately 25 meters west of the project site. Maximum PM_{10} concentrations would occur primarily from site grading activities for Phase B (1930 Century Park West).

(c) Toxic Air Contaminants

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According

to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. While it is anticipated that much of the site grading and excavation would be accomplished within a 7-month time period, unforeseen delays could extend these activities. Nevertheless, the proposed project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions. In addition, there would be no residual emissions after construction and corresponding individual cancer risk. As such, project-related toxic emission impacts during construction would be less than significant.

(d) Global Climate Change

Emissions of GHGs were calculated for each year of construction of the proposed project and results are presented on Table 12 on page 277. Also included in Table 12 is the California Energy Commission's estimated 2004 State-wide inventory, the latest year for which data are available.

As shown, the net increase in GHG emissions from on-road mobile source emissions and on site construction equipment relative to the 2004 state-wide levels ranges from 0.00095 percent in 2009 to 0.00041 percent in 2012. As described above, this GHG analysis was performed in accordance with existing non-GHG specific SCAQMD and CARB guidance.

It is important to note that emitting GHGs into the atmosphere is not itself an adverse environmental effect. Rather, the increased accumulation of GHGs in the atmosphere is what may result in global climate change. The consequences of that climate change can cause adverse environmental effects. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is not possible to predict the specific impact, if any, to global climate change from one project's relatively small incremental increase in emissions. Thus, significance of potential impacts from GHG emissions has not been determined on a project-level basis, but rather on a cumulative basis (see Section VI.C, below).

(e) Odors

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Due to mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed which would create objectionable odors. Therefore, no impact would occur and no mitigation measures would be required.

Table 12

Construction Greenhouse Gas Emissions

Emission Source	CO_2E[d] (Metric Tons)			
	2009	**2010**	**2011**	**2012**
On Road Mobile Sources [a]	122	234	316	269
On-site Construction Equipment [b]	3,591	3,063	2,720	1,352
Total	**3,713**	**3,297**	**3,036**	**1,620**
2004 Statewide Total[c]	391,000,000	391,000,000	391,000,000	391,000,000
Net Increase as Percentage of 2004 Statewide Inventory	**0.00095%**	**0.00084%**	**0.00077%**	**0.00041%**

[a] *Mobile source values were derived using EMFAC2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007.*

[b] *On-site construction equipment values were derived using OFFROAD2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007.*

[c] *Statewide totals were derived from the California Energy Commission: http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF.*

[d] *All CO2E factors were derived using the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007.*

Source: PCR Services Corporation, 2007.

(2) Operational Impacts

(a) Regional Operational Impacts

Regional air pollutant emissions associated with proposed project operations would be generated by the consumption of electricity and natural gas, and by the operation of on-road vehicles. Pollutant emissions associated with energy demand (i.e., electricity generation and natural gas consumption) are classified by the SCAQMD as regional stationary source emissions. Electricity is considered an area source since it is produced at various locations within, as well as outside of, the Basin. Since it is not possible to isolate where electricity is produced, these emissions are conservatively considered to occur within the Basin and are regional in nature. Criteria pollutant emissions associated with the production and consumption of energy were calculated using emission factors from the Handbook (Appendix to Chapter 9).

Mobile-source emissions were calculated using the URBEMIS emissions inventory model, which multiplies an estimate of the increase in daily VMT by applicable EMFAC2007 emissions factors. Regional operational emissions were calculated for both weekday and weekend days. The URBEMIS model output and worksheets for calculating regional operational daily emissions are provided in Appendix B of this Draft EIR. As shown in Table 13 on page 278, regional weekday emissions resulting from operation of the project are expected to exceed the SCAQMD thresholds for CO, NOx, VOC, and $PM_{2.5}$.

Table 13

Unmitigated Proposed Project -
Regional Weekday Operational Emissions [a]
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$	VOC	SO_X
Existing Use Emissions						
Mobile	2,133	270	398	77	188	2
Area [b]	73	33	98	96	40	<1
Stationary	9	51	2	2	<1	5
Total Existing	**2,215**	**354**	**498**	**175**	**228**	**8**
Proposed Use Emissions						
Mobile	2,603	330	485	94	225	3
Area [b]	201	43	153	149	99	<1
Stationary	10	60	2	2	1	6
Total Project	**2,815**	**432**	**640**	**245**	**325**	**10**
Net Project Emissions						
Net Mobile	470	60	88	17	37	1
Net Area [b]	128	9	54	53	60	<1
Net Stationary	1	8	<1	<1	<1	1
Total Net	600	77	143	70	97	2
SCAQMD Significance Threshold	550	55	150	55	55	150
Over/(Under)	**50**	**22**	**(7)**	**15**	**42**	**(148)**
Exceed Threshold?	**Yes**	**Yes**	**No**	**Yes**	**Yes**	**No**

Note: Numbers may not add up exactly due to rounding.

[a] *Mobile and area emissions are calculated using the URBEMIS emissions model. Area sources include natural gas consumption, landscape fuel consumption, residential consumer products and miscellaneous sources (e.g., among other things, commercial solvent usage, architectural coatings). Emissions due to project-related electricity generation are calculated based on guidance provided in the Handbook. Worksheets and modeling output files are provided in Appendix B.*

[b] *Area sources include charbroiling operations and truck loading dock operations.*

Source: PCR Services Corporation, 2007.

As shown in Table 14 on page 279, regional weekend emissions resulting from operation of the project are expected to exceed the SCAQMD thresholds for CO, NOx, PM_{10}, $PM_{2.5}$, and VOC.

