

4.3 AIR QUALITY

4.3.1 Introduction

This section provides a discussion of the existing air quality environment and an analysis of potential impacts from implementation of the Del Mar Fairgrounds Master Plan projects. The air quality assessment for the proposed project includes estimating emissions associated with short-term construction and long-term operation of the proposed projects. A local carbon monoxide (CO) hot spot analysis was conducted using the CALINE4 dispersion model, and the model results are included in Appendix B of this Environmental Impact Report (EIR). Construction and operation emissions were calculated using the URBEMIS 2007 emission model, and the model results are also included in Appendix B of this EIR.

Greenhouse gas (GHG) emissions as a result of the proposed project are addressed later in Section 4.16, Greenhouse Gases and Energy.

4.3.2 Existing Environmental Setting

The project site is located within the Cities of Del Mar and San Diego, an area within the San Diego Air Basin (Basin) that includes the entire San Diego County area. Air quality regulation in the Basin is administered by the San Diego County Air Pollution Control District (SDAPCD).

Regional Air Quality. Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table 4.3.A, these pollutants include ozone (O₃), CO, nitrogen dioxide (NO₂), sulfur dioxide (SO₂), coarse particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter less than 2.5 microns in diameter (PM_{2.5}), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to setting out primary and secondary AAQS, the State has established a set of episode criteria for O₃, CO, NO₂, SO₂, and particulate matter. These criteria apply periods of short-term exposure to air pollutants that actually threaten public health. Health effects during these periods are described as progressively more severe by identifying an increase in pollutant levels within a scale defined as Stage One to Stage Three. Table 4.3.B lists the health effects of these criteria pollutants and their potential sources. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these health effects would not occur unless the standards are exceeded by a large margin. The State AAQS are more stringent than the federal AAQS.

Climate/Meteorology. The Basin climate is influenced by its terrain and geographical location. The Basin is a coastal plain with connecting broad valleys and low hills. The Pacific Ocean forms the western boundary, and high mountains surround the rest of the Basin. The region lies in the semipermanent high pressure zone of the eastern Pacific. The resulting climate is mild and tempered by cool ocean breezes.

Table 4.3.A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²			
		Concentration ³	Method ⁴	Primary ^{2,5}	Secondary ^{2,6}	Method ⁷	
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry	
	8-Hour	0.07 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)			
Respirable Particulate Matter (PM ₁₀)	24-Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		–			
Fine Particulate Matter (PM _{2.5})	24-Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	15 µg/m ³			
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m ³)	Nondispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m ³)	None	Nondispersive Infrared Photometry (NDIR)	
	1-Hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)			
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–			
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm (56 µg/m ³)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence	
	1-Hour	0.18 ppm (338 µg/m ³)		–			
Lead	30 days average	1.5 µg/m ³	Atomic Absorption	–	Same as Primary Standard	High-Volume Sampler and Atomic Absorption	
	Calendar Quarter	–		1.5 µg/m ³			
	Rolling 3-month Average ⁹	–		0.15 µg/m ³			
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	–	Ultraviolet Fluorescence	0.030 ppm (80 µg/m ³)	–	Spectrophotometry (Pararosaniline Method)	
	24-Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (365 µg/m ³)			
	3-Hour	–		–			0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)		–			–
Visibility-Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 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	24-Hour	25 µg/m ³	Ion Chromatography				
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ⁸	24-Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

Source: California Air Resources Board, November 17, 2008.

Footnotes:

- ¹ California standards for O₃, CO (except Lake Tahoe), SO₂ (1- and 24-hour), NO₂, suspended particulate matter (PM₁₀, 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 AAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- ² National standards (other than O₃, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth-highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, 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 the United States Environmental Protection Agency (EPA) for further clarification and current federal policies.
- ³ Concentration is expressed first in the units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25EC and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25EC and a reference pressure of 760 torr; parts per million (ppm) in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ⁴ Any equivalent procedure that can be shown to the satisfaction of the Air Resources Board (ARB) to give equivalent results at or near the level of the air quality standard may be used.
- ⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- ⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ⁷ Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- ⁸ 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.
- ⁹ National lead standard, rolling 3-month average: final rule signed October 15, 2008.

ARB = Air Resources Board

EPA = United States Environmental Protection Agency

mg/m³ = milligram of pollutant per meter of air

ppm = parts per million

µg/m³ = microgram of pollutant per cubic meter of air

Table 4.3.B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O ₃)	<ul style="list-style-type: none"> Atmospheric reaction of organic gases with nitrogen oxides in the presence of sunlight 	<ul style="list-style-type: none"> Aggravation of respiratory and cardiovascular diseases Irritation of eyes Impairment of cardiopulmonary function Damage to plant leaves
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> Motor vehicle exhaust High temperature stationary combustion Atmospheric reactions 	<ul style="list-style-type: none"> Aggravation of respiratory illness Reduced visibility Reduced plant growth Formation of acid rain
Carbon Monoxide (CO)	<ul style="list-style-type: none"> Byproducts from incomplete combustion of fuels and other carbon containing substances, such as motor exhaust Natural events, such as decomposition of organic matter 	<ul style="list-style-type: none"> Reduced tolerance for exercise Impairment of mental function Impairment of fetal development Death at high levels of exposure Aggravation of some heart diseases (angina)
Suspended Particulate Matter (PM _{2.5} and PM ₁₀)	<ul style="list-style-type: none"> Stationary combustion of solid fuels Construction activities Industrial processes Atmospheric chemical reactions 	<ul style="list-style-type: none"> Reduced lung function Aggravation of the effects of gaseous pollutants Aggravation of respiratory and cardiorespiratory diseases Increased cough and chest discomfort Deposition of particles on surfaces, also known as soiling Reduced visibility
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> Combustion of sulfur-containing fossil fuels Smelting of sulfur-bearing metal ores Industrial processes 	<ul style="list-style-type: none"> Aggravation of respiratory diseases (asthma, emphysema). Reduced lung function Irritation of eyes Reduced visibility Plant injury Deterioration of metals, textiles, leather, finishes, coatings, etc.
Lead	<ul style="list-style-type: none"> Contaminated soil (e.g., from leaded fuels and lead-based paints) 	<ul style="list-style-type: none"> Impairment of blood function and nerve construction Behavioral and hearing problems in children

Source: California Air Resources Board 2005.

The annual average temperature varies little throughout the Basin, ranging from 16 degrees Celsius (°C) to 19°C (the low to middle 60s, measured in degrees Fahrenheit [°F]). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site monitoring temperature is the San Diego Airport Station. The annual average maximum temperature recorded between 1914 and 2007 at this station is 69.9°F, and the annual average minimum is 56.5°F. January is typically the coldest month in this area of the Basin.

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. As mentioned above, the climatological station closest to the site that monitors precipitation is the San Diego Airport Station. Average rainfall measured at this station between 1979 and 2007 varied from 2.02 inches in January to 0.78 inch or less between April and October, with an average annual total of 10.16 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

Air Pollution Constituents and Attainment Status. The following describes the criteria air pollutants and their attainment status in the Basin based on ARB’s Area Designations, Activities, and Maps. Table 4.3.C summarizes the attainment status in the Basin for the major criteria pollutants.

Table 4.3.C: Attainment Status of Criteria Pollutants in the San Diego Air Basin

Pollutant	State	Federal
O ₃ (1 hour)	Serious Nonattainment	Standard Revoked June 2005
O ₃ (8 hour)	Not Established	Nonattainment
PM ₁₀	Nonattainment	Attainment/Unclassified
PM _{2.5}	Nonattainment	Attainment/Unclassified
CO	Attainment	Attainment
NO ₂	Attainment	Attainment/Unclassified
SO ₂	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

Source: California Air Resources Board, 2008, <http://www.arb.ca.gov/desig/desig.htm>.
 CO = carbon monoxide PM₁₀ = particulate matter less than 10 microns in diameter
 NO₂ = nitrogen dioxide PM_{2.5} = particulate matter less than 2.5 microns in diameter
 O₃ = ozone SO₂ = sulfur dioxide

Ozone. O₃ (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases. O₃ is a pungent, colorless gas typical of Southern California smog. Elevated O₃ concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. O₃ levels peak during summer and early fall. The entire Basin is designated as a serious

nonattainment area for the State 1-hour O₃ standard. Effective June 15, 2005, the United States Environmental Protection Agency (EPA) revoked, in full, the federal 1-hour O₃ ambient air quality standard, including associated designations and classifications. The EPA has officially designated the status for the Basin regarding the federal 8-hour O₃ standard as nonattainment.

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. The entire Basin is designated as an attainment area for the federal and State CO standards.

Nitrogen Oxides. NO₂, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_x. NO_x is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO₂ decreases lung function and may reduce resistance to infection. The entire Basin is designated as an attainment area for the federal and State standards.

Sulfur Dioxide. SO₂ is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO₂ levels. SO₂ irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in attainment with both federal and State SO₂ standards.

Lead. Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The entire Basin is in attainment for the federal and State standards for lead.

Particulate Matter. Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (PM₁₀) derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle (PM_{2.5}) levels. PM_{2.5} can also be formed in the atmosphere through chemical reactions. PM₁₀ can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that PM_{2.5}, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM₁₀ standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with

asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. The entire Basin is a nonattainment area for the State PM₁₀ and PM_{2.5} standard. The EPA has designated the Basin as an attainment area for PM₁₀ and PM_{2.5}.

Reactive Organic Gases. ROGs are formed from the combustion of fuels and evaporation of organic solvents. ROGs are not defined criteria pollutants but are a prime component of the photochemical smog reaction. Consequently, ROGs accumulate in the atmosphere more quickly during the winter, when sunlight is limited and photochemical reactions are slower. ROGs are also referred to as volatile organic compounds (VOCs).

Local Air Quality. The SDAPCD, together with the ARB, maintain ambient air quality monitoring stations in the San Diego Air Basin (Basin). The air quality monitoring station closest to the site is the Del Mar - Mira Costa College Station, and its air quality trends are representative of the ambient air quality in the project area. The pollutants monitored are 1-hour and 8-hour O₃.¹ The San Diego-Overland Avenue station is the closest station that monitors PM₁₀, PM_{2.5}, and NO₂. The San Diego-Union Street station is the closest station that monitors CO. The Chula Vista station is the closest station with three years of SO₂ data.

The ambient air quality data in Table 4.3.D shows that CO, NO₂, PM_{2.5}, and SO₂ levels are below the relevant State and federal standards. O₃ exceeded the State 1-hour standard one time in 2007 and two times in 2008, and exceeded the federal 8-hour standard three times in 2007 and three times in 2008. The 24-hour PM₁₀ levels exceeded the State standard once in 2007. The annual average PM₁₀ levels exceeded the State standard each of the past three years.

4.3.3 Regulatory Setting

Federal Regulations/Standards. Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed “criteria” pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health.

Data collected at permanent monitoring stations are used by the EPA to classify regions as “attainment” or “nonattainment,” depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA.

