THE PARK AT VAN NUYS AIRPORT PROJECT
AIR QUALITY IMPACT REPORT

Prepared for

PACIFIC AVIATION DEVELOPMENT, LLC

Prepared by

TERRY A. HAYES ASSOCIATES LLC

December 1, 2009

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1.0 SUMMARY OF FINDINGS

Terry A. Hayes Associates LLC has completed an air quality impact analysis for the proposed The Park at Van Nuys Airport Project. Key findings are listed below.

1.1 AIR QUALITY

- Construction Emissions – Regional and localized emissions would not exceed the applicable standards and would result in a less-than-significant impact.

- Toxic Air Contaminants and Odors – Toxic air contaminant emissions and odors would result in a less-than-significant impact under CEQA.

- Operational Emissions – Operational emissions would result in a less-than-significant impact under CEQA.

2.0 INTRODUCTION

2.1 PURPOSE

The purpose of this report is to evaluate the potential air quality impacts related to The Park at Van Nuys Airport Project. Air quality emissions are analyzed for construction and operation of the proposed project. Mitigation measures for significant impacts are recommended when appropriate to reduce air quality emissions.

2.2 PROJECT DESCRIPTION

The proposed project would construct 350,000 square feet of new hangars and offices along the west and south boundaries of the Van Nuys Airport in the City of Los Angeles. The Van Nuys Airport Master Plan, which was completed in 2006, identified a 30-acre parcel on the west side of Van Nuys Airport for the development of a "propeller park" for the exclusive use of piston aircraft and military aircraft built prior to 1950. The project facilities would include space for propeller aviation-related businesses, such as aircraft repair and maintenance facilities and flight schools. There would also be approximately 150 off-street parking spaces to accommodate tenants and visitors. The proposed project would include the removal of existing asphalt and concrete surfaces, grading of terrain, installation of underground utilities (water, sewer, fire systems and storm drain), and lighting, landscaping and fencing.

3.0 AIR QUALITY

This section examines the degree to which the proposed project may cause significant adverse changes to air quality. Both short-term construction emissions occurring from activities, such as site grading and haul truck trips, and long-term effects related to the ongoing operation of the proposed project are discussed in this section. This analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

3.1 POLLUTANTS & EFFECTS

Criteria air pollutants are defined as pollutants for which the federal and State governments have established ambient air quality standards for outdoor concentrations to protect public health. The federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb). These pollutants are discussed below.

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[1] The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC), and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity,

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

increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Nitrogen Dioxide. NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g. motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC. Inhalable particulate matter, or PM_{10}, is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

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

Lead. Pb in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead

smelters, battery recycling, and manufacturing facilities have become lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans. A toxic substance released into the air is considered a toxic air contaminant (TAC). TACs are identified by State and federal agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management was designed to protect residents from the health effects of toxic substances in the air.

Greenhouse Gases. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the greenhouse effect, the Earth would be a frozen globe with an average surface temperature of about 5°F.

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO_2 comprised 83.3 percent of the total GHG emissions in California in 2002.[2] The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. The CO_2e of CH_4 and N_2O represented 6.4 and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5 percent of these emissions.[3] In addition, there are a number of human-made pollutants, such as CO, NO_X, non-methane VOC, and SO_2, that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

3.2 REGULATORY SETTING

Federal

United States Environmental Protection Agency. The Federal Clean Air Act (CAA) governs air quality in the United States. The United States Environmental Protection Agency (USEPA) is responsible for enforcing the CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and

[2]California Environmental Protection Agency, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006, p. 11.

[3]*Ibid*.

subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet stricter emission standards established by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in **Table 3-1**. The USEPA has classified the Basin as maintenance for CO and nonattainment for O_3, $PM_{2.5}$, and PM_{10}.

State

California Air Resources Board. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn administer air quality activities at the regional and county levels. The State standards are summarized in **Table 3-1**.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, $PM_{2.5}$, and PM_{10}.[4]

[4]CARB, Area Designation Maps, available at http://www.arb.ca.gov/desig/adm/adm.htm, accessed November 23, 2009.

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	n/a	0.075 ppm (147 µg/m^3)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Nonattainment
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	15.0 µg/m^3	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	0.053 ppm (100 µg/m^3)	Attainment
	1-hour	0.18 ppm (338 µg/m^3)	Attainment	--	--
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	3-hour	--	--	--	--
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Attainment

n/a = not available
SOURCE: CARB, *Ambient Air Quality Standards*, November 17, 2008.

Local

South Coast Air Quality Management District. The 1977 Lewis Air Quality Management Act created the SCAQMD to coordinate air quality planning efforts throughout Southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing

programs designed to attain and maintain State and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality within the project area. The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a subregion of the SCAQMD and covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (**Figure 3-1**).

Air Quality Management Plan. All areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The AQMP is the region's plan for improving air quality in the region. It addresses CAA and CCAA requirements and demonstrates attainment with State and federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the Basin must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

The 2007 AQMP was adopted by the SCAQMD on June 1, 2007. The 2007 AQMP proposes attainment demonstration of the federal $PM_{2.5}$ standards through a more focused control of SO_X, directly-emitted $PM_{2.5}$, and NO_X supplemented with VOC by 2015. The eight-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024. The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP is consistent with and builds upon the approaches taken in the 2003 AQMP. However, the 2007 AQMP 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 time frames allowed under the CAA.

LEGEND:

South Coast Air Basin

State of California

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998

APPROX. SCALE

N

0 75 150 MILES

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FIGURE 3-1

SOUTH COAST AIR BASIN

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies. These policies can be viewed in the SCAQMD's *Air Toxics Control Plan for the Next Ten Years* (March 2000). To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

Global Climate Change

In response to growing scientific and political concern with global climate change, California has recently adopted a series of laws to reduce emissions of GHGs into the atmosphere. In September 2002, Assembly Bill (AB) 1493 was enacted, 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. California Governor Arnold Schwarzenegger announced, on June 1, 2005, through Executive Order S-3-05, the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

In response to the Executive Order, the Secretary of the California Environmental Protection Agency created the Climate Action Team (CAT), which, in March 2006, published the *Climate Action Team Report to Governor Schwarzenegger and the Legislature* (2006 CAT Report). The 2006 CAT Report identifies a recommended list of strategies that the State could pursue to reduce climate change GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the Governor's targets are met and can be met with existing authority of the State agencies.

Assembly Bill 32. In September 2006, Governor Arnold Schwarzenegger signed the California Global Warming Solutions Act of 2006, also known as AB 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, and the present year (2009) is near the midpoint of this timeframe, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission 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.

AB 32 charges the CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, the CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying

with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills.[5] On October 25, 2007, the CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emission from the non-electricity sector. The CARB has determined that the total statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO_2e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the Climate Action Team and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The measures in the Scoping Plan adopted by the Board will be developed and put in place by 2012.

The CARB has also developed the greenhouse gas mandatory reporting regulation, which required reporting beginning on January 1, 2008 pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO_2 per year. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year, make up 94 percent of the point source CO_2 emissions in California.

CEQA Guideline Amendments. California Senate Bill (SB) 97 requires the Governor's Office of Planning and Research (OPR) to develop draft CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for greenhouse gas emissions, as required by Senate Bill 97. These proposed CEQA Guideline amendments would provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The Natural Resources Agency will conduct formal rulemaking in 2009, prior to certifying and adopting the amendments, as required by Senate Bill 97.

OPR has proposed various amendments to the CEQA Guidelines. Noteworthy revisions to the Guidelines include:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;

[5]California Air Resources Board, *Proposed Early Action Measures to Mitigate Climate Change in California*, April 20, 2007.

- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

Senate Bill 375. California Senate Bill (SB) 375, passed September 30, 2008, provides a means for achieving AB 32 goals through regulation of cars and light trucks. SB 375 aligns three critical policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve greenhouse gas emissions reductions targets for the transportation sector. SB 375 establishes a process for CARB to develop the GHG emissions reductions targets for each region (as opposed to individual local governments or households). CARB must take certain factors into account before setting the targets, such as considering the likely reductions that will result from actions to improve the fuel efficiency of the Statewide fleet and regulations related to the carbon content of fuels (low carbon fuels). CARB must also convene a Regional Targets Advisory Committee, which includes representation from the League of California Cities, California State Association of Counties, metropolitan planning organizations, developers, planning organizations and other stakeholder groups. Furthermore, before setting the targets for each region, CARB is required to exchange technical information with the Metropolitan Planning Organizations (MPOs) for that region and with the affected air district. SB 375 provides that the MPOs may recommend a target for its region.

SB 375 relies upon regional planning processes already underway in the 17 MPOs in the State to accomplish its objectives. The provisions related to GHG emissions only apply to the MPOs in the State, which includes 37 of the 58 counties. Most notably, the measure requires the MPO to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP), which sets forth a vision for growth for the region taking into account the transportation, housing, environmental, and economic needs of the region. The SCS is the blueprint by which the region will meet its GHG emissions reductions target if there is a feasible way to do so.

SB 375 indirectly addresses another longstanding issue: single purpose State agencies. The new law will require the cooperation of CARB, the California Transportation Commission (CTC), the California Department of Transportation (Caltrans) and the State Department of Housing and Community Development (HCD). For example, SB 375 takes a first step to counter this problem by connecting the Regional Housing Needs Allocation (RHNA) to the transportation planning process. While these State agencies will be involved in setting the targets and adopting new guidelines, local governments and the MPOs will not only provide input into setting the targets, but will serve as the lead on implementation. Member cities and counties working through their MPOs are tasked with development of the new integrated regional planning and transportation strategies designed to meet the GHG targets.

SB 375 also includes a provision that applies to all regional transportation planning agencies in the State that recognizes the rural contribution towards reducing GHGs. More specifically, the

bill requires regional transportation agencies to consider financial incentives for cities and counties that have resource areas or farmland, for the purposes of, for example, transportation investments for the preservation and safety of the city street or county road system, farm to market, and interconnectivity transportation needs. An MPO or county transportation agency shall also consider financial assistance for counties to address countywide service responsibilities in counties that contribute towards the GHG emissions reductions targets by implementing policies for growth to occur within their cities.

SB 375 uses California Environmental Quality Act (CEQA) streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Cities and counties that find the CEQA streamlining provisions attractive have the opportunity (but not the obligation) to align their planning decisions with the decisions of the region.

SB 375 provides more certainty for local governments and developers by framing how AB 32's reduction goal from transportation for cars and light trucks will be established. It should be noted, however, that SB 375 does not prevent CARB from adopting additional regulations under its AB 32 authority. However, based on the degree of consensus around SB 375 and early indications from CARB, such actions are not anticipated in the foreseeable future.[6]

CARB Guidance. The CARB has published draft guidance for setting interim GHG significance thresholds (October 24, 2008). The guidance is the first step toward developing the recommended Statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). The CARB believes that thresholds in these important sectors will advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

SCAQMD Guidance. The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.

Green LA Action Plan. The City of Los Angeles has issued guidance promoting green building to reduce GHG emissions. The goal of the Green LA Action Plan (Plan) is to reduce greenhouse gas emissions 35 percent below 1990 levels by 2030.[7] The Plan identifies objectives and actions designed to make the City a leader in confronting global climate change. The measures would reduce emissions directly from municipal facilities and operations, and create a framework to address City-wide GHG emissions. The Plan lists various focus areas in which to implement GHG reduction strategies. Focus areas listed in the Plan include energy, water, transportation, land use, waste, port, airport, and ensuring that changes to the local

[6]American Planning Association, California Chapter, *Analysis of SB 375*, http://www.calapa.org/-en/cms/?2841, accessed November 23, 2009.

[7]City of Los Angeles, *Green LA: An Action Plan to Lead the Nation in Fighting Global Warming*, May 2007.

climate are incorporated into planning and building decisions. The Plan discusses City goals for each focus area, as follows:

Energy

- Increase the generation of renewable energy;
- Encourage the use of mass transit;
- Develop sustainable construction guidelines;
- Increase City-wide energy efficiency; and
- Promote energy conservation.

Water

- Decrease per capita water use to reduce electricity demand associated with water pumping and treatment.

Transportation

- Power the City vehicle fleet with alternative fuels; and
- Promote alternative transportation (e.g., mass transit and rideshare).

Other Goals

- Create a more livable City through land use regulations;
- Increase recycling, reducing emissions generated by activity associated with the Port of Los Angeles and regional airports;
- Create more City parks, promoting the environmental economic sector; and
- Adapt planning and building policies to incorporate climate change policy.

The City adopted an ordinance to establish a green building program in April 2008. The ordinance establishes green building requirements for projects involving 50 or more dwelling units. The Green Building Program was established to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program addresses the following five areas:

- Site: location, site planning, landscaping, storm water management, construction and demolition recycling
- Water Efficiency: efficient fixtures, wastewater reuse, and efficient irrigation
- Energy and Atmosphere: energy efficiency, and clean/renewable energy
- Materials and Resources: materials reuse, efficient building systems, and use of recycled and rapidly renewable materials
- Indoor Environmental Quality: improved indoor air quality, increased natural lighting, and thermal comfort/control

3.3 EXISTING AIR QUALITY

3.3.1 Air Pollution Climatology

The project site is located within the Los Angeles County portion of the Basin. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

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

The Basin experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). In the morning, CO levels are relatively high due to cold temperatures and the large number of cars traveling. High CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO emissions are produced almost entirely from automobiles, the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 concentrations are also generally higher during fall and winter days.

3.3.2 Local Climate

The mountains and hills within the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the Reseda Wind Monitoring Station, is approximately three miles per hour, with calm winds occurring approximately 21.6 percent of the time. Wind in the vicinity of the project site predominately blows from the north.[8]

The annual average temperature in the project area is 63.9°F.[9] The project area experiences an average winter temperature of approximately 54.3°F and an average summer temperature of approximately 74.2°F. Total precipitation in the project area averages approximately 17 inches

[8]SCAQMD, Meteorological Data, available at http://www.aqmd.gov/smog/metdata/MeteorologicalData.html, accessed November 23, 2009. See Appendix A.