(b) Localized Operational Impacts

The SCAQMD recommends an evaluation of potential localized CO impacts when vehicle to capacity (V/C) ratios are increased by two percent or more at intersections with a level of service (LOS) of C or worse. As detailed in Section IV.J, Traffic and Circulation, project

Table 14

Unmitigated Proposed Project -
Regional Weekend Operational Emissions [a]
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	$PM_{2.5}$	VOC	SO_X
Existing Use Emissions						
Mobile	2,579	328	482	94	220	3
Area[b]	73	33	98	96	40	<1
Stationary	9	51	2	2	<1	5
Total Existing	**2,661**	**412**	**582**	**191**	**260**	**8**
Proposed Use Emissions						
Mobile	3,204	407	599	116	268	4
Area[b]	201	43	153	149	99	<1
Stationary	10	60	2	2	1	6
Total Project	**3,415**	**509**	**753**	**267**	**367**	**10**
Net Project Emissions						
Net Mobile	625	79	116	23	47	1
Net Area[b]	128	9	54	53	60	<1
Net Stationary	1	8	<1	<1	<1	1
Total Net	754	96	171	76	107	2
SCAQMD Significance Threshold	550	55	150	55	55	150
Over/(Under)	**204**	**41**	**21**	**21**	**52**	**(148)**
Exceed Threshold?	**Yes**	Yes	**Yes**	**Yes**	Yes	No

Note: Numbers may not add up exactly due to rounding.

[a] *Mobile and area emissions are calculated using the URBEMIS emissions model. Area sources include natural gas consumption, landscape fuel consumption, residential consumer products and miscellaneous sources (e.g., among other things, commercial solvent usage, architectural coatings). Emissions due to project-related electricity generation are calculated based on guidance provided in the Handbook. Worksheets and modeling output files are provided in Appendix B.*

[b] *Area sources include charbroiling operations and truck loading dock operations.*

Source: PCR Services Corporation, 2007.

traffic volumes would meet these criteria at two intersection locations during weekday peak periods:

- Beverly Glen Boulevard and Pico Boulevard, and
- Project Driveway and Santa Monica Boulevard.

CO concentration levels were forecasted at the above-mentioned intersections using the CALINE4 dispersion model developed by the California Department of Transportation, using peak-hour traffic volumes and conservative meteorological assumptions. Conservative meteorological conditions include low wind speed, stable atmospheric conditions, and the wind

angle producing the highest CO concentrations for each case. CO concentrations were modeled under the future (2012) No Project and with Project conditions. As shown in Table 15 on page 281, project-generated traffic volumes are forecasted to have a negligible effect on the projected 1-hour and 8-hour CO concentrations at the respective intersection locations. Since a significant impact would not occur at the intersections operating at the highest V/C ratio, no significant impacts would occur at any other analyzed roadway intersection as a result of weekday or weekend project-generated traffic volumes. Thus, the proposed project would not cause any new or exacerbate any existing CO hotspots, and, as a result, impacts related to localized mobile-source CO emissions would be less than significant.

The proposed project would likely include the installation and operation of diesel-fired generators for emergency power generation. Unless a blackout occurs, these generators would be operated for only a few hours per month for routine testing and maintenance purposes. The Applicant would be required to obtain a permit to construct and a permit to operate any standby generators under SCAQMD Rules 201, 202, and 203. Under SCAQMD Regulation XIII, all generators must meet BACT requirements to minimize emissions of PM_{10} (as well as CO, VOC, and NO_X emissions). Compliance with SCAQMD Rules and Regulations regarding stationary-source combustion equipment would ensure that contributions to localized PM_{10} concentrations remain below the 2.5 $\mu g/m^3$ significance threshold. As such, any potential impacts would be less than significant.

(c) Regional Concurrent Construction and Operational Impacts

As project construction would occur over a four year period and the project would be completed in phases, the potential exists for concurrent construction and operational impacts. In order to identify potential emissions under this scenario an additional analysis was undertaken that looks at concurrent construction and operational emissions (i.e., the construction and renovation of the shopping mall could occur concurrently with the occupancy of the residential tower. If this scenario were to occur, the project would be 60 percent occupied, with some construction activities still occurring.

As summarized in Table 16 on page 282, concurrent construction and operational emissions of CO, NOx, and VOC would be considered significant, since the levels of these emissions would exceed their respective SCAQMD construction and operational regional significance thresholds. Although concurrent construction and operational activities would occur for a short duration, these emissions would result in significant and unavoidable impacts.

(d) Toxic Air Contaminants

This section evaluates potential impacts to neighboring properties that may result from TAC emissions associated with long-term operation of the project. However, the ambient air environment that currently exists on and around the project site would also impact the residential

Table 15

Local Area Carbon Monoxide Dispersion Analysis

Intersection	Peak Period [a]	Maximum 1-Hour 2012 Base Concentration [b] (ppm)	Maximum 1-Hour 2012 w/ Project Concentration [c] (ppm)	Significant 1-Hour Impact? [d] (>20 ppm)	Maximum 8-Hour 2012 Base Concentration (ppm)	Maximum 8-Hour 2012 w/ Project Concentration [f] (ppm)	Significant 8-Hour Impact ? (>9.0 ppm)[d]
Beverly Glen Boulevard and Pico Boulevard	A.M.	6.6	6.5	No	3.9	3.9	No
	P.M.	6.6	6.6	No	3.9	3.9	No
Project Driveway and Santa Monica Boulevard	A.M.	7.1	7.1	No	4.2	4.2	No
	P.M.	7.6	7.6	No	4.5	4.5	No

ppm = parts per million.

[a] *Peak hour traffic volumes are based on the Traffic Impact Study prepared for the project by Linscott, Law & Greenspan, Engineers, October 2007.*

[b] *SCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 Base traffic CO 1-hour contribution.*

[c] *SCAQMD 2012 1-hour ambient background concentration (4.4 ppm) + 2012 w/ project traffic CO 1-hour contribution.*

[d] *The most restrictive standard for 1-hour CO concentrations is 20 ppm and for 8-hour concentrations is 9.0 ppm.*

[e] *SCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 Base traffic CO 8-hour contribution.*

[f] *SCAQMD 2012 8-hour ambient background concentration (2.8 ppm) + 2012 w/ project traffic CO 8-hour contribution.*

Source: PCR Services Corporation, 2007; emission factor and dispersion modeling output sheets are provided in Appendix B.

uses that would be developed as part of the proposed project. The CARB has passed a number of Airborne Toxic Control Measures (ATCM) to reduce the public's exposure to emissions of DPM, including limiting idling of diesel powered vehicles from on-road commercial vehicles to five (5) minutes.[15] The SCAQMD and CARB have prepared guidance documents focused on the compatibility of commercial and sensitive land uses and the siting of major sources of DPM such as ports, rail yards and distribution warehouses at distances greater than recommended buffer zones. Based on CARB siting recommendations, sensitive receptors should not be sited within 1,000 feet of a warehouse distribution center (which have extensive heavy-duty truck activity), within 500 feet of a freeway (or similar high traffic roadway (i.e., roads within urbanized areas carrying more than 100,000 vehicles per day), or within 300 feet of a dry cleaning facility that uses perchloroethylene, among other siting recommendations. The proposed project is not considered a distribution warehouse and is not located sufficiently proximate to the identified sources. Therefore, the siting of residential uses on the project site would not result in a significant impact with regard to the exposure of on-site residents to the TAC emission sources