The EPA has designated the San Diego Association of Governments (SANDAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA within the County.

¹ Air quality data, 2006, 2007, and 2008; ARB Web site.

Table 4.3.D: Ambient Air Quality at the Local Air Monitoring Stations

Pollutant	Standard	2006	2007	2008
Carbon Monoxide (CO)¹				
Max 1-hr concentration (ppm)		10.8	8.7	2.4
No. days exceeded: State	> 20 ppm/1-hr	0	0	0
Federal	> 35 ppm/1-hr	0	0	0
Max 8-hr concentration (ppm)		3.5	5.2	1.8
No. days exceeded: State	9.0 ppm/8-hr	0	0	0
Federal	9 ppm/8-hr	0	0	0
Ozone (O₃)²				
Max 1-hr concentration (ppm)		0.086	0.110	0.117
No. days exceeded: State	> 0.09 ppm/1-hr	0	1	2
Max 8-hr concentration (ppm)		0.074	0.079	0.078
No. days exceeded: Federal	> 0.075 ppm/8-hr	0	3	3
Particulates (PM₁₀)³				
Max 24-hr concentration (µg/m ³)		42.0	65	39
No. days exceeded: State	> 50 µg/m ³ /24-hr	0	1	0
Annual Arithmetic Average (µg/m ³)		22.6	23.2	23.3
Exceeded: State	> 20 µg/m ³ ann. arth. avg.	Yes	Yes	Yes
Federal	> 50 µg/m ³ ann. arth. avg.	No	No	No
Particulates (PM_{2.5})³				
Max 24-hr concentration (µg/m ³)		26.3	30.6	22.4
No. days exceeded: Federal	> 35 µg/m ³ /24-hr	0	0	0
Annual Arithmetic Average (µg/m ³)		11.0	10.4	11.8
Exceeded: State	> 12 µg/m ³ ann. arth. avg.	No	No	No
Federal	> 15 µg/m ³ ann. arth. avg.	No	No	No
Nitrogen Dioxide (NO₂)³				
Max 1-hr concentration (ppm)		0.091	0.087	0.077
No. days exceeded: State	> 0.18 ppm/1-hr	0	0	0
Annual arithmetic average concentration (ppm)		0.012	0.015	0.014
Exceeded: Federal	> 0.053 ppm ann. arth. avg.	No	No	No
Sulfur Dioxide (SO₂)⁴				
Max 24-hr concentration (ppm)		0.006	0.004	0.004
No. days exceeded: State	> 0.04 ppm/24-hr	0	0	0
Federal	> 0.14 ppm/24-hr	0	0	0
Annual arithmetic average concentration (ppm)		0.003	0.003	0.002
Exceeded: Federal	> 0.030 ppm ann. arth. avg.	No	No	No

Source: United States Environmental Protection Agency and California Air Resources Board 2006 to 2008.

¹ Monitored at the San Diego–Union Street Station.

² Monitored at the Del Mar Station.

³ Monitored at the San Diego–Overland Station.

⁴ Monitored at the Chula Vista Station.

ppm = parts per million

µg/m³ = microgram of pollutant per cubic meter of air

The EPA established new national air quality standards for ground level O₃ and fine particulate matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O₃ and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The justices also rejected arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O₃ and soot in 1997. Nevertheless, the court threw out the EPA's policy for implementing new O₃ rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the 8-hour ground-level O₃ standard. The EPA issued the proposed rule implementing the 8-hour O₃ standard in April 2003. The EPA completed final 8-hour nonattainment status on April 15, 2004. The EPA revoked the 1-hour O₃ standard on June 15, 2005.

The EPA issued the final PM_{2.5} implementation rule in fall 2004 and made final designations on December 15, 2004. The EPA lowered the 24-hour PM_{2.5} standard from 65 to 35 µg/m³ and revoked the annual average PM₁₀ standard in December 2006.

State Regulations/Standards. The State of California began to set California ambient air quality standards (CAAQS) in 1969 under the mandate of the Mulford-Carrell Act. The CAAQS are generally more stringent than the NAAQS. In addition to the six criteria pollutants covered by the NAAQS, there are CAAQS for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are also listed in Table 4.3.A.

Originally, there were no attainment deadlines for CAAQS. However, the California Clean Air Act (CCAA) of 1988 provided a time frame and a planning structure to promote their attainment. The CCAA required nonattainment areas in the State to prepare attainment plans and proposed to classify each such area on the basis of the submitted plan, as follows: moderate, if CAAQS attainment could not occur before December 31, 1994; serious, if CAAQS attainment could not occur before December 31, 1997; and severe, if CAAQS attainment could not be conclusively demonstrated at all.

The attainment plans are required to achieve a minimum 5 percent annual reduction in the emissions of nonattainment pollutants unless all feasible measures have been implemented.

Regional Air Quality Planning Framework. The 1976 Lewis Air Quality Management Act established the SDAPCD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB coordinates and oversees both State and federal air pollution control programs in California. The ARB oversees activities of local air quality management agencies and is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan

(SIP) for the EPA approval. The ARB maintains air quality monitoring stations throughout the State in conjunction with local air districts. Data collected at these stations are used by the ARB to classify air basins as “attainment” or “nonattainment” with respect to each pollutant and to monitor progress in attaining air quality standards. The ARB has divided the State into 15 air basins. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

The CCAA provides the SDAPCD with the authority to manage transportation activities at indirect sources and regulate stationary source emissions. Indirect sources of pollution are generated when minor sources collectively emit a substantial amount of pollution. An example of this would be the motor vehicles at an intersection, at a mall, and on highways. As a State agency, the ARB regulates motor vehicles and fuels for their emissions.

Regional Air Quality Management Plan. The SDAPCD and SANDAG are responsible for formulating and implementing air quality plans for the Basin. Regional air quality plans were adopted for the Basin for 1979, 1982, 1989, 1991, 1994, 1997, and 2001. The San Diego Air Basin 2004 Triennial Regional Air Quality Strategy (RAQS) Revision was adopted by the SDAPCD on July 28, 2004.

4.3.4 Methodology

The air quality assessment for the proposed projects includes estimating emissions associated with construction and operation of the proposed project. Criteria pollutants with regional impacts would be emitted by project-related vehicular trips, as well as by emissions associated with stationary sources used on site. A local CO hot spot analysis was conducted using the CALINE4 dispersion model, and the model results are included in Appendix B of this EIR. Project-specific information was used in the modeling. Construction and operation emissions were calculated using the URBEMIS 2007 emission model, and the model results are also included in Appendix B of this EIR. Default values representative of the proposed project were used when project-specific data were not available.

Construction Emissions. Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions during the construction envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions. The construction emissions, for each of the project phases, were calculated using the URBEMIS 2007 emission model.

URBEMIS is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, and office buildings; area sources such as gas appliances, wood stoves, fireplaces, and landscape maintenance equipment; and construction projects. URBEMIS stands for “Urban Emissions Model.” URBEMIS 2007 is an air quality modeling program that estimates air pollution emissions in pounds per day or tons per year for various land uses, area sources, construction projects, and project operations. Mitigation measures can also be specified to analyze the effects of mitigation on project emissions.

The URBEMIS 2007 model uses the ARB's EMFAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions.

Operational Emissions. Operational air emission impacts are those associated with stationary sources and mobile sources related to any change related to the proposed project. Operational emissions for each of the project seasons were calculated using the URBEMIS 2007 emission model described above. Emissions thresholds are used to manage total regional emissions within an air basin based on the air basin attainment status for criteria pollutants. These emissions thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations that may affect or delay the projected attainment target year for certain criteria pollutants. Due to the conservative nature of the thresholds and the Basinwide context of an individual project's emissions, there is no direct correlation of a single project to regional health effects.

CO Hot-Spot Analysis. CO is produced by the incomplete burning of fuel, including gasoline and diesel fuel. The highest CO concentrations would occur during peak traffic hours at congested intersections and road segments; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Based on the Traffic Impact Analysis (TIA) prepared for the proposed project (Linscott, Law & Greenspan, April 2009) and included in Appendix K of this EIR, CO hot spot analyses were conducted for Existing, Existing Plus Project, Near-term Baseline, and Near-Term Baseline Plus Project, for each of the Fairgrounds three seasons (Interim, Fair, and Race Meet). The Long-Term project impacts were modeled for the Interim-Season conditions only. The impact on local CO levels was assessed following the University of California (UC) Davis ITS/Caltrans Hot-Spots Analysis protocol and the ARB-approved CALINE4 air quality model, which allows microscale CO concentrations to be estimated along roadway corridors or near intersections. This model is designed to identify localized concentrations of CO, often termed "hot spots." A brief discussion of input to the CALINE4 model follows. The analysis was performed for the worst-case wind angle and wind speed condition and is based on the following assumptions:

- Selected modeling locations represent the intersections closest to the project site, with the highest project-related vehicle-turning movements and the worst level of service deterioration.
- Twenty receptor locations with the possibility of extended outdoor exposure from 8 to 17 meters (m) (approximately 26–56 feet [ft]) of the roadway centerline near intersections were modeled to determine CO concentrations.
- The calculations assume a meteorological condition of almost no wind (0.5 m/second), a suburban topographical condition between the source and receptor, and a mixing height of 1,000 m, representing a worst-case scenario for CO concentrations.
- CO concentrations are calculated for the 1-hour averaging period and then compared to the 1-hour standards. CO 8-hour averages were calculated using a persistence factor of 0.7 and compared to the 8-hour standards.
- Concentrations are given in ppm at each of the receptor locations.

- The “at-grade” link option with speed adjusted based on average cruise speed and number of vehicles per lane per hour was used rather than the “intersection” link selection in the CALINE4 model. (Caltrans has suggested that the “intersection” link should not be used due to an inappropriate algorithm based on outdated vehicle distribution.) Emission factors from the EMFAC2007 model for all vehicles, based on the adjusted speed for 2008, were used for the vehicle fleet.
- The highest level of the second highest 1-hour and 8-hour CO concentrations monitored at the San Diego Station in the past three years were used as background concentrations (6.6 ppm for the 1-hour CO and 4.8 ppm for the 8-hour CO). The “background” concentrations were then added to the model results for future with and without the proposed project conditions.

4.3.5 Impact Significance Criteria

For this project, the following thresholds of significance are used. A project may be considered to have a significant effect on air quality if the project would:

- Threshold 4.3.1** **Conflict with or obstruct implementation of the San Diego Air Basin 2004 Triennial Regional Air Quality Strategy Revision.**
- Threshold 4.3.2** **Violate the air quality standards established in the “County of San Diego Guidelines for Determining Significance” or contribute substantially to an existing or projected air quality violation.**
- Threshold 4.3.3** **Expose sensitive receptors to substantial pollutant concentrations.**
- Threshold 4.3.4** **Create objectionable odors affecting a substantial number of people.**

For this project, the following threshold of significance is used for cumulative impacts.