[9]Western Regional Climate Center, Historical Climate Information, available at http://www.wrcc.dri.edu, accessed November 23, 2009.

annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages approximately ten inches during the winter, approximately four inches during the spring, approximately two inches during the fall, and less than one inch during the summer.[10]

3.3.3 Air Monitoring Data

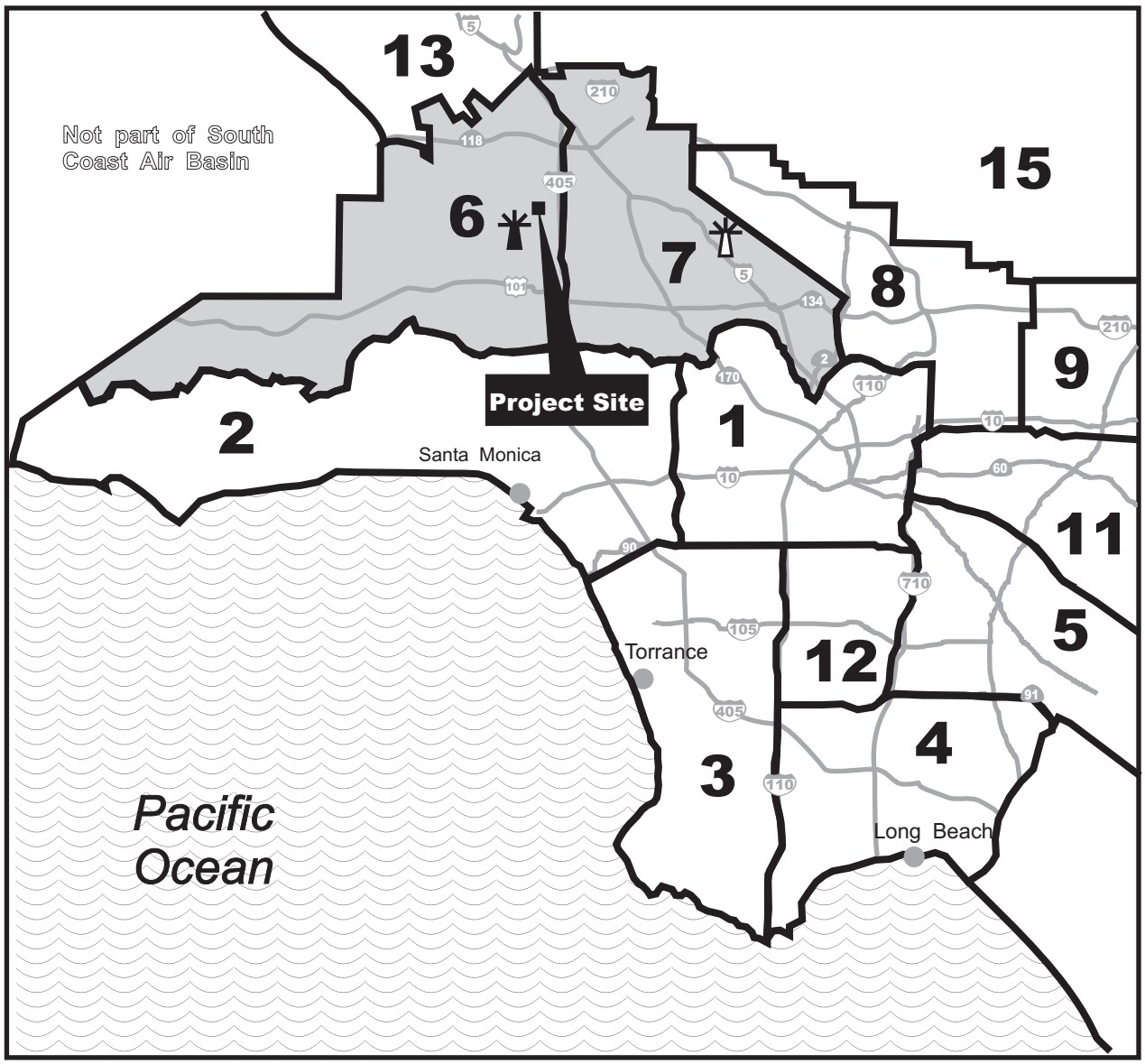
The SCAQMD monitors air quality conditions at 38 locations throughout the Basin. The project site is located in SCAQMD's West San Fernando Valley Air Monitoring Subregion, which is served by the Reseda Monitoring Station, is located approximately two miles southwest of the project site in the City of Los Angeles (**Figure 3-2**). Historical data from the Reseda Monitoring Station were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Reseda Monitoring Station include O_3, CO, NO_2, and $PM_{2.5}$. Historical data from the Burbank Monitoring Station were used to characterize existing SO_2 and PM_{10} levels.

Table 3-2 shows pollutant levels, the State and federal standards, and the number of exceedances recorded at the Reseda and Burbank Monitoring Stations compared to the San Fernando Valley Forecast Area (Forecast Area) from 2006 to 2008.

The CAAQS for the criteria pollutants are also shown in the table. As **Table 3-2** indicates, criteria pollutants CO, NO_2, and SO_2 did not exceed the CAAQS during the 2006 to 2008 period. The one-hour State standard for O_3 was exceeded 21 to 32 times during this period, and the eight-hour State standard for O_3 was exceeded 39 to 43 times. Additionally, the 24-hour State standard for PM_{10} was exceeded seven to 11 times and the annual State standard for $PM_{2.5}$ was exceeded during years 2006 and 2008.

When compared to the Forecast area the Reseda and Burbank Monitoring Stations recorded concentrations of averages of the O_3, NO_2, PM_{10}, $PM_{2.5}$ and SO_2 that were lower than the average concentrations of the Forecast Area's monitoring areas. The Reseda and Burbank Monitoring Stations have recorded concentrations of CO that were higher than the Forecast Area.

[10] *Ibid*.



LEGEND: Reseda Monitoring Station Burbank Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley (not shown)
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
15. San Gabriel Mountains

Approx. Scale

N

0 3.0 6.0 9.0 Miles

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1999

FIGURE 3-2

AIR MONITORING AREAS

TABLE 3-2: 2006-2008 AMBIENT AIR QUALITY DATA IN PROJECT VICINITY

Pollutant	Pollutant Concentration & Standards	Reseda and Burbank Monitoring Stations /a/			San Fernando Valley General Forecast Area /b,c/		
		Number of Days Above State Standard					
		2006	2007	2008	2006	2007	2008
Ozone	Maximum 1-hr Concentration (ppm)	0.16	0.13	0.12	0.16	0.13	0.14
	Days > 0.09 ppm (State 1-hr standard)	32	21	23	40	22	32
	Maximum 8-hr Concentration (ppm)	0.11	0.10	0.10	0.12	0.10	0.11
	Days > 0.07 ppm (State 8-hr standard)	39	43	40	42	42	52
Carbon Monoxide	Maximum 1-hr concentration (ppm)	5	4	4	4	3	3
	Days > 20 ppm (State1-hr standard)	0	0	0	0	0	0
	Maximum 8-hr concentration (ppm)	3.4	2.8	2.9	2.7	2.3	2.2
	Days > 9.0 ppm (State 8-hr standard)	0	0	0	0	0	0
Nitrogen Dioxide	Maximum 1-hr Concentration (ppm)	0.07	0.08	0.09	0.08	0.08	0.09
	Days > 0.18 ppm (State 1-hr standard)	0	0	0	0	0	0
PM_{10}	Maximum 24-hr concentration ($\mu g/m^3$)	71	109	66	62	120	79
	Estimated Days > 50 $\mu g/m^3$ (24-hr standard)	10	11	7	6	8	5
$PM_{2.5}$	Annual Arithmetic Mean ($\mu g/m^3$)	12.9	13.1	11.9	14.8	15.0	13.0
	Exceed State Standard (12 $\mu g/m^3$)?	Yes	Yes	No	Yes	Yes	Yes
Sulfur Dioxide	Maximum 24-hr Concentration (ppm)	0.01	0.01	<0.01	0.01	0.01	<0.01
	Days > 0.04 ppm (State 24-hr standard)	0	0	0	0	0	0

/a/ Historical data from the Reseda Monitoring Station were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Reseda Monitoring Station include O_3, CO, NO_2, and $PM_{2.5}$. Historical data from the Burbank Monitoring Station were used to characterize existing SO_2 and PM_{10} levels.

/b/ The San Fernando Valley General Forecast Area includes the West San Fernando Valley, East San Fernando Valley, and Santa Clarita Valley air monitoring areas of the SCAQMD.

/c/ An average of the maximum concentration of each criteria pollutant of the air monitoring areas of the Coastal General Forecast Area was used to represent maximum concentrations in the Coastal General Forecast Area.

SOURCE: SCAQMD, Historical Data by Year, available at http://www.aqmd.gov/smog/historicaldata.htm, accessed November 23, 2009 (Appendix B).

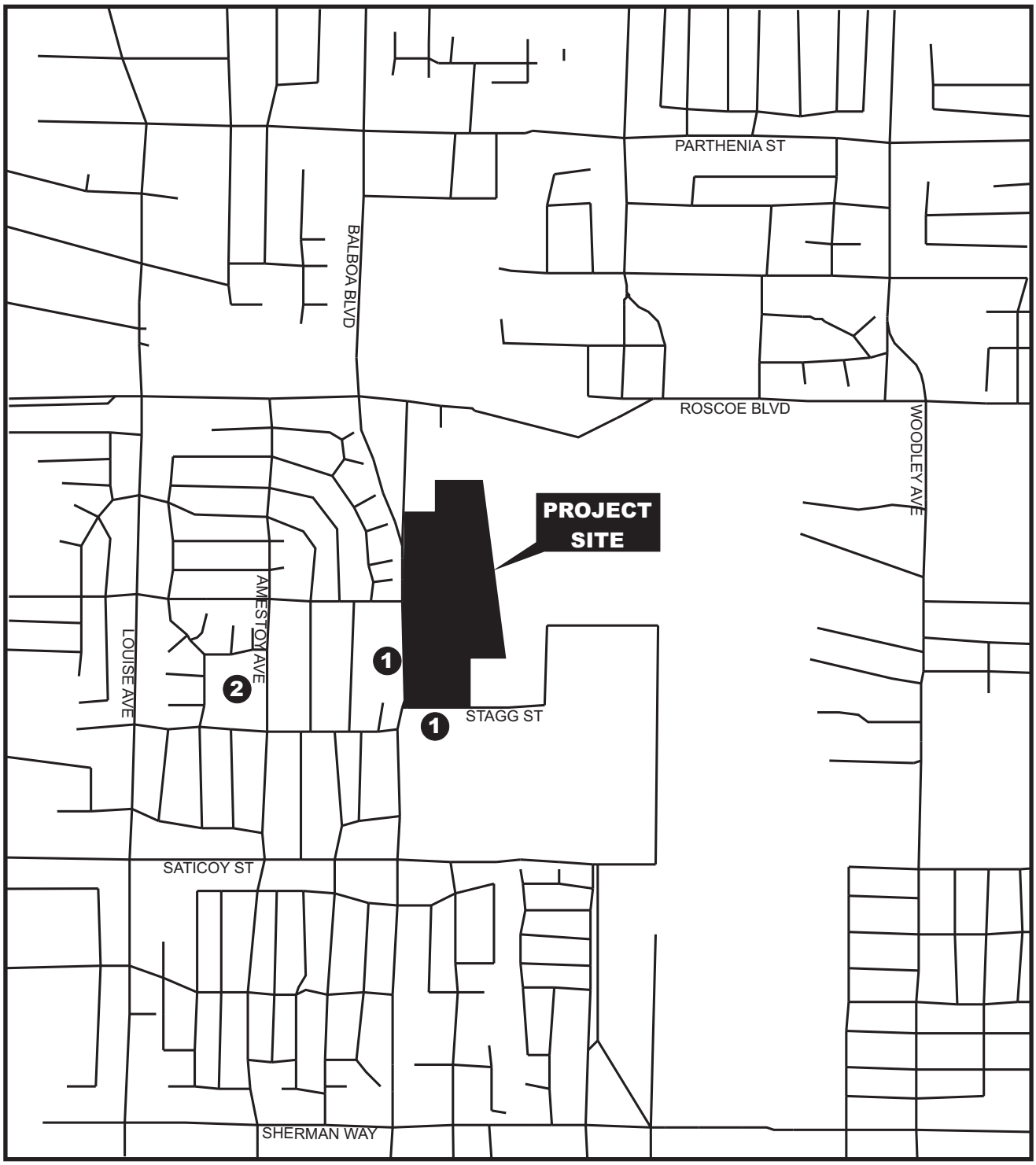
3.3.4 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

As shown in **Figure 3-3**, sensitive receptors in the project vicinity include the following:

- Single-family residences located approximately 105 feet to the south
- Single-family residences located approximately 150 feet to the west
- Stagg Street Elementary School located approximately 1,400 feet to the west

The above sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by the proposed project. Additional sensitive receptors are located in the surrounding community and may be impacted by the proposed project.



LEGEND:

Project Site

(#) Sensitive Receptor Locations

1. Single-Family Residences

2. Stagg Street Elementary School

Approx. Scale

N

0 375 750 Feet

SOURCE: TAHA, 2009

taha

The Park at Van Nuys Airport Project
Air Quality Impact Report

taha 2009-091 PACIFIC AVIATION DEVELOPMENT, LLC

FIGURE 3-3

AIR QUALITY SENSITIVE RECEPTOR LOCATIONS

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

This air quality analysis is consistent with the methods described in the SCAQMD *CEQA Air Quality Handbook* (1993 edition), as well as the updates to the *CEQA Air Quality Handbook*, as provided on the SCAQMD website.[11]

Construction

Regional and localized construction emissions were analyzed to determine impacts. The proposed project would consist of a ten, three-acre construction projects occurring in succession, with some overlap in construction activity between projects. A worst-case scenario was developed based on overlapping construction activity that would produce the greatest emissions. Equipment mixes for individual construction sites were based on assumptions provided by the applicant. Localized significance thresholds were developed based on a 3-acre project site.

Construction emissions (i.e., demolition, grading, building construction, and finishing) were calculated using information provided by the Applicant and calculation formulas published by the SCAQMD and USEPA. Heavy-duty truck and worker vehicle emission rates were obtained from the EMFAC2007 model. Equipment emission factors were obtained from the OFFROAD2007 model.[12] Refer to Appendix C for the calculation sheets that include detailed information on construction assumptions.

The localized construction analysis followed guidelines published by the SCAQMD in the Localized Significance Methodology for CEQA Evaluations (SCAQMD Localized Significance Threshold (LST) Guidance Document).[13] In January 2005, the SCAQMD supplemented the SCAQMD LST Guidance Document with Sample Construction Scenarios for Projects Less than Five Acres in Size.

3.4.2 Significance Criteria

The following are the significance criteria SCAQMD has established to determine project impacts.

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily regional and localized construction emissions were to exceed SCAQMD construction emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in **Table 3-3**;

[11]SCAQMD, http://www.aqmd.gov/ceqa/hdbk.html, accessed November 23, 2009.

[12]URBEMIS2007 also obtains on-road and off-road emissions factors from EMFAC2007 and OFFROAD2007. While URBEMIS2007 is used to model construction emissions from typical residential and commercial projects, aspects of the construction schedule required a more detailed analysis that URBEMIS2007 is not built for. However, the same base assumptions and calculations that are utitlized by URBEMIS2007 are used to develop the construction emissions presented in this report.

[13]SCAQMD, *Localized Significance Methodology*, June 2003, revised July 2008.

- The proposed project would generate significant emissions of TACs; and/or
- The proposed project would create an odor nuisance.

TABLE 3-3: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day)/a/
Volatile Organic Compounds (VOC)	75	--
Nitrogen Oxides (NO_X)	100	171
Carbon Monoxide (CO)	550	801
Sulfur Oxides (SO_X)	150	--
Fine Particulates ($PM_{2.5}$)	55	5
Particulates (PM_{10})	150	8

/a/ The localized significance thresholds were developed using a three-acre project site and a 25-meter (82-foot) receptor distance.
SOURCE: SCAQMD, 2009.

Operations Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily operational emissions were to exceed SCAQMD operational emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in **Table 3-4**;

TABLE 3-4: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	55
Nitrogen Oxides (NO_X)	55
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_X)	150
Fine Particulates ($PM_{2.5}$)	55
Particulates (PM_{10})	150

SOURCE: SCAQMD, 2009.

- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20 ppm and 9.0 ppm, respectively;.
- The proposed project would generate significant emissions of TACs;
- The proposed project would create an odor nuisance; and/or
- The proposed project would not be consistent with the AQMP.