[15] *California Code of Regulations, Title 13, Division 3, Article 1, Chapter 10, Section 2485.*

Table 16

Concurrent Operation and Construction Emissions
(Pounds per day)

Emission Source	CO	NOx	PM_{10}	$PM_{2.5}$	VOC	SOx
Operations-period Daily Emissions [a]	453	58	103	45	64	1
Construction-period Daily Emissions [b]	161	105	4	0	4	19
Net Emissions	614	163	107	46	68	20
SCAQMD Construction Significance Threshold	**550**	**100**	**150**	**55**	**75**	**150**
Over (Under)	64	63	(43)	(9)	(7)	(130)
Significant?	Yes	Yes	No	No	No	No
SCAQMD Operation Significance Threshold	**550**	**75**	**150**	**55**	**55**	**150**
Over (Under)	64	88	(43)	(9)	13	(130)
Significant?	Yes	Yes	No	No	Yes	No

Note: Numbers may not add up exactly due to rounding.

[a] *For purposes of this analysis, assumes 60 percent buildout of Project for occupancy of the residential tower and the shopping mall.*

[b] *For purposes of this assumption, assumes maximum emissions attributable to building construction/finishing activity related to the Phase D of the shopping mall renovation/construction.*

Source: PCR Services Corporation, 2007.

identified in CARB's siting recommendations (i.e., the project would not site residential uses in a high cancer risk area due to ambient air quality).

The primary sources of potential air toxics associated with proposed project operations include DPM from delivery trucks (e.g., truck traffic on local streets and on-site truck idling) and emergency backup generators. The SCAQMD recommends that health risk assessments be conducted for substantial sources of DPM (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[16] In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs and air pollutants. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds which are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel fueled commercial vehicles to idle for more than five minutes at any given time. Although there would be an increase in the retail square footage and presumably an increase in the number of delivery trucks, this ATCM would significantly limit potential emissions from loading dock activity. As such, the proposed project would not be considered a substantial source of DPM and a significant air quality impact would not occur.

[16] *SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.*

Typical sources of acutely and chronically hazardous toxic air contaminants include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. The proposed project would not include any of these potential sources, although minimal emissions may result from the use of consumer products. As such, the proposed project would not release substantial amounts of toxic contaminants, and no significant impacts on human health would occur. Based on the limited activity of the toxic air contaminant sources, the proposed project does not warrant the need for a health risk assessment, and potential air toxic impacts would be less than significant.

(e) Global Climate Change

Emissions of GHGs were calculated for the existing uses at the site as well as projected future uses upon implementation of the proposed project. Results are presented on Table 17 on page 284. Also included in Table 17 is the California Energy Commission's estimated 2004 State-wide inventory, the latest year for which data are available. As shown, the net increase in GHG emissions from vehicle, electrical, and natural gas usage associated with the proposed project is approximately 0.00327 percent of the 2004 emission level. CARB has not yet released an official inventory for 1990, which is the target stipulated under AB 32.

There are many uncertainties involved in the quantification of GHG emissions from any individual development project. For example, it is reasonable to assume that most of the future residents and patrons of the proposed project currently engage in activities (working, shopping, dining, residing, and driving) that generate GHG emissions. These existing emissions are not considered in this analysis since it is not feasible to estimate with reasonable certainty how the levels of these activities compare to the predicted future usage rates. In addition, newer construction materials and practices, current energy efficiency requirements, and newer appliances tend to emit lower levels of air pollutant emissions, including GHGs, as compared to those previously built, but the net effect is difficult to quantify. Thus, while the project would replace older office buildings with new state-of-the-art energy efficient buildings, the reduction associated with replacement of the older buildings with newer energy efficient buildings has not been accounted for in the calculation of GHG emissions. In addition, while the emissions generated by some of the existing office uses on the project site are assumed to cease after development of the project, it is unknown where those jobs would specifically relocate. Thus, the exact amounts of GHG emissions resulting from implementation of the proposed project are only an estimate. These same uncertainties and assumptions exist throughout the accepted analytical methodologies for performing criteria air pollutant assessments.

Table 17

Operational Greenhouse Gas Emissions (2012)

Emission Source	CO_2E[e] (Metric Tons)
Existing	
On Road Mobile Sources[a]	49,065
Electricity[b]	6,242
Natural gas[c]	1,084
Water conveyance	266
Total	**56,657**
Project	
On Road Mobile Sources[a]	60,241
Electricity[b]	7,189
Natural gas[c]	1,529
Water conveyance	469
Total	**69,428**
Total Net Increase	12,771
2004 Statewide Total[d]	391,000,000
Net Increase as Percentage of 2004 Statewide Inventory	**0.00327%**

[a] *Mobile source values were derived using EMFAC2007 in addition to the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007.*

[b] *Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.*

[c] *Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.*

[d] *Statewide totals were derived from the California Energy Commission: http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF.*

[e] *All CO_2E factors were derived using the California Climate Action Registry General Reporting Protocol; Version 2.2, March 2007.*

Sources: PCR Services Corporation, 2007.

Emitting GHGs into the atmosphere is not itself an adverse environmental effect. Rather, it is the increased accumulation of GHGs in the atmosphere that may result in global climate change. The consequences of that climate change can cause adverse environmental effects. Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, it is not possible to predict the specific impact, if any, to global climate change from one project's relatively small incremental increase in emissions. Thus, significance of potential impacts from GHG emissions may not be determined on a project-level basis, but rather on a cumulative basis (see Section VI.C below).

(f) Odors

According to the Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants,

composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors. As the residential activities would not be a source of odors, potential odor impacts would be less than significant.

