# 4.0 ENVIRONMENTAL IMPACT ANALYSIS
# B. AIR QUALITY

## INTRODUCTION

This section of the EIR analyzes the project's potential to result in the following air quality-related impacts: conflicts with or obstructing implementation of the applicable air quality plan; violation of any air quality standard or substantial contribution to an existing or projected air quality violation; cumulatively considerable net increases of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors); exposure of sensitive receptors to substantial pollutant concentrations; and creation of objectionable odors affecting a substantial number of people. No issues related to air quality were scoped out of the EIR in the project's Initial Study (IS). Air quality technical data utilized in this section is included as Appendix B of this EIR. A reference-list of entries for all cited materials is provided in Chapter 7, *Document Preparation and References*, of this EIR.

## 1. ENVIRONMENTAL SETTING

### a. Existing Conditions

#### (1) Regional Air Quality

The project site and the entire City of Huntington Beach are located within the South Coast Air Basin (Basin). The distinctive climate of the Basin is determined primarily by its terrain and geographical location. Regional meteorology is dominated by a persistent high pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity characterize local climatic conditions. This normally mild climatic condition is occasionally interrupted by periods of hot weather, winter storms, and hot easterly Santa Ana winds.

The Basin is an area of high air pollution potential, particularly from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys and lower in the far inland areas of the Basin and adjacent desert.

The SCAQMD has released a draft final Basin-wide air toxics study (MATES III, Multiple Air Toxics Exposure Study, May 2008). The MATES III Study represents one of the most comprehensive air toxics studies ever conducted in an urban environment. The Study was aimed at estimating the cancer risk from toxic air emissions throughout the Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Basin. The Study concluded that the average carcinogenic risk from air pollution in the Basin is

approximately 1,200 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 85 percent of the risk is attributed to diesel particulate emissions, approximately 10 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 5 percent of all carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations).

As part of the MATES III study, the SCAQMD has prepared a series of maps that show regional trends in estimated outdoor inhalation cancer risk from toxic emissions, as part of an ongoing effort to provide insight into relative risks. The maps' estimates represent the number of potential cancers per million people associated with a lifetime of breathing air toxics (24 hours per day outdoors for 70 years). The MATES III Model Estimated Carcinogenic Risk map is the most recently available map to represent existing conditions in the project area. The estimated cancer risk for the project site is 1,100 cancers per million, while in the vast majority of the area it is between 501 to 1,200 cancers per million.[1] Generally, the risk from air toxics is lower near the coastline: it increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

## (a) Local Area Conditions

***Existing Pollutant Levels at Nearby Monitoring Stations***

The SCAQMD maintains a network of air quality monitoring stations located throughout the Basin and has divided the Basin into air monitoring areas or source receptor areas. The project site is located in the North Coastal Orange County Monitoring Area. The monitoring station for this area is the Costa Mesa Monitoring Station, which is located at 2820 Mesa Verde Drive East, approximately 6 miles southeast of the project site. Criteria pollutants, including CO, $SO_2$, $NO_2$, and $O_3$ are monitored at this station. The nearest, most representative monitoring area for $PM_{10}$ and $PM_{2.5}$ is the Central Orange County Monitoring Area. The monitoring station for this area is the Anaheim Monitoring Station, which is located at 1630 Pampas Lane, approximately 7.5 miles northeast of the project site. The nearest, most representative monitoring area for lead and sulfate is the South Coastal L.A. Monitoring Area, specifically the Long Beach South Monitoring Station, which is located at 228 1305 E. Pacific Coast Highway, approximately 11 miles northwest of the project site. The most recent data available from these monitoring stations encompassed the years 2005 to 2009. The data, shown in **Table 4.B-1**, *Pollutant Standards and Ambient Air Quality Data From Representative Monitoring Stations*, shows the following pollutant trends:

**Ozone -** The maximum 1-hour $O_3$ concentration recorded during the 2005 to 2009 period was 0.094 ppm, recorded in 2008. During this period, neither the California nor the National standard was exceeded. The maximum 8-hour $O_3$ concentration was 0.079 ppm recorded in 2008. The National standard was exceeded 3 times in 2008 and the California standard was exceeded between 2 and 6 times annually.

**Particulate Matter ($PM_{10}$)** - The highest recorded 24-hour $PM_{10}$ concentration recorded was 104 $\mu g/m^3$ in 2006. During the period 2005 to 2009, the CAAQS for 24-hour $PM_{10}$ was exceeded between 1.8 and 12.5 percent of the time; the NAAQS was not violated. The maximum annual arithmetic mean recorded was 33.4 $\mu g/m^3$ in 2006.

[1] http://www2.aqmd.gov/webappl/matesiii.

**Table 4.B-1**

**Pollutant Standards and Ambient Air Quality Data From Representative Monitoring Stations [a]**

| Pollutant/Standard | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| Ozone | | | | | |
| $O_3$ (1-hour) | | | | | |
| Maximum Concentration (ppm) | 0.085 | 0.07 | 0.082 | 0.094 | 0.087 |
| Days > CAAQS (0.09 ppm) | 0 | 0 | 0 | 0 | 0 |
| Days > NAAQS (0.12 ppm) | 0 | 0 | 0 | 0 | 0 |
| $O_3$ (8-hour) | | | | | |
| Maximum Concentration (ppm) | 0.073 | 0.064 | 0.072 | 0.079 | 0.075 |
| 4th High 8-hour Concentration (ppm) | 0.068 | 0.062 | 0.065 | 0.075 | 0.066 |
| Days > CAAQS (0.07 ppm) | 0 | 0 | 2 | 6 | 3 |
| Days > NAAQS (0.075 ppm) [b] | 0 | 0 | 0 | 3 | 0 |
| Particulate Matter | | | | | |
| $PM_{10}$ (24-hour) | | | | | |
| Maximum Concentration (µg/m3) | 65 | 104 | 75+ | 61 | 63 |
| Days > CAAQS (50 µg/m3) c | 3(4.9%) | 7(12.5%) | 5(9%)+ | 3(5%) | 1(1.8%) |
| Days > NAAQS (150 µg/m3) [c] | 0 | 0 | 0+ | 0 | 0 |
| $PM_{10}$ (Annual Average) | | | | | |
| Annual Arithmetic Mean, CAAQS (20 µg/m3) | 28.2 | 33.4 | 31.0+ | 28.6 | 30.9 |
| Particulate Matter | | | | | |
| $PM_{2.5}$ (24-hour) | | | | | |
| Maximum Concentration (µg/m3) | 54.7 | 56.2 | 79.4 | 67.9 | 64.6 |
| Days > NAAQS (35 µg/m3) [d] | 0 | 8(2.4%) | 14(4.2%) | 13(3.9%) | 4(1.1%) |
| $PM_{2.5}$ (Annual Average) | | | | | |
| Annual Arithmetic Mean [e] | 14.7 | 14.1 | 14.5 | 13.7 | 11.8 |
| Carbon Monoxide | | | | | |
| CO (1-hour) | | | | | |
| Maximum Concentration (ppm) | 5 | 4 | 5 | 3 | 3 |
| Days > CAAQS (20 ppm) | -- | -- | -- | -- | -- |
| Days > NAAQS (35 ppm) | -- | -- | -- | -- | -- |
| CO (8-hour) | | | | | |
| Maximum Concentration (ppm) | 3.2 | 3.0 | 3.1 | 2.0 | 2.2 |
| Days > CAAQS (9 ppm) | 0 | -- | -- | -- | -- |
| Days > NAAQS (9 ppm) | 0 | -- | -- | -- | -- |
| Nitrogen Dioxide | | | | | |
| $NO_2$ (1-hour) | | | | | |
| Maximum Concentration (ppm) | 0.01 | 0.10 | 0.07 | 0.08 | 0.01 |
| Days > CAAQS (0.18 ppm) | -- | -- | -- | -- | -- |
| NO2 (Annual Average—NAAQS) | | | | | |
| Annual Arithmetic Mean | 0.0131 | 0.0145 | 0.0132 | 0.0132 | 0.0130 |
| Days > CAAQS (0.03 ppm) | -- | -- | -- | -- | -- |
| Days > NAAQS (0.053 ppm) | -- | -- | -- | -- | -- |