- Threshold 4.3.5** **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).**

4.3.6 Project Impacts

- Threshold 4.3.1** **Conflict with or obstruct implementation of the San Diego Air Basin 2004 Triennial Regional Air Quality Strategy Revision.**

Near-Term Project Impact Analysis. The SDAPCD, in concert with SANDAG, has developed an inventory of projected emissions in the County based on adopted local and County General Plans. The Basin is currently in nonattainment status for ozone. The SDAPCD has developed the Regional Air Quality Strategy (RAQS) to reduce projected regional emissions for ozone and those constituents that contribute to O₃ in order to achieve regional compliance with the CCAA.

The RAQS, initially adopted in 1992, was developed pursuant to the CCAA. It identifies feasible control measures applicable to emission sources under SDAPCD authority (stationary sources) to provide expeditious progress toward attaining the State ambient air quality standard for O₃, the primary component of smog. Control measures for nonstationary (mobile) emissions sources are under the purview of the EPA or the ARB. Pursuant to State law, the SDAPCD must update the RAQS every three years to reflect and respond to changing circumstances. Accordingly, the RAQS was amended in 1995, 1998, 2001, and 2004. The SDAPCD is currently proposing the 2008 Triennial RAQS Revision to reflect new data on technological feasibility, cost-effectiveness, and the emission reduction potential of stationary source control measures. As of April 2009, the proposed 2008 Triennial RAQS Revision has not yet been adopted but is expected to provide additional emission reductions relative to the 2004 RAQS and therefore be more effective in improving air quality.

The RAQS uses the land use assumptions and projections adopted by local planning agencies to estimate regional projected emissions and determine which control strategies are most appropriate for reducing emissions to achieve regional compliance status. For a project in the Basin to be considered consistent with the RAQS, it should be accounted for in the applicable General Plan and therefore accounted for in the current regional inventory. If the project is not in the current emissions inventory, and its emissions exceed the emissions and/or concentration standards described above, the project is considered to be inconsistent with the RAQS. Therefore, any project that would cause a significant impact on air quality, and whose emissions are not already accounted for in the RAQS, may impede progress toward regional compliance. The equivalent document to a local General Plan for the Del Mar Fairgrounds site is the Fairgrounds Master Plan. The current Fairgrounds Master Plan was approved in 1985 and is presumed to be reflected in the regional air emissions inventory and reductions strategies.

The current approved 1985 Master Plan for the Fairgrounds does not include many of the proposed near-term projects. Therefore, the proposed near-term projects are not consistent with the current, adopted Fairgrounds Master Plan as reflected in regional projections, and emissions from the proposed near-term projects are not accounted for in the current regional emissions inventory. In addition, as described in the impacts discussion below under Threshold 4.3.2, the proposed project emissions would exceed the emissions standards and result in a significant project impact relative to violating an applicable air quality standard and contributing to an existing or projected air quality violation. Therefore, the proposed projects are not considered to be consistent with the RAQS. The proposed near-term projects result in a significant impact relative to conflicting with, or obstructing implementation of, the RAQS. Mitigation Measure 4.3.14 requires that the 22nd DAA submit the approved 2008 Fairgrounds Master Plan to SANDAG and the SDAPCD for incorporation into future SANDAG forecasts and the RAQS.

Long-Term Project Impact Analysis. The proposed long-term projects include construction of new and replacement of existing facilities. The proposed long-term projects that are replacing existing facilities are the Backstretch Area improvements and the Horseman's Village. Projects that include construction of new facilities are the seasonal train platform, the tunnel under the Racetrack, vehicle wash rack, and the multilevel parking structure. The primary source of emissions for the long-term projects is vehicular miles traveled (vmt) and energy consumption as a result of project implementation. The seasonal train platform is expected to reduce the number of vehicle trips to and from the site. The Horseman's Village and Backstretch Area improvements are replacements of

existing facilities. The Horseman's Village will include heating, cooling, and kitchen facilities that consume energy and therefore generate air emissions. However, the new facility will be built to LEED-NC Silver certification standards and will comply with the mitigation measures and strategies identified in Section 4.16, Greenhouse Gases and Energy. The facility will replace an existing facility that serves the workers on site during the Race Meet, and therefore will not generate new vehicular trips. Other long-term projects are neither trip-generating uses nor new structures that use energy. The multilevel parking structure replaces existing parking in the South Lot, will not be heated and cooled, and will not generate new trips. The proposed tunnel under the Racetrack and the vehicle wash rack are intended to facilitate existing operations and will not attract new trips to the site.

The long-term projects are expected to result in a less than significant impact regarding potential increased air emissions because the projects either improve or replace existing facilities and are not new trip-generating uses. Also, as described in Section 4.16, Greenhouse Gases and Energy, of this EIR, the proposed long-term projects will be built to LEED-NC Silver standards. Therefore, the proposed long-term projects are not expected to result in emissions of criteria pollutants that exceed the emissions standards or result in a significant impact relative to violating air quality standards. Also, the long-term projects are included in the 2008 Master Plan Update, which will be submitted to the SDAPCD and SANDAG upon adoption for inclusion in future forecasts and consideration in future RAQS updates (see Mitigation Measure 4.3.14). Therefore, the Master Plan projects, including the long-term projects, will be incorporated into future regional emissions and strategies efforts by the SDAPCD and SANDAG. The proposed long-term projects are expected to be found consistent with the applicable RAQS at the time project-level CEQA analyses are conducted, since the RAQS is updated on a regular basis and the next update will include the 2008 Fairgrounds Master Plan. The long-term projects are not expected to conflict with or obstruct implementation of the RAQS and will result in a less than significant impact relative to this threshold, and no mitigation is required.

Threshold 4.3.2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Emission and Concentrate Standards Applicable to Threshold 4.3.2. The SDAPCD has not established guidelines or emissions thresholds for California Environmental Quality Act (CEQA) review purposes. Therefore, the following screening-level standards established in the "County of San Diego Guidelines for Determining Significance" (March 2007) were used to determine whether or not a significant impact could occur: Projects that result in emissions that exceed the screening-level standards typically require additional analysis.

- 75 pounds per day (lbs/day) of VOC
- 250 lbs/day of NO_x
- 250 lbs/day of SO_x
- 100 lbs/day of PM₁₀
- 55 lbs/day of PM₂
- 550 lbs/day of CO (or the creation of a CO hotspot)

CO emissions have the potential to contribute to a CO “Hotspot,” or concentration CO hotspots may occur at intersections where the level of service (LOS) is such that emissions from idling vehicles contribute to a localized concentration. The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions contribution results in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 part per million (ppm) or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

Near-Term Project Impact Analysis

Construction Impacts. Construction activities produce combustion and fugitive dust emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions during the construction envisioned on site would vary daily as construction activity levels change. The use of construction equipment on site would result in localized exhaust emissions.

The following construction emission estimates, summarized in the tables below, were calculated using URBEMIS 2007, and reflect the construction phasing plan for the near-term projects.

The construction of the near term projects will be divided into two phases. The first phase will include the construction of the official gate/administrative office/ticket box office, the relocated fire station, the maintenance buildings, the realigned Solana Gate, the East Parking Lot, the Health Club/Sports Training Facility, the RV sewer hook-up facilities, the widening of the turf track, and the construction of the electronic reader board sign. Phase 2 will include the exhibit building/hotel. The maximum construction emissions will occur when the activities from multiple construction sites overlap. Construction emission estimates are summarized in Tables 4.3.E and 4.3.F for construction Phases 1 and 2, respectively. Specific emissions calculations for the electronic reader board sign, turf track, and RV sewer hookups are not included because of the low level of construction emissions associated with these projects. The emissions listed in these tables are the maximum emissions that would be generated by each of the sites under construction during each phase. The calculations in Tables 4.3.E and 4.3.F include the reductions provided by the application of standard fugitive dust control measures incorporated into the URBEMIS model assumptions and reflected in Mitigation Measures 4.3.5–4.3.12 listed in Section 4.3.9. As shown in Tables 4.3.E and 4.3.F, the ROG emissions from the application of paint and other architectural coatings would exceed the daily construction emissions thresholds. The URBEMIS model assumes, and mitigation included in this EIR (Mitigation Measure 4.3.13) requires, the use of low

Table 4.3.E: Peak Construction Emissions–Phase One

Source	Pollutants, lbs/day				
	CO	ROG	NO _x	PM ₁₀	PM _{2.5}
Peak Construction Emissions per Site					
Fire Station Relocation	14.77	16.07	28.07	14.01	3.88
Official Gate/Admin Office/Ticket Box Office	14.77	62.21	28.07	5.21	2.09
Maintenance Buildings	20.31	103.94	28.07	7.70	2.61
East Parking Lot	14.77	64.28	28.07	5.32	2.12
Health Club and Sports Facility	20.45	6.16	37.82	53.95	12.72
Total Phase 1 Emissions	85.07	252.66	150.1	86.19	23.42
Daily Threshold	550	75	250	100	55
Exceed Daily Threshold?	No	Yes	No	No	No

Source: LSA Associates, Inc., April 2009.

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in diameter

lbs/day = pounds per day

PM₁₀ = particulate matter less than 10 microns in diameter

NO_x = nitrogen oxide

ROG = reactive organic compounds

Table 4.3.F: Peak Construction Emissions–Phase Two

Source	Pollutants, lbs/day				
	CO	ROG	NO _x	PM ₁₀	PM _{2.5}
Peak Construction Emissions per Site					
Exhibit Building	29.36	214.31	28.07	14.43	4.02
Hotel	26.28	176.80	28.07	12.17	3.55
Total Phase 2 Emissions	55.64	391.11	56.14	26.60	7.57
Daily Threshold	550	75	250	100	55
Exceed Daily Threshold?	No	Yes	No	No	No

Source: LSA Associates, Inc., April 2009.

CO = carbon monoxide

PM_{2.5} = particulate matter less than 2.5 microns in diameter

lbs/day = pounds per day

PM₁₀ = particulate matter less than 10 microns in diameter

NO_x = nitrogen oxide

ROG = reactive organic compounds

VOC paints; however, due to the amount of painting activity that is associated with new construction (hotel, exhibit halls, Health Club/Sports Training Facility), construction emissions remain significant and unavoidable.

As identified above, the implementation of the near-term projects in two phases reduces the overall construction impacts to less than significant levels, with the exception of ROG emissions. These conclusions are based on the analysis conducted with the URBEMIS emissions model. The URBEMIS model assumes implementation of standard air quality measures. Therefore, Mitigation Measures 4.3.1 through 4.3.13 are consistent with the built-in assumption of the URBEMIS model. Measures 4.3.1 through 4.3.12 are identified as a precautionary measure to ensure that construction air quality impacts to adjacent sensitive land uses remain at a less than significant level. Mitigation Measure 4.3.13 is reflected in the model; however, emissions of ROG remain significant even with implementation of this mitigation measure. Construction

activity will also be subject to the mitigation as listed in Section 4.16, Greenhouse Gases and Energy, of this EIR, and copied at the end of this Section.