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Construction Phase

Regional 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 by construction workers traveling to and from the project site. Fugitive dust emissions would primarily result from grading activities. NO_X emissions would primarily result from the use of construction equipment, and VOC emissions would result from paving operations. The assessment of construction air quality impacts considers each of these potential sources. 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.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

Table 3-5 shows the estimated daily maximum emissions associated with construction. Maximum emissions would occur during the scheduled overlap of construction activities. For ROG and CO, the maximum emissions would occur during the overlap of the Removal of Organics, Erection/Plumbing/Electrical, and Base and Paving phases. For NO_X, SO_X, PM_{10}, and $PM_{2.5}$ the maximum emissions would occur during the overlap of the Pour Foundation and Slab and Base and Paving phases. Daily construction emissions would not exceed the SCAQMD regional thresholds, and regional construction emissions would result in a less-than-significant impact. However, mitigation measures are recommended to ensure compliance with SCAQMD Rule 403.

TABLE 3-5: ESTIMATED DAILY CONSTRUCTION EMISSIONS - UNMITIGATED

Construction Phase	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$ /a/**	**PM_{10} /a/**
Maximum Regional Construction Emissions /b/	13	69	37	<1	2.9	3.2
Regional Significance Threshold	**75**	**100**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	No	No	No	No	No
Maximum On-Site Total	12	53	27	<1	2.6	2.9
Localized Significance Threshold /c,d/	**-- /e/**	**801**	**171**	**-- /e/**	**5**	**8**
Exceed Threshold?	-- /e/	No	No	**-- /e/**	No	No

/a/ URBEMIS2007 emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.
/b/ For ROG and CO, the maximum daily construction emissions would occur during the overlap of the Removal of Organics, Erection/Plumbing/-Electrical, and Base and Paving phases. For NO_X, SO_X, PM_{10}, and $PM_{2.5}$ the maximum daily construction emissions would occur during the overlap of the Pour Foundation and Slab and Base and Paving phases.
/c/ Maximum daily localized construction emissions would occur during the overlap of the Removal of Organics, Erection/Plumbing/Electrical and Base and Paving phases.
/d/ Assumed a three-acre project site and a 25-meter (82-foot) receptor distance.
/e/ SCAQMD has not developed localized significance methodology for VOC or SO_X at this time.
SOURCE: TAHA, 2009 (Appendix C).

Localized Impacts

Emissions for the localized construction air quality analysis of $PM_{2.5}$, PM_{10}, CO, and NO_2 were compiled using LST methodology required by the SCAQMD.[14] Localized on-site emissions were calculated using similar methodology to the regional emission calculations. LSTs were developed based upon the size or total area of the emissions source, the ambient air quality in each source receptor area, and the distance to the sensitive receptor. LSTs for CO and NO_2 were derived by using an air quality dispersion model to back-calculate the emissions per day that would cause or contribute to a violation of any ambient air quality standard for a particular source receptor area. Construction PM_{10} LST was derived using a dispersion model to back-calculate the emissions necessary to exceed a concentration equivalent to 50 $\mu g/m^3$ over five hours, which is the SCAQMD Rule 403 control requirement.

Table 3-5 shows the estimated daily localized emissions associated with construction. Maximum daily localized construction emissions would occur during the overlap of the Removal of Organics, Erection/Plumbing/Electrical and Base and Paving phases. Daily localized construction emissions would not exceed the SCAQMD localized thresholds for $PM_{2.5}$, PM_{10}, NO_2, or CO, and localized construction emissions would result in a less-than-significant impact.

Toxic Air Contaminant Impacts

The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy equipment operations. 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 continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of

[14]The concentrations of SO_2 are not estimated because construction activities would generate a small amount of SO_X emissions. No State standard exists for VOC. As such, concentrations for VOC were not estimated.

standard risk assessment methodology. Given the short-term construction schedule of approximately 25 months, the proposed project would not result in a long-term (i.e., 70 years) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period (25 out of 840 months), project-related construction TAC emission would result in a less-than-significant impact.

Odor Impacts

Potential sources that may emit odors during construction activities include equipment exhaust and paving activities. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Proposed project construction would not cause an odor nuisance. Construction odors would result in a less-than-significant impact.

Construction Phase Mitigation Measures

Mitigation Measures **AQ1** through **AQ6** would ensure compliance with SCAQMD Rule 403. These mitigation measures shall be implemented for all areas (both on- and off-site) of construction activity.

AQ1 Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.

AQ2 The construction contractor shall utilize at least one of the following measures at each vehicle egress from the project site to a paved public road:

- Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;
- Pave the surface extending at least 100 feet and at least 20 feet wide;
- Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or
- Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.

AQ3 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

AQ4 Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts).

AQ5 Heavy-duty equipment operations shall be suspended during first and second stage smog alerts.

AQ6 Ground cover in disturbed areas shall be replaced as quickly as possible.

Impacts After Mitigation

Implementation of Mitigation Measures **AQ1** through **AQ6** would ensure that fugitive dust emissions would be reduced by approximately 61 percent. Consequently, daily $PM_{2.5}$ and PM_{10} emissions would still be less than the SCAQMD threshold of 150 pounds per day. Construction emissions would result in a less-than-significant impact.

3.5.2 Operational Phase

According to a memorandum from Linscott, Law, & Greenspan Engineers,[15] a total of 970 based aircraft and 220,000 square feet of additional aviation-related office space were envisioned to be accommodated at the Van Nuys Airport as part of the Master Plan. A total of 790 aircraft are currently based at the Van Nuys Airport as of 2008. Based on the maximum number of based aircraft that can be accommodated, an addition 180 aircraft could be based at the Van Nuys Airport.

A maximum of 253 based aircraft could be accommodated at the proposed project site, including all T hangars and tie downs. Reservations have been confirmed for 105 aircraft that are currently based on the Van Nuys Airport. Therefore, it is estimated that a maximum of 148 new aircraft could be accommodated at the project site. This would be less than the additional 180 aircraft that the entitlement would allow.

In addition, the current entitlement allows for approximately 220,000 square feet of office space to be built at Van Nuys Airport. Currently, the airport has approximately 180,000 square feet of office space on site. The proposed project would add roughly 42,000 square feet of office space to the propeller park area, up to the maximum allowable office space of 220,000 square feet. The proposed project would not add aircraft or office space beyond what was analyzed and entitled in the Master Plan. As a result, no new operational emissions impacts are anticipated. Operational emissions would result in a less-than-significant air quality impact.

3.5.3 Consistency with the Air Quality Management Plan

The proposed project would directly correspond to the aviation area/propeller aircraft designation for the site as outlined in the Van Nuys Airport Master Plan. As a result, the proposed project would be consistent with the AQMP, and would not generate any additional operational emissions in excess of those analyzed in the Master Plan EIR. The proposed project would result in a less-than-significant operations impact.

3.6 CUMULATIVE IMPACTS

The SCAQMD's approach for assessing cumulative impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and state CAAs. The SCQAMD has set forth regional significance thresholds designed to assistant in the attainment of ambient air quality standards. The proposed project directly corresponds to the aviation area/propeller aircraft designation for the site as outlined in the Van Nuys Airport Master Plan, and would not generate any additional operational emissions in excess of those analyzed in the Master Plan EIR. Therefore, the proposed project would result in a less-than-significant regional cumulative operations impact.

[15]Linscott, Law & Greenspan, Memorandum Regarding *The Park at Van Nuys Airport Project*, November 19, 2009.

Appendix A

Wind and Climate Information

CANOGA PARK PIERCE COLL, CALIFORNIA

Period of Record General Climate Summary - Temperature

Station:(041484) CANOGA PARK PIERCE COLL

From Year=1949 To Year=2006

	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	67.9	39.3	53.6	93	14/1975	19	07/1950	61.0	2003	45.6	1950	0.1	0.0	5.6	0.0
February	70.0	40.7	55.3	94	26/1986	18	06/1989	61.5	1963	48.2	1956	0.2	0.0	3.2	0.0
March	72.3	41.9	57.1	101	26/1988	26	13/1954	65.2	2004	50.1	1952	0.8	0.0	1.7	0.0
April	76.8	44.6	60.7	105	06/1989	30	09/1953	67.4	1989	51.3	1967	3.5	0.0	0.3	0.0
May	81.1	49.1	65.1	113	29/1984	33	04/1950	72.7	1984	57.6	1998	6.1	0.0	0.0	0.0
June	87.4	53.0	70.2	113	15/1961	36	07/1950	77.8	1981	63.0	1952	13.1	0.0	0.0	0.0
July	94.9	57.0	75.9	115	16/1960	42	01/1952	81.0	1985	71.7	1949	24.3	0.0	0.0	0.0
August	95.4	57.3	76.3	116	24/1985	42	06/1950	81.7	1992	70.3	1954	24.9	0.0	0.0	0.0
September	91.7	54.6	73.2	115	06/1955	38	20/1954	79.6	1984	67.8	1950	17.9	0.0	0.0	0.0
October	84.0	49.0	66.5	110	01/1980	27	30/1971	71.6	2003	61.3	1954	9.0	0.0	0.1	0.0
November	74.8	42.6	58.7	99	03/1975	23	17/1958	63.3	1976	52.0	1994	1.6	0.0	1.2	0.0
December	68.8	38.8	53.8	96	03/1958	20	29/1954	58.8	1958	49.0	1971	0.1	0.0	5.3	0.0
Annual	80.4	47.3	63.9	116	19850824	18	19890206	66.3	1984	60.5	1952	101.6	0.0	17.5	0.0
Winter	68.9	39.6	54.3	96	19581203	18	19890206	57.6	1986	49.4	1950	0.4	0.0	14.1	0.0
Spring	76.7	45.2	61.0	113	19840529	26	19540313	65.5	1993	56.1	1998	10.4	0.0	2.0	0.0
Summer	92.6	55.8	74.2	116	19850824	36	19500607	77.6	1981	69.8	1952	62.2	0.0	0.0	0.0
Fall	83.5	48.7	66.1	115	19550906	23	19581117	70.0	1991	62.4	1994	28.5	0.0	1.4	0.0

Table updated on Nov 12, 2009

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

CANOGA PARK PIERCE COLL, CALIFORNIA

Period of Record General Climate Summary - Precipitation

Station:(041484) CANOGA PARK PIERCE COLL														
From Year=1949 To Year=2006														
	Precipitation											Total Snowfall		
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-
January	3.78	16.80	1995	0.00	1972	4.62	11/2001	6	5	2	1	0.0	0.0	1950
February	3.95	18.02	1998	0.00	1961	5.78	12/2003	6	4	2	1	0.0	0.5	1989
March	2.78	12.39	1983	0.00	1956	6.06	01/1983	6	4	2	1	0.0	0.0	1950
April	1.13	6.76	1965	0.00	1962	2.49	14/1988	3	2	1	0	0.0	0.0	1950
May	0.29	4.06	1998	0.00	1950	2.00	08/1977	1	1	0	0	0.0	0.0	1950
June	0.04	0.67	1999	0.00	1950	0.52	05/1993	0	0	0	0	0.0	0.0	1950
July	0.01	0.17	1995	0.00	1949	0.17	16/1995	0	0	0	0	0.0	0.0	1949
August	0.10	2.49	1977	0.00	1949	2.35	17/1977	1	0	0	0	0.0	0.0	1949
September	0.16	2.26	1976	0.00	1949	1.12	10/1976	1	0	0	0	0.0	0.0	1949
October	0.52	5.93	1987	0.00	1949	3.20	31/1987	2	1	0	0	0.0	0.0	1949
November	1.79	12.60	1965	0.00	1956	6.57	29/1970	4	2	1	1	0.0	0.0	1949
December	2.31	8.44	2004	0.00	1958	4.98	29/1965	5	3	2	1	0.0	0.0	1949
Annual	16.86	38.48	1983	3.92	1953	6.57	19701129	34	22	10	5	0.0	0.5	1989
Winter	10.05	33.16	2005	1.94	1964	5.78	20030212	17	12	6	3	0.0	0.5	1989
Spring	4.19	15.67	1983	0.00	1997	6.06	19830301	10	6	3	1	0.0	0.0	1950
Summer	0.15	2.49	1977	0.00	1950	2.35	19770817	1	0	0	0	0.0	0.0	1950
Fall	2.47	12.78	1965	0.00	1980	6.57	19701129	6	4	2	1	0.0	0.0	1949

Table updated on Nov 12, 2009

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons

Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May

Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

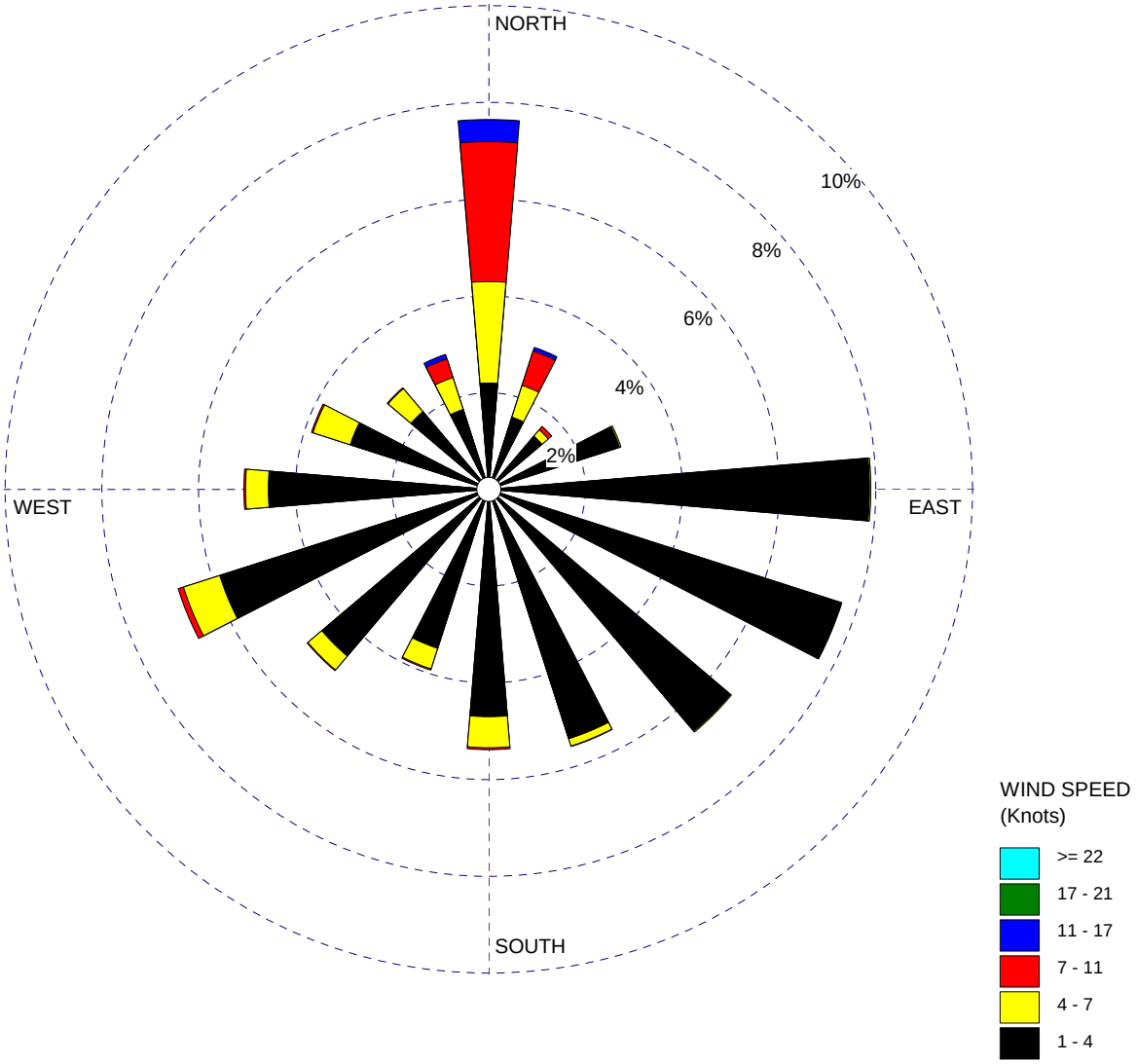
Western Regional Climate Center, wrcc@dri.edu