**Table 4.B-1 (Continued)**

**Pollutant Standards and Ambient Air Quality Data From Representative Monitoring Stations [a]**

| Pollutant/Standard | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|
| Sulfur Dioxide | | | | | |
| $SO_2$ (1-hour) | | | | | |
| Maximum Concentration (ppm) | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Days > CAAQS (0.25 ppm) | -- | -- | -- | -- | -- |
| $SO_2$ (24-hour) | | | | | |
| Maximum Concentration (ppm) | 0.008 | 0.004 | 0.004 | 0.003 | 0.004 |
| Days > CAAQS (0.04 ppm) | -- | -- | -- | -- | -- |
| Days > NAAQS (0.14 ppm) | -- | -- | -- | -- | -- |
| $SO_2$ (Annual Average) | | | | | |
| Annual Arithmetic Mean | -- | 0.0013 | 0.0010 | 0.0011 | -- |
| Days > CAAQS (0.030 ppm) | -- | -- | -- | -- | -- |
| Lead | | | | | |
| Maximum 30-day average (μg/m3) | -- | 0.01 | 0.02 | 0.01 | 0.00 |
| Days > NAAQS (1.5 μg/m3) | -- | -- | -- | -- | -- |
| Maximum calendar quarter (μg/m3) | -- | 0.01 | 0.01 | 0.01 | 0.00 |
| Days > CAAQS (1.5 μg/m3) | -- | -- | -- | -- | -- |
| Sulfate | | | | | |
| Maximum 24-hour Concentration (μg/m3) | -- | 18.8 | 11.7 | 13.2 | 12.1 |
| Days > CAAQS (25 μg/m3) | -- | 0 | 0 | 0 | 0 |

***ppm*** *= parts per million;* ***μg/m³*** *= micrograms per cubic meter;* ***--*** *= not applicable;* ***--*** *= Data not available*

***+****= The following PM10 data samples were excluded from compliance consideration in accordance with the EPA Exceptional Event Regulation.*

[a] *Data presented for $O_3$, CO, $NO_2$, and $SO_2$ is from the North Coastal Orange County (SRA-18) Monitoring Station. Data for $PM_{10}$ and $PM_{2.5}$ is from the Central Orange County (SRA-17) Monitoring Station. Data for lead and sulfate is from the South Coastal L.A. County 2 (SRA-4) Monitoring Station.*

[b] *In May 2008, the federal 8-hour ozone standard was changed from 0.08 ppm to 0.075ppm. The data representing days above the standard applies to the old standard.*

[c] *Measurements were collected every six days. Measured days count the days that a measurement was greater than the level of the standard. Data is recorded as number (percentage) of samples exceeding the standard.*

[d] *In September 2006, the 24-hr $PM_{2.5}$ standard was changed from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. The data representing days above standard applies to the old standard for 2003, 2004, and 2005.*

[e] *Federal $PM_{2.5}$ standard is annual average (AAM)> 15 $\mu g/m^3$; and state standard is monthly average >12 $\mu g/m^3$.*

*Source: South Coast Air Quality Management District, California Air Resources Board, Ambient Monitoring Data 2005-2009.*

**Fine Particulates ($PM_{2.5}$)** - The maximum 24-hour $PM_{2.5}$ concentration recorded was 79.4 μg/m³ in 2007. The 24-hour NAAQS was exceeded between 0 and 4.2 percent annually from 2005-2009. The highest annual geometric mean of 14.7 was recorded in 2005.

**Carbon Monoxide** - The highest 1-hour CO concentration recorded was 5 ppm, recorded in 2005 and 2007. The maximum 8-hour CO concentration recorded was 3.2 ppm recorded in 2005. As demonstrated by the data, the standards were not exceeded during the five-year period.

**Nitrogen Dioxide** - The highest 1-hour $NO_2$ concentration recorded was 0.10 ppm in 2006. The highest recorded $NO_2$ annual arithmetic mean was 0.0145 ppm recorded in 2006. As shown the standards were not exceeded during the five-year period.

**Sulfur Dioxide** - The highest 1-hour concentration of $SO_2$ was 0.01 ppm recorded in all monitored years. The maximum 24-hour concentration was 0.008 ppm, recorded in 2005. As shown the standards were not exceeded during the five-year period.

**Lead (Pb)** – The Basin is currently in compliance with California and National standards for lead and monitoring is only conducted periodically since the primary sources of atmospheric lead, leaded gasoline and lead-based paint, are no longer available in the Basin.

#### *Existing Health Risk in the Surrounding Area*

According to the SCAQMD's MATES-III study, the cancer risk in the project vicinity is approximately 1,100 in one million, which is substantially lower than (24 percent below) the average cancer risk in the Basin of 1,400 per million.[2] The cancer risk in the project vicinity is largely due to diesel particulates generated by motor vehicle sources.

#### *Sensitive Receptors*

Some population groups, such as children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. The proposed project is located in Huntington Beach, which is primarily developed by residential and commercial uses. The nearest sensitive receptors to the project site are described below:

- Multi-family residential uses are located approximately 35 feet east of the project site.
- Single-family residential uses are located approximately 150 feet northwest of the project site.
- Golden West College is located approximately 200 feet west of the project site.

## b. Regulatory Framework

A number of statutes, regulations, plans and policies have been adopted which address air quality concerns. The proposed project site and vicinity is subject to air quality regulations developed and implemented at the federal, State, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source requirements and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented through delegation of authority to State and local agencies.

### (1) Authority for Current Air Quality Planning

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

### Federal Clean Air Act

The CAA was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement the State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The City of Huntington Beach is within the South Coast Air Basin (Basin), and as such is in an area designated a non-attainment area for certain pollutants that are regulated under the CAA.

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

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: (1) ozone ($O_3$); (2) nitrogen dioxide ($NO_2$); (3) sulfur dioxide ($SO_2$); (4) Particulate Matter ($PM_{10}$); (5) carbon monoxide (CO); and (6) lead (Pb). **Table 4.B-2**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for $O_3$ and to adopt a NAAQS for $PM_{2.5}$. The Basin fails to meet national standards for $O_3$ (for both the 1-hour and 8-hour standard), $PM_{10}$ and $PM_{2.5}$, and therefore is considered a federal "non-attainment" area for these pollutants. The CAA sets certain deadlines for meeting the NAAQS within the Basin including: (1) 1-hour $O_3$ by the year 2010; (2) 8-hour $O_3$ by the year 2021; and (3) $PM_{10}$ by the year 2006. Nonattainment designations are categorized into seven levels of severity: (1) basic; (2) marginal;

(3) moderate; (4) serious; (5) severe-15;[3] (6) severe-17; and (7) extreme. **Table 4.B-3**, *South Coast Air Basin Attainment Status*, lists the criteria pollutants and their relative attainment status.

The CAA also specifies future dates for achieving compliance with the NAAQS and mandates that states submit and implement a State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards would be met. The 1990 amendments to the CAA identify specific emission reduction goals for basins not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones.