Naturally Occurring Asbestos (NOA). The project is located in San Diego County, which is not among the counties listed as containing Serpentine and Ultramafic Rock. Therefore, the impact from NOA during project construction would be minimal to none. Because impacts related to NOA are less than significant, no mitigation is required.

Operational Impacts. Operational air emission impacts are those associated with stationary sources and mobile sources related to operation of the proposed near-term projects. Long-term exposure to elevated levels of criteria pollutants could result in potential adverse health effects. However, emissions thresholds are used to manage total regional emissions within an air basin, based on the air basin attainment status for criteria pollutants. These emissions thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations that may affect or delay the projected attainment target year for certain criteria pollutants. Due to the conservative nature of the thresholds and the Basinwide context of an individual project's emissions, there is no direct correlation of a single project to regional health effects.

The near-term projects include a 330-room hotel, a 60,000-square-foot (sf) Health Club/Sports Training Facility, exhibit building with breakout rooms and rooftop sports fields, and improvements to the East Parking Lot. The proposed land uses would result in both stationary and mobile sources of increased emissions. The stationary source emissions from these land uses would come from their consumption of natural gas and electricity. As described in Section 4.16, Greenhouse Gases and Energy, of this EIR, the collection, treatment, and distribution of potable water accounts for approximately 19 percent of the electricity consumption in the State. Therefore, water consumption is also considered in the estimate of project-related energy consumption and associated air emissions.

Based on the TIA prepared for the proposed project (Linscott, Law & Greenspan, April 2009) included in Appendix K of this EIR, build out of the proposed near-term projects would generate 7,170 additional daily trips during the Interim Season and 5,700 additional daily trips during the Fair and Race Meet Seasons. The two largest sources of additional trips during the Interim Season are the hotel (3,940 average daily trips [ADT]/weekday) and Health Club/Sports Training Facility (2,400 ADT/weekday). Existing Fair and Race Meet operations are not changing as a result of the proposed project. It is anticipated that there will be almost full occupancy at the hotel during the Fair and Race Meet Season. The exhibit space attached to the hotel will be committed to Fair uses (exhibits) during the Fair, and to Race-related use (valet parking) during Race Meets. Therefore, the exhibit halls will not be used for conferences and trade shows during the Fair and Race Meets.

Operational emissions from the proposed near-term projects are shown in Tables 4.3.G and 4.3.H for the Interim Season and Fair/Race Meet Season conditions, respectively. The increase in regional vehicle trips is projected to be the same for the Fair and Race Meet Seasons. The data in Table 4.3.H applies to either season. As shown in Table 4.3.G, during the Interim Season the project emissions would exceed the PM_{10} daily emission threshold. The exceedance of the PM_{10}

emissions threshold is a significant effect of the near-term projects and is the result of vehicular emissions from project-related traffic. As described above, the increase in traffic during the Fair and Race Meet Seasons as a result of the Master Plan projects is less than the increase in traffic during the Interim Season as a result of Master Plan projects. Therefore, during the Fair/Race Meet Seasons, the project emissions would be less and do not exceed any of the daily emission thresholds.

Table 4.3.G: Project Operational Emissions–Interim Season

Source	Pollutants, lbs/day				
	CO	ROG	NO _x	PM ₁₀	PM _{2.5}
Proposed Project Emissions					
Stationary sources	12.25	3.61	5.39	0.04	0.04
Vehicular traffic	518.24	45.85	71.09	111.91	21.75
Total	530.49	49.46	76.48	111.95	21.79
Daily Threshold	550	75	250	100	55
Exceed Daily Threshold?	No	No	No	Yes	No

Source: LSA Associates, Inc., April 2009.

CO = carbon monoxide
 lbs/day = pounds per day
 NO_x = nitrogen oxide
 PM_{2.5} = particulate matter less than 2.5 microns in diameter
 PM₁₀ = particulate matter less than 10 microns in diameter
 ROG = reactive organic compounds

Table 4.3.H: Project Operational Emissions–Fair/Race Meet Seasons

Source	Pollutants, lbs/day				
	CO	ROG	NO _x	PM ₁₀	PM _{2.5}
Proposed Project Emissions					
Stationary sources	5.79	1.55	3.22	0.02	0.02
Vehicular traffic	414.43	36.11	56.79	89.42	17.38
Total	420.22	37.66	60.01	89.44	17.40
Daily Threshold	550	75	250	100	55
Exceed Daily Threshold?	No	No	No	No	No

Source: LSA Associates, Inc., April 2009.

CO = carbon monoxide
 lbs/day = pounds per day
 NO_x = nitrogen oxide
 PM_{2.5} = particulate matter less than 2.5 microns in diameter
 PM₁₀ = particulate matter less than 10 microns in diameter
 ROG = reactive organic compounds

The proposed near-term projects may be found to result in a significant impact if the emissions violate an air quality standard or contribute substantially to an existing or projected air quality violation. As described above, the proposed near-term projects would exceed the daily (screening-level) thresholds established in the County of San Diego Guidelines for Determining Significance for PM₁₀ and result in a significant impact. The Basin is in nonattainment status for PM₁₀; therefore, the project’s contribution to regional emissions of PM₁₀ may contribute substantially to the existing air quality violation and results in a significant impact relative to existing or projected air quality violations pertaining to PM₁₀. Mitigation Measures to reduce operational vehicular emissions would reduce projected PM₁₀ emissions for the near-term projects. These mitigation measures include Mitigation Measures 4.16.11, which limits idling of

delivery trucks; 4.16.15, which requires bicycle racks and temporary storage lockers for employees; and 4.16.16, which promotes use of electric and hybrid vehicles. In the long term, implementation of the seasonal train platform is expected to reduce the number of motor vehicle trips to the project site.

Carbon Monoxide Hot Spot Analysis. Vehicular trips associated with the proposed near-term projects would contribute to the congestion at intersections and along roadway segments in the project vicinity. Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed near-term projects. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable LOS or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of near-term project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the San Diego 1133 Union Street Station, the closest station with monitored CO data, showed a highest-recorded 1-hour concentration of 10.8 ppm (State standard is 20 ppm) and a highest 8-hour concentration of 5.2 ppm (State standard is 9 ppm) during the past three years (see Table 4.3.D).

Table 4.3.I lists the Interim Season CO concentrations for 10 intersections in the project vicinity under the existing and existing plus project conditions. Table 4.3.J lists the Fair Season CO concentrations under the existing and existing plus project conditions. Table 4.3.K lists the Race Meet Season CO concentrations under the existing and existing plus project conditions. Tables 4.3.L, 4.3.M, and 4.3.N list the Near-Term Baseline and Near Term Baseline Plus Project CO concentrations for the Interim, Fair, and Race Meet Seasons, respectively. As shown, none of the 10 intersections analyzed would have a 1-hour CO concentration exceeding the State standard of 20 ppm. The 8-hour CO concentration at these intersections would also be below the State standard of 9 ppm. Since no federal or State standards would be exceeded, no CO hot spot would occur. Therefore, impacts are less than significant, and no air pollution control measures are necessary or recommended for CO emissions.

Localized air quality impacts (i.e., higher CO concentrations [CO hot spots] near intersections or roadway segments in the project vicinity) would also be considered minimal due to the generally low ambient CO concentrations in the project area. Therefore, project impacts related to CO emissions are considered less than significant, and no mitigation is required.

Long-Term Project Impact Analysis. The long-term projects include a seasonal train platform, multilevel parking structure, Backstretch Area improvements, Horseman's Village, vehicle wash

Table 4.3.I: Existing and with Project Interim Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	15 / 8	0.0 / 0.0	9.0 / 9.0	6.5 / 6.5	No	No
	8 / 15	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
	15 / 15	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
	17 / 17	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
Solana Gate and Via de la Valle	12 / 12	0.1 / 0.0	8.1 / 8.2	5.9 / 5.9	No	No
	7 / 7	0.1 / 0.1	8.0 / 8.1	5.8 / 5.9	No	No
	7 / 12	0.2 / 0.2	7.8 / 8.0	5.6 / 5.8	No	No
Jimmy Durante Blvd and Via de la Valle	15 / 14	0.5 / 0.4	9.2 / 9.7	6.6 / 7.0	No	No
	14 / 15	0.6 / 0.4	9.1 / 9.7	6.6 / 7.0	No	No
	14 / 14	0.4 / 0.3	9.0 / 9.4	6.5 / 6.8	No	No
	17 / 14	0.3 / 0.3	8.8 / 9.1	6.3 / 6.6	No	No
I-5 SB Ramps and Via de la Valle	7 / 7	0.2 / 0.1	10.0 / 10.2	7.2 / 7.3	No	No
	14 / 14	0.2 / 0.1	9.6 / 9.8	6.9 / 7.0	No	No
	12 / 12	0.2 / 0.1	9.3 / 9.5	6.7 / 6.8	No	No
	12 / 12	0.4 / 0.2	9.1 / 9.5	6.6 / 6.8	No	No
I-5 NB Ramps and Via de la Valle	7 / 7	0.3 / 0.2	9.3 / 9.6	6.7 / 6.9	No	No
	12 / 12	0.1 / 0.1	9.2 / 9.3	6.6 / 6.7	No	No
	12 / 12	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	12 / 12	0.2 / 0.2	8.8 / 9.0	6.3 / 6.5	No	No
Jimmy Durante Blvd and Main Gate	14 / 14	0.4 / 0.3	8.3 / 8.7	6.0 / 6.3	No	No
	14 / 14	0.3 / 0.2	8.2 / 8.5	5.9 / 6.1	No	No
	7 / 7	0.3 / 0.2	8.2 / 8.5	5.9 / 6.1	No	No
	14 / 14	0.3 / 0.2	8.0 / 8.3	5.8 / 6.0	No	No
Jimmy Durante Blvd and Hotel Drive	14 / 14	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	14 / 14	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	7 / 7	0.0 / 0.0	8.2 / 8.2	5.9 / 5.9	No	No
	14 / 14	0.2 / 0.2	7.9 / 8.1	5.7 / 5.9	No	No
Camino Del Mar and 13th St.	14 / 14	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	8 / 8	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	14 / 14	0.1 / 0.1	7.9 / 8.0	5.7 / 5.8	No	No
Camino Del Mar and 11th St.	14 / 14	0.1 / 0.0	8.4 / 8.5	6.1 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	14 / 14	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
Camino Del Mar and Del Mar Heights Rd.	10 / 10	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	14 / 14	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
	10 / 10	0.1 / 0.0	8.7 / 8.8	6.3 / 6.3	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