WIND ROSE PLOT:

Van Nuys Airport Propeller Park Development Project

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **2005** **Jan 1 - Dec 31** **00:00 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **21.59%**	TOTAL COUNT: **26145 hrs.**	
	AVG. WIND SPEED: **2.66 Knots**	DATE: **11/23/2009**	PROJECT NO.: **2009-091**

Appendix B

SCAQMD Data

2006 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2006

Source/Receptor Area No.	Location	Station No.	Carbon Monoxide [a]			Ozone [b]									Nitrogen Dioxide [c]				Sulfur Dioxide [d]			
										No. Days Standard Exceeded											
										Health	Federal		State								
			No. Days of Data	Max. Conc. in ppm 1-hour	Max Conc. in ppm 8-hour	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour	Fourth High Conc. ppm 8-hour	Advisory ≥ 0.15 ppm 1-hour	> 0.12 ppm 1-hour	> 0.08 ppm 8-hour	> 0.09 ppm 1-hour	> 0.07 ppm 8-hour	No. Days of Data	Max Conc. in ppm 1-hour	Max Conc. in ppm 24-hour	Annual Average AAM Conc. ppm	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 24-hour	Annual Average AAM Conc. ppm
LOS ANGELES COUNTY																						
1	Central LA	087	362	3	2.6	362	0.11	0.079	0.077	0	0	0	8	4	360	0.11	0.06	0.0288	365	0.03	0.006	0.0019
2	Northwest Coastal LA County	091	365	3	2.0	365	0.10	0.074	0.069	0	0	0	3	0	365	0.08	0.05	0.0173	--	--	--	--
3	Southwest Coastal LA County	820	363	3	2.3	360	0.08	0.066	0.062	0	0	0	0	0	351	0.10	0.05	0.0155	363	0.02	0.006	0.0020
4	South Coastal LA County 1	072	360	4	3.4	364	0.08	0.058	0.058	0	0	0	0	0	357	0.10	0.05	0.0215	364	0.03	0.010	0.0012
4	South Coastal LA County 2	077	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	West San Fernando Valley	074	365	5	3.4	361	0.16	0.108	0.105	1	6	17	32	39	363	0.07	0.04	0.0174	--	--	--	--
7	East San Fernando Valley	069	365	4	3.5	365	0.17	0.128	0.099	2	6	12	25	23	365	0.10	0.05	0.0274	360	0.01	0.004	0.0006
8	West San Gabriel Valley	088	360	4	2.8	365	0.15	0.117	0.095	1	5	7	25	24	365	0.12	0.06	0.0245	--	--	--	--
9	East San Gabriel Valley 1	060	365	2	1.7	364	0.17	0.120	0.091	2	7	10	23	19	365	0.11	0.07	0.0258	--	--	--	--
9	East San Gabriel Valley 2	591	363	2	2.0	363	0.18	0.128	0.107	2	10	15	37	31	362	0.10	0.06	0.0206	--	--	--	--
10	Pomona/Walnut Valley	075	365	3	2.1	365	0.15	0.128	0.109	2	9	16	32	30	365	0.10	0.06	0.0307	--	--	--	--
11	South San Gabriel Valley	085	232*	3*	2.7*	250*	0.13*	0.095*	0.080*	0*	1*	3*	9*	5*	204*	0.10*	0.06*	0.0283*	--	--	--	--
12	South Central LA County	084	365	8	6.4	365	0.09	0.066	0.064	0	0	0	0	0	363	0.14	0.08	0.0306	--	--	--	--
13	Santa Clarita Valley	090	363	2	1.3	359	0.16	0.120	0.112	1	20	40	62	64	359	0.08	0.04	0.0184	--	--	--	--
ORANGE COUNTY																						
16	North Orange County	3177	362	6	3.0	362	0.15	0.114	0.092	1	3	4	8	9	361	0.09	0.05	0.0224	--	--	--	--
17	Central Orange County	3176	365	5	3.0	365	0.11	0.088	0.072	0	0	1	5	3	343	0.11	0.06	0.0197	--	--	--	--
18	North Coastal Orange County	3195	365	4	3.0	365	0.07	0.064	0.062	0	0	0	0	0	361	0.10	0.05	0.0145	353	0.01	0.004	0.0013
19	Saddleback Valley	3812	365	2	1.8	356	0.12	0.105	0.092	0	0	6	13	17	--	--	--	--	--	--	--	--
RIVERSIDE COUNTY																						
22	Norco/Corona	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	365	3	2.1	365	0.15	0.116	0.113	1	8	30	45	59	365	0.08	0.05	0.0199	365	0.01	0.004	0.0013
23	Metropolitan Riverside County 2	4146	365	4	2.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Mira Loma	5214	364	4	2.7	364	0.16	0.119	0.107	1	4	25	39	48	332	0.08	0.05	0.0194	--	--	--	--
24	Perris Valley	4149	--	--	--	351	0.17	0.122	0.114	3	12	53	76	84	--	--	--	--	--	--	--	--
25	Lake Elsinore	4158	362	1	1.0	362	0.14	0.109	0.102	0	3	24	40	58	352	0.07	0.05	0.0151	--	--	--	--
29	Banning Airport	4164	--	--	--	357	0.14	0.115	0.104	0	8	44	57	78	355	0.11	0.04	0.0161	--	--	--	--
30	Coachella Valley 1**	4137	365	2	1.0	361	0.13	0.109	0.101	0	2	23	37	67	359	0.09	0.05	0.0103	--	--	--	--
30	Coachella Valley 2**	4157	--	--	--	364	0.10	0.089	0.087	0	0	7	4	29	--	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																						
32	Northwest San Bernardino Valley	5175	360	3	1.8	365	0.17	0.130	0.114	2	14	25	50	54	337	0.10	0.07	0.0310	--	--	--	--
33	Southwest San Bernardino Valley	5817	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	5197	365	3	2.0	361	0.16	0.123	0.116	1	12	29	47	49	362	0.09	0.06	0.0270	365	0.01	0.003	0.0019
34	Central San Bernardino Valley 2	5203	364	3	2.3	362	0.15	0.127	0.119	3	10	29	52	57	362	0.09	0.05	0.0252	--	--	--	--
35	East San Bernardino Valley	5204	--	--	--	365	0.16	0.135	0.125	5	11	36	60	64	--	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	--	--	--	365	0.16	0.142	0.112	2	9	59	71	96	--	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DISTRICT MAXIMUM				8	6.4		0.18	0.142	0.125	5	20	59	76	96		0.14	0.08	0.0310		0.03	0.010	0.0020
SOUTH COAST AIR BASIN				8	6.4		0.18	0.142	0.125	10	35	86	102	121		0.14	0.08	0.0310		0.03	0.010	0.0020

ppm - Parts Per Million parts of air, by volume. AAM = Annual Arithmetic Mean -- - Pollutant not monitored.

* Less than 12 full months of data. May not be representative. ** Salton Sea Air Basin.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005. The 8-hour average California ozone standard of 0.07 ppm was established effective May 17, 2006.

c) - The state standard is 1-hour average NO_2 > 0.25 ppm. The federal standard is annual arithmetic mean NO_2 > 0.0534 ppm. Air Resources Board has approved to lower the NO_2 1-hour standard to 0.18 ppm and establish a new annual standard of 0.030 ppm. The revisions are expected to become effective later in 2007.

d) - The state standards are 1-hour average SO_2 > 0.25 ppm and 24-hour average SO_2 > 0.04 ppm. The federal standards are annual arithmetic mean SO_2 > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO_2 standards were not exceeded.

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182
www.aqmd.gov

The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

2006 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2006

Source/Receptor Area No.	Location	Station No.	Suspended Particulates PM10 e) No. Days of Data	Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standard Federal > 150 µg/m³ 24-hour	No. (%) Samples Exceeding Standard State > 50 µg/m³ 24-hour	Annual Average AAM h) Conc. µg/m³	Fine Particulates PM2.5 f) No. Days of Data	Max. Conc. in µg/m³ 24-hour	98th Percentile Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standard Federal i) > 35 µg/m³ 24-hour	Standard Federal i) > 65 µg/m³ 24-hour	Annual Averages AAM j) Conc. µg/m³	Particulates TSP g) No. Days of Data	Max. Conc. in µg/m³ 24-hour	Annual Average AAM Conc. µg/m³	Lead g) Max. Monthly Average Conc. k) µg/m³	Max. Quarterly Average Conc. k) µg/m³	Sulfate g) Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standard State ≥ 25 µg/m³ 24-hour
LOS ANGELES COUNTY																				
1	Central LA	087	59	59	0	3(5.1)	30.3	330	56.2	38.9	11(3.3)	0	15.6	59	109	63.3	0.02	0.01	18.2	0
2	Northwest Coastal LA County	091	--	--	--	--	--	--	--	--	--	--	--	56	76	40.2	--	--	12.2	0
3	Southwest Coastal LA County	820	51	45	0	0	26.5	--	--	--	--	--	--	56	84	43.1	0.01	0.01	13.6	0
4	South Coastal LA County 1	072	61	78	0	6(9.8)	31.1	290*	58.5*	34.9*	5(1.7)*	0*	14.2*	62	157	62.9	0.01	0.01	17.8	0
4	South Coastal LA County 2	077	58	117	0	19(32.7)	45.0	320	53.6	35.3	6(1.9)	0	14.5	59	192	71.1	0.01	0.01	18.8	0
6	West San Fernando Valley	074	--	--	--	--	--	92	44.1	32.0	1(1.1)	0	12.9	--	--	--	--	--	--	--
7	East San Fernando Valley	069	54	71	0	10(18.5)	35.6	104	50.7	43.4	6(5.8)	0	16.6	--	--	--	--	--	--	--
8	West San Gabriel Valley	088	--	--	--	--	--	113	45.9	32.1	1(0.9)	0	13.4	60	123	42.8	--	--	28.7	1(1.7)
9	East San Gabriel Valley 1	060	58	81	0	7(12.1)	31.9	278*	52.8*	38.5*	8(2.9)*	0*	15.5*	59	142	68.4	--	--	20.8	0
9	East San Gabriel Valley 2	591	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10	Pomona/Walnut Valley	075	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11	South San Gabriel Valley	085	--	--	--	--	--	116	72.2	43.1	7(6)	1(0.9)	16.7	58	768	79.3	0.03	0.02	28.6	1(1.7)
12	South Central LA County	084	--	--	--	--	--	107	55.0	44.5	4(3.7)	0	16.7	58	147	68.4	0.02	0.02	24.1	0
13	Santa Clarita Valley	090	58	53	0	1(1.7)	23.4	--	--	--	--	--	--	--	--	--	--	--	--	--
ORANGE COUNTY																				
16	North Orange County	3177	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17	Central Orange County	3176	56	104	0	7(12.5)	33.4	330	56.2	40.5	8(2.4)	0	14.1	--	--	--	--	--	--	--
18	North Coastal Orange County	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19	Saddleback Valley	3812	50	57	0	1(2.0)	22.8	106	47.0	25.7	1(0.9)	0	11.0	--	--	--	--	--	--	--
RIVERSIDE COUNTY																				
22	Norco/Corona	4155	57	74	0	10(17.5)	36.5	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	4144	118	109	0	71(60.2)	54.4	300	68.5	53.7	32(10.7)	1(0.3)	19.0	59	169	91.2	0.01	0.01	10.8	0
23	Metropolitan Riverside County 2	4146	--	--	--	--	--	105	55.3	47.7	9(8.6)	0	17.0	59	131	72.9	0.01	0.01	9.9	0
23	Mira Loma	5214	59	124	0	41(69.5)	64.0	113	63.0	52.5	14(12.4)	0	20.6	--	--	--	--	--	--	--
24	Perris Valley	4149	54	125	0	19(35.2)	45.0	--	--	--	--	--	--	--	--	--	--	--	--	--
25	Lake Elsinore	4158	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29	Banning Airport	4164	55	75	0	8(14.6)	31.1	--	--	--	--	--	--	--	--	--	--	--	--	--
30	Coachella Valley 1**	4137	57	73+	0+	2(3.5)+	24.5+	111	24.8	15.9	0	0	7.7	--	--	--	--	--	--	--
30	Coachella Valley 2**	4157	115	122+	0+	57(49.6)+	52.7+	107	24.3	19.1	0	0	9.5	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																				
32	Northwest San Bernardino Valley	5175	--	--	--	--	--	--	--	--	--	--	--	58	105	54.6	0.01	0.01	9.1	0
33	Southwest San Bernardino Valley	5817	62	78	0	17(27.4)	42.3	107	53.7	41.5	7(6.5)	0	18.5	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	5197	60	142	0	31(51.7)	53.5	112	52.6	43.8	7(6.3)	0	17.6	59	190	101.0	--	--	10.3	0
34	Central San Bernardino Valley 2	5203	57	92	0	24(42.1)	46.0	102	55.0	48.4	8(7.8)	0	17.8	54	174	87.0	0.02	0.01	11.0	0
35	East San Bernardino Valley	5204	60	103	0	12(20.0)	36.2	--	--	--	--	--	--	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	5181	58	63	0	1(1.7)	26.2	--	--	--	--	--	--	--	--	--	--	--	--	--
38	East San Bernardino Mountains	5818	--	--	--	--	--	42*	40.1*	40.1*	1(2.4)*	0*	11.2*	--	--	--	--	--	--	--
	DISTRICT MAXIMUM			142+	0+	71	64.0		72.2	53.7	32	1	20.6		768	101.0	0.03	0.02	28.7	1
	SOUTH COAST AIR BASIN			142+	0+	75	64.0		72.2	53.7	32	1	20.6		768	101.0	0.03	0.02	28.7	1

µg/m³ - Micrograms per cubic meter of air AAM - Annual Arithmetic Mean -- - Pollutant not monitored

* Less than 12 full months of data. May not be representative. ** Salton Sea Air Basin.

e) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

f) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

g) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.

h) - Federal annual PM10 standard (AAM > 50 µg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 µg/m³.

i) - U.S. EPA has revised the federal 24-hour PM2.5 standard from 65 µg/m³ to 35 µg/m³; effective December 17, 2006.

j) - Federal PM2.5 standard is annual average (AAM) > 15 µg/m³. State standard is annual average (AAM) > 12 µg/m³.

k) - Federal lead standard is quarterly average > 1.5 µg/m³; and state standard is monthly average ≥ 1.5 µg/m³. No location exceeded lead standards. Maximum monthly and quarterly lead concentrations at special monitoring sites immediately downwind of stationary lead sources were 0.24 µg/m³ and 0.22 µg/m³, respectively, both recorded at Central Los Angeles.

\+ - The data for the samples collected on a high-wind day (July 16, 2006) at Palm Springs and Indio (226 µg/m³ and 313 µg/m³, respectively) were excluded in accordance with EPA's Natural Events Policy.