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

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[2] *SCAQMD 2010. MATES III- Model Estimated Carcinogenic Risk. Website: http://www2.aqmd.gov/webappl/matesiii/*

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

**Table 4.B-2**

**Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards [a] | | Federal Standards [b] | | |
|---|---|---|---|---|---|---|
| | | Concentration [c] | Method [d] | Primary [c,e] | Secondary [c,f] | Method [g] |
| Ozone ($O^3$) | 1 Hour | 0.09 ppm (180 µg/m³) | Ultraviolet Photometry | — | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m³) | | 0.075 ppm (147 µg/m³) | | |
| Respirable Particulate Matter ($PM_{10}$) | 24 Hour | 50 µg/m³ | Gravimetric or Beta Attenuation | 150 µg/m³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m³ | | — | | |
| Fine Particulate Matter ($PM_{2.5}$) | 24 Hour | No Separate State Standard | | 35 µg/m³ | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m³ | Gravimetric or Beta Attenuation | 15 µg/m³ | | |
| Carbon Monoxide (CO) | 8 Hour | 9.0 ppm (10mg/m³) | Non-Dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m³) | None | Non-Dispersive Infrared Photometry (NDIR) |
| | 1 Hour | 20 ppm (23 mg/m³) | | 35 ppm (40 mg/m³) | | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m³) | | — | — | — |
| Nitrogen Dioxide ($NO_2$) | Annual Arithmetic Mean | 0.030 ppm (56 µg/m³) | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m³) [h] | Same as Primary Standard | Gas Phase Chemiluminescence |
| | 1 Hour | 0.18 ppm (338 µg/m³) | | 0.100 ppm (188 µg/m3) [h] | | |
| Sulfur Dioxide ($SO_2$) | | | Ultraviolet Fluorescence | | | Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)[i] |
| | 24 Hour | 0.04 ppm (105 µg/m³) | | — | — | |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m³) | |
| | 1 Hour | 0.25 ppm (655 µg/m³) | | 75 ppb (196 µg /m3) [i] | — | — |
| Lead (Pb) [j] | 30 Day Average | 1.5 µg/m³ | Atomic Absorption | — | — | — |
| | Calendar Quarter | — | | 1.5 µg/m³ | Same as Primary Standard | High Volume Sampler and Atomic Absorption |
| Visibility Reducing Particles | 8 Hour | Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. | | **No Federal Standards** | | |
| Sulfates ($SO_4$) | 24 Hour | 25 µg/m³ | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m³) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride [j] | 24 Hour | 0.01 ppm (26 µg/m³) | Gas Chromatography | | | |

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

*b National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or*

**Table 4.B-2 (Continued)**

**Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards [a] | | Federal Standards [b] | | |
|---|---|---|---|---|---|---|
| | | Concentration [c] | Method [d] | Primary [c,e] | Secondary [c,f] | Method [g] |

*less than the standard. For $PM_{10}$, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current federal policies.*

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

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

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

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

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

*h To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010). Note that the (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively. EPA standards are in units of parts per billion (ppb). California standards are in units of parts per million.*

*i On June 2, 2010, the USEPA established a new 1-hour $SO_2$ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. EPA also proposed a new automated Federal Reference Method (FRM) using ultraviolet technology, but will retain the older pararosaniline methods until the new FRM have adequately permeated State monitoring networks. The EPA also revoked both the existing 24-hour $SO_2$ standard of 0.14 ppm and the annual primary $SO_2$ standard of 0.030 ppm, effective August 23, 2010.*

*The secondary $SO_2$ standard was not revised at that time; however, the secondary standard is undergoing a separate review by EPA. Note that the new standard is in units of parts per billion (ppb). To directly compare the new primary national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.*

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

*Source: CARB, USEPA, 2010.*

## California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and include set standards for other pollutants recognized by the State. In general, the California standards are more health protective than NAAQS. California has also set standards for $PM_{2.5}$, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with the California standards for sulfates, hydrogen sulfide, and vinyl chloride, but does not meet the California standard for visibility reducing particles. Table 4.B-2 details the current NAAQS and CAAQS, and Table 4.B-3 provides the Basin's attainment status with respect to federal and State standards.

**Table 4.B-3**

**South Coast Air Basin Attainment Status**

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

*N/A = not applicable*

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

[b] *The Basin was officially reclassified as in attainment for carbon monoxide by the USEPA on June 11, 2007. "Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes: California, Final Rule." Federal Register 72 (11 May 2007):26718-26721.*

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

[d] *Although there is a State ambient air quality standard for vinyl chloride, the CARB does not monitor or make status designations for this pollutant, which is subject to source-specific toxic air contaminant control measures.*

*Source: USEPA Region 9 and California Air Resources Board.*

## California Air Resources Board Air Toxics Control Measure (ATCM)

In 2004, CARB adopted a control measure to limit commercial heavy duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter (DPM) and other air contaminants.[4] The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. In general, it prohibits idling for more than 5 minutes at any location.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. A CARB regulation that became effective on June 15, 2008, aims to reduce emissions by installation of diesel soot filters and encouraging the replacement of older, dirtier engines with newer emission controlled models.[5] A prohibition against acquiring certain vehicles began on March 1, 2009, and a reporting requirement started on April 1, 2009. Implementation of some provisions is staggered

[4] *Calif. Code of Regulations, Title 13, Sec. 2485. See http://www.arb.ca.gov/regact/idling/idling.htm (accessed July 2008).*

[5] *Calif. Code of Regulations, Title 13, Secs. 2449, 2449.1, 2449.2 and 2449.3.*

based on fleet size, with the largest operators to begin compliance in 2010. By 2020, CARB estimates that DPM will be reduced by 74 percent and smog forming $NO_X$ (another important pollutant emitted from diesel engines) by 32 percent, compared to what emissions would be without the regulation. In January 2010, the Associated General Contractors of America filed a petitioned requesting CARB to adopt an emergency amendment to delay the fleet average target dates of this regulation for a period of two years. Consequently, the following relief was granted: CARB will "not take any enforcement action for noncompliance with the regulation's March 1, 2010 emission standards or other emission related requirements before it receives authorization from U.S. EPA."[6]

### South Coast Air Quality Management District (SCAQMD)

As indicated previously, the City of Huntington Beach is located within the South Coast Air Basin. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. The 2007 AQMP employs the most up-to-date science, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes and new air quality modeling tools. The AQMP builds upon other agencies' plans to achieve federal standards for air quality in the Basin. It incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. The 2007 AQMP builds upon improvements in previous plans, and incorporates control measures considered feasible in light of costs and socioeconomic impacts. In addition, it highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act.

The 2007 AQMP relies on a comprehensive and integrated control approach aimed at achieving the $PM_{2.5}$ standard by 2015 through implementation of short- and mid-term control measures and achieving the 8-hour ozone standard by 2024 based on implementation of additional long-term measures. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

The control measures in the 2007 AQMP consist of four components: 1) the District's Stationary and Mobile Source Control Measures; 2) CARB's Proposed State Strategy; 3) the District Staff's Proposed Policy Options to Supplement CARB's Control Strategy; and 4) Regional Transportation Strategy and Control Measures provided by the Southern California Association of Governments (SCAG). The Plan includes 31 stationary and 30 mobile source measures. In general, the District's control strategy for stationary and mobile sources is based on the following approaches: 1) facility modernization; 2) energy efficiency and conservation; 3) good management practices; 4) market incentives/compliance flexibility; and 5) emission growth management.