(g) SCAQMD CEQA Air Quality Handbook Policy Analysis

In accordance with the procedures established in the Handbook, the following criteria are required to be addressed in order to determine the proposed project's consistency with SCAQMD and SCAG policies:

1. Will the project result in any of the following:

   - An increase in the frequency or severity of existing air quality violations; or
   - Cause or contribute to new air quality violations; or
   - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. Will the project exceed the assumptions utilized in preparing the AQMP?

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in a regional context during construction and project occupancy. These forecasts are provided earlier in this section. Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency.[17] As discussed in the preceding sections, localized concentrations of PM_{10}, $PM_{2.5}$, CO, and NO_2 have been analyzed for the project. SO_2 emissions would be negligible during construction and long-term operations, and therefore would not have potential to cause or affect a violation of the SO_2 ambient air quality standard. Because VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOC. Due to the role VOC plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

Particulate matter is the primary pollutant of concern during construction activities, and therefore, the project's PM_{10} and $PM_{2.5}$ emissions during construction were analyzed (1) to ascertain potential effects on localized concentrations and (2) to determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standards for PM_{10} and

[17] *South Coast Air Quality Management District, CEQA Air Quality Handbook, p. 12-3, 1993.*

$PM_{2.5}$. Results of the analyses indicate that the increases in $PM_{2.5}$ and PM_{10} emissions during construction would exceed the SCAQMD-recommended significance thresholds at sensitive receptors in close proximity to the project site. It should be noted that the potential for this impact would be short-term and would not have a long-term impact on the region's ability to meet State and federal air quality standards. In addition, the project would be required to comply with SCAQMD Rule 403 and would implement all feasible mitigation measures for control of PM_{10}. Nevertheless, the project would have a significant temporary impact on localized PM_{10} concentrations.

The project's maximum potential NO_X and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in Table 17, the maximum estimate of localized emissions for these two criteria pollutants would remain below their respective SCAQMD LST Significance Thresholds. As such, localized impacts (i.e. potential to violate either the NAAQS or the CAAQS at sensitive receptor locations) that may result from construction-period air pollutant emissions would be less than significant. The analysis concluded that CO and NO_2 concentrations would not exceed CAAQS or NAAQS, and potential impacts would therefore be less than significant.[18]

Because this project does not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. Based on methodologies set forth by the SCAQMD, one measure of local area air quality impacts that can indicate whether the proposed project would cause or affect a violation of an air quality standard would be based on the estimated CO concentrations at selected receptor locations located in close proximity to the project site. As indicated earlier, CO emissions were analyzed using the CALINE-4 model. No violations of the State and federal carbon monoxide standards are projected to occur.

Overall, the project would result in less than significant impacts with regard to CO, NO_2 and SO_2 concentrations during project construction and operations. While PM_{10} concentrations during construction would exceed the SCAQMD significance threshold, the impact would be short-term in nature and would not have a long-term impact on the region's ability to meet State and federal air quality standards. As such, the project would meet the first AQMP consistency criterion.

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it is important to recognize that air quality planning within the Basin

[18] *Please note that NO_x is used when describing emissions of nitrogen oxides, but that the AAQS is in terms of NO_2 (pollutant concentration). The same applies for SO_x (emissions) versus SO_2 (AAQS concentration).*

focuses on the attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP. Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with the population, housing, and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis of each of these three criteria.

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2007 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the City of Los Angeles General Plan, SCAG's Growth Management Chapter of the *Regional Comprehensive Plan and Guide* (RCPG), and SCAG's *2004 Regional Transportation Plan* (RTP). The RTP also provides socioeconomic forecast projections of regional population growth. The project is consistent with the types, intensity and patterns of land use envisioned for the site vicinity in the RCPG. The population, housing, and employment forecasts which are adopted by SCAG's Regional Council are based on the local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. Please refer to Section IV.G., Land Use, of this Draft EIR for additional information regarding land use consistency.

In addition, the RTP projects that population in the Los Angeles subregion will grow by about 68,295 persons between 2006 and 2012. The proposed project is projected to result in a net population increase of approximately 553 persons, which is 0.81 percent of the total population growth projected for the subregion. The RTP projects that employment in the subregion will grow by about 74,537 jobs between 2006 and 2012. The project is projected to result in a net increase of approximately 655 full-time equivalent jobs at the project site, or less than 0.88 percent of the total job growth projected for the subregion. Such levels of population and employment growth are consistent with the population and employment forecasts for the subregion as adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, it can be concluded that the proposed project would be consistent with the projections in the AQMP.

- Does the project implement all feasible air quality mitigation measures?

Implementation of all feasible mitigation measures is recommended to reduce air quality impacts to the extent feasible. The proposed project would incorporate a number of key control measures identified by the SCAQMD, as summarized below. As such, the proposed project meets this AQMP consistency criterion since all feasible mitigation measures would be implemented.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

The proposed project would serve to implement a number of land use policies of the City of Los Angeles and SCAG. With regard to land use developments, such as the proposed project, air quality policies focus on the reduction of vehicle trips and vehicles miles traveled. The proposed project, by virtue of its location and design, exhibits many attributes that have a positive direct and indirect benefit with regard to the reduction of vehicle trips and vehicles miles traveled. Specifically, the proposed project develops 262 residential units in the middle of Century City, an existing highly urbanized commercial district and employment center located within the urbanized greater West Los Angeles area. Thus, the project is notably increasing the housing supply in proximity to large employment centers thereby providing opportunities to create linkages between employment and residential centers that directly translate to reductions in vehicle trips and vehicle miles traveled. As a function of the urbanized level of activity in the project area, the project site is served by the Santa Monica Transit Parkway, a regional transportation corridor, and is located within reasonable proximity to the transit plaza at the MGM Plaza building. In addition, bus service is available on Santa Monica Boulevard and Avenue of the Stars. With easy accessibility to a number of local and regional transit facilities, the project would also implement important air quality policies that contribute to reducing vehicle trips and vehicle miles traveled. As the project implements the SCAQMD's objective of reducing vehicle miles traveled and their related vehicular air emissions, the proposed project would be consistent with AQMP land use policy.