2007 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2007

Source/Receptor Area No.	Location	Station No. State Code	Station No. District Code	Carbon Monoxide[a] No. Days of Data	Carbon Monoxide[a] Max. Conc. in ppm 1-hour	Carbon Monoxide[a] Max Conc. in ppm 8-hour	Ozone No. Days of Data	Ozone Max. Conc. in ppm 1-hour	Ozone Max. Conc. in ppm 8-hour	Ozone Fourth High Conc. ppm 8-hour	Ozone No. Days Standard Exceeded: Health Advisory ≥ 0.15 ppm 1-hour	Ozone No. Days Standard Exceeded: Federal[b] > 0.12 ppm 1-hour	Ozone No. Days Standard Exceeded: Federal[b] > 0.08 ppm 8-hour	Ozone No. Days Standard Exceeded: Federal[b] > 0.075 ppm 8-hour	Ozone No. Days Standard Exceeded: State[c] > 0.09 ppm 1-hour	Ozone No. Days Standard Exceeded: State[c] > 0.070 ppm 8-hour	Nitrogen Dioxide[d] No. Days of Data	Nitrogen Dioxide[d] Max Conc. in ppm 1-hour	Nitrogen Dioxide[d] Annual Average AAM Conc. ppm	Sulfur Dioxide[e] No. Days of Data	Sulfur Dioxide[e] Max. Conc. in ppm 1-hour	Sulfur Dioxide[e] Max. Conc. in ppm 24-hour	Sulfur Dioxide[e] Annual Average AAM Conc. ppm
LOS ANGELES COUNTY																							
1	Central LA	70087	087	359	3	2.2	355	0.115	0.102	0.072	0	0	2	3	3	6	360	0.10	0.0299	351	0.01	0.003	0.0009
2	Northwest Coastal LA County	70091	091	365	3	1.9	360	0.117	0.087	0.067	0	0	1	2	2	2	353	0.08	0.0200	--	--	--	--
3	Southwest Coastal LA County	70111	820	361	3	2.4	361	0.087	0.074	0.066	0	0	0	0	0	1	331*	0.08	0.0140	361	0.02	0.009	0.0028
4	South Coastal LA County 1	70072	072	347*	3	2.6	365	0.099	0.073	0.056	0	0	0	0	1	1	365	0.11	0.0207	365	0.11	0.011	0.0027
4	South Coastal LA County 2	70110	077	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	West San Fernando Valley	70074	074	358	4	2.8	358	0.129	0.104	0.092	0	1	8	28	21	43	358	0.08	0.0186	--	--	--	--
7	East San Fernando Valley	70069	069	365	4	2.8	365	0.116	0.096	0.088	0	0	6	13	13	19	363	0.09	0.0289	365	0.01	0.003	0.0010
8	West San Gabriel Valley	70088	088	365	3	2.4	365	0.149	0.100	0.089	0	3	6	11	13	21	365	0.09	0.0246	--	--	--	--
9	East San Gabriel Valley 1	70060	060	365	3	2.0	365	0.158	0.112	0.096	1	3	13	20	22	28	365	0.12	0.0253	--	--	--	--
9	East San Gabriel Valley 2	70591	591	365	2	2.0	364	0.147	0.116	0.104	0	3	14	26	25	40	365	0.11	0.0227	--	--	--	--
10	Pomona/Walnut Valley	70075	075	365	3	2.1	365	0.153	0.108	0.102	1	2	10	18	19	25	365	0.10	0.0318	--	--	--	--
11	South San Gabriel Valley	70185	085	365	5	2.9	364	0.135	0.100	0.079	0	2	2	5	6	9	361	0.11	0.0249	--	--	--	--
12	South Central LA County	70084	084	365	8	5.1	365	0.102	0.077	0.056	0	0	0	1	1	2	365	0.10	0.0291	--	--	--	--
13	Santa Clarita Valley	70090	090	361	2	1.2	357	0.135	0.110	0.101	0	2	16	44	31	64	339*	0.08	0.0196	--	--	--	--
ORANGE COUNTY																							
16	North Orange County	30177	3177	360	6	3.3	365	0.152	0.107	0.082	1	1	2	8	7	9	365	0.08	0.0219	--	--	--	--
17	Central Orange County	30178	3176	346*	4	2.9	365	0.127	0.099	0.073	0	1	1	1	2	7	359	0.10	0.0208	--	--	--	--
18	North Coastal Orange County	30195	3195	362	5	3.1	362	0.082	0.072	0.065	0	0	0	0	0	2	362	0.07	0.0132	358	0.01	0.004	0.0010
19	Saddleback Valley	30002	3812	364	3	2.1	365	0.108	0.089	0.080	0	0	2	5	5	10	--	--	--	--	--	--	
RIVERSIDE COUNTY																							
22	Norco/Corona	33155	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
23	Metropolitan Riverside County 1	33144	4144	364	4	2.9	365	0.131	0.111	0.099	0	2	15	46	31	69	364	0.07	0.0206	323*	0.02	0.002	0.0017
23	Metropolitan Riverside County 2	33146	4146	365	4	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Mira Loma	33165	5214	359	3	2.1	360	0.118	0.104	0.092	0	0	10	23	16	48	349*	0.07	0.0181	--	--	--	--
24	Perris Valley	33149	4149	--	--	--	365	0.139	0.116	0.103	0	4	37	73	66	88	--	--	--	--	--	--	--
25	Lake Elsinore	33158	4158	365	2	2.3	359	0.130	0.108	0.097	0	3	19	35	26	55	358	0.06	0.0174	--	--	--	--
29	Banning Airport	33164	4164	--	--	--	365	0.129	0.113	0.095	0	1	12	43	28	63	363	0.08	0.0147	--	--	--	--
30	Coachella Valley 1**	33137	4137	365	2	1.0	365	0.126	0.101	0.097	0	1	20	58	29	83	365	0.06	0.0103	--	--	--	--
30	Coachella Valley 2**	33155	4157	--	--	--	365	0.106	0.094	0.087	0	0	6	29	8	48	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																							
32	Northwest San Bernardino Valley	36175	5175	365	2	1.6	365	0.145	0.115	0.112	0	7	18	35	32	55	327*	0.10	0.0276	--	--	--	--
33	Southwest San Bernardino Valley	36025	5817	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	36197	5197	359	3	1.8	359	0.144	0.122	0.112	0	9	19	43	40	60	358	0.09	0.0239	359	0.01	0.004	0.0019
34	Central San Bernardino Valley 2	36203	5203	365	4	2.3	365	0.153	0.121	0.117	1	8	24	51	48	74	351	0.08	0.0245	--	--	--	--
35	East San Bernardino Valley	36204	5204	--	--	--	365	0.149	0.124	0.112	0	7	25	58	54	79	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	36181	5181	--	--	--	365	0.171	0.137	0.126	4	13	59	93	67	115	--	--	--	--	--	--	--
38	East San Bernardino Mountains	36001	5818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DISTRICT MAXIMUM					8	5.1		0.171	0.137	0.126	4	13	59	93	67	115		0.12	0.0318		0.11	0.011	0.0028
SOUTH COAST AIR BASIN					8	5.1		0.171	0.137	0.126	5	18	79	108	96	128		0.12	0.0318		0.11	0.011	0.0028

ppm - Parts Per Million parts of air, by volume. AAM = Annual Arithmetic Mean -- - Pollutant not monitored.

* Less than 12 full months of data; may not be representative. ** Salton Sea Air Basin.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005. U.S. EPA has revised the federal 8-hour ozone standard from 0.084 ppm to 0.075 ppm, effective May 27, 2008.

c) - The 8-hour average California ozone standard of 0.070 ppm was established effective May 17, 2006.

d) - The federal standard is annual arithmetic mean NO_2 > 0.0534 ppm. California Air Resources Board has revised the NO_2 1-hour state standard from 0.25 ppm to 0.18 ppm and has established a new annual standard of 0.030 ppm, effective March 20, 2008.

e) - The state standards are 1-hour average SO_2 > 0.25 ppm and 24-hour average SO_2 > 0.04 ppm. The federal standards are annual arithmetic mean SO_2 > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO_2 standards were not exceeded.

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182
www.aqmd.gov

The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

Due to technical difficulties, lead and sulfate data are not available and will be provided at a later time.

2007 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2007

Source/Receptor Area No.	Location	Station No. State Code	Station No. District Code	Suspended Particulates PM10 [f] No. Days of Data	Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standards: Federal > 150 µg/m³ 24-hour	No. (%) Samples Exceeding Standards: State > 50 µg/m³ 24-hour	Annual Average Conc. [i] (AAM) µg/m³	Fine Particulates PM2.5 [g] No. Days of Data	Max. Conc. in µg/m³ 24-hour	98th Percentile Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Federal Standard: Current > 35 [j] µg/m³ 24-hour	No. (%) Samples Exceeding Federal Standard: Old > 65 [j] µg/m³ 24-hour	Annual Average Conc. [k] (AAM) µg/m³	Particulates [h] No. Days of Data	Max. Conc. in µg/m³ 24-hour	Annual Average Conc. (AAM) µg/m³	Lead [h] Max. Monthly Average Conc. [l] µg/m³	Lead [h] Max. Quarterly Average Conc. [l] µg/m³	Sulfate [h] Max. Conc. [l] in µg/m³ 24-hour	Sulfate [h] %Samples Exceeding State Standard ≥ 25 µg/m³ 24-hour
LOS ANGELES COUNTY																					
1	Central LA	70087	087	57	78	0	5(9)	33.3	324	64.2	51.2	20(0.6)	0	16.8	58	194	73.5				
2	Northwest Coastal LA County	70091	091	--	--	--	--	--	--	--	--	--	--	--	57	180	57.6				
3	Southwest Coastal LA County	70111	820	56	96	0	2(4)	27.7	--	--	--	--	--	--	55	286	51.8				
4	South Coastal LA County 1	70072	072	58	75+	0+	5(9)+	30.2+	332	82.9	40.8	12(3.6)	1(0.3)	14.6	59	732	76.5				
4	South Coastal LA County 2	70110	077	57	123+	0+	17(30)+	41.7+	326	68.0	33.7	6(1.8)	1(0.3)	13.7	58	694	79.4				
6	West San Fernando Valley	70074	074	--	--	--	--	--	95	43.3	33.4	1(1.1)	0	13.1	--	--	--				
7	East San Fernando Valley	70069	069	55	109	0	11(20)	40.0	98	56.5	47.7	9(9.2)	0	16.8	--	--	--				
8	West San Gabriel Valley	70088	088	--	--	--	--	--	108	68.9	45.4	3(2.8)	1(0.9)	14.3	56	123	46.3				
9	East San Gabriel Valley 1	70060	060	57	83+	0+	11(19)+	35.6+	292*	63.8	49.3	19(6.5)	0	15.9	58	243	77.8				
9	East San Gabriel Valley 2	70591	591	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
10	Pomona/Walnut Valley	70075	075	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
11	South San Gabriel Valley	70185	085	--	--	--	--	--	101	63.6	49.5	5(5.0)	0	16.7	55	196	76.0				
12	South Central LA County	70084	084	--	--	--	--	--	106	49.0	46.1	4(3.8)	0	15.9	59	327	78.8				
13	Santa Clarita Valley	70090	090	58	131+	0+	5(9)+	29.9+	--	--	--	--	--	--	--	--	--				
ORANGE COUNTY																					
16	North Orange County	30177	3177	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
17	Central Orange County	30178	3176	59	75+	0+	5(9)+	31.0+	336	79.4	46.5	14(4.2)	1(0.3)	14.5	--	--	--				
18	North Coastal Orange County	30195	3195	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
19	Saddleback Valley	30002	3812	58	74	0	3(5)	23.0	98	46.9	35.0	2(2.0)	0	11.3	--	--	--				
RIVERSIDE COUNTY																					
22	Norco/Corona	33155	4155	59	93+	0+	10(17)+	39.6+	--	--	--	--	--	--	--	--	--				
23	Metropolitan Riverside County 1	33144	4144	116	118+	0+	66(51)+	54.7+	295*	75.7	54.3	33(11.2)	3(1.0)	19.1	57	237	111.0				
23	Metropolitan Riverside County 2	33146	4146	--	--	--	--	--	101	68.6	57.3	8(7.9)	1(1.0)	18.1	60	674	88.9				
23	Mira Loma	33165	5214	56	142	0	41(73)	68.5	110	69.7	60.1	13(11.8)	1(0.9)	21.0	--	--	--				
24	Perris Valley	33149	4149	59	120+	0+	32(54)+	54.8+	--	--	--	--	--	--	--	--	--				
25	Lake Elsinore	33158	4158	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
29	Banning Airport	33164	4164	49*	78	0	7(14)	33.3	--	--	--	--	--	--	--	--	--				
30	Coachella Valley 1**	33137	4137	55	83	0	6(11)	30.5	104	32.5	20.5	0	0	8.7	--	--	--				
30	Coachella Valley 2**	33155	4157	87*	146+	0+	51(59)+	53.5+	97	26.8	26.5	0	0	9.8	--	--	--				
SAN BERNARDINO COUNTY																					
32	Northwest San Bernardino Valley	36175	5175	--	--	--	--	--	--	--	--	--	--	--	60	206	63.5				
33	Southwest San Bernardino Valley	36025	5817	58	115+	0+	14(24)+	43.4+	102	72.8	53.0	6(5.9)	1(1.0)	17.9	--	--	--				
34	Central San Bernardino Valley 1	36197	5197	58	111+	0+	33(57)+	54.9+	107	77.5	64.9	10(9.3)	2(1.9)	19.0	58	242	96.2				
34	Central San Bernardino Valley 2	36203	5203	58	136+	0+	28(48)+	51.4+	99	72.1	68.4	11(11.1)	3(3.0)	18.3	59	536	106.9				
35	East San Bernardino Valley	36204	5204	60	97	0	19(32)	39.7	--	--	--	--	--	--	--	--	--				
37	Central San Bernardino Mountains	36181	5181	54	89	0	2(4)	27.2	--	--	--	--	--	--	--	--	--				
38	East San Bernardino Mountains	36001	5818	--	--	--	--	--	54	45.4	34.0	1(1.9)	0	10.4	--	--	--				
DISTRICT MAXIMUM					146+	0+	66+	68.5+		82.9	68.4	33	3	21.0		732	111.0				
SOUTH COAST AIR BASIN					142+	0+	79+	68.5+		82.9	68.4	48	8	21.0		732	111.0				

µg/m³ - Micrograms per cubic meter of air. AAM = Annual Arithmetic Mean -- - Pollutant not monitored.

* Less than 12 full months of data; may not be representative. ** Salton Sea Air Basin.

f) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

g) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

h) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.

i) - Federal annual PM10 standard (AAM > 50 µg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 µg/m³.

j) - U.S. EPA has revised the federal 24-hour PM2.5 standard from 65 µg/m³ to 35 µg/m³; effective December 17, 2006.

k) - Federal PM2.5 standard is annual average (AAM) > 15 µg/m³. State standard is annual average (AAM) > 12 µg/m³.

l) - Federal lead standard is quarterly average > 1.5 µg/m³; and state standard is monthly average ≥ 1.5 µg/m³. Lead and sulfate data analysis is incomplete and data is not available at this time.

\+ - The following PM10 data samples were excluded from compliance consideration in accordance with the EPA Exceptional Event Regulation: 210 and 157 ug/m3 on March 22 and April 6, respectively, at Coachella Valley 2 (high wind events); 167 ug/m3 on April 12 at Perris Valley (high wind event); 165 and 155 ug/m3 on July 5 at East San Gabriel 1 and Central San Bernardino Valley 1, respectively (fireworks displays); and high concentration throughout the District on October 21, with a maximum concentration of 559 ug/m3 at Metropolitan Riverside County 1 (high wind and wildfire event).