[6] *California Regulatory Notice Register, February 2010. http://www.oal.ca.gov/res/docs/pdf/notice/9z-2010.pdf (accessed April 2010).*

Several SCAQMD rules adopted to implement portions of the AQMP may apply to construction or operation of the proposed project. For example, SCAQMD Rule 403 requires the implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. Also, SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents, which lowers the emissions of odorous compounds.

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

In addition, the SCAQMD has published (in June 2003) a document called "Localized Significance Threshold Methodology" that is intended to provide voluntary guidance for lead agencies in analyzing localized air quality impacts from proposed projects.[7] In October 2006, the SCAQMD adopted additional guidance regarding $PM_{2.5}$ in a document called "Final – Methodology to Calculate Particulate Matter $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds."[8] These documents were also used in the preparation of this analysis.

The SCAQMD has also adopted land use planning guidelines in the May 2005 "Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning"[9] which, like the CARB Handbook, also considers impacts to sensitive receptors from facilities that emit TACs. SCAQMD's distance recommendations are the same as those provided by CARB (e.g., the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to manage potential health risk. These guidelines are voluntary initiatives recommended for consideration by local planning agencies.

### Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally

[7] *See http://www.aqmd.gov/ceqa/handbook/LST/LST.html.*

[8] *See http://www.aqmd.gov/ceqa/handbook/pm2_5/pm2_5.html.*

[9] *See http://www.aqmd.gov/prdas/aqguide/aqguide.html.*

designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG has prepared the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

### Orange County Congestion Management Plan

The Congestion Management Plan (CMP) for the County of Orange was developed to meet the requirements of Section 65089 of the California Government Code. In enacting the CMP statute, the State legislature noted the increasing concern that urban congestion was impacting the economic vitality of the State and diminishing the quality of life in many communities. The CMP was created to further the following objectives:

- To link land use, transportation and air quality decisions.
- To develop a partnership among transportation decision makers to encourage appropriate transportation solutions include all modes of travel.
- To propose transportation projects which are eligible for State gas tax funds.

### City of Huntington Beach General Plan

Local jurisdictions, such as the City of Huntington Beach, have the authority and responsibility to reduce air pollution through its 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 Huntington Beach 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 measures.

Applicable measures per the Air Quality Element of the General Plan are specified below:

Goal AQ 1- Improve regional air quality by a) decreasing reliance on single occupancy vehicular trips, b) increasing efficiency of transit, c) shortening vehicle trips through a more efficient jobs-housing balance and a more efficient land use pattern, and d) increasing energy efficiency.

- Policy AQ 1.8.1- Continue to enforce construction site guidelines that require truck operators to minimize particulate emission.
- Policy AQ 1.8.2- Require installation of temporary construction facilities (such as wheel washers) and implementation of construction practices that minimize dirt and soil transfer onto public roadways.

- Objective AQ 1.9- Minimize sensitive uses (residential, hospitals, schools, etc.) exposure to toxic emissions.
    - Policy AQ 1.9.1- Assure that sufficient buffer areas exist between a sensitive use and a potential toxic emissions source.
- Objective AQ 1.10- Reduce the amount of energy consumed by commercial uses by 15 percent by 2000 and 30 percent by 2010. Reduce the amount of energy consumed by residential use by 4.5 percent by 1994 and 30 percent by 2010, as required by the SCAQMD.
    - Policy AQ 1.10.1- Continue to require the utilization and installation of energy conservation features in all new construction.

## 2. ENVIRONMENTAL IMPACTS

### a. Significance Thresholds

Appendix G of the *CEQA Guidelines* contains the Initial Study Environmental Checklist form used during preparation of the project Initial Study, which is contained in Appendix A of this EIR. The Initial Study Environmental Checklist includes questions relating to air quality. The Initial Study Environmental Checklist questions relating to air quality have been utilized as the thresholds of significance in this section. Accordingly, a project may create a significant environmental impact if it causes one or more of the following to occur:

Threshold 1: Conflict with or obstruct implementation of the applicable air quality plan (refer to Impact Statement 4.B-1).

Threshold 2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation (refer to Impact Statement 4.B-2).

Threshold 3: 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 releasing emissions which exceed quantitative thresholds for ozone precursors) (refer to Impact Statement 4.B-3).

Threshold 4: Expose sensitive receptors to substantial pollutant concentrations (refer to Impact Statement 4.B-4).

Threshold 5: Create objectionable odors affecting a substantial number of people (refer to Impact Statement 4.B-5).

### b. Numerical Significance Thresholds

The City of Huntington Beach has not adopted specific significance thresholds for air quality impacts. However, because of the SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies in the SCAQMD CEQA Air Quality Handbook guidance document will be used in evaluating project impacts.

### Construction Emissions

Based on criteria set forth in the SCAQMD CEQA Air Quality Handbook, the proposed project would have a significant impact with regard to construction emissions if any of the following would occur:

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

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

- Maximum daily localized emissions are greater than the Localized Significance Thresholds (LST), resulting in predicted ambient concentrations in the vicinity of the project site greater than the most stringent ambient air quality standards for CO and $NO_2$. [11]
- Maximum localized $PM_{10}$ or $PM_{2.5}$ emissions during construction are greater than the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the site to exceed 50 $\mu g/m^3$ over five hours (SCAQMD Rule 403 control requirement).

### Operational Emissions

Based on criteria set forth in the SCAQMD CEQA Air Quality Handbook, the proposed project would have a significant impact with regard to operational emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC, (2) 55 pounds per day for $NO_X$, (3) 550 pounds per day for CO, (4) 55 pounds a day for $PM_{2.5}$, and (5) 150 pounds per day for $PM_{10}$ or $SO_X$.[12]
- The project causes an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively, at an intersection or roadway within one-quarter mile of a sensitive receptor.
- The project would not be compatible with City of Huntington Beach, SCAQMD and SCAG air quality policies.

### Toxic Air Contaminants

The SCAQMD CEQA Air Quality Handbook states that the determination of the significance of toxic air contaminants shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the toxic material(s) and process(es) involved;

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

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

[12] *Ibid.*

- The proximity of the toxic air contaminants to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.

Based on these guidelines, the proposed project would have a significant impact from toxic air contaminants, if:

- On-site stationary sources emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0.[13]
- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.
- The project would be occupied primarily by sensitive individuals within 0.25 mile of any existing facility that emits air toxic contaminants which could result in a health risk for pollutants identified in District Rule 1401.[14]

## c. Methodology

### (1) Construction

Mass daily emissions during construction were compiled using CalEEMod, which is an emissions estimation/evaluation model developed by the CARB that is based, in part, on SCAQMD guidelines and methodologies. The CalEEMod model separates the construction process into three phases. The first phase is building demolition with possible emissions resulting from demolition dust, debris hall truck trips, equipment exhaust, and worker commute exhaust. The second phase of construction is site grading with potential emissions resulting from fugitive dust, soil haul truck trips, equipment exhaust, and worker commute exhaust. The third phase is subdivided into building equipment, architectural coating, asphalt, and worker commute. Emissions from the third phase of construction include equipment exhaust from building construction and asphalt paving, VOC emissions from architectural coating and asphalt paving, and worker commute exhaust. A complete listing of the construction equipment by phase and construction phase duration assumptions used in this analysis is included within the CalEEMod printout sheets that are provided in Appendix B.