Additional means by which Project development reduces vehicle trips and vehicle miles traveled is by encouraging pedestrian activity in a number of ways including: (1) providing public outdoor spaces which would encourage walking connections between adjacent uses; and (2) incorporating landscaped areas and walkways linked to adjacent land uses in a manner that would create a pedestrian-friendly environment. Furthermore, the Project represents an investment in high quality urban housing and redevelopment of an underutilized property within a major Regional Center in an area of existing public infrastructure and in proximity to adequate services and facilities (e.g., retail, banking, restaurants, entertainment and office uses, as well as bus and shuttle services). Thus, Project development would reduce costs on infrastructure construction and make better use of existing facilities and in so doing would support the sustainability of the community, all of which are desirable relationships from the perspective of promoting both land use and air quality policies. As the Project implements the SCAQMD's

objective of reducing vehicle miles traveled and their related vehicular air emissions, the proposed Project would be consistent with AQMP land use policy.

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of the project on air quality in the Basin. While development of the project would result in short-term regional impacts, project development would not have a long-term impact on the region's ability to meet State and federal air quality standards. The project would comply with SCAQMD Rule 403 and would implement all feasible mitigation measures for control of PM_{10} and $PM_{2.5}$. Also, the project would be consistent with the goals and policies of the AQMP for control of fugitive dust. As discussed above, the project's long-term influence would also be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with the SCAQMD's AQMP.

(h) City of Los Angeles Policies

The City of Los Angeles General Plan was prepared in response to California state law requiring that each city and county adopt a long-term comprehensive general plan. This plan must be integrated, internally consistent, and present goals, objectives, policies, and implementation guidelines for decision makers to use. The City has included an Air Quality Element as part of its General Plan. The planning area for the City's Air Quality Element covers the entire City of Los Angeles, which encompasses an area of about 465 square miles.

The 1992 revision of the City's General Plan Air Quality Element serves to aid the greater Los Angeles region in attaining the state and federal ambient air quality standards at the earliest feasible date, while still maintaining economic growth and improving the quality of life. The City's Air Quality Element and the accompanying Clean Air Program acknowledge the inter-relationships between transportation and land use planning in meeting the City's mobility and clean air goals. With the City's adoption of the Air Quality Element and the accompanying Clean Air Program, the City is seeking to achieve consistency with regional Air Quality, Growth Management, Mobility, and Congestion Management Plans.

To achieve these goals, performance based standards have been adopted to provide flexibility in implementation of the policies and objectives, of the City's Air Quality Element. The following City Air Quality Element goals, objectives and policies are relevant to the proposed project:

> Goal 2—Less reliance on single occupant vehicles with fewer commute and non-work trips.

Objective 2.1—It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.

Goal 4—Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.1—It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.

Policy 4.1.1—Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation, and air quality policies.

Objective 4.2—It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Policy 4.2.2—Improve accessibility for the City's residents to places of employment, shopping centers, and other establishments.

As discussed in detail above, development of the proposed project at the proposed site location offers the opportunity to provide residential uses in the middle of a highly urbanized regional employment center and does so via the use of existing infrastructure, proximity to existing regional and local transit facilities, encouragement of pedestrian activity, and location near existing commercial uses that would meet many of the needs of the project's future residents. Based upon this evaluation, it is concluded that the proposed project would be consistent with City of Los Angeles air quality policies as it implements the air quality goals and policies set forth in the City's General Plan.

Overall, no significant impacts would occur as a result of project development with respect to compatibility with applicable air quality policies as set forth in the City's General Plan Air Quality Element.

4. CUMULATIVE IMPACTS

a. Construction

Of the 108 related projects that have been identified within the proposed project study area, there are a number of related projects that have not yet been built or are currently under

construction. Since the Applicant has no control over the timing or sequencing of the related projects, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be entirely speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this Draft EIR.

With respect to the project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal CAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, the proposed project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned above. Nevertheless, construction-period CO, NO_X and VOC mass regional emissions, and localized PM_{10} and $PM_{2.5}$ emissions associated with the proposed project are already projected to result in a significant impact to air quality. As such, cumulative impacts to air quality during proposed project construction would also be significant and unavoidable.

Similar to the proposed project, the greatest potential for TAC emissions at each related project would involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given that the proposed project's contribution to cancer risk from construction activities would be less than significant and is a localized impact, related projects that have not already been built would not result in a long-term (i.e., 70 years) substantial source of TAC emissions with no residual emissions after construction and corresponding individual cancer risk. Thus, TAC emissions from the related projects are anticipated to be less than significant individually and cumulatively.

Also similar to the proposed project, potential sources that may emit odors during construction activities at each related project would include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, it is anticipated that construction activities or materials used in the construction of the related projects would not create objectionable odors. Thus, odor impacts from the related projects are anticipated to be less than significant individually, as well as cumulatively in conjunction with the proposed project.

b. Operation

The SCAQMD's approach for assessing cumulative impacts related to operations is based on attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. As discussed earlier, the SCAQMD has developed a comprehensive plan, the 2007 AQMP, which addresses the region's cumulative air quality condition.

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. Because the Basin is currently in nonattainment for ozone, PM_{10} and $PM_{2.5}$, related projects could exceed an air quality standard or contribute to an existing or projected air quality exceedance. Cumulative impacts to air quality are evaluated under two sets of thresholds for CEQA and the SCAQMD. In particular, CEQA Guidelines Sections 15064(h)(3) provides guidance in determining the significance of cumulative impacts. Specifically, Section 15064(h)(3) states in part that:

> "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program which provides specific requirements that will avoid or substantially lessen the cumulative problem (e.g., water quality control plan, air quality plan, integrated waste management plan) within the geographic area in which the project is located. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency…"

For purposes of the cumulative air quality analysis with respect to CEQA Guidelines Section 15064(h)(3), the project's incremental contribution to cumulative air quality impacts is determined based on compliance with the South Coast Air Quality Management District's (SCAQMD) adopted 2007 Air Quality Management Plan (AQMP).

The proposed project would not conflict with or obstruct implementation of the applicable air quality plan, which in this case is the AQMP. A project is deemed inconsistent with air quality plans if it results in population and/or employment growth that exceeds growth estimates in the applicable air quality plan. In turn, the AQMP relies upon growth projections adopted by the SCAG, which in turn, relies upon adopted General Plan growth projections. Consequently, compliance with the City's General Plan typically results in compliance with the AQMP.

