IV. ENVIRONMENTAL IMPACT ANALYSIS
C. AIR QUALITY

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

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

ENVIRONMENTAL SETTING

The Bundy Campus is located within the South Coast Air Basin (Basin). The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and climate.

Climate

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). Coastal areas have a more pronounced oceanic influence, and show less variability in annual minimum and maximum temperatures than inland areas. The Bundy Campus is located on the west side of the City of Los Angeles, which is in the western portion of the Basin. The climatological station closest to the Bundy Campus that monitors temperature is the Santa Monica Pier station (WRCC 2005), which is located approximately 3 miles west of the Bundy Campus. The annual average maximum temperature recorded from 1971 to 2000 at this station is 66.7°F, and the annual average minimum is 56.4°F. January and December are typically the coldest months in this area of the Basin.

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

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin, along the coastal side of the mountains. Average rainfall measured at the Santa Monica Pier climatological station from 1971 to 2000 varied from 0.00 inches in July to 3.04 inches in January, with an average annual total of 12.78 inches. The influence of rainfall on the contaminant levels in the Basin is minimal.

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

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

Air Pollutants and Effects

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

Mobile sources account for the majority of the air pollutant emissions within the Basin. However, air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

Both the federal and state governments have established ambient air quality standards for outdoor concentrations of specific pollutants, referred to as "criteria pollutants," in order to protect public health. The national and state ambient air quality standards have been set at concentration levels to protect the most sensitive persons from illness or discomfort with a margin of safety. It is the responsibility of the SCAQMD to bring air quality within the Basin into attainment with the national and State ambient air quality standards, which are identified later in this EIR Section.

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

- *Ozone (O_3)* is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_x), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

- *Carbon Monoxide (CO)* is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- *Respirable Particulate Matter (PM_{10})* and *Fine Particulate Matter ($PM_{2.5}$)* consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.

- *Nitrogen dioxide (NO_2)* is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitors.

- *Sulfur dioxide (SO_2)* is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When sulfur dioxide oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_x).

- *Lead (Pb)* occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the Basin. The use of leaded gasoline is no longer permitted for on road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles such as race cars. However, because lead was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, it is present in many urban soils and can be re-suspended in the air. Other sources of lead include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary lead smelters.

- *Toxic Air Contaminants (TAC)* refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. They include both organic and inorganic chemical substances that may be emitted from a variety of common sources including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. Toxic air contaminants are different than "criteria" pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be felt on a local scale rather than on a regional basis.

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

Existing Regional Air Quality

Measurements of ambient concentrations of the criteria pollutants are used by the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (ARB) to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in "attainment." If the pollutant exceeds the standard, the area is classified as a "nonattainment" area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

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

The SCAQMD divides the Basin into thirty-eight source receptor areas (SRAs) in which thirty-two monitoring stations operate to monitor the various concentrations of air pollutants in the region. The Bundy Campus is located within the City of Los Angeles and is located within SRA 2, which covers the northwest coastal Los Angeles County area. The ARB also collects ambient air quality data through a network of air monitoring stations throughout the state. These data are summarized annually and are published in the ARB's California Air Quality Data Summaries. The West Los Angeles – VA Hospital monitoring station is the nearest monitoring station to the Bundy Campus. This station currently monitors emission levels of ozone, CO, and NO_2, but does not monitor the pollutant levels of PM_{10}, $PM_{2.5}$, and SO_2. Table IV.C-1 identifies the national and state ambient air quality standards for the relevant air pollutants, along with the ambient pollutant concentrations that were measured at the West Los Angeles – VA Hospital monitoring station between 2003 and 2005.

According to the air quality data from the West Los Angeles – VA Hospital monitoring station shown in Table IV.C-1, the national 1-hour ozone standard has been exceeded for a total of one day from 2003 to 2005, while the State 1-hour ozone standard has been exceeded for a total of 23 days from 2003 to 2005. The national 8-hour ozone standard was exceeded a total of two days from 2003 to 2005. In addition, no national or State standards for CO or NO_2 have been exceeded from 2003 to 2005.

Table IV.C-1
Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 2—Northwest Coastal Los Angeles County Area	Year		
	2003	2004	2005
Ozone (O_3)			
Maximum 1-hour concentration measured	0.134 ppm	0.107 ppm	0.114 ppm
Number of days exceeding national 0.12 ppm 1-hour standard	1	0	0
Number of days exceeding State 0.09 ppm 1-hour standard	11	5	7
Maximum 8-hour concentration measured	0.104 ppm	0.089 ppm	0.090 ppm
Number of days exceeding national 0.08 ppm 8-hour standard	1	1	1
Carbon Monoxide (CO)			
Maximum 8-hour concentration measured [a]	2.79 ppm	2.33 ppm	2.11 ppm
Number of days exceeding national 9.0 ppm 8-hour standard	0	0	0
Number of days exceeding State 9.0 ppm 8-hour standard	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration measured	0.119 ppm	0.086 ppm	0.075 ppm
Number of days exceeding State 0.25 ppm 1-hour standard	0	0	0
Annual average	0.023 ppm	0.020 ppm	0.017 ppm
Does measured annual average exceed national 0.0534 ppm annual average standard?	No	No	No

Note: ppm = parts by volume per million of air.
[a] 1-hour CO concentrations were not monitored at the West Los Angeles – VA Hospital monitoring station.
Source: State of California, Air Resources Board, 2003, 2004, 2005.

Existing Local Air Quality

The general area surrounding the Bundy Campus is characterized by urban development consisting of residential, commercial, and aviation land uses. Land uses surrounding the Bundy Campus include single-family residences located to the east across Bundy Drive/Centinela Avenue, west beyond Stewart Avenue, and south along Stanwood Place. Commercial/industrial uses and surface parking associated with the Santa Monica Airport are located immediately north of the Bundy Campus, followed by Airport Avenue. On the northern side of Airport Avenue is a site which is currently under construction with the Airport Park. The Santa Monica Airport is located adjacent to this construction site, north and west of Donald Douglas Loop South.

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

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

Maximum 8-hour CO concentrations were calculated for 20 out of the 27 intersections evaluated in the Traffic Study for the Master Plan that have sensitive receptors in close proximity to the roadways.[1] The results of these calculations are presented in Table IV.C-2 for representative receptors located 25, 50, and 100 feet from each roadway. These distances were selected because they represent locations where a person may be living or working for more than eight hours at a time. The 8-hour national and State standards are 9.0 ppm.