Construction of the proposed project is anticipated to commence as early as the summer of 2012 and take approximately five months to complete. The first phase of the construction process would be site clearing, debris removal, grubbing, grading, and staging occurring over approximately one month; followed by trenching and installation of stormwater facilities and other utilities for about one month; skate park and retail building construction for approximately two months; and installation of landscaping, lighting, irrigation, and signage for one month. The proposed project is therefore anticipated to be completed by the fall of 2012. Since newer vehicles are typically more energy efficient and lower polluting than their

[13] *SCAQMD Risk Assessment Procedures for Rules 1401 and 212, November 1998.*

[14] *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993.*

predecessors, emissions from future model years would be lower than those calculated in accordance with this optimized schedule.

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the project site. In addition, fugitive dust emissions would result from grading and construction activities. Mobile source emissions, primarily $NO_X$ and PM, would result from the use of construction equipment such as bulldozers, wheeled loaders, and cranes. During the finishing phase, the application of architectural coatings (i.e., paints) and other building materials would release reactive organic compounds. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. The equipment mix and construction duration for each stage is detailed in Appendix B.

The amount of construction equipment used and the duration of construction activity could have a substantial effect upon the amount of construction emissions, concentrations and the resulting impacts occurring at any one time. As such, the emission forecasts provided reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction is occurring in a relatively intensive manner.

The localized effects from the on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the proposed project according to the SCAQMD's localized significance threshold (LST) methodology, which utilizes on-site mass emission rate look up tables and, where appropriate, project specific modeling. LSTs are only applicable to the following pollutants: $NO_x$, CO, $PM_{10}$, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA) and distance to the nearest sensitive receptor. For $PM_{10}$ and $PM_{2.5,}$ LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust. The mass rate look-up tables were developed for each SRA and can be used to determine whether or not a project may generate significant adverse localized air quality impacts.

### (2) Operations

The CalEEMod software was also used to compile the mass daily emissions estimates from mobile (vehicular traffic), stationary (natural gas usage), and area (landscape equipment) sources that would occur during long-term project operations (including occasional special events). In calculating mobile-source emissions, the CalEEMod default trip length assumptions were applied to the average daily trip estimates provided by the project traffic consultant to arrive at vehicle miles traveled. Stationary-source and area source emissions were also calculated using CalEEMod default assumptions. Local area CO concentrations for roadways were evaluated using the CALINE-4 traffic pollutant dispersion model, developed by California Department of Transportation (Caltrans), in combination with Emfac2007, a model to provide vehicle fleet emission factors. The analysis of roadway CO impacts followed the protocol recommended by Caltrans and published in the document titled Transportation Project-Level Carbon Monoxide Protocol, December 1997. It is also consistent with procedures identified through the SCAQMD's CO modeling protocol. All emissions calculation worksheets and air quality modeling output files are provided in Appendix B.

Emissions from project operations were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of daily vehicle miles traveled by applicable Emfac2007 emissions factors. Special event operation emissions were calculated using Emfac2007 for shuttle bus emissions resulting from travel to and from the Huntington Beach Sports complex; generator emissions were calculated using typical manufacturer specifications and emissions verification sheets. The model outputs and worksheets for calculating operational daily emissions are provided in Appendix B.

## d. Effects Found Not To Be Significant

As indicated in the project's IS/NOP, all environmental issues related to air quality were determined to be potentially significant, and therefore further detailed analysis of all issues is provided below.

## e. Analysis of Project Impacts

The proceeding analysis of project impacts includes six "Impacts Statements": 4.B-1 through 4.B-6.

### (1) Consistency with Air Quality Plan

| | |
|---|---|
| Threshold | Would the project conflict with or obstruct implementation of the applicable air quality plan? |

*4.B-1 Project implementation would result in less than significant air quality impacts and would not conflict with or obstruct implementation of the applicable air quality plan.*

The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of criteria pollutants for which the Basin is in non-attainment (i.e., ozone and $PM_{10}$). The proposed project would be subject to the SCAQMD's AQMP. The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the SCAG.

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. SCAG serves as the federally designated metropolitan planning organization (MPO) for the southern California region. With regard to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP, and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP. Both the RCPG and AQMP strategy incorporate projections from local planning documents.

With regard to the Congestion Management Plan (CMP), the average vehicle delay for Caltrans intersections, and LOS for the study area intersections, all intersections meet the performance criteria and the proposed project does not have a significant impact for the short-range and long-range analysis.[15] As such, the proposed project would not exceed any CMP thresholds. In summary, project development would not conflict with or obstruct implementation of the AQMP or CMP.

[15] *Center Avenue Skate Park Traffic Impact Study. Huntington Beach, CA. Austin-Foust Associates, Inc, September 2010.*

The 2007 AQMP, discussed previously, 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. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. A project is consistent with the AQMP if it is consistent with the population, housing and employment assumptions that were used in the development of the AQMP. The project site is currently zoned under the Beach and Edinger Corridors Specific Plan (BECSP) for residential uses and contemplated for up to 175 housing units in the City's General Plan. The skate park will therefore produce fewer air emissions than future residential uses, due to less intensive uses to occur on-site. As discussed, the addition of the proposed project would not cause an exceedance of growth projections forecasted by SCAG. The SCAQMD has incorporated the projections described above into the AQMP; thus, it can be concluded that the proposed project would be consistent with the projections in the AQMP. In addition, implementation of the proposed project would not exceed any ambient air quality standards or thresholds. The proposed project would not be anticipated to conflict with or obstruct implementation of the SCAQMD's AQMP. Therefore, the proposed project would be consistent with applicable air quality plans and policies would not have an impact.

## (2) Violation of Air Quality Standards

| | |
|---|---|
| Threshold | Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation? |

*4.B-2 Project implementation would generally result in less than significant air quality impacts, based on the applicable threshold of significance, with the exception of operational impacts during special events. Construction impacts would be less than significant and would not violate applicable air quality standards nor substantially contribute to an existing or projected air quality violation. Operational impacts would be less than significant for all criteria pollutants. As such, operational impacts would be less than significant.*

### (a) Construction

#### *(i) Regional Impacts*

The worst-case daily emissions were calculated for each phase of construction, and are presented in **Table** 4.B-4, *Estimate of Unmitigated Regional Construction Emissions*. As shown therein, construction-related daily emissions for all criteria and precursor pollutants studied (CO, $PM_{10}$, $PM_{2.5}$, $NO_X$, VOC, and $SO_X$) would not exceed SCAQMD significance thresholds. These calculations assume that appropriate dust control measures would be implemented during each phase of development, as required by SCAQMD Rule 403 - Fugitive Dust. Therefore, with respect to regional emissions from construction activities, this impact would be less than significant.