2008 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2008

Source/Receptor Area No.	Location	Station No. State Code	Station No. District Code	Carbon Monoxide [a] No. Days of Data	CO Max. Conc. in ppm 1-hour	CO Max Conc. in ppm 8-hour	Ozone No. Days of Data	O3 Max. Conc. in ppm 1-hour	O3 Max. Conc. in ppm 8-hour	O3 Fourth High Conc. ppm 8-hour	O3 No. Days Standard Exceeded: Health Advisory ≥ 0.150 ppm 1-hour	Federal [b] > 0.12 ppm 1-hour	Federal [b] > 0.08 ppm 8-hour	Federal [b] > 0.075 ppm 8-hour	State [c] > 0.09 ppm 1-hour	State [c] > 0.070 ppm 8-hour	Nitrogen Dioxide [d] No. Days of Data	NO2 Max Conc. in ppm 1-hour	NO2 Annual Average AAM Conc. ppm	Sulfur Dioxide [e] No. Days of Data	SO2 Max. Conc. in ppm 1-hour	SO2 Max. Conc. in ppm 24-hour	SO2 Annual Average AAM Conc. ppm
LOS ANGELES COUNTY																							
1	Central LA	70087	087	366	3	2.1	356	0.109	0.090	0.073	0	0	1	3	3	7	343	0.12	0.0275	366	0.01	0.002	0.0003
2	Northwest Coastal LA County	70091	091	366	3	2.0	366	0.11	0.097	0.073	0	0	1	2	3	8	364	0.09	0.0184	--	--	--	--
3	Southwest Coastal LA County	70111	820	358	4	2.5	360	0.086	0.075	0.065	0	0	0	0	0	1	359	0.10	0.0143	357	0.02	0.005	0.0014
4	South Coastal LA County 1	70072	072	366	3	2.6	366	0.093	0.074	0.064	0	0	0	0	0	1	366	0.13	0.0208	366	0.09	0.012	0.0022
4	South Coastal LA County 2	70110	077	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6	West San Fernando Valley	70074	074	366	4	2.9	366	0.123	0.103	0.095	0	0	14	25	23	40	366	0.09	0.0180	--	--	--	--
7	East San Fernando Valley	70069	069	366	3	2.6	366	0.133	0.109	0.092	0	1	8	17	20	35	364	0.11	0.0285	366	0.01	0.003	0.0008
8	West San Gabriel Valley	70088	088	366	3	2.1	366	0.122	0.100	0.091	0	0	6	16	16	26	365	0.11	0.0235	--	--	--	--
9	East San Gabriel Valley 1	70060	060	366	2	1.6	366	0.135	0.111	0.101	0	7	14	28	34	39	366	0.10	0.0230	--	--	--	--
9	East San Gabriel Valley 2	70591	591	366	3	3.0	366	0.156	0.118	0.112	2	12	25	45	48	61	366	0.10	0.0182	--	--	--	--
10	Pomona/Walnut Valley	70075	075	366	3	2.0	366	0.141	0.110	0.100	0	5	19	35	32	47	366	0.11	0.0302	--	--	--	--
11	South San Gabriel Valley	70185	085	357	3	2.1	366	0.107	0.093	0.077	0	0	1	5	7	13	341	0.10	0.0263	--	--	--	--
12	South Central LA County	70084	084	310*	6*	4.3*	310*	0.078*	0.060*	0.055*	0*	0*	0*	0*	0*	0*	305*	0.12*	0.0301*	--	--	--	--
13	Santa Clarita Valley	70090	090	363	2	1.1	363	0.160	0.131	0.108	2	8	35	60	54	81	363	0.07	0.0165	--	--	--	--
ORANGE COUNTY																							
16	North Orange County	30177	3177	366	5	2.9	366	0.104	0.084	0.078	0	0	0	5	7	15	361	0.09	0.0206	--	--	--	--
17	Central Orange County	30178	3176	366	4	3.6	366	0.105	0.086	0.076	0	0	1	4	2	10	366	0.09	0.0203	--	--	--	--
18	North Coastal Orange County	30195	3195	366	3	2.0	366	0.094	0.079	0.075	0	0	0	3	0	6	365	0.08	0.0132	366	0.01	0.003	0.0011
19	Saddleback Valley	30002	3812	365	2	1.1	365	0.118	0.104	0.092	0	0	6	15	9	25	--	--	--	--	--	--	--
RIVERSIDE COUNTY																							
22	Norco/Corona	33155	4155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
23	Metropolitan Riverside County 1	33144	4144	366	3	2.0	366	0.146	0.116	0.111	0	8	38	64	54	88	366	0.09	0.0192	366	0.01	0.003	0.0009
23	Metropolitan Riverside County 2	33146	4146	366	7	2.0	--	--	--	--	--	--	--	--	--	--	70*	0.09*	0.0258*	--	--	--	--
23	Mira Loma	33165	5214	366	3	1.9	366	0.135	0.107	0.104	0	4	23	47	38	62	366	0.10	0.0174	--	--	--	--
24	Perris Valley	33149	4149	--	--	--	366	0.142	0.114	0.106	0	4	41	77	65	94	--	--	--	--	--	--	--
25	Lake Elsinore	33158	4158	365	1	1.0	365	0.139	0.118	0.108	0	6	32	69	49	92	362	0.06	0.0129	--	--	--	--
29	Banning Airport	33164	4164	--	--	--	365	0.149	0.120	0.108	0	10	45	74	57	95	366	0.08	0.0128	--	--	--	--
30	Coachella Valley 1**	33137	4137	366	1	0.6	366	0.11	0.101	0.098	0	0	20	51	26	70	366	0.05	0.0093	--	--	--	--
30	Coachella Valley 2**	33155	4157	--	--	--	355	0.12	0.092	0.090	0	0	11	27	11	44	--	--	--	--	--	--	--
SAN BERNARDINO COUNTY																							
32	Northwest San Bernardino Valley	36175	5175	365	2	1.6	365	0.155	0.122	0.111	2	9	30	50	51	65	365	0.09	0.0235	--	--	--	--
33	Southwest San Bernardino Valley	36025	5817	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34	Central San Bernardino Valley 1	36197	5197	363	2	1.9	364	0.162	0.124	0.111	1	8	35	58	55	82	364	0.10	0.0207	364	0.01	0.003	0.0018
34	Central San Bernardino Valley 2	36203	5203	366	2	1.8	366	0.157	0.122	0.113	2	11	43	62	62	90	366	0.09	0.0217	--	--	--	--
35	East San Bernardino Valley	36204	5204	--	--	--	366	0.154	0.120	0.112	1	12	50	75	72	100	--	--	--	--	--	--	--
37	Central San Bernardino Mountains	36181	5181	--	--	--	362	0.176	0.126	0.120	2	16	67	97	78	115	--	--	--	--	--	--	--
38	East San Bernardino Mountains	36001	5818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
DISTRICT MAXIMUM				366	7	4.3	366	0.176	0.131	0.120	2	17	75	97	79	115		0.13	0.0302		0.09	0.012	0.0022
SOUTH COAST AIR BASIN					7	4.3		0.176	0.131	0.120	7	28	80	120	102	140		0.13	0.0302		0.09	0.012	0.0022

ppm - Parts Per Million parts of air, by volume. AAM = Annual Arithmetic Mean -- - Pollutant not monitored.

* Less than 12 full months of data; may not be representative. ** Salton Sea Air Basin.

a) - The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded, either.

b) - The federal 1-hour ozone standard was revoked and replaced by the 8-hour average ozone standard effective June 15, 2005. U.S. EPA has revised the federal 8-hour ozone standard from 0.084 ppm to 0.075 ppm, effective May 27, 2008.

c) - The 8-hour average California ozone standard of 0.070 ppm was established effective May 17, 2006.

d) - The federal standard is annual arithmetic mean NO_2 > 0.0534 ppm. California Air Resources Board has revised the NO_2 1-hour state standard from 0.25 ppm to 0.18 ppm and has established a new annual standard of 0.030 ppm, effective March 20, 2008.

e) - The state standards are 1-hour average SO_2 > 0.25 ppm and 24-hour average SO_2 > 0.04 ppm. The federal standards are annual arithmetic mean SO_2 > 0.03 ppm, 24-hour average > 0.14 ppm, and 3-hour average > 0.50 ppm. The federal and state SO_2 standards were not exceeded.

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182
www.aqmd.gov

The map showing the locations of source/receptor areas can be accessed via the Internet at http://www.aqmd.gov/telemweb/areamap.aspx. Locations of source/receptor areas are shown on the "South Coast Air Quality Management District Air Monitoring Areas" map available free of charge from SCAQMD Public Information.

2008 AIR QUALITY
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

2008

Source/Receptor Area No.	Location	Station No. State Code	Station No. District Code	Suspended Particulates PM10 [f] No. Days of Data	Max. Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Standards Federal > 150 µg/m³ 24-hour	No. (%) Samples Exceeding Standards State > 50 µg/m³ 24-hour	Annual Average Conc. [i] (AAM) µg/m³	Fine Particulates PM2.5 [g] No. Days of Data	Max. Conc. in µg/m³ 24-hour	98th Percentile Conc. in µg/m³ 24-hour	No. (%) Samples Exceeding Federal Standard Current > 35 [j] µg/m³ 24-hour	No. (%) Samples Exceeding Federal Standard Old > 65 [j] µg/m³ 24-hour	Annual Average Conc. [k] (AAM) µg/m³	Particulates TSP [h] No. Days of Data	Max. Conc. in µg/m³ 24-hour	Annual Average Conc. (AAM) µg/m³	Lead [h] Max. Monthly Average Conc. [l] µg/m³	Max. Quarterly Average Conc. [l] µg/m³	Sulfate [h] Max. Conc. in µg/m³ 24-hour	%Samples Exceeding State Standard ≥ 25 µg/m³ 24-hour
LOS ANGELES COUNTY																					
1	Central LA	70087	087	42*	66*	0*	3(7%)*	32.2*	337	78.3	40.4	10(3.0)	1(0.3)	15.7							
2	Northwest Coastal LA County	70091	091	--	--	--	--	--	--	--	--	--	--	--							
3	Southwest Coastal LA County	70111	820	60	50	0	0(0%)	25.6	--	--	--	--	--	--							
4	South Coastal LA County 1	70072	072	57	62	0	1(2%)	29.1	346	57.2	38.9	8(2.3)	0	14.2							
4	South Coastal LA County 2	70110	077	58	81	0	9(16%)	35.8	349	60.9	36.4	7(2.0)	0	13.7							
6	West San Fernando Valley	70074	074	--	--	--	--	--	113	50.5	26.2	2(1.8)	0	11.9							
7	East San Fernando Valley	70069	069	54	66	0	7(13%)	35.6	116	57.5	34.6	2(1.7)	0	14.1							
8	West San Gabriel Valley	70088	088	--	--	--	--	--	118	66.0	32.1	2(1.7)	1(0.9)	12.9							
9	East San Gabriel Valley 1	70060	060	49	98	0	13(27%)	35.3	321	53.1	34.8	5(1.6)	0	14.1							
9	East San Gabriel Valley 2	70591	591	--	--	--	--	--	--	--	--	--	--	--							
10	Pomona/Walnut Valley	70075	075	--	--	--	--	--	--	--	--	--	--	--							
11	South San Gabriel Valley	70185	085	--	--	--	--	--	114.	47.3	38.0	4(3.5)	0	15.0							
12	South Central LA County	70084	084	--	--	--	--	--	118	44.2	36.5	3(2.5)	0	15.5							
13	Santa Clarita Valley	70090	090	57	91	0	2(4%)	25.8	--	--	--	--	--	--							
ORANGE COUNTY																					
16	North Orange County	30177	3177	--	--	--	--	--	--	--	--	--	--	--							
17	Central Orange County	30178	3176	58	61	0	3(5%)	28.6	336	67.9	39.4	13(3.9)	1(0.3)	13.7							
18	North Coastal Orange County	30195	3195	--	--	--	--	--	--	--	--	--	--	--							
19	Saddleback Valley	30002	3812	55	42	0	0(0%)	22.6	120	32.6	27.1	0	0	10.4							
RIVERSIDE COUNTY																					
22	Norco/Corona	33155	4155	61	86	0	9(15%)	34.4	--	--	--	--	--	--							
23	Metropolitan Riverside County 1	33144	4144	119	115	0	49(41%)	47.0	348	57.7	41.5	14(4.0)	0	16.4							
23	Metropolitan Riverside County 2	33146	4146	61	135	0	35(57%)	57.4	116	43.0	39.1	4(3.4)	0	13.4							
23	Mira Loma	33165	5214	--	--	--	--	--	111	50.9	47.1	10(9.0)	0	18.2							
24	Perris Valley	33149	4149	45*	85*	0*	12(27%)*	38.3*	--	--	--	--	--	--							
25	Lake Elsinore	33158	4158	--	--	--	--	--	--	--	--	--	--	--							
29	Banning Airport	33164	4164	56	51	0	1(2%)	26.1	--	--	--	--	--	--							
30	Coachella Valley 1**	33137	4137	52	75	0	4(8%)	24.0	110	18.1	17.1	0	0	7.2							
30	Coachella Valley 2**	33157	4157	114	128	0	27(24%)	39.9	113	21.6	18.8	0	0	8.4							
SAN BERNARDINO COUNTY																					
32	Northwest San Bernardino Valley	36175	5175	--	--	--	--	--	--	--	--	--	--	--							
33	Southwest San Bernardino Valley	36025	5817	62	90	0	15(24%)	38.8	113	54.2	45.0	6(5.3)	0	15.8							
34	Central San Bernardino Valley 1	36197	5197	60	75	0	14(23%)	40.3	112	49.0	47.1	6(5.4)	0	15.4							
34	Central San Bernardino Valley 2	36203	5203	60	76	0	19(32%)	42.7	110	43.5	40.1	3(2.7)	0	13.5							
35	East San Bernardino Valley	36204	5204	61	58	0	4(7%)	29.0	--	--	--	--	--	--							
37	Central San Bernardino Mountains	36181	5181	46	46	0	0(0%)	25.0	--	--	--	--	--	--							
38	East San Bernardino Mountains	36001	5818	--	--	--	--	--	58	36.8	33.3	1(1.7)	0	9.2							
DISTRICT MAXIMUM					135	0	59	57.4		78.3	47.1	14	1	18.2							
SOUTH COAST AIR BASIN					135	0	68	57.4		78.3	47.1	28	2	18.2							

µg/m³ - Micrograms per cubic meter of air. AAM = Annual Arithmetic Mean -- - Pollutant not monitored.

* Less than 12 full months of data; may not be representative. ** Salton Sea Air Basin.

f) - PM10 samples were collected every 6 days at all sites except for Station Numbers 4144 and 4157 where samples were collected every 3 days.

g) - PM2.5 samples were collected every 3 days at all sites except for the following sites: Station Numbers 060, 072, 077, 087, 3176, and 4144 where samples were taken every day, and Station Number 5818 where samples were taken every 6 days.

h) - Total suspended particulates, lead, and sulfate were determined from samples collected every 6 days by the high volume sampler method, on glass fiber filter media.

i) - Federal annual PM10 standard (AAM > 50 µg/m³) was revoked effective December 17, 2006. State standard is annual average (AAM) > 20 µg/m³.

j) - U.S. EPA has revised the federal 24-hour PM2.5 standard from 65 µg/m³ to 35 µg/m³; effective December 17, 2006.

k) - Federal PM2.5 standard is annual average (AAM) > 15 µg/m³. State standard is annual average (AAM) > 12 µg/m³.

l) - Federal lead standard is quarterly average > 1.5 µg/m³; and state standard is monthly average ≥ 1.5 µg/m³. U.S. EPA has established the federal standard of 0.15 ug/m3, rolling 3-month average, as of October 15, 2008.