As discussed above, the project would not result in population and/or employment growth that exceeds growth estimates in the AQMP. The project would comply with all rules and regulations as implemented by the SCAQMD and the California Air Resources Board

(ARB), and would conform to the standards and guidelines of the City of Los Angeles General Plan. Therefore, it was determined that the proposed project was consistent with the AQMP. Thus, given the project's consistency with the AQMP, the project's incremental contribution to cumulative air quality effects is not cumulatively considerable, per CEQA Section 15064(h)(3).

Nonetheless, SCAQMD no longer recommends relying solely upon consistency with the AQMP as an appropriate methodology for assessing cumulative air quality impacts. Instead, SCAQMD's approach to determining cumulative air quality impacts for criteria air pollutants is to first determine whether or not the proposed project would result in a significant project-level impact to regional air quality based on SCAQMD significance thresholds. If not, then the lead agency needs to consider the additive effects of related projects only if the proposed project is part of an ongoing regulatory program or is contemplated in a Program EIR, and the related projects are located within approximately one mile of the proposed project site. If there are related projects within the vicinity (one-mile radius) of the proposed project site, (i.e., that are part of an ongoing regulatory program or are contemplated in a Program EIR) then additive effects of the related projects should be considered.

As the proposed project is not part of an ongoing regulatory program, the SCAQMD recommends that project specific air quality impacts be used to determine the potential cumulative impacts to regional air quality. As discussed in above, peak daily emissions of operation-related pollutants would exceed SCAQMD regional significance thresholds. By applying SCAQMD's cumulative air quality impact methodology, implementation of the proposed project would result in an addition of criteria pollutants such that cumulative impacts, in conjunction with related projects in the region, would occur. Therefore, the emissions of non-attainment pollutants and precursors generated by project operation in excess of the SCAQMD project-level thresholds would also be cumulatively considerable.

With respect to TAC emissions, neither the proposed project nor any of the related projects (which are largely residential, restaurant, retail/commercial, and institutional developments), would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing, and transportation hub facilities. Based on recommended screening level siting distances for TAC sources, as set forth in the California Air Resources Board's Land Use Guidelines, the proposed project and related projects would not result in a cumulative impact requiring further evaluation. However, the proposed project and each of the related projects would likely generate minimal TAC emissions related to the use of consumer products, landscape maintenance activities, among other things. Pursuant to California Assembly Bill 1807, which directs the CARB to identify substances as TAC and adopt airborne toxic control measures (ATCMs) to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would

be less than significant. In addition, the proposed project would not result in any sources of TACs that have been identified by Land Use Guidelines, and thus, would not contribute to a cumulative impact.

With respect to potential odor impacts, neither the proposed project nor any of the related projects (which are primarily institutional, general office, residential, retail, and restaurant uses) have a high potential to generate odor impacts.[19] Furthermore, any related project that may have a potential to generate objectionable odors would be required by SCAQMD Rule 402 (Nuisance) to implement BACT to limit potential objectionable odor impacts to a less than significant level. Thus, potential odor impacts from related projects are anticipated to be less than significant individually and cumulatively.

c. Global Climate Change

As stated above, an increase in the generation and emission of GHGs by a single project cannot be considered an adverse environmental effect. Rather, it is the increased accumulation of GHGs in the atmosphere that may result in global climate change that has the potential to cause adverse environmental effects. The State has mandated a goal of reducing state-wide emissions to 1990 levels by 2020, even though State-wide population and commerce is predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce Statewide GHG emissions. However, currently there are no significance thresholds, no official baseline inventory or specific reduction targets, and no approved policy or guidance to assist in determining significance at the project or cumulative level. Additionally, there is currently no generally accepted methodology to determine whether GHG emissions associated with a specific project represents new emissions or existing, displaced emissions.

AB 1493 mandates that CARB create GHG emission reduction rules for cars and light trucks. The new rules are proposed to go into effect in 2009 and will be fully implemented by 2016. According to the CEC, the reductions in emissions will be equivalent to reducing gasoline consumption to a rate of 31 percent of 1990 gasoline consumption (and associated GHG emissions) by 2020. The proposed project is slated for occupancy after these regulations go into effect and therefore a percentage of the cars used by residents of the proposed project will emit lower levels of GHG from VMT than cars currently on the road. New power plant emission standards are proposed and anticipated to go into effect as a result of both the *LA Green Plan* and AB 32. The anticipated emission reductions are not taken into account for this project, and

[19] *According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.*

future CO2e emission factors would be reduced when these measures go into effect. When the rules are fully implemented and older cars are replaced with AB 1493 compliant vehicles there will be further reduction in GHGs from trips to and from the proposed project.

The baseline for AB 32 is considered to be "business as usual." For the purposes of the New Century Plan Project "business as usual" would be development according to the energy efficiency standards established in Title 24, California's energy efficiency standards for residential and non-residential buildings. However, as discussed above, the proposed project would be constructed to exceed the reduction goals of Title 24 before 2020 by implementing climactically-sensitive architecture, high-performance glass glazing and façade systems, low energy mechanical systems, renewable power generation on site, sustainable drought-tolerant landscaping, and water conservation measures within a transit-oriented development. In addition, the proposed project intends to achieve certification within the LEED Green Building Rating System. The LEED program integrates the principals of smart growth and green building design. As described above, specific to reducing carbon emissions, the proposed project would: implement energy efficiency targets; assist with integrated and expanded transit; implement pedestrian and bike improvements; install water-conserving plumbing and fixtures; institute recycling programs for waste; and institute informational programs and assistance regarding energy savings for retail customers, employees, and residents.

The effectiveness in reducing GHG emissions of each of the project features varies. For example, Energy Star CFLs can reduce lighting energy demands by 75 percent, and Energy Star appliances use up to 50 percent less energy than their non Energy Star counterparts. Trees are able to sequester more carbon dioxide as they age and the average tree can sequester 330 pounds of carbon dioxide from the atmosphere every year. A heat island effect mitigating roof can either be painted a color that reflects much of the sun's heat, such as white, or be a "green roof," also known as a living roof. A living roof can reduce air temperatures and reduce the need for heating and cooling within the building. Solar photovoltaic cells range in efficiency from 12 to 20 percent of electric power generation from the power of sunlight striking the cell. More efficient solar modules on the market can now generate over 200 Watts per panel, which can generate roughly one kilowatt hour per day. Thirty modules covering roughly 400 square feet of the proposed project's roof could generate over 12,000 kWh per year. Reducing water consumption results in a reduction of GHG emissions from energy generation to operate water pumps and wastewater treatment facilities, which have been identified as major sources of GHGs statewide. Overall, these project features would reduce both energy demand and VMT associated with the proposed project, resulting in a reduction of GHG emissions. In addition, it is important to note that the project would replace older office buildings with new state of the art energy efficient buildings and thus would further reduce GHG emissions when compared with baseline conditions.