#### *(ii) Local Impacts*

As previously mentioned, the localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look up tables provided in the LST document were used to determine localized construction emissions thresholds for the project. The maximum daily localized emissions for each of the construction phases and localized significance thresholds are also presented in Table 4.B-4. As shown therein, maximum localized construction emissions for sensitive receptors would not

**Table 4.B-4**

**Estimate of Unmitigated Regional Construction Emissions [a]**
**(pounds/day)**

| Stage | VOC | $NO_X$ | CO | $SO_X$ | $PM_{10}$ [b] | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **REGIONAL EMISSIONS** | | | | | | |
| Mass Site Grading | 9 | 74 | 40 | <1 | 6 | 5 |
| Fine Site Grading | 6 | 47 | 27 | <1 | 15 | 4 |
| Building Erection/Finishing | 6 | 29 | 20 | <1 | 2 | 2 |
| Paving | 4 | 22 | 14 | <1 | 2 | 2 |
| Coating | 7 | 3 | 2 | <1 | <1 | <1 |
| **Maximum Regional Daily Emissions** | **9** | **74** | **40** | **<1** | **15** | **5** |
| Regional Daily Significance Threshold | 75 | 100 | 550 | 150 | 150 | 150 |
| Over/(Under) | (66) | (27) | (510) | (150) | (135) | (145) |
| Exceed Threshold? | **No** | **No** | **No** | **No** | **No** | **No** |
| **LOCALIZED EMISSIONS** | | | | | | |
| Mass Site Grading | 9 | 73 | 39 | <1 | 6 | 5 |
| Fine Site Grading | 4 | 36 | 21 | <1 | 5 | 3 |
| Building Erection/Finishing | 6 | 29 | 20 | <1 | 2 | 2 |
| Paving | 4 | 22 | 14 | <1 | 2 | 2 |
| Coating | 7 | 3 | 2 | <1 | <1 | <1 |
| **Maximum Localized Emissions** | **9** | **73** | **39** | **<1** | **6** | **4.96** |
| Localized Significance Threshold (LST) | - | 131 | 962 | - | 7 | 5 |
| Over/(Under) | - | (58) | (923) | - | (1) | (0) |
| Exceed Threshold? | **-** | **No** | **No** | **-** | **No** | **No** |

[a] *Compiled using the CALEEMOD emissions inventory model. The equipment mix and use assumption for each phase is provided in Appendix B.*
[b] *$PM_{10}$ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.*
[c] *The SCAQMD LSTs are based on Source Receptor Area 18 (North Coastal Orange County) for a two acre site with sensitive receptors located further than or equal to 25 meters from the construction activity.*

*Source: PCR Services Corporation, 2011.*

exceed the localized thresholds for NOx CO, $PM_{10}$ and $PM_{2.5}$. Therefore, with respect to localized construction emissions, impacts would be less than significant.

#### *(iii) Toxic Air Contaminants*

The greatest potential for toxic air contaminant (TAC) emissions would be related to diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. In addition, incidental amounts of toxic substances such as oils, solvents, and paints would be used. These substances would comply with all applicable SCAQMD rules for their manufacture and use. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Given the

relatively short-term construction schedule of five months, the proposed project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions with no residual emissions after construction and corresponding individual cancer risk. As such, project-related toxic emission impacts during construction would be less than significant.

Although project-related construction air quality impacts would be less than significant, the following mitigation measures identified in the BECSP EIR would be implemented (and complied with prior to issuance of any grading permit), as appropriate, as part of the proposed project to reduce construction air quality impacts associated with the proposed project:

*BECSP MM4.2-1* Project applicants shall require by contract specifications that all diesel-powered equipment used will be retrofitted with after-treatment products (e.g., engine catalysts). Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Huntington Beach prior to issuance of a grading permit.

*BECSP MM4.2-2* Project applicants shall require by contract specifications that all heavy-duty diesel-powered equipment operating and refueling at the project site use low-$NO_X$ diesel fuel to the extent that it is readily available and cost effective (up to 125 percent of the cost of California Air Resources Board diesel) in the South Coast Air Basin (this does not apply to diesel-powered trucks traveling to and from the project site). Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Huntington Beach prior to issuance of a grading permit.

*BECSP MM4.2-3* Project applicants shall require by contract specifications that construction equipment engines be maintained in good condition and in proper tune per manufacturer's specification for the duration of construction. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Huntington Beach prior to issuance of a grading permit.

*BECSP MM4.2-4* Project applicants shall require by contract specifications that construction operations rely on the electricity infrastructure surrounding the construction site rather than electrical generators powered by internal combustion engines. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Huntington Beach prior to issuance of a grading permit.

*BECSP MM4.2-5* As required by South Coast Air Quality Management District Rule 403—Fugitive Dust, all construction activities that are capable of generating fugitive dust are required to implement dust control measures during each phase of project development to reduce the amount of particulate matter entrained in the ambient air. These measures include the following:

- Application of soil stabilizers to inactive construction areas
- Quick replacement of ground cover in disturbed areas
- Watering of exposed surfaces three times daily
- Watering of all unpaved haul roads three times daily
- Covering all stock piles with tarp

- Reduction of vehicle speed on unpaved roads
- Post signs on-site limiting traffic to 15 miles per hour or less
- Sweep streets adjacent to the project site at the end of the day if visible soil material is carried over to adjacent roads
- Cover or have water applied to the exposed surface of all trucks hauling dirt, sand, soil, or other loose materials prior to leaving the site to prevent dust from impacting the surrounding areas
- Install wheel washers where vehicles enter and exit unpaved roads onto paved roads to wash off trucks and any equipment leaving the site each trip

*BECSP MM4.2-6* Project applicants shall require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes. Diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds shall be turned off when not in use for more than 5 minutes. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Huntington Beach.

*BECSP MM4.2-7* Project applicants shall require by contract specifications that construction parking be configured to minimize traffic interference during the construction period and, therefore, reduce idling of traffic. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Huntington Beach.

*BECSP MM4.2-8* Project applicants shall require by contract specifications that temporary traffic controls are provided, such as a flag person, during all phases of construction to facilitate smooth traffic flow. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Huntington Beach.

*BECSP MM4.2-9* Project applicants shall require by contract specifications that construction activities that affect traffic flow on the arterial system be scheduled to off-peak hours (10:00 A.M. to 4:00 P.M.). Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Huntington Beach.

*BECSP MM4.2-10* Project applicants shall require by contract specifications that dedicated on-site and off-site left-turn lanes on truck hauling routes be utilized for movement of construction trucks and equipment on site and off site to the extent feasible during construction activities. Contract specifications shall be included in the proposed project construction documents, which shall be approved by the City of Huntington Beach.

*BECSP MM4.2-11* Upon issuance of building or grading permits, whichever is issued earlier, notification shall be mailed to owners and occupants of all developed land uses within 300 feet of a project site within the Specific Plan providing a schedule for major construction activities that will occur through the duration of the construction period. In addition, the notification will include the identification and contact number for a community liaison and designated construction manager that would be available on site to monitor construction activities. The construction manager shall be responsible for complying with all project requirements related to $PM_{10}$ generation. The construction manager will be

located at the on-site construction office during construction hours for the duration of all construction activities. Contract information for the community liaison and construction manager will be located at the construction office, City Hall, the police department, and a sign on site.

*BECSP MM4.2-12* Project applicants shall require by contract specifications that the architectural coating (paint and primer) products used would have a VOC rating of 125 grams per liter or less. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Huntington Beach.

*BECSP MM4.2-13* Project applicants shall require by contract specifications that materials that do not require painting be used during construction to the extent feasible. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Huntington Beach.

*BECSP MM4.2-14* Project applicants shall require by contract specifications that pre-painted construction materials be used to the extent feasible. Contract specifications shall be included in the proposed project construction documents, which shall be reviewed and approved by the City of Huntington Beach.

### (b) Operational Impacts

The Center Avenue Skate Park Project would include a skate park plaza area, turf/walking area, a skate shop/concession/restroom building, a skate park entrance kiosk, the main parking lot near the primary site access fronting Center Avenue, and a secondary parking area off McFadden Avenue (to be used only for special events). The site would be occupied and operational in the fall of 2012.

#### *(i) Regional Impacts*

Based on the nature of the skate park/retail store and associated users/patrons, it is expected that the majority of park visitors would be youth utilizing non-vehicular transportation or dropped off by others. Daily trip rates were provided by the traffic impact study prepared by Austin-Foust Associates, for both typical mid-week and weekend day operations. Results of the criteria pollutant calculations are shown in **Table 4.B-5**, *Proposed Project-Related Operational Emissions- 2012*. As shown in Table 4.B-5, net regional emissions resulting from the typical operation of the proposed project would not exceed regional SCAQMD thresholds for all pollutants studied (VOC, $NO_X$, $SO_X$, CO, $PM_{10}$, or $PM_{2.5}$). Thus, regional operations emissions from typical operation would not result in a significant long-term regional air quality impact.