Table 4.3.J: Existing and with Project Fair Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	8 / 8	0.0 / 0.0	8.6 / 8.6	6.2 / 6.2	No	No
	15 / 15	0.0 / 0.0	8.6 / 8.6	6.2 / 6.2	No	No
	15 / 15	0.1 / 0.0	8.4 / 8.5	6.1 / 6.1	No	No
	14 / 14	0.0 / 0.0	8.3 / 8.3	6.0 / 6.0	No	No
Solana Gate and Via de la Valle	12 / 7	1.0 / 0.7	8.0 / 9.0	5.8 / 6.5	No	No
	12 / 7	0.9 / 0.6	8.0 / 8.9	5.8 / 6.4	No	No
	7 / 7	0.8 / 0.6	7.9 / 8.7	5.7 / 6.3	No	No
Jimmy Durante Blvd and Via de la Valle	7 / 7	0.7 / 0.5	7.9 / 8.6	5.7 / 6.2	No	No
	14 / 14	0.4 / 0.3	9.7 / 10.1	7.0 / 7.3	No	No
	15 / 15	0.4 / 0.3	9.5 / 9.9	6.8 / 7.1	No	No
I-5 SB Ramps and Via de la Valle	14 / 14	0.2 / 0.1	9.1 / 9.3	6.6 / 6.7	No	No
	14 / 14	0.2 / 0.1	9.1 / 9.3	6.6 / 6.7	No	No
	7 / 7	0.2 / 0.2	10.2 / 10.4	7.3 / 7.5	No	No
	14 / 14	0.2 / 0.1	9.7 / 9.9	7.0 / 7.1	No	No
I-5 NB Ramps and Via de la Valle	12 / 12	0.2 / 0.2	9.5 / 9.7	6.8 / 7.0	No	No
	12 / 14	0.3 / 0.2	9.4 / 9.7	6.8 / 7.0	No	No
	7 / 7	0.2 / 0.1	9.6 / 9.8	6.9 / 7.0	No	No
	12 / 12	0.1 / 0.0	9.4 / 9.5	6.8 / 6.8	No	No
Jimmy Durante Blvd and Main Gate	14 / 12	0.1 / 0.1	9.2 / 9.3	6.6 / 6.7	No	No
	12 / 14	0.1 / 0.0	9.1 / 9.2	6.6 / 6.6	No	No
	7 / 7	0.0 / 0.0	8.2 / 8.2	5.9 / 5.9	No	No
	14 / 10	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
Jimmy Durante Blvd and Hotel Drive	14 / 7	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
	7 / 14	-0.1 / -0.1	8.0 / 7.9	5.8 / 5.7	No	No
	14 / 14	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	14 / 14	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
Camino Del Mar and 13th St.	7 / 7	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	14 / 10	0.1 / 0.0	7.4 / 7.5	5.4 / 5.4	No	No
	14 / 14	0.0 / 0.0	8.5 / 8.5	6.1 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
Camino Del Mar and 11th St.	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	8 / 8	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
	14 / 14	0.0 / 0.0	8.5 / 8.5	6.1 / 6.1	No	No
Camino Del Mar and Del Mar Heights Rd.	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	8 / 8	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	14 / 14	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	10 / 10	0.1 / 0.1	8.8 / 8.9	6.3 / 6.4	No	No
Camino Del Mar and Del Mar Heights Rd.	10 / 10	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
	14 / 14	0.0 / 0.0	8.5 / 8.5	6.1 / 6.1	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

Table 4.3.K: Existing and with Project Race Meet Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	8 / 8	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	15 / 15	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	15 / 15	0.0 / 0.0	9.0 / 9.0	6.5 / 6.5	No	No
	17 / 17	0.0 / 0.0	8.7 / 8.7	6.3 / 6.3	No	No
Solana Gate and Via de la Valle	7 / 7	0.2 / 0.1	8.1 / 8.3	5.9 / 6.0	No	No
	7 / 7	0.1 / 0.1	8.0 / 8.1	5.8 / 5.9	No	No
	7 / 10	0.1 / 0.1	8.0 / 8.1	5.8 / 5.9	No	No
	7 / 12	0.1 / 0.1	8.0 / 8.1	5.8 / 5.9	No	No
Jimmy Durante Blvd and Via de la Valle	15 / 14	0.3 / 0.2	9.9 / 10.2	7.1 / 7.3	No	No
	14 / 15	0.4 / 0.3	9.8 / 10.2	7.0 / 7.3	No	No
	14 / 14	0.2 / 0.1	9.6 / 9.8	6.9 / 7.0	No	No
	14 / 14	0.2 / 0.2	9.5 / 9.7	6.8 / 7.0	No	No
I-5 SB Ramps and Via de la Valle	7 / 7	0.2 / 0.2	10.8 / 11.0	7.7 / 7.9	No	No
	14 / 14	0.2 / 0.2	10.2 / 10.4	7.3 / 7.5	No	No
	12 / 12	0.2 / 0.2	9.9 / 10.1	7.1 / 7.3	No	No
	12 / 12	0.2 / 0.1	9.6 / 9.8	6.9 / 7.0	No	No
I-5 NB Ramps and Via de la Valle	12 / 7	0.2 / 0.1	10.0 / 10.2	7.2 / 7.3	No	No
	7 / 12	0.2 / 0.2	9.9 / 10.1	7.1 / 7.3	No	No
	12 / 12	0.1 / 0.1	9.5 / 9.6	6.8 / 6.9	No	No
	7 / 12	0.2 / 0.2	9.2 / 9.4	6.6 / 6.8	No	No
Jimmy Durante Blvd and Main Gate	7 / 7	2.2 / 1.5	8.6 / 10.8	6.2 / 7.7	No	No
	15 / 15	1.9 / 1.4	8.2 / 10.1	5.9 / 7.3	No	No
	7 / 14	1.7 / 1.2	8.0 / 9.7	5.8 / 7.0	No	No
	10 / 10	1.6 / 1.1	8.0 / 9.6	5.8 / 6.9	No	No
Jimmy Durante Blvd and Hotel Drive	14 / 14	0.5 / 0.4	7.5 / 8.0	5.4 / 5.8	No	No
	14 / 10	0.6 / 0.4	7.4 / 8.0	5.4 / 5.8	No	No
	7 / 14	0.5 / 0.3	7.4 / 7.9	5.4 / 5.7	No	No
	7 / 7	0.6 / 0.4	7.3 / 7.9	5.3 / 5.7	No	No
Camino Del Mar and 13th St.	14 / 14	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	8 / 8	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	8 / 8	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	14 / 8	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
Camino Del Mar and 11th St.	14 / 14	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	8 / 8	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	8 / 8	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	14 / 14	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
Camino Del Mar and Del Mar Heights Rd.	10 / 10	0.0 / 0.0	8.8 / 8.8	6.3 / 6.3	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
	10 / 10	0.0 / 0.0	8.6 / 8.6	6.2 / 6.2	No	No
	14 / 14	0.1 / 0.1	8.5 / 8.6	6.1 / 6.2	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

Table 4.3.L: Near-Term Baseline and with Project Interim Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	8 / 8	0.0 / 0.0	8.4 / 8.4	6.1 / 6.1	No	No
	15 / 15	0.0 / 0.0	8.4 / 8.4	6.1 / 6.1	No	No
	15 / 15	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	14 / 17	0.1 / 0.1	8.0 / 8.1	5.8 / 5.9	No	No
Solana Gate and Via de la Valle	12 / 7	0.0 / 0.0	7.7 / 7.7	5.6 / 5.6	No	No
	7 / 12	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	7 / 7	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
Jimmy Durante Blvd and Via de la Valle	12 / 12	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	14 / 14	0.3 / 0.2	8.4 / 8.7	6.1 / 6.3	No	No
	15 / 15	0.3 / 0.2	8.4 / 8.7	6.1 / 6.3	No	No
I-5 SB Ramps and Via de la Valle	14 / 14	0.2 / 0.1	8.3 / 8.5	6.0 / 6.1	No	No
	17 / 17	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	7 / 7	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
I-5 NB Ramps and Via de la Valle	14 / 14	0.2 / 0.1	8.6 / 8.8	6.2 / 6.3	No	No
	12 / 12	0.2 / 0.2	8.5 / 8.7	6.1 / 6.3	No	No
	12 / 12	0.2 / 0.1	8.4 / 8.6	6.1 / 6.2	No	No
	7 / 7	0.2 / 0.2	8.5 / 8.7	6.1 / 6.3	No	No
Jimmy Durante Blvd and Main Gate	12 / 12	0.1 / 0.1	8.3 / 8.4	6.0 / 6.1	No	No
	12 / 12	0.1 / 0.1	8.2 / 8.3	5.9 / 6.0	No	No
	14 / 14	0.2 / 0.2	7.8 / 8.0	5.6 / 5.8	No	No
	14 / 14	0.2 / 0.1	7.7 / 7.9	5.6 / 5.7	No	No
Jimmy Durante Blvd and Hotel Drive	7 / 7	0.1 / 0.0	7.7 / 7.8	5.6 / 5.6	No	No
	14 / 14	0.2 / 0.1	7.6 / 7.8	5.5 / 5.6	No	No
	10 / 14	0.8 / 0.5	7.1 / 7.9	5.2 / 5.7	No	No
	14 / 14	0.8 / 0.5	7.0 / 7.8	5.1 / 5.6	No	No
Camino Del Mar and 13th St.	7 / 7	0.7 / 0.5	7.0 / 7.7	5.1 / 5.6	No	No
	10 / 14	0.6 / 0.4	7.0 / 7.6	5.1 / 5.5	No	No
	14 / 14	0.0 / 0.0	7.8 / 7.8	5.6 / 5.6	No	No
	8 / 8	0.0 / 0.0	7.7 / 7.7	5.6 / 5.6	No	No
Camino Del Mar and 11th St.	8 / 8	0.0 / 0.0	7.7 / 7.7	5.6 / 5.6	No	No
	14 / 8	0.0 / 0.0	7.5 / 7.5	5.4 / 5.4	No	No
	8 / 8	0.1 / 0.1	7.8 / 7.9	5.6 / 5.7	No	No
	8 / 14	0.1 / 0.1	7.8 / 7.9	5.6 / 5.7	No	No
Camino Del Mar and Del Mar Heights Rd.	14 / 8	0.0 / 0.0	7.8 / 7.8	5.6 / 5.6	No	No
	14 / 14	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
	10 / 10	0.0 / 0.0	8.3 / 8.3	6.0 / 6.0	No	No
	14 / 14	0.0 / 0.0	8.2 / 8.2	5.9 / 5.9	No	No
	14 / 14	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
	10 / 10	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