Appendix C

Construction Emission Calculations and Output Files

EMFAC2007 RATES (grams per mile)							
Vehicle Type	**ROG**	**CO**	**NOX**	**SOX**	**PM10**	**PM2.5**	**CO2**
Year 2010							
Haul Truck @ 30 MPH	1.425	7.78	15.071	0.018	0.588	0.541	1867.83
Water Truck @ 5 MPH	14.523	29.052	37.698	0.036	2.646	2.434	3789.975
Cars @30 MPH	0.095	2.274	0.197	0.003	0.01	0.009	340.644
Light-Duty Trucks @ 30MPH	0.194	3.793	0.333	0.004	0.013	0.012	422.952
Assumptions:							
Construction Year	2010-2012						
Season	Annual						
Temperature	63^{o}F						

EQUIPMENT EMISSION FACTORS (pounds per hour)							
YEAR 2010							
	ROG	**CO**	**NOX**	**SOX**	**PM10**	**PM2.5**	**CO2**
Backhoe	0.1021	0.3930	0.6747	0.0008	0.0521	0.0479	66.8
Dozer	0.3379	1.4127	2.9891	0.0025	0.1288	0.1185	239
Fork Lift	0.0686	0.2319	0.5161	0.0006	0.0281	0.0258	54.4
Loader, Front End	0.1440	0.5078	1.1537	0.0012	0.0651	0.0599	109
Generator	0.0961	0.3293	0.6440	0.0007	0.0396	0.0365	61.0
Grader	0.1723	0.6314	1.4338	0.0015	0.0753	0.0693	133
Grinder/Heavy Equip.	0.1773	0.5556	1.6150	0.0015	0.0715	0.0658	141
Paver	0.1774	0.5644	0.9868	0.0009	0.0709	0.0652	77.9
Roller	0.1176	0.4212	0.7749	0.0008	0.0547	0.0503	67.1

SOURCE: OFFROAD 2007

Construction - UNMITIGATED

Proposed Project/Action Alternative ~ 4A West - Construction Emissions

EQUIPMENT			Equipment Emissions (ppd)						
	# Equipment	Hours/Day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics									
Dozer	1	8	2.70	11.30	23.91	0.02	1.03	0.95	1,912.81
Loader, Front End	1	8	1.15	4.06	9.23	0.01	0.52	0.48	868.90
TOTAL EQUIPMENT	***2***		***3.86***	***15.36***	***33.14***	***0.03***	***1.55***	***1.43***	2,781.71
Grinding of Asphalt/Concrete									
Dozer	1	4	1.35	5.65	11.96	0.01	0.52	0.47	956.41
Fork Lift	1	2	0.14	0.46	1.03	0.00	0.06	0.05	108.79
Loader, Front End	1	8	1.15	4.06	9.23	0.01	0.52	0.48	868.90
Grinder/Heavy Equip.	1	8	1.42	4.44	12.92	0.01	0.57	0.53	1,129.55
TOTAL EQUIPMENT	***4***		***4.06***	***14.62***	***35.14***	***0.03***	***1.66***	***1.53***	***3,063.65***
Rough Grading									
Dozer	1	4	1.35	5.65	11.96	0.01	0.52	0.47	956.41
Loader, Front End	1	4	0.58	2.03	4.61	0.00	0.26	0.24	434.45
Grader	1	4	0.69	2.53	5.74	0.01	0.30	0.28	530.97
TOTAL EQUIPMENT	***3***		***2.62***	***10.21***	***22.31***	***0.02***	***1.08***	***0.99***	***1,921.83***
Fine Grading									
Grader	1	8	1.38	5.05	11.47	0.01	0.60	0.55	1,061.94
TOTAL EQUIPMENT	***1***		***1.38***	***5.05***	***11.47***	***0.01***	***0.60***	***0.55***	***1,061.94***
Import Base Material/Dig Footings									
Backhoe	1	8	0.82	3.14	5.40	0.01	0.42	0.38	534.44
Loader, Front End	1	8	1.15	4.06	9.23	0.01	0.52	0.48	868.90
TOTAL EQUIPMENT	***2***		***1.97***	***7.21***	***14.63***	***0.02***	***0.94***	***0.86***	***1,403.34***
Form Foundations									
Fork Lift	1	1	0.07	0.23	0.52	0.00	0.03	0.03	54.40
Generator	1	4	0.38	1.32	2.58	0.00	0.16	0.15	243.97
TOTAL EQUIPMENT	***2***		***0.45***	***1.55***	***3.09***	***0.00***	***0.19***	***0.17***	***298.37***
Pour Foundations and Slabs									
Generator	1	8	0.77	2.63	5.15	0.01	0.32	0.29	487.94
TOTAL EQUIPMENT	***1***		***0.77***	***2.63***	***5.15***	***0.01***	***0.32***	***0.29***	***487.94***
Erection/Plumbing/Electric									
Fork Lift	1	2	0.14	0.46	1.03	0.00	0.06	0.05	108.79
Generator	1	4	0.38	1.32	2.58	0.00	0.16	0.15	243.97
TOTAL EQUIPMENT	***2***		***0.52***	***1.78***	***3.61***	***0.00***	***0.21***	***0.20***	***352.76***
Base and Paving									
Loader, Front End	1	1	0.14	0.51	1.15	0.00	0.07	0.06	108.61
Grader	1	2	0.34	1.26	2.87	0.00	0.15	0.14	265.49
Paver	1	8	1.42	4.52	7.89	0.01	0.57	0.52	623.48
Roller	1	8	0.94	3.37	6.20	0.01	0.44	0.40	536.42
TOTAL EQUIPMENT	***4***		***1.91***	***6.29***	***11.92***	***0.01***	***0.78***	***0.72***	***997.58***

WORKER VEHICLES			Worker Vehicle Emissions (ppd)						
	# of Workers	Total VMT/Day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics	**2**	**53.20**	**0.02**	**0.36**	**0.03**	**0.000**	**0.001**	**0.001**	**44.7**
Cars	*1.0*	*26.60*	*0.01*	*0.13*	*0.01*	*0.000*	*0.001*	*0.001*	*20.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Grinding of Asphalt/Concrete	**5**	**133.00**	**0.05**	**0.93**	**0.08**	**0.001**	**0.003**	**0.003**	**114.3**
Cars	*2.0*	*53.20*	*0.01*	*0.27*	*0.02*	*0.000*	*0.001*	*0.001*	*39.9*
Trucks	*3.0*	*79.80*	*0.03*	*0.67*	*0.06*	*0.001*	*0.002*	*0.002*	*74.3*
Rough Grading	**3**	**79.80**	**0.03**	**0.58**	**0.05**	**0.001**	**0.002**	**0.002**	**69.5**
Cars	*1.0*	*26.60*	*0.01*	*0.13*	*0.01*	*0.000*	*0.001*	*0.001*	*20.0*
Trucks	*2.0*	*53.20*	*0.02*	*0.44*	*0.04*	*0.000*	*0.002*	*0.001*	*49.6*
Fine Grading	**1**	**26.60**	**0.01**	**0.22**	**0.02**	**0.000**	**0.001**	**0.001**	**24.8**
Cars	*0.0*	*0.00*	*0.00*	*0.00*	*0.00*	*0.000*	*0.000*	*0.000*	*0.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Import Base Material/Dig Footings	**2**	**53.20**	**0.02**	**0.36**	**0.03**	**0.000**	**0.001**	**0.001**	**44.7**
Cars	*1.0*	*26.60*	*0.01*	*0.13*	*0.01*	*0.000*	*0.001*	*0.001*	*20.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Form Foundations	**2**	**53.20**	**0.02**	**0.36**	**0.03**	**0.000**	**0.001**	**0.001**	**44.7**
Cars	*1.0*	*26.60*	*0.01*	*0.13*	*0.01*	*0.000*	*0.001*	*0.001*	*20.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Pour Foundations and Slabs	**1**	**26.60**	**0.01**	**0.22**	**0.02**	**0.000**	**0.001**	**0.001**	**24.8**
Cars	*0.0*	*0.00*	*0.00*	*0.00*	*0.00*	*0.000*	*0.000*	*0.000*	*0.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Erection/Plumbing/Electric	**2**	**53.20**	**0.02**	**0.36**	**0.03**	**0.000**	**0.001**	**0.001**	**44.7**
Cars	*1.0*	*26.60*	*0.01*	*0.13*	*0.01*	*0.000*	*0.001*	*0.001*	*20.0*
Trucks	*1.0*	*26.60*	*0.01*	*0.22*	*0.02*	*0.000*	*0.001*	*0.001*	*24.8*
Base and Paving	**5**	**133.00**	**0.05**	**0.93**	**0.08**	**0.001**	**0.003**	**0.003**	**114.3**
Cars	*2.0*	*53.20*	*0.01*	*0.27*	*0.02*	*0.000*	*0.001*	*0.001*	*39.9*
Trucks	*3.0*	*79.80*	*0.03*	*0.67*	*0.06*	*0.001*	*0.002*	*0.002*	*74.3*

HEAVY-DUTY TRUCK TRIPS				Heavy-duty Truck Emissions (ppd)						
	Trips per Day	Round Trip Length	VMT/day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics (Disposal)	4	30	120	0.38	2.06	3.98	0.00	0.16	0.14	493.70
Removal of Organics (Delivery)	2	20	40	0.13	0.69	1.33	0.00	0.05	0.05	164.57
Grinding of Asphalt/Concrete	2	20	40	0.13	0.69	1.33	0.00	0.05	0.05	164.57
Rough Grading	2	20	40	0.13	0.69	1.33	0.00	0.05	0.05	164.57
Fine Grading	0	30	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Import Base Material/Dig Footings	2	20	40	0.13	0.69	1.33	0.00	0.05	0.05	164.57
Form Foundations	4	20	80	0.25	1.37	2.66	0.00	0.10	0.10	329.13
Pour Foundations/Slabs	50	30	1,500	4.71	25.70	49.79	0.06	1.94	1.79	6,171.24
Erection/Plumbing/Electric	2	20	40	0.13	0.69	1.33	0.00	0.05	0.05	164.57
Base and Paving	0	20	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WATER TRUCK USAGE [1]				Heavy-duty Truck Emissions (ppd)						
	# of Water Trucks	Hours of Operation	VMT/day	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics	1	8.00	40.00	1.28	2.56	3.32	0.0032	0.233	0.214	333.92
Grinding of Asphalt/Concrete	1	6.00	30.00	0.96	1.92	2.49	0.0024	0.175	0.161	250.44
Rough Grading	1	6.00	30.00	0.96	1.92	2.49	0.0024	0.175	0.161	250.44
Fine Grading	1	8.00	40.00	1.28	2.56	3.32	0.0032	0.233	0.214	333.92
Import Base Material/Dig Footings	1	4.00	20.00	0.64	1.28	1.66	0.0016	0.117	0.107	166.96
Form Foundations	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74
Pour Foundations/Slabs	1	2.00	10.00	0.32	0.64	0.83	0.0008	0.058	0.054	83.48
Erection/Plumbing/Electric	1	1.00	5.00	0.16	0.32	0.42	0.0004	0.029	0.027	41.74
Base and Paving	1	2.00	10.00	0.32	0.64	0.83	0.0008	0.058	0.054	83.48

Proposed Project/Action Alternative ~ 4A West - Construction Emissions

FUGITIVE DUST	Max Daily Demo (ft^3)	PM10	PM2.5
Removal of Organics [2]	1,080	0.45	0.09
	Max Daily Grading (acres)	**PM10**	**PM2.5**
Grading [3]	3.00	0.3	0.1

Asphalt Paving [4]	Total Acres to be Paved	Paving Days (Schedule)	Acres Paved Per Day	ROG/Acre	ROG (ppd)
Paving	3	2	1.5	2.62	**3.93**

TOTAL EMISSIONS	Emissions (ppd)						
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics	**5.65**	**21.02**	**41.81**	**0.04**	**1.99**	**1.83**	**3,818.64**
On-Site	5.13	17.92	36.46	0.03	1.78	1.64	3,115.63
Off-Site	0.52	3.10	5.34	0.01	0.21	0.19	703.01
Grinding of Asphalt/Concrete	**5.51**	**18.80**	**39.87**	**0.04**	**1.95**	**1.80**	**3,676.40**
On-Site	5.34	17.18	38.46	0.04	1.90	1.75	3,397.57
Off-Site	0.17	1.62	1.41	0.00	0.06	0.05	278.83
Rough Grading	**3.73**	**13.39**	**26.18**	**0.03**	**1.31**	**1.20**	**2,406.35**
On-Site	3.58	12.13	24.80	0.02	1.25	1.15	2,172.27
Off-Site	0.15	1.26	1.38	0.00	0.05	0.05	234.09
Fine Grading	**2.67**	**7.83**	**14.81**	**0.02**	**0.84**	**0.77**	**1,420.64**
On-Site	2.66	7.61	14.79	0.02	0.84	0.77	1,395.86
Off-Site	0.01	0.22	0.02	0.00	0.00	0.00	24.78
Import Base Material	**2.75**	**9.53**	**17.65**	**0.02**	**1.11**	**1.02**	**1,779.61**
On-Site	2.61	8.49	16.29	0.02	1.05	0.97	1,570.30
Off-Site	0.14	1.04	1.36	0.00	0.05	0.05	209.31
Form Foundations	**0.88**	**3.60**	**6.19**	**0.01**	**0.32**	**0.30**	**713.98**
On-Site	0.61	1.87	3.51	0.00	0.22	0.20	340.11
Off-Site	0.27	1.73	2.69	0.00	0.10	0.10	373.87
Pour Foundations/Slabs	**5.81**	**29.20**	**55.80**	**0.07**	**2.32**	**2.13**	**6,767.45**
On-Site	1.09	3.27	5.98	0.01	0.38	0.35	571.42
Off-Site	4.72	25.93	49.81	0.06	1.94	1.79	6,196.03
Erection/Plumbing/Electric	**0.86**	**2.78**	**4.47**	**0.01**	**0.27**	**0.25**	**480.98**
On-Site	0.68	2.10	4.02	0.00	0.24	0.22	394.50
Off-Site	0.18	0.68	0.45	0.00	0.03	0.03	86.48
Base and Paving	**6.20**	**7.86**	**12.83**	**0.01**	**0.84**	**0.78**	**1,195.32**
On-Site	6.16	6.93	12.75	0.01	0.84	0.77	1,081.06
Off-Site	0.05	0.93	0.08	0.00	0.00	0.00	114.26
Regional Daily Maximum	**6**	**29**	**56**	**0**	**2.3**	**2.1**	
REGIONAL THRESHOLD	**75**	**550**	**100**	**150**	**150**	**55**	
IMPACT?	No	No	No	No	No	No	
On-Site Daily Maximum	**6**	**17.9**	**38.5**	**0**	**1.9**	**1.7**	
LOCALIZED THRESHOLD	**N/A**	**801.3**	**171.1**	**N/A**	**7.7**	**4.7**	
IMPACT?	N/A	No	No	N/A	No	No	

[1] Assumed water trucks would operate on site three hours each day during Grading phase at a rate of 5 mph (compliance with Rule 403). Assumed a one-hour operation period for all other phases.

[2] Used URBEMIS2007's rate for demolition dust. PM10 pounds/day = (0.00042 pounds/cubic feet) * (total cubic feet of material in one day). Maximum Daily Demolition = (haul truck trips per day) * (10 cubic yards/truck) * 27 [cubic yards to cubic feet conversion factor].