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

---

[1] *CO is considered to be a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. Therefore, the 20 intersections shown in Table IV.C-2 were selected because these intersections are adjacent to sensitive receptors.*

Table IV.C-2

Existing Localized Carbon Monoxide Concentrations

Intersection	8-Hour CO Concentrations in Parts per Million[a]			
	Roadway Edge	25 feet	50 feet	100 feet
20th Street and Pico Boulevard	3.7	3.1	2.9	2.7
Cloverfield Boulevard and Pico Boulevard	3.8	3.2	2.9	2.7
Bundy Drive and Pico Boulevard	5.8	4.6	4.1	3.6
Bundy Drive and I-10 Freeway EB On-Ramp	5.3	4.0	3.6	3.2
20th Street and Ocean Park Boulevard	3.3	2.9	2.7	2.5
23rd Street and Ocean Park Boulevard	3.6	3.0	2.8	2.6
Cloverfield Boulevard and Ocean Park Boulevard	3.4	2.9	2.7	2.5
Bundy Drive and Ocean Park Boulevard	7.6	5.5	4.7	4.0
Bundy Drive and National Boulevard	7.0	5.1	4.4	3.8
23rd Street/Walgrove Avenue and Airport Avenue	4.2	3.2	2.9	2.7
Bundy Drive and Airport Avenue	5.0	3.8	3.4	3.0
Bundy Drive and Project Driveway	4.9	3.7	3.4	3.0
Walgrove Avenue and Rose Avenue	5.1	3.8	3.4	3.0
Centinela Avenue and Rose Avenue	4.9	3.8	3.4	3.0
Walgrove Avenue and Palms Boulevard	3.0	2.6	2.5	2.4
Centinela Avenue and Palms Boulevard	6.2	4.6	4.0	3.5
Walgrove Avenue and Venice Boulevard	3.5	3.0	2.8	2.6
Beethoven Street and Venice Boulevard	4.9	3.6	3.3	2.9
Centinela Avenue and Venice Boulevard	7.6	5.3	4.6	3.9
Inglewood Boulevard and Venice Boulevard	5.6	4.4	3.9	3.4

[a] National and State 8-hour standards are 9.0 parts per million.

Source (Traffic Study): Kaku Associates, August 2006.
Source (table): Christopher A Joseph and Associates, August 2006. Calculation data and results are provided in Appendix C.

Existing Site Emissions

The Bundy Campus is currently occupied by the recently renovated four-story West Building located in the center of the site and the vacant two-story East Building located on the east side of the site fronting Bundy Drive. The four-story West Building has 16 classrooms that are currently in use, along with multi-purpose rooms, offices, and student services functions. The remainder of the Bundy Campus consists of surface parking with approximately 609 parking spaces. Existing air emissions from the Bundy Campus are generated by stationary sources, such as the chiller/co-generation facility, backup generators, and landscape maintenance equipment, as well as mobile sources, such as automobile trips. The existing average daily emissions generated by the uses and activities at the Bundy Campus are presented in Table IV.C-3. As shown, motor vehicles are the primary source of air pollutant emissions associated with the Bundy Campus.

Table IV.C-3

Existing Daily Operational Bundy Campus Emissions

Emissions Source	Emissions in Pounds per Day				
	VOC	NO_x	CO	SO_x	PM_{10}
Summertime (Smog Season) Emissions					
Water and Space Heating Appliances	0.04	0.62	0.52	0.00	0.00
Landscape Maintenance	0.12	0.00	0.78	0.00	0.00
Architectural Coatings	0.25	--	--	--	--
Motor Vehicles	18.53	18.74	254.65	0.16	20.09
Total Emissions	**18.94**	**19.36**	**255.95**	**0.16**	**20.09**
Wintertime (Non-Smog Season) Emissions					
Water and Space Heating Appliances	0.04	0.62	0.52	0.00	0.00
Architectural Coatings	0.25	--	--	--	--
Motor Vehicles	19.97	28.08	246.50	0.13	20.09
Total Emissions	**20.26**	**28.70**	**247.02**	**0.13**	**20.09**

Note: Subtotals may not appear to add correctly due to rounding in the URBEMIS 2002 model.
Source: Christopher A. Joseph & Associates, August 2006. Calculation sheets are provided in Appendix C.

Health Effects of Air Pollutants

Ozone

Individuals exercising outdoors, children, and people with preexisting lung disease such as asthma and chronic pulmonary lung disease are considered to be the most susceptible sub-groups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated ozone levels are associated with increased school absences. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities.

Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants that include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

Carbon Monoxide

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities. Additional research is needed to confirm these results.

Particulate Matter

A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

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

The elderly, people with pre-existing respiratory or cardiovascular disease and children appear to be more susceptible to the effects of PM_{10} and $PM_{2.5}$.

Nitrogen Dioxide

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO_2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of O_3 and NO_2.

Sulfur Dioxide

A few minutes exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2.

Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

Sulfates

Most of the health effects associated with fine particles and SO_2 at ambient levels are also associated with SO_4. Thus, both mortality and morbidity effects have been observed with an increase in ambient SO_4 concentrations. However, efforts to separate the effects of SO_4 from the effects of other pollutants have generally not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

Lead

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Lead poisoning can cause anemia, lethargy, seizures and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

Toxic Air Contaminants (TACs)

TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The United States Environmental Protection Agency (USEPA) has adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These went into effect in June 2006.

Regulatory Framework

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

Air quality within the Basin is addressed through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Basin are discussed below.

Federal

USEPA

The USEPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The USEPA also has jurisdiction over emissions sources outside state waters (outer continental shelf), and establishes various emissions standards for vehicles sold in states other than California.

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

State

CARB

The CARB, a part of the California Environmental Protection Agency (Cal-EPA), is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Regional

Southern California Association of Governments

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

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan and Guide (RCPG) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCPG is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015, and beyond. Policies within the RCPG include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

SCAQMD

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. Every three years, the SCAQMD prepares an overall plan for air quality improvement. Each iteration of the plan is an update of the previous plan and has a 20 year horizon. The Final 2003 AQMP was adopted by the SCAQMD Governing Board on August 1, 2003. The 2003 AQMP updates the attainment demonstration for the federal standards for O_3 and PM_{10}; replaces the 1997 attainment demonstration for the federal CO standard and provides a basis for a maintenance plan for CO for the future; and updates the maintenance plan for the federal NO_2 standard that the Basin has met since 1992. This revision to the AQMP also addresses several State and federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the Basin for the attainment of the federal ozone air quality standard.

The future air quality levels projected in the 2003 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG in its most current version of the RCPG, which was adopted in March 1996. The AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation.