Table 4.3.M: Near-Term Baseline and with Project Fair Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	8 / 8	0.0 / 0.0	8.2 / 8.2	5.9 / 5.9	No	No
	15 / 15	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	15 / 15	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	14 / 14	0.0 / 0.0	7.9 / 7.9	5.7 / 5.7	No	No
Solana Gate and Via de la Valle	7 / 12	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	12 / 7	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
	7 / 7	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	7 / 7	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
Jimmy Durante Blvd and Via de la Valle	14 / 14	0.2 / 0.1	8.7 / 8.9	6.3 / 6.4	No	No
	15 / 15	0.2 / 0.1	8.6 / 8.8	6.2 / 6.3	No	No
	14 / 14	0.1 / 0.0	8.4 / 8.5	6.1 / 6.1	No	No
	14 / 14	0.2 / 0.1	8.3 / 8.5	6.0 / 6.1	No	No
I-5 SB Ramps and Via de la Valle	7 / 7	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	14 / 14	0.1 / 0.0	8.7 / 8.8	6.3 / 6.3	No	No
	12 / 12	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
I-5 NB Ramps and Via de la Valle	7 / 7	0.1 / 0.0	8.7 / 8.8	6.3 / 6.3	No	No
	12 / 12	0.1 / 0.1	8.5 / 8.6	6.1 / 6.2	No	No
	14 / 12	0.0 / 0.0	8.5 / 8.5	6.1 / 6.1	No	No
	12 / 14	0.1 / 0.0	8.4 / 8.5	6.1 / 6.1	No	No
Jimmy Durante Blvd and Main Gate	7 / 7	0.1 / 0.0	7.7 / 7.8	5.6 / 5.6	No	No
	7 / 7	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	10 / 10	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	14 / 14	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
Jimmy Durante Blvd and Hotel Drive	14 / 14	0.0 / 0.0	7.3 / 7.3	5.3 / 5.3	No	No
	14 / 7	0.1 / 0.1	7.2 / 7.3	5.2 / 5.3	No	No
	7 / 14	0.1 / 0.1	7.2 / 7.3	5.2 / 5.3	No	No
	14 / 7	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
Camino Del Mar and 13th St.	14 / 14	0.0 / 0.0	7.9 / 7.9	5.7 / 5.7	No	No
	8 / 8	0.0 / 0.0	7.8 / 7.8	5.6 / 5.6	No	No
	8 / 8	0.0 / 0.0	7.8 / 7.8	5.6 / 5.6	No	No
	8 / 8	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
Camino Del Mar and 11th St.	14 / 14	0.1 / 0.1	7.9 / 8.0	5.7 / 5.8	No	No
	8 / 8	0.1 / 0.1	7.8 / 7.9	5.6 / 5.7	No	No
	8 / 8	0.1 / 0.1	7.8 / 7.9	5.6 / 5.7	No	No
	14 / 14	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
Camino Del Mar and Del Mar Heights Rd.	10 / 10	0.1 / 0.0	8.1 / 8.2	5.9 / 5.9	No	No
	14 / 10	0.0 / 0.0	8.0 / 8.0	5.8 / 5.8	No	No
	14 / 14	0.1 / 0.1	7.9 / 8.0	5.7 / 5.8	No	No
	10 / 14	0.0 / 0.0	7.9 / 7.9	5.7 / 5.7	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

Table 4.3.N: Near-Term Baseline and with Project Race Meet Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project One-Hour CO Concentration (ppm)	Without/With Project Eight-Hour CO Concentration (ppm)	Exceeds State Standards ²	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Dr.	8 / 8	0.0 / 0.0	8.5 / 8.5	6.1 / 6.1	No	No
	15 / 15	0.0 / 0.0	8.4 / 8.4	6.1 / 6.1	No	No
	15 / 15	0.0 / 0.0	8.4 / 8.4	6.1 / 6.1	No	No
	14 / 14	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
Solana Gate and Via de la Valle	7 / 7	-0.2 / -0.2	8.0 / 7.8	5.8 / 5.6	No	No
	7 / 7	-0.2 / -0.1	7.9 / 7.7	5.7 / 5.6	No	No
	7 / 12	-0.2 / -0.1	7.9 / 7.7	5.7 / 5.6	No	No
	7 / 12	-0.1 / 0.0	7.8 / 7.7	5.6 / 5.6	No	No
Jimmy Durante Blvd and Via de la Valle	14 / 14	0.3 / 0.3	8.8 / 9.1	6.3 / 6.6	No	No
	15 / 15	0.2 / 0.2	8.8 / 9.0	6.3 / 6.5	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
	14 / 14	0.1 / 0.1	8.6 / 8.7	6.2 / 6.3	No	No
I-5 SB Ramps and Via de la Valle	7 / 7	0.1 / 0.0	9.4 / 9.5	6.8 / 6.8	No	No
	14 / 14	0.1 / 0.1	9.0 / 9.1	6.5 / 6.6	No	No
	12 / 12	0.0 / 0.0	8.9 / 8.9	6.4 / 6.4	No	No
	12 / 12	0.0 / 0.0	8.9 / 8.9	6.4 / 6.4	No	No
I-5 NB Ramps and Via de la Valle	12 / 12	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
	7 / 7	0.1 / 0.1	8.9 / 9.0	6.4 / 6.5	No	No
	12 / 12	0.0 / 0.0	8.7 / 8.7	6.3 / 6.3	No	No
	12 / 12	0.1 / 0.1	8.5 / 8.6	6.1 / 6.2	No	No
Jimmy Durante Blvd and Main Gate	7 / 7	1.4 / 1.0	7.9 / 9.3	5.7 / 6.7	No	No
	10 / 15	1.2 / 0.8	7.6 / 8.8	5.5 / 6.3	No	No
	15 / 14	1.1 / 0.8	7.6 / 8.7	5.5 / 6.3	No	No
	14 / 10	1.0 / 0.7	7.6 / 8.6	5.5 / 6.2	No	No
Jimmy Durante Blvd and Hotel Drive	14 / 14	0.4 / 0.3	7.2 / 7.6	5.2 / 5.5	No	No
	7 / 14	0.3 / 0.2	7.2 / 7.5	5.2 / 5.4	No	No
	14 / 7	0.3 / 0.2	7.2 / 7.5	5.2 / 5.4	No	No
	7 / 10	0.4 / 0.2	7.1 / 7.5	5.2 / 5.4	No	No
Camino Del Mar and 13th St.	14 / 8	0.0 / 0.0	7.7 / 7.7	5.6 / 5.6	No	No
	8 / 14	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	8 / 8	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
	14 / 8	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
Camino Del Mar and 11th St.	14 / 14	0.1 / 0.0	7.7 / 7.8	5.6 / 5.6	No	No
	8 / 8	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	8 / 8	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	14 / 14	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
Camino Del Mar and Del Mar Heights Rd.	10 / 10	0.0 / 0.0	8.1 / 8.1	5.9 / 5.9	No	No
	14 / 14	0.1 / 0.1	7.9 / 8.0	5.7 / 5.8	No	No
	10 / 10	0.0 / 0.0	7.9 / 7.9	5.7 / 5.7	No	No
	14 / 14	0.0 / 0.0	7.9 / 7.9	5.7 / 5.7	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

rack, and a truck tunnel under the Racetrack. Construction activity for these projects would result in dust from earth movement and emissions from construction equipment and construction-related trips.

Depending upon the specific construction schedule for individual long-term projects and how the project construction activities overlap, construction activity may result in the violation of construction emissions thresholds for one or more constituents and is a potentially significant impact of the long-term projects. Strategy 4.3.1 requires that the plans for the long-term projects incorporate mitigation to reduce construction impacts to below the screening level thresholds established in the County of San Diego Guidelines for Determining Significance.

Generally, these uses are not expected to generate a substantial number of additional trips to the Fairgrounds, as they are enhancements to the existing facility. The seasonal train platform is intended to reduce the number of motor vehicles driving to the Fairgrounds for major events. The multilevel parking structure will accommodate the vehicles for major events allowing the South Lot to be restored to habitat and no longer available for parking. The Backstretch Area improvements replace existing facilities, and the Horseman's Village provides services to the jockeys and other staff associated with the Race Meet. The vehicle wash rack and racetrack tunnel are enhancements to existing operations. There is no plan to increase the number of horses boarded at the Fairgrounds for the Race Season. Therefore, a substantial increase in vehicle-related emissions is not anticipated as a result of implementation of the long-term projects. The potential for increased train emissions with improved rail service to the site will be studied at the time a specific proposal is put forward by the lead transit agency, anticipated to be SANDAG. It is not anticipated that the traffic from operation of the long-term projects will violate operational emissions thresholds or result in CO hot spots.

Operations emissions associated with the long-term projects from heating and cooling and other sources of new energy use are anticipated to be limited. While lighting will be required for all of the proposed facilities, Mitigation Measure 4.16.4 requires the use of energy-efficient lighting. In the case where proposed facilities are replacing existing facilities, the energy consumption as a result of lighting would be expected to be approximately the same or less than existing conditions due to the increased efficiency of the new lighting fixtures. The proposed long-term projects that are replacing existing facilities are the Backstretch Area improvements and the Horseman's Village. New lighting will be installed for the new (not replacement) long-term projects, specifically the proposed seasonal train platform, multilevel parking structure, and tunnel under the Racetrack. The new lighting fixtures will be energy efficient as specified in Mitigation Measure 4.16.4. The only long-term structure that is expected to be heated and cooled is the Horseman's Village. This is a replacement project. Although the proposed structure is larger than the existing facility, LEED-NC Silver-certified design and mitigation measures listed in Section 4.16 of this EIR require energy-efficient design and heating systems.¹ The Horseman's Village is also the only project that is expected to be served with potable water. As noted in Section 4.16 Greenhouse Gases and Energy of this EIR, the collection, distribution, treatment, and delivery of potable water requires energy, and Statewide accounts for approximately 19 percent of the energy use. Again, this is a replacement project. Although the proposed structure is larger than the existing facility, Mitigation Measure 4.16.7 specified in Section 4.16, requires installation of water-efficient fixtures to minimize water consumption, and therefore

¹ See Mitigation Measures 4.16.4 regarding lighting fixtures; 4.16.5 regarding insulation; 4.16.6 regarding limiting air leakage; 4.16.7 regarding water fixtures; 4.16.8 regarding heating and cooling equipment; 4.16.9 regarding appliances; 4.16.10 and 4.16.12 regarding renewable energy sources (including solar); and 4.16.14 regarding solar heating of the hotel pool.

reduce energy consumption to supply the water. Strategy 4.3.2 requires that long-term projects be subject to mitigation measures listed in Section 4.16, Greenhouse Gases and Energy, of this EIR, to reduce the air quality effects associated with energy generation. Operational emissions as a result of implementation of the long-term projects are considered less than significant, and no additional mitigation measures are warranted.

Threshold 4.3.3 Expose sensitive receptors to substantial pollutant concentrations.