In addition, the Skate Park facilities would host several special events per year, comprising up to approximately 15 event days, which would substantially increase park visitation and associated traffic on special event days. Guests arriving by vehicle would be diverted to the surface parking lots at the Huntington Beach Sports Complex, located approximately 2.8 miles south of the project site, which has a total of 850 parking stalls, and is commonly used for off-site parking needs during various events held intermittently throughout the City of Huntington Beach. Guests would access this parking area via the Sports Complex's eastern entrance off Gothard Street at Talbert Avenue, and then would be transported to and from

**Table 4.B-5**

**Proposed Project-Related Operational Emissions- 2012**
**(Pounds per Day)**

**Typical Operation [a]**

| Emission Source | VOC | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| **Typical Scenario[a]** | | | | | | |
| **Regional Emissions** | | | | | | |
| On Road Mobile Sources | 4 | 11 | 44 | <1 | 7 | <1 |
| Area Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Stationary Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| **Total Project** | 5 | 11 | 44 | **<1** | 7 | <1 |
| SCAQMD daily Significance Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Over (Under) | (51) | (44) | (506) | (150) | (143) | (55) |
| Significant? | **No** | **No** | **No** | **No** | **No** | **No** |
| **Localized Emissions** | | | | | | |
| Area Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Stationary Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| **Total Project** | **<1** | **<1** | **<1** | **<1** | **<1** | **<1** |
| Localized Significance Threshold | N/A | 92 | 647 | N/A | 1 | 1 |
| Over (Under) | N/A | (92) | (647) | N/A | (1) | (1) |
| Significant? | **N/A** | **No** | **No** | **N/A** | **No** | **No** |
| **Special Event Scenario [b]** | | | | | | |
| **Regional Emissions** | | | | | | |
| On Road Mobile Sources | 10 | 20 | 98 | <1 | 18 | 1 |
| Area Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Stationary Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Shuttle Bus (Special Event) | <1 | 7 | 5 | <1 | <1 | <1 |
| Diesel Generators (Special Event) | <1 | 17 | 1 | <1 | <1 | <1 |
| **Total Project** | 11 | 44 | 104 | <1 | 18 | 2 |
| SCAQMD daily Significance Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Over (Under) | (44) | (11) | (446) | (150) | (132) | (53) |
| Significant? | **No** | **No** | **No** | **No** | **No** | **No** |
| **Localized Emissions** | | | | | | |
| Area Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Stationary Sources | <1 | <1 | <1 | <1 | <1 | <1 |
| Diesel Generators (Special Event) | <1 | 17 | 1 | <1 | <1 | <1 |
| **Total Project** | **<1** | **17** | **1** | **<1** | **<1** | **<1** |
| Localized Significance Threshold | N/A | 92 | 647 | N/A | 1 | 1 |
| Over (Under) | N/A | (75) | (646) | N/A | (1) | (1) |
| Significant? | **N/A** | **No** | **No** | **N/A** | **No** | **No** |

[a] *Typical operation emissions include weekday and weekend trips.*
[b] *Worst-case operation emissions include an increase in trips during special event days.*
*Emissions were calculated using the CalEEMod emissions model. Model output sheets are provided in Appendix B.*

*Sources: PCR Services Corporation, 2011.*

the skate park via shuttle buses. It is assumed that each special event could require up to ten (10) shuttle buses, running continuously throughout the day to transport guests to and from the event location for a total of 100 trips per day (50 round trips)[16]. Per coordination with the City and the Parking Management Plan (refer to the Traffic Impact Study), events at the Skate Park will be scheduled so as to avoid other uses at the Huntington Beach Sports Complex. Emissions from shuttle bus used during events are included in the analysis.

During special events, portable fossil-fueled generators could be needed to provide temporary lighting and power, and to store, cool, and prepare food and beverage. Thus, emissions from these activities are also included in Table 4.B-5. As shown in Table 4.B-5, emissions from the special event scenario are not expected to exceed the SCAQMD daily regional significance thresholds. Thus, operational emissions would result in a less than significant long-term regional air quality impact.

#### *(ii) Local Impacts*

The SCAQMD has established LSTs to analyze the potential for on-site emissions from long-term operation of the proposed changes to impact nearby sensitive land uses. The SCAQMD LSTs are based on Source Receptor Area 18 (North Coastal Orange County) for a two-acre site with sensitive receptors located further than or equal to 25 meters from the operation activity. As shown in Table 4.B-5, on-site emissions will be below the applicable LST thresholds for all pollutants studied.

In addition to typical skate park functions, the facility would host several special events per year, comprising up to approximately 15 event days, which would require additional service needs. It was therefore assumed that two generators would be used to accommodate the increase in lighting, cooling and miscellaneous operations for special events. The increase in emissions during special events is provided in the worst-case emissions analysis below. As shown in Table 4.B-5, localized emissions from special events will be below the applicable LST thresholds for all pollutants studied.

Within an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations are generally found within close proximity to congested intersection locations. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersection) increase. For purposes of providing a conservative, worst-case impact analysis, CO concentrations are typically analyzed at congested intersection locations, because if impacts are less than significant in close proximity of the congested intersections, impacts will also be less than significant at more distant sensitive receptor locations.

Project traffic, during the operational phase of the proposed project, would have the potential to create local area CO impacts. The SCAQMD recommends a hot-spot evaluation of potential localized CO impacts when volume-to-capacity ratios are increased by two percent at intersections with a level of service (LOS) of D or worse. The SCAQMD also recommends a CO hot-spot evaluation when an intersection decreases in LOS by one level beginning when LOS changes from an LOS of C to D.

[16] *Center Avenue Skate Park Traffic Impact Study. Huntington Beach, CA. Austin-Foust Associates, Inc, December 2011.*

According to the LOS Analysis in the Traffic Impact Analysis prepared by Austin-Foust Associates in December 2011, one intersection (Golden West and McFadden) would meet this criterion during the special event scenario. None of the study intersections would meet this criterion under the typical operational scenario.

CO concentration levels for the intersection at Golden West and McFadden was analyzed for the special event scenario using the CALINE4 dispersion model developed by the California Department of Transportation, using peak-hour traffic volumes and conservative meteorological assumptions. Conservative meteorological conditions include low wind speed, stable atmospheric conditions, and the wind angle producing the highest CO concentrations for each case. CO concentrations were modeled under the future No Project and With Project. As shown in **Table 4.B-6**, *Local Area Carbon Monoxide Dispersion Analysis*, project-generated traffic volumes are forecasted to have a negligible effect on the projected 1-hour and 8-hour CO concentrations at the intersections studied. Since a significant impact would not occur at the intersections operating at the highest V/C ratio, no significant impacts would occur at any other analyzed roadway intersection as a result of project option-generated traffic volumes. Thus, the project would not cause any new or exacerbate any existing CO hotspots, and, as a result, impacts related to localized mobile-source CO emissions would be less than significant.