The following planned City actions, as presented in the *LA Green Plan*, when implemented, may further decrease emissions of GHGs from the proposed project:

- Decreasing emissions from Department of Water and Power electrical generation and import activities;
- Providing compact fluorescent light bulbs (CFL) to encourage acceptance and use of CFLs; and
- Expanding the regional rail network to reduce VMT.

In addition, the project is designed with a number of "Smart Growth" features which are consistent with the following City of Los Angeles goals:

- Increasing the use of energy efficient appliances and equipment;
- Promoting high-density housing close to mass transportation and employment centers; and
- Creating walkable neighborhoods.

In June 2005, Governor Schwarzenegger signed Executive Order S-3-05, which established GHG emissions targets for the state, as well as a process to ensure the targets are met. As a result of this executive order, the California Climate Action Team (CAT), led by the Secretary of the California EPA, was formed. The CAT published its report in March 2006, in which it laid out several recommendations and strategies for reducing GHG emissions and reaching the targets established in the executive order.[20] Table 18 on page 297 illustrates the Project's consistency with those recommendations and strategies presented in the CAT report. The project features listed in Table 18 apply directly to CAT strategies for reducing GHG emissions.

While it is not possible at this time to quantify the exact reductions in greenhouse gas emissions anticipated from the above-listed project features, the proposed project would be consistent with the goals of California's AB 32. By incorporating energy and VMT reducing project features such as designing, constructing, and operating the project to obtain LEED certification, installing appliances, fixtures, and infrastructure that use less energy and water, and by locating housing near to mass transit and employment centers, the proposed project would result in lower GHG emission rates compared to current standards and practices. In the absence of standards and given the proposed project features consistency with the State and City's goals, the contribution to the cumulative impact of global climate change is considered less than significant. As such, no mitigation is required.

[20] *California Climate Action Team. Climate Action Team Report to Governor Schwarzenegger and the Legislature, 2006.*

Table 18

Project's Consistency with Applicable California Climate Action Team Report Strategies

Strategies for Reducing GHG Emissions	Project Consistency
Diesel Anti-Idling Reduce diesel-fueled commercial motor vehicle idling.	All construction vehicles would be prohibited from idling in excess of ten minutes, both on- and off-site.
Alternative Fuels: Biodiesel Blends and Ethanol Increase the use of alternative fuels that are less GHG-intensive.	The proposed project would provide preferred parking to alternative-fuel vehicles.
Achieve 50 percent Statewide Recycling Goal Achieve California's 50 percent waste diversion mandate (Integrated Waste Management Act of 1989) to reduce GHG emissions associated with virgin material extraction.	Recycling programs would be instituted for both construction and operational waste.
Urban Forestry Plant five million trees in urban areas by 2020 to effect climate change emission reductions.	Landscaping for the proposed project would include planting several trees that are the most conducive to sequestering carbon (fast-growing) while remaining drought-resistant.
Water Use Efficiency Implement efficient water management practices and incentives, as saving water saves energy and GHG emissions.	The proposed project would use high-efficiency water fixtures and waterless urinals where appropriate. Landscaping with native plants would also reduce irrigation demand.
Building Energy Efficiency Standards in Place and in Progress The California Energy Commission updates building energy efficiency standards that apply to newly constructed buildings and additions to and alterations to existing buildings. Both the Energy Action Plan and the Integrated Energy Policy Report call for ongoing updating of the standards	Construction of the proposed project would be required to comply with the standards of Title 24 in effect at the time of development.
Appliance Energy Efficiency Standards in Place and in Progress The California Energy Commission updates appliance energy efficiency standards that apply to electrical devices or equipment sold in California. Recent policies have established specific goals for updating the standards; new standards are currently in development.	Appliances purchased for the project would be subject to State law and thus comply with the energy efficiency standards that are in effect at the time of manufacture.
Measures to Improve Transportation Energy Efficiency Advance cleaner transportation and reduce GHG emissions by providing incentives, tools and information.	The proposed project would provide preferred parking to alternative-fuel vehicles and ride-sharing vehicles. In addition, a kiosk would be erected with ride-sharing and public transportation information. Upgraded bus waiting areas would also be constructed and lower-cost mass transit passes would be provided.

Table 18 (Continued)

Project's Consistency with Applicable California Climate Action Team Report Strategies

Strategies for Reducing GHG Emissions	Project Consistency
Smart Land Use and Intelligent Transportation Apply strategies that integrate transportation and land-use decisions, including but not limited to promoting jobs/housing proximity, high-density residential/ commercial development along transit corridors, and implementing intelligent transportation systems.	The proposed project would add high density housing within a major commercial office and mixed use area. The location of the proposed project would be convenient to existing public transportation channels.
Green Buildings Initiative Reduce energy use in private buildings.	The proposed project would pursue LEED certification and implement several energy-saving "green" design techniques, including but not limited to efficient roofing, water systems, landscaping, insulation, heating and cooling systems, and alternative transportation promotion.
Accelerated Renewable Portfolio Standard Increase level of renewable energy in California's resource mix.	The proposed project would evaluate the feasibility of installing roof-mounted solar photovoltaic panels, which would decrease its dependence on more GHG-intensive grid electricity.
California Solar Initiative Install one million solar roofs on homes and businesses.	The proposed project would evaluate the feasibility of installing roof-mounted solar photovoltaic panels.

CAT strategies not listed are not applicable to this project.

Source: PCR Services Corporation, 2007.

5. MITIGATION MEASURES

a. Construction

The following mitigation measures are (1) intended to implement requirements of SCAQMD Rule 403 (Fugitive Dust) and (2) set forth a program of air pollution control strategies designed to reduce the proposed project's air quality impacts to the extent feasible during construction.