Local

City of Los Angeles

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City of Los Angeles is also responsible for the implementation of transportation control measures as outlined in the AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

ENVIRONMENTAL IMPACTS

Methodology

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

Construction Emissions

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

In addition to SCAQMD's regional significance thresholds, the SCAQMD has also developed localized significance thresholds (LST) that are based on the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD,[2] apply to projects that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NOx, CO, and PM_{10}. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each SRA. For PM_{10} LSTs, the thresholds were derived based on requirements in SCAQMD Rule 403 — Fugitive Dust.

The SCAQMD has developed five sample construction scenarios, one-acre, two-acre, three-acre, four-acre, and five-acre in size, where construction impacts do not exceed the most stringent LSTs. The sample scenarios were designed to be used as models or templates for analyzing construction air quality impacts by projects of similar size. The Master Plan is anticipated to disturb between one and two acres of land at any given time during the demolition of the existing East Building (approximately 15,000 sf footprint), the construction of the New Building (approximately 19,000 sf footprint), and the excavation of the approximately 230-space subterranean parking garage (approximately 86,250 sf footprint). Consequently, because construction activities associated with the Master Plan would disturb between one and two acres of land on the Bundy Campus at any given time, the two-acre sample construction scenario is used as a template to analyze the significance of the construction emissions generated by the Master Plan. In conducting the analysis, the parameters of the two-acre sample construction scenario are slightly modified such that they would apply to the project-specific characteristics of the Master Plan. The parameters that have been modified in the two-acre sample construction scenario for the Master Plan analysis include the number of equipment, the construction schedule, the square footage of the existing and proposed structures, and the amount of soil that would be handled at the Bundy Campus. The resulting construction emissions generated are then analyzed against the applicable LSTs.

---

[2] *South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2003.*

Operational Emissions

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

As discussed above, the SCAQMD has developed LSTs that are based on the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. However, because the LST methodology is applicable to projects where emission sources occupy a fixed location, this methodology would typically not apply to the operational phase of a project because emissions are primarily generated by mobile sources traveling on local roadways over potentially large distances or areas. LSTs would apply to the operational phase of a project if the project includes stationary sources or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., warehouse/transfer facilities). Consequently, only the emissions generated by stationary sources associated with the Master Plan (e.g., water and space heaters, landscaping equipment, etc.) are analyzed against the applicable LSTs.

Localized CO Concentrations

Localized CO concentrations are calculated based on a simplified CALINE4 screening procedure developed by the Bay Area Air Quality Management District (BAAQMD) and utilized by the SCAQMD. The simplified model is intended as a screening analysis, which identifies a potential CO hotspot. This methodology assumes worst-case conditions and provides a screening of maximum, worst-case CO concentrations. The resulting emissions are compared with adopted national and State ambient air quality standards.

Thresholds of Significance

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

(a) Conflict with or obstruct implementation of the applicable air quality plan;

(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including release in emissions which exceed quantitative thresholds for ozone precursors);

(d) Expose sensitive receptors to substantial pollutant concentrations; or

(e) Create objectionable odors affecting a substantial number of people.

As discussed in the Initial Study that was prepared for the Notice of Preparation (see Appendix A to this Draft EIR), the Master Plan would have no impact with respect to Threshold (e) listed above. As such, no further analysis of this topic is required (see also Section IV.A of this Draft EIR).

The District has not yet adopted thresholds of significance for assessing whether potential environmental impacts are significant for purposes of CEQA. Consequently, this EIR uses those thresholds of significance set forth by the City of Los Angeles pursuant to Public Resources Code Section 21082. The City of Los Angeles prepared the Draft L.A. CEQA Thresholds Guide in 1998. For air quality, the City has not adopted specific citywide significance thresholds but instead relies on significance thresholds identified by the SCAQMD's CEQA Handbook, as revised in November 1993 and approved by the SCAQMD's Board of Directors.

The SCAQMD's emission thresholds apply to all federally regulated air pollutants except lead, which is not exceeded in the Basin. As such, construction and operational emissions associated with the Master Plan would be significant if they exceed the thresholds shown in Table IV.C-4.

Table IV.C-4

SCAQMD's Emission Thresholds of Significance

Pollutant	Construction		Operation
	pounds/day	tons/quarter	pounds/day
Carbon Monoxide (CO)	550	24.75	550
Sulfur Oxides (SO_x	150	6.75	150
Particulate Matter (PM_{10})	150	6.75	150
Nitrogen Oxides (NO_x)	100	2.5	55
Reactive Organic Gases (ROG)	75	2.5	55
Source: SCAQMD CEQA Air Quality Handbook, 1993.			

As discussed previously, the SCAQMD's LSTs are only applicable to the following criteria pollutants: NOx, CO, and PM_{10}. In addition, based on the size of the construction area on the Bundy Campus for the Master Plan, the two-acre sample construction scenario developed by the SCAQMD is used as a template to analyze the significance of the emissions generated by the Master Plan. As such, construction and operational emissions associated with the Master Plan, which is located within SRA 2 (Northwest Coastal Los Angeles County), would be significant if they exceed the LSTs shown in Table IV.C-5.

Table IV.C-5

SCAQMD's Localized Significance Thresholds

Pollutant Monitored Within SRA 2 — Northwest Coastal Los Angeles County	2 Acre Site Allowable emissions (pounds/day) as a function of receptor distance (meters) from site boundary				
	25 (m)	**50 (m)**	**100 (m)**	**200 (m)**	**500 (m)**
Construction Thresholds					
Nitrogen Oxides (NO_x)	208	208	225	268	346
Carbon Monoxide (CO)	658	957	1,458	2,555	7,350
Particulate Matter (PM_{10})	6	19	90	161	232
Operational Thresholds					
Nitrogen Oxides (NO_x)	208	208	225	268	346
Carbon Monoxide (CO)	658	957	1,458	2,555	7,350
Particulate Matter (PM_{10})	1	5	22	39	56

Source: SCAQMD, Final Localized Significance Threshold methodology, Appendix C (Localized Significance Threshold Mass rate Look-up Table), June 2003.

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

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

Project Characteristics

Interim Phase

As discussed in Section II (Project Description), the Interim Phase of the Master Plan would involve expanded use of the four-story West Building from 16 to up to 20 classrooms and potential use of the existing two-story East Building for offices, student services, community education, storage or leased for other purposes consistent with current zoning. The Interim Phase would provide a new Northeast Bundy Driveway to accommodate the new traffic signal at the northeast corner of the campus, with a new internal drive that would turn sharply to the south upon entering the Bundy Campus and connect to the existing drive along the south side of the campus. Fourteen onsite parking spaces near Bundy Drive would be eliminated to accommodate the Northeast Bundy Driveway, with 594 parking spaces remaining. Because the Interim Phase would involve the same uses that would ultimately occur under Master Plan buildout, it is assumed that impacts that would occur in the Interim Phase would be less than or equal to those evaluated for Master Plan buildout. As such, the Interim Phase is not discussed in detail in this Section.