**Table 4.B-6**

**Local Area Carbon Monoxide Dispersion Analysis**

| Intersection | Peak Period a | Maximum 1-Hour Base Concentration [b] (ppm) | Maximum 1-Hour w/ Project Concentration[c] (ppm) | Significant 1-Hour Impact?[d] (>20 ppm) | Maximum 8-Hour Base Concentration[e] (ppm) | Maximum 8-Hour w/ Project Concentration [f] (ppm) | Significant 8-Hour Impact ? (>9.0 ppm)[d] |
|---|---|---|---|---|---|---|---|
| Golden West Street and McFadden Avenue | Mid-Day | 7.3 | 7.3 | NO | 5.54 | 5.54 | NO |

*ppm = parts per million.*

[a] *Peak hour traffic volumes are based on the Traffic Analysis prepared for the project by Austin-Foust Associates, December 2011. Special Event Scenario.*
[b] *SCAQMD 1-hour ambient background concentration (5.8 ppm) + Base traffic CO 1-hour contribution.*
[c] *SCAQMD 1-hour ambient background concentration (5.8 ppm) + w/ project traffic CO 1-hour contribution.*
[d] *The most restrictive standard for 1-hour CO concentrations is 20 ppm and for 8-hour concentrations is 9.0 ppm.*
[e] *SCAQMD 8-hour ambient background concentration (4.7 ppm) + Base traffic CO 8-hour contribution.*
[f] *SCAQMD 8-hour ambient background concentration (4.7 ppm) + w/ project traffic CO 8-hour contribution.*

*Source: PCR Services Corporation, 2011; emission factor and dispersion modeling output sheets are provided in Appendix B.*

As the proposed Project does not cause an exceedance of an ambient air quality standard, the proposed Project's localized operational air quality impacts would therefore be less than significant.

#### *(iii) Toxic Air Contaminants*

The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulates (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing

mobile source diesel emissions.[17] In addition, typical sources of acutely and chronically hazardous toxic air contaminants (TACs) include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. Minimal emissions of air toxics may result from the proposed land uses (e.g., architectural coating). Toxic or carcinogenic air pollutants are not expected to occur in any meaningful amounts in conjunction with operation of the proposed land uses within the project site. In addition, most uses of such substances would occur indoors. Based on the uses expected on the site, potential impacts associated with the release of toxic air contaminants would be less than significant.

### (3) Cumulatively Considerable Net Increases of a Criteria Pollutant

| | |
|---|---|
| Threshold | Would the project 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 releasing emissions which exceed quantitative thresholds for ozone precursors? |

*4.B-3 Project implementation would result in less than significant cumulative considerable net increases of any criteria pollutant for which the project region is non-attainment air quality impacts, based on the applicable federal or state ambient air quality standards (including ozone precursors).*

A significant impact would occur if the proposed project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. As discussed above under Impact 4.B-2, construction and operation of the proposed project, including special event operations, would not result in the generation of regional air pollutant emissions that would exceed applicable thresholds. Since regional emissions address pollutants generated throughout the South Coast Air Basin, impacts in this regard are considered cumulative impacts. Therefore, impacts related to cumulative net increases of criteria pollutants would be less than significant.

### (4) Expose Sensitive Receptors to Substantial Pollutant Concentrations

| | |
|---|---|
| Threshold | Would the project expose sensitive receptors to substantial pollutant concentrations? |

*4.B-4 Implementation of the project would not expose sensitive receptors in the vicinity of the project area to substantial pollutant concentrations.*

As discussed above under Impact 4.B-2, the construction and operation of the proposed project would not result in the generation of significant pollutant concentrations. Specifically, localized project-related CO and TAC emissions would be well below SCAQMD thresholds for both construction and operation. Despite the proximity of identified sensitive receptors (i.e., residential uses to the east of the project site), pollutant concentrations generated by construction and operation of the proposed project would not result in significant adverse effects on these uses. As such, impacts would be less than significant.

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

### (5) Create Objectionable Odors

| Threshold | Would the project create objectionable odors affecting a substantial number of people? |
|---|---|

*4.B-5 Implementation of the project would not create objectionable odors affecting a substantial number of people.*

#### (a) Construction

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

#### (b) Operation

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors. Therefore, the proposed project would not create adverse odors as discussed above and would have no impact related to objectionable odors.

## 3. CUMULATIVE IMPACTS

*4.B-6 The project combined with cumulative development in the area may result in cumulative air quality impacts. However, project-by-project analysis of air quality impacts, compliance with applicable regulatory requirements, and implementation of the prescribed mitigation measures contained in the BECSP EIR would ensure that potentially significant cumulative impacts regarding air quality impacts are reduced to a less than significant level.*

The geographic context for cumulative air quality impacts is SRA 18, which covers the Northern Coastal Orange County area. This analysis, therefore, accounts for all anticipated cumulative growth within this geographic area, including ambient growth

### (1) AQMP Consistency

As discussed in Impact 4.B-1, growth considered to be inconsistent with the AQMP could interfere with attainment of federal or state ambient air quality standards because this growth is not 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 in the Growth Management chapter of the RCPG, implementation of the AQMP would not be obstructed by such growth. Should projections exceed the anticipated growth forecasts of the RCPG, impacts with respect to AQMP consistency would occur.

However, growth under the proposed project would be considered consistent with the overall growth assumptions of the City of Huntington Beach General Plan and is therefore consistent with the RCPG and the

2007 AQMP. The proposed project, with respect to potential conflicts with the AQMP, would not represent a cumulatively considerable contribution and this cumulative impact would be less than significant

### (2) Violation of Air Quality Standards

A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state nonattainment pollutant. Because the Basin is currently in nonattainment for $O_3$ (for which VOC and $NO_X$ are precursors) and $PM_{10}$ under national and state standards, and is in nonattainment for CO under national standards, projects could cumulatively exceed an air quality standard or contribute to an existing or projected air quality exceedance. With regard to determining the significance of the proposed project contribution, the SCAQMD neither recommends quantified analyses of cumulative construction or operational emissions nor provides separate methodologies or thresholds of significance to be used to assess cumulative construction or operational impacts. Instead, SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project-specific impacts; that is, individual development projects that generate construction-related or operational emissions that exceed the SCAQMD-recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

For clarification, and as evident by the above analysis, this threshold essentially repeats the analysis provided in Impact 4.B-2 and applies it to the cumulative condition, whereby any individual project that exceeds the SCAQMD recommended daily thresholds for project-specific impacts is considered to cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

### (3) Exposure to Substantial Pollutant Concentrations

A significant impact would occur if a project would add a cumulatively considerable contribution to a localized significant impact. With regard to determining the significance of the proposed project contribution, the SCAQMD neither recommends quantified analyses of cumulative construction LST emissions nor provides separate methodologies or thresholds of significance to be used to assess cumulative construction LST impacts. Instead, the SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed using the same significance criteria as those for project-specific impacts; that is, individual development projects that generate construction-related emissions that exceed the SCAQMD-recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment.

### (4) Creation of Objectionable Odors

The relevant geographic area for odor impacts is the City, and development in the project area projected to be built include primarily residential, commercial, and office uses, and could include restaurants. Although construction activities occurring in association with other development in the area could generate airborne odors associated with the operation of construction vehicles (e.g., diesel exhaust) and the application of interior and exterior architectural coatings, these emissions would only occur during daytime hours, would generally be restricted to the immediate vicinity of the construction site and activity, and standard construction requirements would be imposed with these construction projects to reduce impacts. The odor impacts resulting from residential and commercial projects (i.e., operations) are not expected to affect a substantial amount of people, as activities typically associated with these uses do not emit offensive odors

and solid waste from these projects would be stored in special container areas. In addition, restaurants are typically required to have ventilation systems that prevent substantial adverse odor impacts. The project's contribution to the cumulative odor impact is not considerable. Therefore, this cumulative impact is considered less than significant.