Mitigation Measure B-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.[21]

Mitigation Measure B-2: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

[21] *SCAQMD Rule 403 requirements are detailed in Appendix B of this Draft EIR.*

Mitigation Measure B-3: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions. Construction emissions shall be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.

Mitigation Measure B-4: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used.

Mitigation Measure B-5: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.

Mitigation Measure B-6: The Applicant shall utilize coatings and solvents that are consistent with applicable SCAQMD rules and regulations**.**

b. Operation

Mitigation Measure B-7: The Applicant shall, schedule routine deliveries during off-peak traffic periods to encourage the reduction of trips during the most congested periods.

Mitigation Measure B-8: City of Los Angeles Department of Transportation shall provide information to assist visitors in locating nearby public transportation.

Mitigation Measure B-9: The Applicant shall install energy-efficient appliances (e.g., ENERGY STAR) to reduce energy consumption.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

a. Construction

Implementation of the mitigation measures described above would reduce construction emissions for all pollutants. However, as shown in Table 19 on page 300, the project would remain in exceedance of the SCAQMD regional significance thresholds for CO, NO_x and VOC during the most intense construction period. As such, project construction would continue to result in a significant regional impact even with incorporation of all feasible mitigation measures.

Implementation of the mitigation measures described above would reduce localized PM_{10} emissions by 33 percent and $PM_{2.5}$ emissions by 19 percent. Even with incorporation of mitigation measures, as shown in Table 20 on page 301, the project would remain in exceedance

Table 19

Mitigated Proposed Project -
Estimate of Regional Construction Emissions [a]
(pounds per day)

	CO	NOx	PM_{10} [b]	$PM_{2.5}$ [b]	VOC	SOx
Regional Emissions						
Phase A	206	179	17	7	443	<1
Phase B	178	153	13	6	161	<1
Phase C	89	73	11	3	103	<1
Phase D	102	73	17	4	105	<1
Phase E	53	39	2	1	65	<1
Max Overlap of Phases A, B and C [c]	418	354	30	13	461	<1
Max of All Phases Combined [d]	**629**	**518**	**60**	**21**	**877**	**<1**
SCAQMD Daily Significance Thresholds	550	100	150	55	75	150
Over/(Under)	79	418	(90)	(34)	802	(150)
Exceed Threshold?	**Yes**	**Yes**	No	No	**Yes**	No
Localized Emissions						
Phase A	165	123	16	6	438	<1
Phase B	163	134	12	5	159	<1
Phase C	80	60	11	3	102	<1
Phase D	84	64	17	4	102	<1
Phase E	48	37	1	1	63	<1
Max Overlap of Phases A, B and C [c]	359	268	28	11	452	<1
Max of All Phases Combined [d]	**540**	**419**	**58**	**19**	**864**	**<1**

[a] *Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the URBEMIS model printout sheets and/or calculation worksheets that are presented in Appendix B.*

[b] *PM_{10} and $PM_{2.5}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*

[c] *Maximum regional PM_{10} and $PM_{2.5}$ emissions occur during combined excavation of Phase A and construction of Phase B during Year 2009. Maximum regional CO and NOx emissions occur during combined construction of Phases A, B and C during Year 2010.*

[d] *A worst-case scenario assuming simultaneous construction of all phases was also evaluated. Maximum emissions from each phase were totaled to account for possible shifts in construction scheduling.*

Source: PCR Services Corporation, 2007.

of the SCAQMD LST threshold for PM_{10} and $PM_{2.5}$. However, the maximum offsite unmitigated PM_{10} concentration of 35.4 $\mu g/m^3$ would be reduced to 26.7 $\mu g/m^3$ and the maximum $PM_{2.5}$ concentration of 13.9 $\mu g/m^3$ would be reduced to 12.0 $\mu g/m^3$. This impact occurs at residential uses on the west side of Century Park West, approximately 100 feet west of the project site.

Table 20

Mitigated Proposed Project –
Localized Construction Dispersion Analysis

Phase	Location	
PM_{10} (24-hr) – (µg/m3)	**Residential West**	**Residential North**
Project Incremental Concentration	26.7	13.8
LST Threshold	10.4	10.4
Over/(Under)	16.3	3.4
Exceed Threshold?	**Yes**	**Yes**
$PM_{2.5}$ (24-hr) - (µg/m3)	**Residential West**	**Residential North**
Project Incremental Concentration	12.0	6.2
LST Threshold	10.4	10.4
Over/(Under)	1.6	(4.2)
Exceed Threshold?	**Yes**	**No**

Source: PCR Services Corporation, 2007.

Actual construction activities would on average occur at a somewhat reduced level compared to the maximum predicted day and would have a corresponding reduction in pollutant emissions. Therefore, the modeled set of conservative assumptions likely overstates the potential localized impacts. However, the conclusion remains that project impacts during construction would be significant and unavoidable even with incorporation of all feasible mitigation measures. Cumulative impacts associated with construction of the project described above would also remain significant.

No notable impacts related to TAC emissions during construction are anticipated to occur for the proposed project. As such, potential impacts would be less than significant.

The proposed project is not anticipated to generate a substantial amount of objectionable odor emissions during construction. Via mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed that would create objectionable odors. As such, potential impacts would be less than significant.

b. Operation

Regional operational emissions would still exceed the SCAQMD daily emission threshold for regional VOC and NO_X after implementation of feasible mitigation measures. Therefore, operation of the proposed project would have a significant and unavoidable impact on regional air quality. In addition, regional concurrent construction and operational emissions would still exceed SCAQMD daily thresholds for NO_X after implementation of feasible

mitigation measures. Therefore, concurrent construction and operation of the proposed project would have a significant and unavoidable impact on regional air quality. Cumulative operational air quality impacts would also remain significant. No significant impacts related to local CO concentrations would occur for the proposed project. Project development would be consistent with the air quality polices set forth in the SCAQMD's AQMP and the Los Angeles General Plan Air Quality Element, resulting in an impact that is less than significant.

The proposed project is not anticipated to include any notable TAC emission sources. As such, potential impacts from proposed project TAC emissions would be less than significant. Via compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD BACT Guidelines, potential impacts that could result from any potential odor source would be less than significant.