Master Plan Buildout

The Master Plan is a long-range planning document that establishes a legal framework to guide the future operation and development envisioned for the SMC Bundy Campus. Buildout of the Master Plan calls for: (1) demolition of the existing two-story, 33,055-square-foot East Building with possible interim uses pending demolition; (2) construction of a two-story New Building of similar size (approximately 38,205 square feet) to replace the East Building and to be located closer to the center of the campus and immediately east of the existing four-story West Building; (3) provision of approximately 780 on-site parking spaces total (including approximately 550 surface parking spaces and approximately 230 subterranean parking spaces); (4) access improvements including provision of a new driveway to accommodate LADOT's new traffic signal at the northeast corner of the campus; (5) provision of a pedestrian parkway along Bundy Drive; (6) landscaping/open space elements; (7) continued use of the four-story West Building; and (8) other miscellaneous general site improvements. As a long-range master planning document, the Master Plan is intended to guide the programmatic, architectural, and development planning activities for the Bundy Campus over the next 10 years, with the actual construction of the building component anticipated to commence within five years after the adoption of the Master Plan. The proposed Site Plan depicting this vision is provided in Figure II-3 in Section II (Project Description).

Project Impacts

AQMP Consistency

The 2003 AQMP, discussed previously, was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, and to return clean air to the region. Projects that are considered to be consistent with the AQMP would not interfere with attainment, because this growth is included in the projections used to formulate the AQMP. Therefore, projects, land uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Projects that are consistent with the projections of employment and population forecasts identified in the SCAG's 2001 Regional Transportation Plan (RTP) are considered consistent with the AQMP growth projections, since the forecast assumptions in the 2001 RTP forms the basis of the land use and transportation control portions of the 2003 AQMP. As discussed in Section IV.F (Land Use and Planning) of this document, development of the Master Plan is consistent with the underlying zoning for the Bundy Campus under the City's Planning and Zoning Code. As discussed in Section IV.F, at full buildout under the Master Plan, the Bundy Campus will contain less than 15 percent of the allowable density for the site. In addition, the Master Plan is consistent with and would act to implement the various goals, objectives and policies of the Palms-Mar Vista-Del Rey Community Plan. Furthermore, because development of the Bundy Campus under the Master Plan would not include on-campus housing, no increase in population or housing would result. The purpose of the Master Plan is to offer additional classroom space for those educational fields that have grown most recently at the Main Campus, including Nursing, Education, and Communication programs. Consequently, the Master Plan would not result in or induce population growth in the City. To the contrary, the Master Plan would provide expanded classroom and instructional space for Continuing Education and other non-credit programs at the Bundy Campus in response to community demand. Furthermore, in terms of employment, approximately 53 faculty and staff are expected to be employed at the Bundy Campus under the Master Plan. As the campus had a total of approximately 35 faculty and staff at any given time during the Fall 2005 semester, implementation of the Master Plan would result in an additional 18 faculty and staff members. SCAG's regional forecasts indicate an increase in employment in the City of Los Angeles from approximately 1,831,668 persons in 2005 to 1,899,002 persons in 2010.[3] Thus, the Master Plan would not increase the local employment within the City beyond those already projected by the SCAG. The Master Plan would increase the student population of the Bundy Campus from approximately 409 students on campus at any given time during the Fall 2005 semester to approximately 876 students on campus at any given time at Master Plan buildout. Therefore, the Master Plan would introduce approximately 467 new students to the Bundy Campus at any given time. Nonetheless, many of these students are anticipated to be students who would otherwise be attending SMC classes at one of the other campuses, or students who are already residing in the region. Therefore, these additional classroom seats are not anticipated to encourage large numbers of students to relocate to the project area. Overall, the Master Plan does not provide for population, housing, or employment growth that exceeds the SCAG forecast. Consequently, implementation of the Master Plan would be consistent with AQMP attainment forecasts.

Another measurement tool in determining consistency with the AQMP is to determine how a project accommodates the expected increase in population or employment. Generally, if a project is planned in a way that results in the minimization of vehicle miles traveled (VMT) both within the project and the community in which it is located, and consequently the minimization of air pollutant emissions, that aspect of the project is consistent with the AQMP.

The Bundy Campus is located in an urbanized area within the Palms-Mar Vista-Del Rey Community Plan Area of the City of Los Angeles. As discussed in Section IV.F (Land Use and Planning) and Section IV.J (Transportation and Traffic), the Bundy Campus would continue to provide easy access to public transit under the Master Plan, including SMC shuttles and City of Santa Monica Big Blue Buses which serve the campus. Additionally, because the Master Plan provides expanded classroom and instructional space at the Bundy Campus in response to community demand, implementation of the Master Plan would result in the buildout of a satellite community college campus in proximity to neighborhoods where the students from the nearby neighborhoods may easily access the Bundy Campus. Thus, implementation of the Master Plan would serve to minimize the VMT both within the project area and the community in which it is located, thereby minimizing the amount of air pollutant emissions. Therefore, the Master Plan is consistent with the goals of the AQMP for reducing the emissions associated with new development.

[3] *Southern California Association of Governments, SCAG 2001 Growth Projection, City Projections, http://www.scag.ca.gov/forecast/downloads/city_projections.xls, September 5, 2006.*

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

Construction Impacts

Three basic types of activities are expected to occur and generate construction-related emissions at the Bundy Campus as a result of implementation of the Master Plan. The first activity would involve the demolition of the existing two-story, 33,055-square-foot East Building. The debris from the demolished building would be exported to a landfill. Secondly, the portion of the Bundy Campus designated to accommodate the building foundation for the two-story New Building, and the proposed subterranean parking garage, would be excavated, and the excavated soil at the site exported. Finally, the proposed two-story New Building with accompanying subterranean parking structure that provides approximately 230 spaces would be constructed. Overall, construction activities at the Bundy Campus would occur over an approximate 12-month period.

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

Under the Master Plan, the greatest construction-related emissions would be generated during the demolition of the existing two-story 33,055 square foot East Building and construction of the two-story New Building of similar size. Thus, the emission levels generated during these construction activities at the Bundy Campus are analyzed for the purpose of providing a “worst-case” analysis for impacts associated with construction emissions.

Regional Air Quality Impacts

The analysis of daily construction emissions has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. Due to the construction time frame and the normal day-to-day variability in construction activities, it is difficult, if not impossible, to precisely quantify the daily emissions associated with each phase of the proposed construction activities. Nonetheless, Table IV.C-6 identifies daily emissions that are estimated to occur on peak construction days. These calculations assume that appropriate dust control measures would be implemented during each phase of development as required by SCAQMD Rule 403—Fugitive Dust. The daily construction-related emissions have been estimated for peak construction days based on the assumptions described below.