Near-Term Project Impact Analysis. The proposed near-term projects would not produce hazardous emissions such as those associated with industrial uses. In addition, the proposed near-term projects are located on the existing Fairgrounds site (with the exception of the fire station) and would not locate any new sensitive land uses within the vicinity of any hazardous emission sources. Therefore, an air toxic analysis was neither warranted nor conducted. As described in Table 4.3.L, Interim Season CO concentrations were analyzed for 10 intersections in the project vicinity under the near-term and near-term plus project conditions. Table 4.3.M lists the Fair Season CO concentrations under the near-term and near-term plus project conditions. Table 4.3.N lists the Race Meet Season CO concentrations under the near-term and near-term plus project conditions. As shown, none of the 10 intersections analyzed would have a 1-hour CO concentration exceeding the State standard of 20 ppm. The 8-hour CO concentration at these intersections would also be below the State standard of 9 ppm. Since no federal or State standards would be exceeded, no CO hot spots would occur. Localized air quality impacts to sensitive receptors (i.e., higher CO concentrations [CO hot spots] near intersections or roadway segments in the project vicinity) would be minimal due to the generally low ambient CO concentrations in the project area. Therefore, project impacts related to CO emissions are considered less than significant, and no mitigation is required.

Long-Term Project Impact Analysis. Long-term project impacts due to exposure of sensitive receptors to substantial pollutant concentrations would be similar to those discussed above for the near-term projects. Table 4.3.O lists the Interim Season CO concentrations under the long-term and long-term plus project conditions. As shown, none of the 10 intersections analyzed would have a 1-hour CO concentration exceeding the State standard of 20 ppm. The 8-hour CO concentration at these intersections would also be below the State standard of 9 ppm. Since no federal or State standards would be exceeded, no CO hot spots would occur. Localized air quality impacts to sensitive receptors (i.e., higher CO concentrations [CO hot spots] near intersections or roadway segments in the project vicinity) would be minimal due to the generally low ambient CO concentrations in the project area. Therefore, project impacts related to CO emissions are considered less than significant, and no mitigation is required.

Threshold 4.34 Create objectionable odors affecting a substantial number of people.

Near-Term Project Impact Analysis. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the proposed near-term projects. These odors, however, would be limited to the phased construction period of the project. While construction activity would occur over a 38-month period, the nature and location of construction of all of the near-term projects would vary throughout that period. Exposure of specific off-site areas to

construction emissions would be different depending on the nature (demolition, grading, and construction) and proximity of any given construction work within the approximately 300 ac project site. Furthermore, Mitigation Measures 4.3.1 and 4.3.2 are specific to construction equipment emissions that could result in odors. Mitigation Measure 4.4.1 in the Noise section limits the hours of construction activity. Mitigation Measures 4.16.1 through 4.16.3 address delivery of construction equipment and materials to minimize truck queuing, require that construction trucks and other vehicles greater than 10,000 lbs shall be shut off when not in use and shall not idle for more than 5 minutes, and that, to the extent feasible, all diesel- and gasoline-powered construction equipment shall be replaced with equivalent electric equipment. These measures reduce the construction odor impacts to adjacent sensitive land uses to a less than significant level.

Long-Term Project Impact Analysis. The long-term projects include the seasonal train platform, the multilevel parking structure, improvements to the Backstretch Area, a new Horseman's Village, and construction of a new truck tunnel under the Racetrack. These projects are generally interior to the Fairgrounds site or near I-5 and are not adjacent to sensitive off-site land uses. Construction-related emissions would result from demolition, grading, and construction, including demolition in the Backstretch Area, excavation for the tunnel, and construction of the multilevel parking structure and seasonal train platform. The long-term projects would be subject to Mitigation Measure 4.4.1, limiting the hours of construction in accordance with the Noise Ordinances of the affected jurisdictions. Mitigation Measures 4.3.1 and 4.3.2, specific to construction equipment, would also be applicable to the long-term projects. Mitigation Measures 4.16.1 through 4.16.3 address delivery of construction equipment and materials to minimize truck queuing, require that construction trucks and other vehicles greater than 10,000 lbs shall be shut off when not in use and shall not idle for more than 5 minutes, and that, to the extent feasible, all diesel- and gasoline-powered construction equipment shall be replaced with equivalent electric equipment. Furthermore, exposure of off-site areas to construction noise would be different depending on the nature and location of the specific construction activity undertaken at any one time within the 300 ac project site. Therefore, it is anticipated that the construction odor impacts of the long-term projects to adjacent sensitive land uses would be reduced to a less than significant level.

4.3.7 Cumulative Impacts

Threshold 4.3.5 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).

The project would contribute criteria pollutants to the area during temporary project construction. A number of individual projects in the area may be under construction simultaneously with the proposed project (see description of cumulative projects in Section 4.2, Traffic and Circulation). Depending on construction schedules and actual implementation of other projects in the area, generation of fugitive dust and pollutant emissions during construction could result in substantial short-term increases in air pollutants. This would be a contribution to short-term cumulative air quality impacts. Implementation of Mitigation Measures 4.3.1 through 4.3.13 would reduce the construction emissions to the extent feasible. These measures reduce emissions from the operation of construction equipment and vehicles

(Mitigation Measures 4.3.1–4.3.4), emissions of fugitive dust (Mitigation Measures 4.3.5–4.3.12), and ROG emissions from the application of paint and architectural coatings (Mitigation Measure 4.3.13). ROG is an ozone precursor, and the Basin is in serious nonattainment for O₃. Therefore, even though emissions from the application of paint and architectural coatings occurs only during the construction period, its incremental contribution to cumulative air quality effects is considered to be substantial. The ROG emissions generated by the architectural coatings would remain significant and unavoidable.

Under cumulative conditions, the TIA included vehicular trips from the proposed project and all present and future projects in the project vicinity as of March 2008. Therefore, CO hot spot concentrations calculated at these intersections include the cumulative traffic effect. Based on Tables 4.3.L through 4.3.O CO hotspots are not anticipated to occur when project-related traffic is combined with the cumulative traffic conditions. Therefore, the project's incremental contribution of CO emissions to cumulative CO levels and likely concentrations is not considered to be cumulatively considerable. No significant cumulative CO impacts would occur.

The Basin is in serious nonattainment status for PM₁₀. The operation of the near-term projects, specifically the vehicular emissions associated with the near-term projects, results in a significant project-level impact to PM₁₀ during the Interim Season. Mitigation measures and components of the Sustainability Component of the Master Plan are designed to reduce vehicular emissions; however, actual reductions to be realized are not known, and the predicted impact is considered to be significant and unavoidable. The project's incremental contribution to the already-high levels of PM₁₀ in the region is considered to be cumulatively considerable.

As discussed in detail under Threshold 4.3.2 and shown in Table 4.3.G, during the Interim Season the operational emissions from near-term projects would exceed the PM₁₀ daily emission threshold. As shown in Tables 4.3.G and 4.3.H, however, the PM₁₀ exceedance is relatively small (approximately 12 percent above the threshold). Also, the 2008 Fairgrounds Master Plan projects will be incorporated into the next update of the RAQS, and subject to regional emissions control strategies. Therefore, the potential for the near-term projects to significantly deteriorate regional air quality is low. Because of the overall improvement trend of air quality in the air Basin, it is unlikely that the regional air quality would worsen from the current condition due to emissions from any individual project. Therefore, operational air quality impacts related to a considerable net increase in criteria pollutants are less than significant, and no additional mitigation is required.

Long-Term Project Impact Analysis. As described above, operational emissions associated with the long-term projects from heating and cooling and other sources of new energy use are anticipated to be limited.

In the case where proposed facilities are replacing existing facilities, the energy consumption as a result of lighting, heating and cooling, and provision of potable water would be expected to be approximately the same or less than existing conditions due to the increased efficiency of the new lighting fixtures. Overall, the air emissions of criteria pollutants associated with energy use for the long-term projects are expected to be less than significant and are further reduced with the implementation of mitigation measures identified to reduce GHG emissions. Similarly, the traffic emissions from the long-term project will be minimal because the long-term projects are

Table 4.3.O: Long-Term Interim Season CO Concentrations¹

Intersection	Receptor Distance to Road Centerline (Meters)	Project-Related Increase 1-hr/8-hr (ppm)	Without/With Project 1-Hour CO Concentration (ppm)	Without/With Project 8-Hour CO Concentration (ppm)	Exceeds State Standards	
					1-Hr	8-Hr
Highway 101 and Lomas Santa Fe Drive	8 / 8	0.0 / 0.0	7.4 / 7.4	5.4 / 5.4	No	No
	15 / 15	0.0 / 0.0	7.4 / 7.4	5.4 / 5.4	No	No
	15 / 15	0.0 / 0.0	7.4 / 7.4	5.4 / 5.4	No	No
	14 / 14	0.0 / 0.0	7.3 / 7.3	5.3 / 5.3	No	No
Solana Gate and Via de la Valle	7 / 7	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	7 / 7	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	7 / 7	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	10 / 7	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
Jimmy Durante and Via de la Valle	14 / 14	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	15 / 15	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	14 / 14	0.1 / 0.0	7.4 / 7.5	5.4 / 5.4	No	No
	17 / 14	0.1 / 0.0	7.4 / 7.5	5.4 / 5.4	No	No
I-5 SB Ramps and Via de la Valle	12 / 12	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	7 / 7	0.1 / 0.1	7.5 / 7.6	5.4 / 5.5	No	No
	12 / 12	0.0 / 0.0	7.5 / 7.5	5.4 / 5.4	No	No
	7 / 7	0.0 / 0.0	7.5 / 7.5	5.4 / 5.4	No	No
I-5 NB and Via de la Valle	12 / 12	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	7 / 7	0.1 / 0.1	7.6 / 7.7	5.5 / 5.6	No	No
	12 / 12	0.0 / 0.0	7.6 / 7.6	5.5 / 5.5	No	No
	7 / 7	0.0 / 0.0	7.5 / 7.5	5.4 / 5.4	No	No
Jimmy Durante Blvd and Main Gate	7 / 7	0.1 / 0.1	7.0 / 7.1	5.1 / 5.2	No	No
	14 / 7	0.1 / 0.1	6.9 / 7.0	5.0 / 5.1	No	No
	7 / 10	0.1 / 0.1	6.9 / 7.0	5.0 / 5.1	No	No
	10 / 14	0.1 / 0.1	6.9 / 7.0	5.0 / 5.1	No	No
Jimmy Durante and Hotel Drive	14 / 14	0.0 / 0.0	6.9 / 6.9	5.0 / 5.0	No	No
	14 / 7	0.1 / 0.1	6.8 / 6.9	4.9 / 5.0	No	No
	7 / 14	0.1 / 0.1	6.8 / 6.9	4.9 / 5.0	No	No
	10 / 14	0.1 / 0.1	6.8 / 6.9	4.9 / 5.0	No	No
Camino Del Mar and 13th Street	14 / 14	0.0 / 0.0	7.3 / 7.3	5.3 / 5.3	No	No
	8 / 8	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	8 / 8	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	8 / 8	0.0 / 0.0	7.1 / 7.1	5.2 / 5.2	No	No
Camino Del Mar and 11th Street	14 / 14	0.0 / 0.0	7.3 / 7.3	5.3 / 5.3	No	No
	8 / 8	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	8 / 8	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	14 / 14	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
Camino Del Mar and Del Mar Heights Road	10 / 10	0.0 / 0.0	7.4 / 7.4	5.4 / 5.4	No	No
	14 / 14	0.0 / 0.0	7.3 / 7.3	5.3 / 5.3	No	No
	14 / 14	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No
	10 / 10	0.0 / 0.0	7.2 / 7.2	5.2 / 5.2	No	No

Source: LSA Associates, Inc., April 2009.