[3] Used SCAQMD's spreadsheet methodology - see worksheet "Fugitive Dust - Grading"

[4] Used UREBEMIS2007's asphalt paving calculations for ROG per acre paved. Acres to be paved was provided by project proponent.

OVERLAP EMISSIONS	Emissions (ppd)						
	ROG	CO	NOX	SOX	PM10	PM2.5	CO2
Removal of Organics + Erec/Plumb/Elec	**6.51**	**23.80**	**46.28**	**0.04**	**2.27**	**2.09**	4,299.62
On-Site	5.82	20.03	40.49	0.04	2.03	1.87	3,510.13
Off-Site	0.70	3.77	5.79	0.01	0.24	0.22	789.48
Grinding + Erec/Plumb/Elec	**6.37**	**21.58**	**44.34**	**0.04**	**2.23**	**2.05**	4,157.38
On-Site	6.02	19.28	42.48	0.04	2.14	1.97	3,792.07
Off-Site	0.35	2.29	1.86	0.00	0.09	0.08	365.31
Rough Grading + Erec/Plumb/Elec	**4.59**	**16.17**	**30.65**	**0.03**	**1.58**	**1.45**	2,887.34
On-Site	4.26	14.23	28.82	0.03	1.50	1.38	2,566.77
Off-Site	0.33	1.94	1.82	0.00	0.08	0.08	320.57
Fine Grading + Erec/Plumb/Elec	**3.53**	**10.61**	**19.28**	**0.02**	**1.11**	**1.02**	1,901.63
On-Site	3.34	9.71	18.81	0.02	1.08	0.99	1,790.37
Off-Site	0.19	0.90	0.47	0.00	0.03	0.03	111.26
Import + Erec/Plumb/Elec	**3.61**	**12.30**	**22.12**	**0.02**	**1.38**	**1.27**	2,260.59
On-Site	3.29	10.59	20.31	0.02	1.30	1.19	1,964.80
Off-Site	0.32	1.72	1.81	0.00	0.08	0.08	295.78
Foundation + Erec/Plumb/Elec	**1.74**	**6.37**	**10.66**	**0.01**	**0.60**	**0.55**	1,194.96
On-Site	1.29	3.97	7.53	0.01	0.46	0.42	734.61
Off-Site	0.44	2.40	3.13	0.00	0.14	0.12	460.35
Pour Found/Slab + Base/Paving	**12.01**	**37.06**	**68.62**	**0.08**	**3.16**	**2.91**	7,962.77
On-Site	7.25	10.20	18.73	0.02	1.22	1.12	1,652.48
Off-Site	4.76	26.86	49.90	0.06	1.95	1.79	6,310.28
Base/Pave + Erec/Plumb/Elec	**7.06**	**10.64**	**17.30**	**0.02**	**1.12**	**1.03**	1,676.30
On-Site	6.84	9.03	16.77	0.02	1.08	1.00	1,475.56
Off-Site	0.22	1.61	0.53	0.00	0.03	0.03	200.74
Organics + Erec/Plumb/Elec + Base/Pave	**12.72**	**31.66**	**59.10**	**0.06**	**3.11**	**2.86**	5,494.94
On-Site	11.97	26.95	53.23	0.05	2.87	2.64	4,591.19
Off-Site	0.74	4.71	5.87	0.01	0.24	0.22	903.74
Regional Daily Maximum	**13**	**37**	**69**	**0**	**3.2**	**2.9**	
REGIONAL THRESHOLD	**75**	**550**	**100**	**150**	**150**	**55**	
IMPACT?	No	No	No	No	No	No	
On-Site Daily Maximum	**12**	**27**	**53**	**0**	**2.9**	**2.6**	
LOCALIZED THRESHOLD	**N/A**	**801.3**	**171.1**	**N/A**	**7.7**	**4.7**	
IMPACT?	N/A	No	No	N/A	No	No	

Grading Fugitve Dust

Grading		Construction Activity	
		Grading	130,680 Square Feet[a]
Grading Schedule -	1	days[a]	

Fugitive Dust Parameters

Vehicle Speed (mph)[b]	Vehicle Miles Traveled
3	2.25

Fugitive Dust Stockpiling Parameters

Silt Content[c]	Precipitation Days[d]	Mean Wind Speed Percent[e]	TSP Fraction	Area[f] (acres)
6.9	10	0.80	0.5	0.11

Fugitive Dust Material Handling

Aerodynamic Particle Size Multiplier[g]	Mean Wind Speed (mph)[h]	Moisture Content[i]	Dirt Handled (cy)[a]	Dirt Handled (lbs./day)[j]
0.35	3	7.9	1,210	3,025,000

Incremental Increase in Fugitive Dust Emissions from Construction Operations

Equations:

Grading[k]: PM10 Emissions (lb/day) = 0.60 x 0.051 x mean vehicle speed$^{2.0}$ x VMT x (1 - control efficiency)

Storage Piles[l]: PM10 Emissions (lb/day) = 1.7 x (silt content/1.5) x ((365-precipitation days)/235) x wind speed percent/15 x TSP fraction x Area) x (1 - control efficiency)

Material Handling[m]: PM10 Emissions (lb/day) = (0.0032 x aerodynamic particle size multiplier x (wind speed (mph)/5)$^{1.3}$/(moisture content/2)$^{1.4}$ x dirt handled (lb/day)/2,000 (lb/ton) (1 - control efficiency)

Description	Control Efficiency %	Unmitigated PM10[n] lb/day	Unmitigated PM2.5 lb/day
Earthmoving	61	0.24	0.05
Storage Piles	61	0.01	0.00
Material Handling	61	0.05	0.01
Total		**0.30**	**0.06**

Notes:

a) Grading activity only. No export of materials.

b) Caterpillar Performance Handbook, Edition 33, October 2003 Operating Speeds, p 2-3.

c) USEPA, AP-42, July 1998, Table 11.9-3 Typical Values for Corection Factors Applicable to the Predictive Emission Factor Equations

d) Table A9-9-E2, SCAQMD CEQA Air Quality Handbook, 1993

e) Mean wind speed percent - percent of time mean wind speed exceeds 12 mph.

f) Assumed storage piles are 0.11 acres in size

g) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, p 13.2.4-3 Aerodynamic particle size multiplier for < 10 µm

h) Mean wind speed at the Downtown Los Angeles Wind Monitoring Station.

i) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, equation 2-13, p 2-28.

j) Assuming 1210 cubic yards of dirt handled [(1210 cyd x 2,500 lb/cyd)/1 days = 3,025,000 lb/day]

k) USEPA, AP-42, July 1998, Table 11.9-1, Equation for Site Grading ≤ 10 µm

l) USEPA, AP-42, Jan 1995, Section 13.2.4 Aggretate Handling and Storage Piles, Equation 1

m) USEPA, Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures, Sept 1992, EPA-450/2-92-004, Equation 2-12.

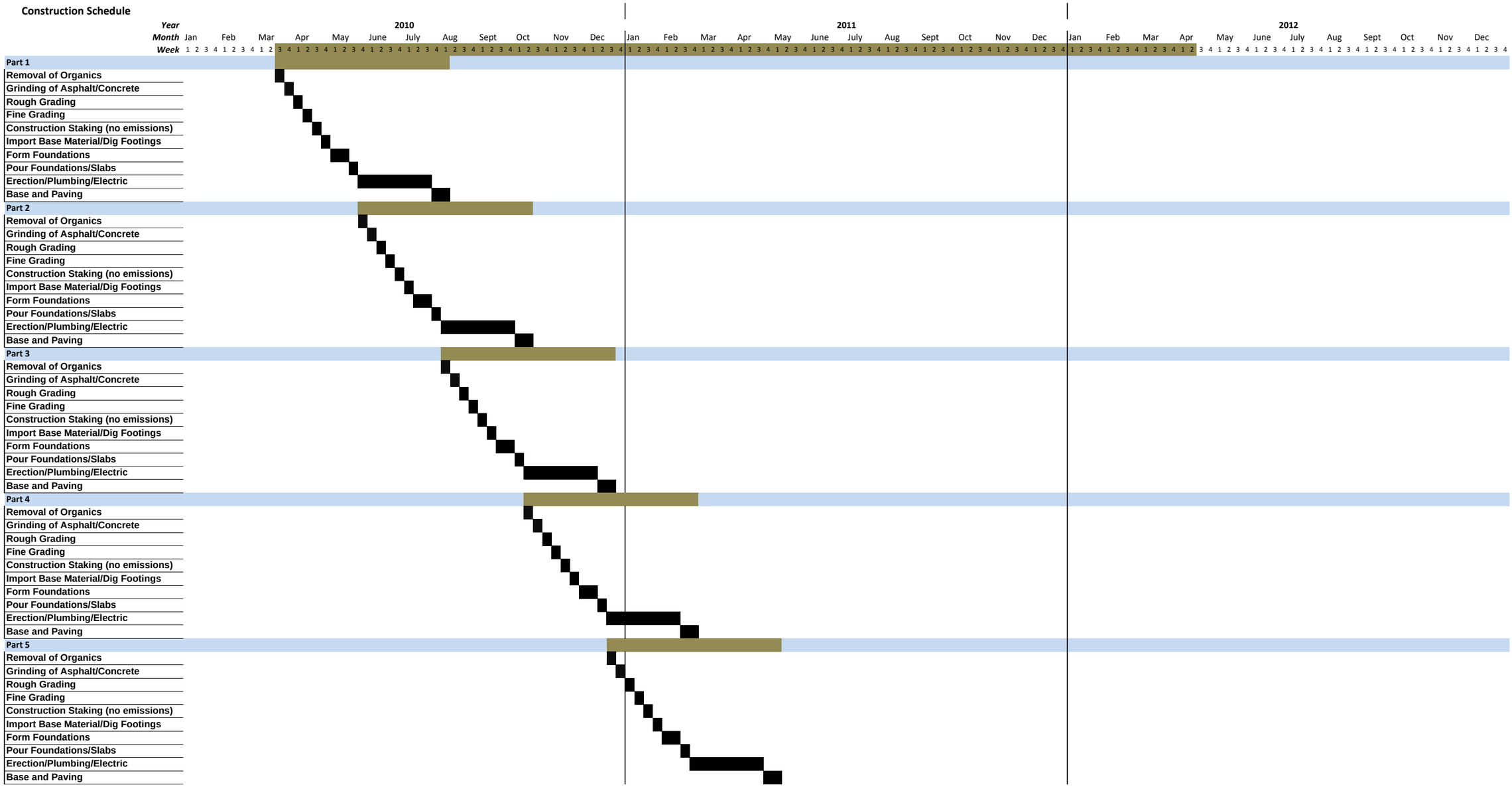
n) Includes watering at least three times a day per Rule 403 (61% control efficiency).

Construction - GHG

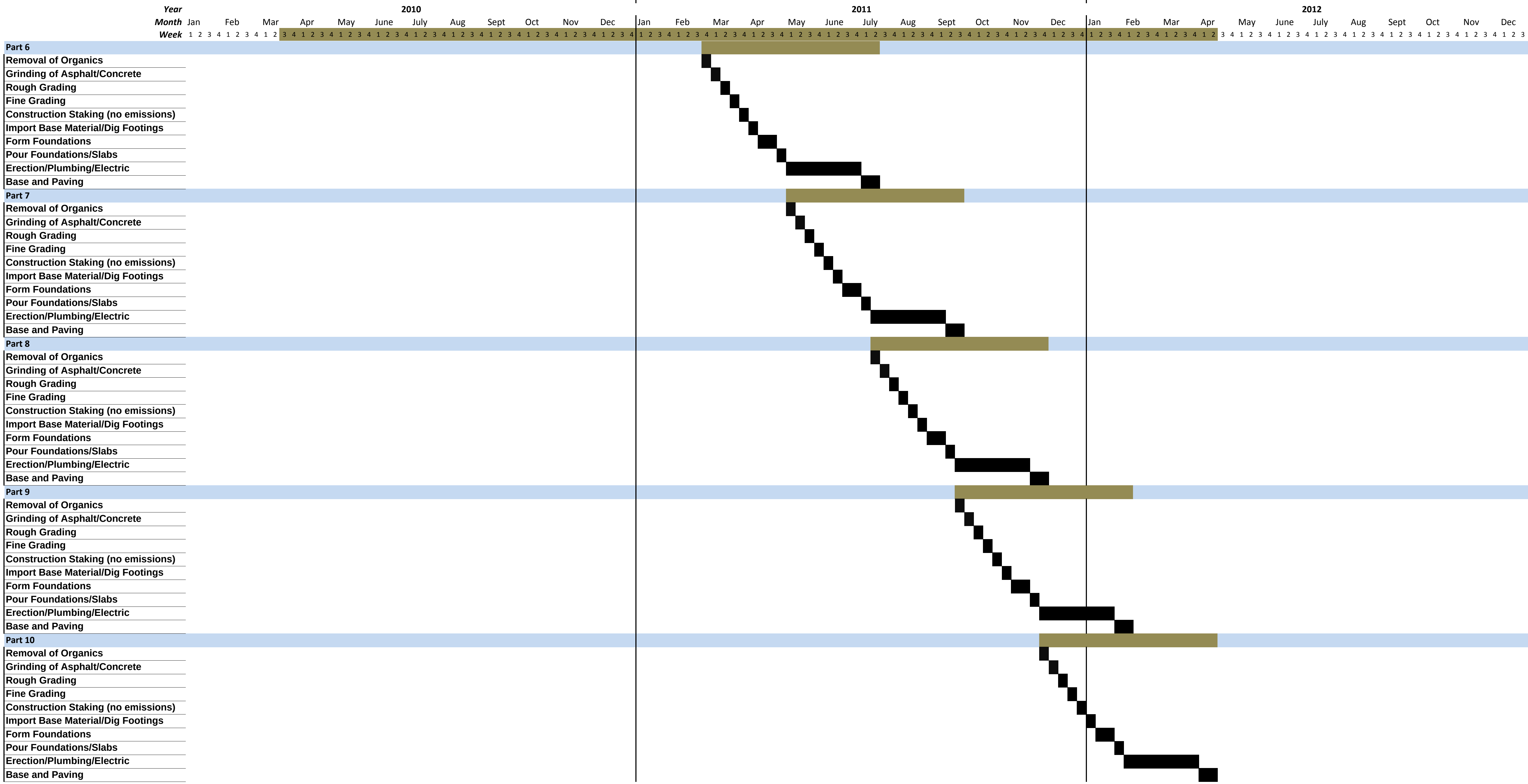
Proposed Project/Action Alternative ~ 4A West - Construction Emissions

	Days of Activity	CO2 (ppd)	CO2 (tpd)	CO2 (total)
Removal of Organics	1	3,818.64	1.91	1.91
Grinding of Asphalt/Concrete	5	3,676.40	1.84	9.19
Rough Grading	5	2,406.35	1.20	6.02
Fine Grading	1	1,420.64	0.71	0.71
Import Base Material	5	1,779.61	0.89	4.45
Form Foundations	10	713.98	0.36	3.57
Pour Foundations/Slabs	2	6,767.45	3.38	6.77
Erection/Plumbing/Electric	40	480.98	0.24	9.62
Base and Paving	10	1,195.32	0.60	5.98
			Total (for one, 3-acre project site)	**48.21**
			Total (for all construction activity)	**482.09**

Construction Schedule



Construction Schedule



Appendix D

SCAQMD Rule 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.

(10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

(11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

(14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(29) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Dairy farms.

(B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.

(C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(K) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling **(Only applicable to Commercial Poultry Ranches)**	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).