Demolition

The demolition of the existing onsite structure (i.e., East Building) would occur over a one-month period and would involve the use of one rubber-tired dozer, one rubber-tired loader, and one skid steer loader. It was assumed that these pieces of equipment would run for a maximum of six hours per day. A total of approximately 4,278 cubic yards of debris is expected to result from the demolition activities, with a maximum volume of approximately 389 cubic yards of debris that will be hauled off the Bundy Campus daily to a nearby dump site by 20-cubic-yard-capacity trucks traveling for a roundtrip distance of 30 miles.

Grading and Excavation

The most intense grading and excavation activities on the Bundy Campus would involve the use of the following equipment: one excavator, one grader, one water truck, and one rubber-tired loader. With the exception of the water truck, which is assumed to operate for a maximum of three hours per day, all of the remaining equipment is assumed to operate for a maximum of six hours per day. The daily maximum amount of onsite cut/fill that would occur at the Bundy Campus is assumed to be 2,000 cubic yards per day. Furthermore, a total of approximately 51,000 cubic yards of soil is anticipated to be excavated and exported from the project site by 20-cubic-yard-capacity trucks traveling for a roundtrip distance of 20 miles.

SCAQMD Rule 403 would govern the fugitive dust emissions from construction associated with the Master Plan. This rule sets forth a list of control measures that must be undertaken for all construction projects to insure that no dust emissions from the project are visible beyond the property boundaries. SCAQMD Rule 402 (Nuisance) also would apply to construction activities under the Master Plan. Most of the fugitive dust associated with construction is comprised of particles larger than 10 microns in diameter. While these larger particles settle out quickly and do not cause the health effects associated with the smaller sized particles (PM_{10} and $PM_{2.5}$), they can damage plants and property sufficiently to qualify as a nuisance. Rule 402 prohibits visible dust emissions from extending beyond the project boundaries.

Building

During the building phase, the maximum daily amount of equipment that would operate onsite would include two rough terrain forklifts, one skid steer loader, and one backhoe. Each of these equipments is assumed to operate for a maximum of six hours per day. Architectural coatings of the new buildings are assumed to be applied over a two-month period towards the end of the building phase period, and the asphalting of approximately 1.4 acres at the Bundy Campus would occur over a one-month period at the end of the building phase period. The equipment that would be used for asphalting would include one paver and one miscellaneous piece of paving equipment.

As shown in Table IV.C-6, emissions generated during the site demolition, grading/excavation, and building phases would not exceed the regional emissions thresholds recommended by the SCAQMD. In addition, implementation of Mitigation Measures C-10 through C-12 would further ensure that construction-related air quality impacts would be minimized to the extent feasible at the Bundy Campus during site during construction. Therefore, construction-related air quality impacts would be less than significant.

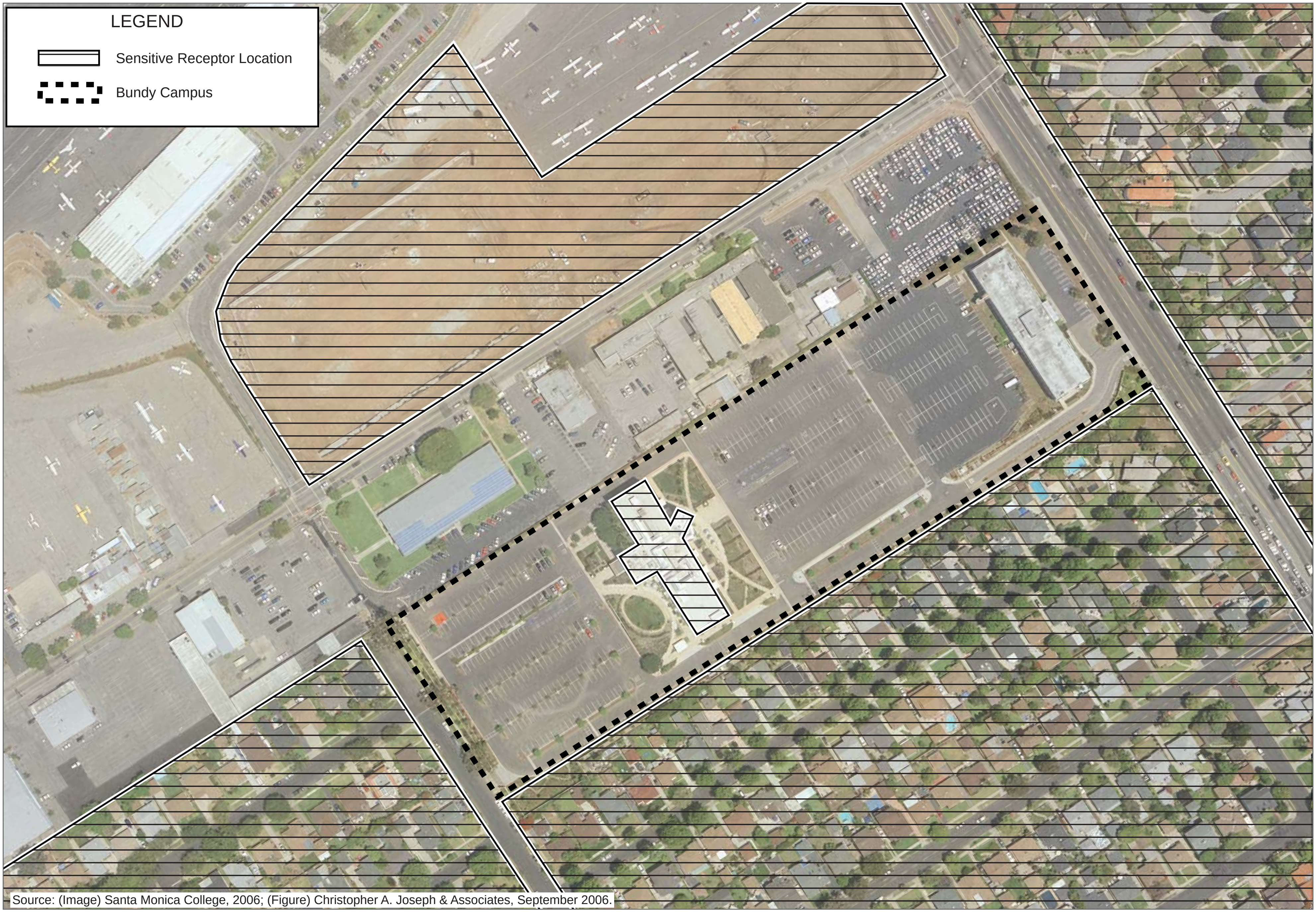
Localized Air Quality Impacts

The daily construction emissions generated by the Master Plan are also analyzed against SCAQMD's LSTs to determine whether the emissions would cause or contribute to adverse localized air quality impacts. The nearest and most notable off-site sensitive receptors to the Bundy Campus are the single-family residential buildings located immediately south of the Bundy Campus. In addition, the existing four-story West Building would also be a sensitive receptor during construction at the Bundy Campus. These off-site sensitive receptors are shown in Figure IV.C-1. According to Table IV.C-5, the closest receptor distance on the SCAQMD's mass rate LST look up tables is 25 meters. Although the nearest off-site sensitive receptors to the Bundy Campus are closer than 25 meters, the SCAQMD's LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.[4]

As discussed previously under "Methodology," because construction activities associated with the Master Plan would disturb between one and two acres of land on the Bundy Campus at any given time, the two-acre sample construction scenario developed by the SCAQMD is used as a template to analyze the significance of the construction emissions generated by the Master Plan. In conducting the analysis, the parameters of the two-acre sample construction scenario (e.g., construction schedule, number of equipment, amount of dirt handled, size of the areas disturbed, etc.) have been modified slightly such that they would apply to the project-specific characteristics of the Master Plan. Table IV.C-7 identifies daily emissions that are estimated to occur during construction at the Bundy Campus.

As shown in Table IV.C-7, on-site emissions generated at the Bundy Campus during the different phases of construction would not exceed the established SCAQMD localized thresholds for NO_x, CO, and PM_{10} at a receptor distance of 25 meters. Thus, the on-site construction emissions would also not exceed the SCAQMD localized thresholds at receptor distances beyond 25 meters (i.e., 50, 100, 200, and 500 meters). Therefore, the localized air quality impacts resulting from construction emissions associated with the Master Plan would be less than significant.

[4] *South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, June 2003.*



CHRISTOPHER A. JOSEPH & ASSOCIATES
Environmental Planning and Research

Figure IV.C-1
Air Sensitive Receptor Map

Table IV.C-6
Estimated Daily Construction Emissions

Emissions Source	Emissions (Pounds per Day)				
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**
Demolition Phase (2007)					
Fugitive Dust	--	--	--	--	17.64
Off-Road Diesel	4.18	29.41	32.52	--	1.19
On-Road Diesel	2.76	61.07	10.29	0.11	1.42
Worker Trips	0.04	0.11	1.10	0.00	0.00
Total Emissions	***6.68***	***90.59***	***43.91***	***0.11***	***20.25***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Site Grading/Excavation Phase (2007)					
Fugitive Dust	--	--	--	--	236.22
Off-Road Diesel Equipment	5.07	30.41	43.06	--	1.03
On-Road Diesel Equipment	0.20	4.33	0.73	0.01	1.10
Worker Trips	0.03	0.02	0.36	0.00	0.01
Total Emissions	***5.30***	***34.76***	***44.15***	***0.01***	***237.36***
Mitigation [a]	0.00	0.00	0.00	0.00	(200.96)
Total Emissions after Mitigation	***5.30***	***34.76***	***44.15***	***0.01***	***36.40***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Site Grading/Excavation Phase (2008)					
Fugitive Dust	--	--	--	--	236.22
Off-Road Diesel Equipment	5.07	29.97	43.06	--	0.94
On-Road Diesel Equipment	0.18	3.95	0.68	0.01	0.10
Worker Trips	0.03	0.02	0.33	0.00	0.01
Total Emissions	***5.28***	***33.94***	***44.07***	***0.01***	***237.27***
Mitigation [a]	0.00	0.00	0.00	0.00	(200.96)
Total Emissions after Mitigation	***5.28***	***33.94***	***44.07***	***0.01***	***36.31***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Building Construction Phase (2008)					
Building Construction Off-Road Diesel Equipment	2.09	12.82	17.34	--	0.41
Building Construction Worker Trips	0.07	0.04	0.82	0.00	0.01
Total Emissions	***2.15***	***12.86***	***18.16***	***0.00***	***0.42***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Building Construction Phase (2009)					
Building Construction Off-Road Diesel Equipment	2.09	12.63	17.48	--	0.40
Building Construction Worker Trips	0.06	0.04	0.75	0.00	0.01
Architectural Coatings Off-Gas [b]	9.03	--	--	--	--
Architectural Coatings Worker Trips	0.06	0.04	0.75	0.00	0.01
Asphalt Off-Gas	0.17	--	--	--	--
Asphalt Off-Road Diesel	1.81	11.32	14.93	--	0.39
Asphalt On-Road Diesel	0.03	0.56	0.11	0.00	0.01
Asphalt Worker Trips	0.01	0.01	0.12	0.00	0.00
Total Emissions	***13.26***	***24.60***	***34.14***	***0.00***	***0.82***
SCAQMD Thresholds	75.00	100.00	550.00	150.00	150.00
Significant Impact?	**No**	**No**	**No**	**No**	**No**

[a] *Mitigation consists of dust control measures as required by SCAQMD Rule 403—Fugitive Dust.*
[b] *Value is obtained from calculations based on information provided in SCAQMD Rule 1113—Architectural Coatings, which limits the amount of VOC emission from water-based architectural coatings to 2.08 pounds per gallon. A conservative assumption of one gallon of paint per 400 square feet is used for this calculation.*
Source: Christopher A. Joseph & Associates, August 2006. Calculation sheets are provided in Appendix C.

Table IV.C-7
Localized Estimated Daily Construction Emissions

Construction Phase	Total On-site Emissions (Pounds per Day)		
	NO_x	CO	PM_{10}
Demolition (2007)	***25.3***	***9.9***	***1.3***
SCAQMD Localized Thresholds [a]	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Site Preparation (2007)	***17.2***	***8.1***	***3.7***
SCAQMD Localized Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Grading/Excavation (2007)	***27.1***	***12.4***	***2.1***
SCAQMD Localized Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Grading/Excavation (2008)	***25.2***	***12.4***	***2.1***
SCAQMD Localized Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Building (2008)	***16.3***	***9.6***	***1.4***
SCAQMD Localized Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Building (2009)	***15.3***	***9.5***	***1.3***
SCAQMD Localized Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**
Architectural Coating & Asphalting (2009)	***9.9***	***5.5***	***0.7***
SCAQMD Thresholds	*208*	*658*	*6*
Significant Impact?	**No**	**No**	**No**

[a] Localized thresholds for construction emissions at a receptor distance of 25 meters, as established by the SCAQMD for a two-acre site in SRA 2.
Source: Christopher A. Joseph & Associates, August 2006. Calculation sheets are provided in Appendix C.

Operational Impacts

Operational emissions generated by both stationary and mobile sources associated with the proposed New Building would result from normal day-to-day activities on the Bundy Campus after occupation.[5] Stationary area source emissions would be generated by the consumption of natural gas for space and water heating devices, and the operation of landscape maintenance equipment. Mobile emissions would be generated by the motor vehicles traveling to and from the Bundy Campus.

---

[5] It should be noted that the analysis in this EIR is only concerned with the net increase in operational emissions associated with the Master Plan. As the existing Bundy Campus would continue to operate even if the Master Plan were not constructed, the operational emissions associated with the existing stationary and mobile sources at the Bundy Campus would represent the baseline emissions. Thus, Master Plan impacts are analyzed only for the net increase in emissions resulting from the new stationary and mobile emissions generated by implementation of the Master Plan.

Regional Air Quality Impacts

The analysis of daily operational emissions from the proposed New Building under the Master Plan has been prepared utilizing the URBEMIS 2002 computer model recommended by the SCAQMD. The URBEMIS air quality model is a land-use based model that generates air emissions based on the type and density of the proposed land uses, and is influenced by other factors such as trip generation rates, proximity to mass transit, local demographics, and the extent of pedestrian friendly amenities. Factors such as the Bundy Campus' location within an urbanized area of the City of Los Angeles and the project's proximity to public transit, serve to reduce the air emissions that would be generated by the New Building at the Bundy Campus. The results of these calculations, and associated SCAQMD thresholds, are presented in Table IV.C-8.

As shown in Table IV.C-8, the operational emissions associated with the New Building under the Master Plan would not exceed the established threshold levels for VOC, NO_x, CO, SO_x, and PM_{10}. Therefore, impacts associated with regional operational emissions from the Master Plan would be less than significant.

Table IV.C-8
Estimated Future (2010) Daily Operational Emissions

Emissions Source	Emissions in Pounds per Day				
	VOC	**NO_x**	**CO**	**SO_x**	**PM_{10}**
Summertime (Smog Season) Emissions					
Water and Space Heating Appliances	0.03	0.37	0.31	0.00	0.00
Landscape Maintenance Equipment	0.09	0.01	0.63	0.00	0.00
Architectural Coatings	0.15	--	--	--	--
Mobile (Vehicle) Sources	14.28	14.36	200.54	0.14	23.65
Total Emissions	***14.55***	***14.74***	***201.48***	***0.14***	***23.65***
SCAQMD Thresholds	*55.00*	*55.00*	*550.00*	*150.00*	*150.00*
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Wintertime (Non-Smog Season) Emissions					
Water and Space Heating	0.03	0.37	0.31	0.00	0.00
Architectural Coatings	0.15	--	--	--	--
Mobile (Vehicle) Sources	15.68	21.47	193.84	0.11	23.65
Total Emissions	***15.86***	***21.84***	***194.15***	***0.11***	***23.65***
SCAQMD Thresholds	*55.00*	*55.00*	*550.00*	*150.00*	*150.00*
Significant Impact?	**No**	**No**	**No**	**No**	**No**
Source: Christopher A. Joseph & Associates, August 2006. Calculation sheets are provided in Appendix C.					

Localized Air Quality Impacts

To determine whether operational emissions generated by the Master Plan would result in localized air quality impacts, the operational emissions of the Master Plan are analyzed against the SCAQMD's LSTs for a receptor location of 25 meters.[6] As discussed previously under "Methodology", the LST methodology is applicable to projects where emission sources occupy a fixed location. Consequently, this methodology would not apply to mobile sources associated with the New Building under the Master Plan. Instead, the LSTs would only apply to the emissions generated from stationary sources associated with the Master Plan (e.g., water and space heaters, landscaping equipment, etc.). Table IV.C-9, analyzes the daily operational emissions generated by stationary sources associated with the New Building under the Master Plan against the SCAQMD's localized operational emission thresholds.[7]

Table IV.C-9
Localized Estimated Daily Operational Emissions

Operational Phase	**Total On-site Emissions (Pounds per Day)**		
	NO_x	**CO**	**PM_{10}**
Summertime (Smog Season Emissions)			
Water and Space Heating, and Cooking Appliances	0.37	0.31	0.00
Landscape Maintenance Equipment	0.01	0.63	0.00
Architectural Coatings	--	--	--
Total Emissions	***0.38***	***0.94***	***0.00***
SCAQMD Localized Thresholds [a]	*208*	*658*	*1*
Significant Impact?	**No**	**No**	**No**
Wintertime (Non-Smog Season Emissions)			
Water and Space Heating, and Cooking Appliances	0.37	0.31	0.00
Architectural Coatings	--	--	--
Total Emissions	***0.37***	***0.31***	***0.00***
SCAQMD Localized Thresholds [a]	*208*	*658*	*1*
Significant Impact?	**No**	**No**	**No**

[a] Localized thresholds for operational emissions at a receptor distance of 25 meters, as established by the SCAQMD for a two-acre site in SRA 2.

Source: Christopher A. Joseph & Associates, August 2006. Calculation sheets are provided in Appendix C.

As shown in Table IV.C-9, on-site operational emissions generated by the new Building under the Master Plan would not exceed the established SCAQMD localized thresholds for NO_x, CO, and PM_{10}. Thus, the localized air quality impacts resulting from operational emissions associated with the Master Plan would be less than significant.

[6] The SCAQMD's LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters. The nearest and most notable off-site sensitive receptors to the Bundy Campus are located closer than 25 meters from the Bundy Campus.

[7] The daily operational emissions generated by the stationary sources associated with the New Building under the Master Plan are taken from the emission sources (with the exception of the mobile sources) presented in Table IV.C-8 that have been generated by the URBEMIS computer model.

Localized CO Impacts

Motor vehicles are the primary source of criteria pollutants in the Bundy Campus vicinity. Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. For this analysis, CO concentrations were calculated based on the simplified CALINE4 screening procedure developed by the BAAQMD and utilized by the SCAQMD. The results of these calculations are presented in Table IV.C-10.[8] The future CO concentrations at the study intersections shown in Table IV.C-10 are based on the projected future traffic volumes from the study intersections contained in the Traffic Study for the Master Plan, which take into account emissions from the Master Plan, future ambient growth, and related projects in the project area.

As shown in Table IV.C-10, future CO concentrations near the study intersections would not exceed national or State ambient air quality standards.[9] Therefore, CO hotspots would not occur near these intersections in the future with operation of the Master Plan. Therefore, impacts related to local CO concentrations at these intersections would be less than significant.

CUMULATIVE IMPACTS

AQMP Consistency

Cumulative development can affect implementation of the 2003 AQMP. The 2003 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Growth considered to be consistent with the 2003 AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified by SCAG, implementation of the 2003 AQMP will not be obstructed by such growth and cumulative impacts would be less than significant. Additionally, since implementation of the Master Plan would not increase the local employment within the City beyond SCAG's existing employment projections, and would minimize the VMT within the community in which the Bundy Campus is located, it would not provide a cumulatively considerable contribution to this impact regarding a potential conflict with or obstruction of the implementation of the applicable air quality plan. Thus, cumulative impacts related to conformance with the 2003 AQMP would be less than significant.

---

[8] *The CO concentrations were calculated based on traffic volumes provided for Access Alternative B4 in the Traffic Study (see Appendix G to this Draft EIR), as this is the preferred Access Alternative for the Master Plan.*

[9] *CO is considered to be a localized problem requiring additional analysis when a project is likely to subject sensitive receptors to CO hotspots. Therefore, the 20 intersections shown in Table IV.C-7 were selected because these intersections are adjacent to sensitive receptors.*

Table IV.C-10

Future (2010) Localized Carbon Monoxide Concentrations

Intersection	8-Hour CO Concentrations in Parts per Million[a]			
	Roadway Edge	25 feet	50 feet	100 feet
20th Street and Pico Boulevard	3.3	2.8	2.7	2.5
Cloverfield Boulevard and Pico Boulevard	3.4	2.9	2.7	2.6
Bundy Drive and Pico Boulevard	4.7	3.8	3.5	3.1
Bundy Drive and I-10 Freeway EB On-Ramp	4.9	3.8	3.4	3.0
20th Street and Ocean Park Boulevard	3.0	2.7	2.5	2.4
23rd Street and Ocean Park Boulevard	4.0	3.3	3.0	2.8
Cloverfield Boulevard and Ocean Park Boulevard	3.0	2.6	2.5	2.4
Bundy Drive and Ocean Park Boulevard	5.8	4.4	3.9	3.4
Bundy Drive and National Boulevard	5.4	4.1	3.7	3.2
23rd Street/Walgrove Avenue and Airport Avenue	4.0	3.2	2.9	2.7
Bundy Drive and Airport Avenue	4.6	3.6	3.2	2.9
Bundy Drive and Project Driveway	4.1	3.3	3.0	2.8
Walgrove Avenue and Rose Avenue	4.4	3.4	3.1	2.8
Centinela Avenue and Rose Avenue	4.4	3.5	3.2	2.9
Walgrove Avenue and Palms Boulevard	2.9	2.5	2.4	2.3
Centinela Avenue and Palms Boulevard	4.9	3.8	3.4	3.0
Walgrove Avenue and Venice Boulevard	3.5	3.0	2.8	2.6
Beethoven Street and Venice Boulevard	4.0	3.2	2.9	2.7
Centinela Avenue and Venice Boulevard	5.8	4.2	3.7	3.3
Inglewood Boulevard and Venice Boulevard	4.4	3.6	3.3	3.0

[a] National and State 8-hour standards are 9.0 parts per million.
Source (Traffic Study): Kaku Associates, August 2006.
Source (table): Christopher A Joseph and Associates, August 2006. Calculation data and results are provided in Appendix C.

Construction Impacts

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

Operational Impacts

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

Localized CO Impacts

Cumulative development is not expected to expose sensitive receptors to substantial pollutant concentrations. As discussed previously, the future CO concentrations at the study intersections in 2010 are based on the projected future traffic volumes from the study intersections contained in the Traffic Study for the Master Plan, which takes into account emissions from the Master Plan, future ambient growth, and related projects in the project area. As shown in Table IV.C-7, future 8-hour CO concentrations near the study intersections where sensitive uses are nearby would not exceed the national or State ambient air quality standards. Therefore, CO hotspots would not occur near these intersections in the future, and this cumulative impact would be less than significant; no significant project cumulative impact would occur for CO. It is also unlikely that future projects will result in long-term future exposure of sensitive receptors to substantial pollutant concentrations because CO levels are projected to be lower in the future due to improvements in vehicle emission rates predicted by the ARB. Therefore, the cumulative impact of the Master Plan is considered to be less than significant.

MITIGATION MEASURES

Code Required Measures

The following required measures, some of which correspond to measures that have been inputted into the URBEMIS 2002 computer model to estimate the daily construction emissions associated with the Master Plan at the Bundy Campus, are recommended pursuant to the requirements under SCAQMD Rule 403:[10]

---

[10] *Those mitigation measures that correspond to measures that were available for input into the URBEMIS 2002 computer model are denoted with an asterisk (*).*

(C-1) All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and initial construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD District Rule 403.*

(C-2) The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.

(C-3) All loads shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.

(C-4) All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.

(C-5) Soil stabilizers shall be applied to inactive construction areas.*

(C-6) Ground cover in disturbed areas shall be quickly replaced.*

(C-7) All unpaved haul roads shall be watered twice daily.*

(C-8) All stock piles of debris, dirt, or rusty materials shall be covered with a tarp.*

(C-9) Vehicle speed on unpaved roads shall be reduced to less than 15 miles per hour (mph).*

Project Mitigation Measures

The following mitigation measures are recommended in addition to the required SCAQMD Rule 403 measures above to further reduce the construction emissions associated with the Master Plan:

(C-10) All clearing, grading, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.

(C-11) Santa Monica College shall require in the construction specifications for the Master Plan that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, are turned off when not in use for an extended period of time (i.e., 5 minutes or longer).

(C-12) Santa Monica College shall require in the construction specifications for the Master Plan that construction operations rely on the electricity infrastructure surrounding the construction site rather than electrical generators powered by internal combustion engines to the extent feasible.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Master Plan's impacts on regional air quality resulting from construction activities would be potentially significant for PM_{10} emissions, which exceeds SCAQMD's thresholds of significance.

However, with implementation of Mitigation Measures C-1 through C-9, pursuant to the requirements under SCAQMD Rule 403, PM_{10} impacts would be reduced to a less-than-significant level. Furthermore, implementation of Mitigation Measures C-10 through C-12 would further ensure that construction-related air quality impacts would be minimized to the extent feasible at the Bundy Campus during site during construction. Overall, construction-related air quality impacts would be less than significant.

The Master Plan's impacts on regional and local air quality resulting from operational emissions would be less than significant without mitigation.

The Master Plan's impacts on air quality resulting from localized levels of CO at the study intersections would be less than significant without mitigation.