¹ Includes ambient 1-hour concentration of 6.6 ppm and ambient 8-hour concentration of 4.8 ppm. Measured at the 1133 Union Street, San Diego, CA, AQ Station (San Diego County).

² The 1-hour CO State standard is 20 ppm, and the 8-hour CO standard is 9 ppm.

AQ = air quality; CO = carbon monoxide; I-5 = Interstate 5; NB = northbound; ppm = parts per million; SB = southbound

enhancements to the existing facility. Emissions of ROG during construction have the potential to contribute to cumulative effect, but only during a relatively short time period during the construction phase when architectural coatings are applied or during the high use of construction equipment. The contribution of the long-term projects to cumulative air quality environment would occur over several years, as projects are implemented, and would be primarily short-term emissions from construction rather than ongoing long-term emissions from operations. Therefore, the impact of the long-term projects, when added to the effects of other projects, is not expected to be cumulatively considerable.

4.3.8 Level of Significance Prior to Mitigation

Prior to implementing proposed mitigation measures, the proposed project would exceed thresholds and therefore result in significant air quality impacts associated with construction and operation. Construction emissions would exceed the PM₁₀ threshold during mass grading and the ROG threshold during architectural coating. During the Interim Season, the project operational emissions would exceed the PM₁₀ daily emission threshold. In addition, the proposed Master Plan project is considered to be inconsistent with the SANDAG forecast, and is therefore inconsistent with the RAQS.

4.3.9 Mitigation Measures

As identified above, the implementation of the near-term projects in two phases reduces the overall construction impacts to less than significant levels, with the exception of ROG emissions. These conclusions are based on the analysis conducted with the URBEMIS emissions model. The URBEMIS model assumes implementation of standard air quality measures. Therefore, Mitigation Measures 4.3.1 through 4.3.13 are consistent with the built-in assumption of the URBEMIS model. Measures 4.3.1 through 4.3.12 are identified as a precautionary measure to ensure that construction air quality impacts to adjacent sensitive land uses remain at a less than significant level. Mitigation Measure 4.3.13 is reflected in the model; however, emissions of ROG remain significant even with implementation of this mitigation measure.

Mitigation Measure 4.3.1 Prior to and during construction, the construction contractor shall select the construction equipment used on site based on low emission factors and high energy efficiency. The construction contractor shall ensure that construction grading plans include a statement that all construction equipment will be tuned and maintained in accordance with the manufacturer's specifications.

Mitigation Measure 4.3.2 Prior to construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that construction grading plans include a statement that work crews will shut off equipment when not in use.

Mitigation Measure 4.3.3 During construction, the construction contractor shall time the construction activities so as not to interfere with peak-hour traffic and to minimize obstruction of through traffic lanes adjacent to the site; if necessary, a flagperson shall be retained to maintain safety

adjacent to existing roadways. The California Construction Authority (CCA) shall verify implementation of this measure.

- Mitigation Measure 4.3.4** During construction, the construction contractor shall support and encourage ridesharing and transit incentives for the construction crew. The California Construction Authority (CCA) shall verify implementation of this measure.
- Mitigation Measure 4.3.5** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that portions of the construction site to remain inactive longer than a period of three months are seeded and watered until grass cover is grown.
- Mitigation Measure 4.3.6** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that all active portions of the construction site are watered a minimum of twice daily, more often when needed due to dry or windy conditions, to prevent excessive amounts of dust.
- Mitigation Measure 4.3.7** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that on-site vehicle speed shall be limited to 15 miles per hour (mph).
- Mitigation Measure 4.3.8** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that all on-site roads are paved as soon as feasible or watered periodically or chemically stabilized.
- Mitigation Measure 4.3.9** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that all material excavated or graded is sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day. Surfactants shall be applied to stock piles of dirt, inactive construction areas, and construction roads.
- Mitigation Measure 4.3.10** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that all clearing, grading, earth moving, or excavation activities cease during periods of high winds (i.e., greater than 25 miles per hour [mph] averaged over 1 hour).
- Mitigation Measure 4.3.11** During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that all material transported off site is either sufficiently watered or securely covered to prevent excessive amounts of dust.

Mitigation Measure 4.3.12 During construction, the construction contractor shall ensure, and the California Construction Authority (CAA) shall verify that the area disturbed by clearing, grading, earth moving, or excavation operations is minimized at all times.

Mitigation Measure 4.3.13 During final design, the Project Engineer shall specify, and during construction the construction contractor shall ensure, that all paint and other architectural coatings used are low volatile organic compound (VOC) emissions materials.

The following mitigation measure is proposed to address consistency with the regional air quality plan.

Mitigation Measure 4.3.14 Upon adoption of the proposed Master Plan, the 22nd District Agricultural Association (DAA) will submit the plan to San Diego Association of Governments (SANDAG) and San Diego Air Pollution Control District (SDAPCD) for incorporation into SANDAG forecasts and the Regional Air Quality Strategies (RAQS).

The following mitigation measures identified in Section 4.16, Greenhouse Gases and Energy, would also serve to reduce emissions from energy consumption as described above.

Mitigation Measure 4.16.1 Prior to initiation of construction, the project plans and specifications shall include a statement that delivery of construction equipment and materials will be scheduled such that queuing of trucks on and off site shall be minimized. The requirement will be implemented by the contractor and verified by the 22nd District Agricultural Association (DAA).

Mitigation Measure 4.16.2 Prior to initiation of construction, the project plans and specifications shall include a statement that on-road construction trucks and other vehicles greater than 10,000 pounds shall be shut off when not in use and shall not idle for more than 5 minutes. The requirement will be implemented by the contractor and verified by the 22nd District Agricultural Association (DAA).

Mitigation Measure 4.16.3 Prior to initiation of construction, the project plans and specifications shall include a statement that, to the extent feasible, all diesel- and gasoline-powered construction equipment shall be replaced with equivalent electric equipment. The requirement will be implemented by the contractor and verified by the 22nd District Agricultural Association (DAA).

Mitigation Measure 4.16.4 Prior to initiation of construction, the project engineer shall demonstrate that the design of the proposed buildings or structures incorporates ENERGY STAR-rated, energy-efficient T-8 high-

output fixtures, and/or compact fluorescent and other comparable energy-saving lighting fixtures. Documentation of compliance with this measure shall be provided by the project engineer to the State Architect. Installation of the identified design features or equipment will be confirmed by the California Construction Authority (CCA) prior to issuance of a certificate of occupancy.

Mitigation Measure 4.16.5

Prior to initiation of construction for a specific facility, the project engineer shall demonstrate that the design of the proposed buildings or structures incorporates enhanced insulation such that heat transfer and thermal bridging is minimized in structures that will be mechanically heated and/or cooled. Documentation of compliance with this measure shall be provided to the State Architect for review and approval. Installation of the identified design features or equipment will be conducted by the contractor and confirmed by the California Construction Authority (CCA) prior to issuance of a certificate of occupancy.

Mitigation Measure 4.16.6

Prior to issuance of a certificate of occupancy, the 22nd District Agricultural Association (DAA) and the Project Engineer will document, and the California Construction Authority (CCA) or third-party commissioner will verify, installation of the identified design features or equipment designed to limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption in structures that will be mechanically heated and/or cooled.

Mitigation Measure 4.16.7

Prior to initiation of construction, the 22nd Agricultural Association (DAA) shall demonstrate that the design of the proposed buildings or structures incorporates United States Environmental Policy Agency (EPA) WaterSense Program water-efficient products (bathroom sink faucets, low-flush urinals, dual-flush toilets, etc.) Documentation of compliance with this measure shall be provided to the California Construction Authority (CCA) for review and approval. Installation of the identified design features or equipment will be confirmed by the CCA prior to issuance of certificate of occupancy.

Mitigation Measure 4.16.8

Prior to initiation of construction, the project engineer shall demonstrate that the design of the proposed buildings or structures that will be mechanically heated and/or cooled incorporates space heating and cooling equipment that meets or exceeds ENERGY STAR-rated standards. Documentation of compliance with this measure shall be provided by the project engineer to the State Architect. Installation of the identified design features or equipment will be confirmed by the California Construction Authority (CCA) prior to issuance of a certificate of occupancy.

- Mitigation Measure 4.16.9** Prior to initiation of construction, the project engineer shall demonstrate that the proposed buildings or structures incorporate appliances that meet or exceed the ENERGY STAR-rated standards. Documentation of compliance with this measure shall be provided by the project engineer to the State Architect for review and approval. Installation of the identified design features or equipment will be confirmed by the California Construction Authority (CCA) prior to issuance of a certificate of occupancy.
- Mitigation Measure 4.16.10** Prior to initiation of construction, the project engineer shall demonstrate that the design of proposed buildings or structures considered includes installation/operation of renewable electric generation systems. Documentation of compliance with this measure shall be provided by the project engineer to the State Architect for review and approval. Installation of the identified design features or equipment will be confirmed by the California Construction Authority (CCA) prior to issuance of a certificate of occupancy.
- Mitigation Measure 4.16.11** The 22nd District Agricultural Association (DAA) shall require, through posting of signage and other means, that on-road delivery trucks and other vehicles greater than 10,000 pounds shall be shut off when not in use and shall not idle for more than 5 minutes.
- Mitigation Measure 4.16.12** Prior to the preparation of construction plans for new stable structures, the 22nd District Agricultural Association (DAA) and Del Mar Thoroughbred Club will evaluate the feasibility of incorporating solar panels in the new construction.
- Mitigation Measure 4.16.13** Prior to the demolition of existing facilities, the 22nd District Agricultural Association (DAA) will prepare a Building Materials Recycling Plan to identify how demolished building materials can be reused on site.
- Mitigation Measure 4.16.14** The 22nd District Agricultural Association (DAA) shall require that the hotel swimming pool be heated with solar heating, as reflected in the building plans prior to the initiation of construction. The State Architect will verify compliance, and the California Construction Authority (CCA) will confirm implementation during construction.
- Mitigation Measure 4.16.15** The 22nd District Agricultural Association (DAA) will ensure that construction plans for the new administration building include bicycle racks and temporary storage lockers, as reflected in the building plans prior to the issuance of construction permits. The State Architect will verify compliance, and the California Construction Authority (CCA) will confirm implementation during construction.

Mitigation Measure 4.16.16 The 22nd District Agricultural Association (DAA) will offer reduced parking rates and/or preferential parking for electric and hybrid vehicles at all major events.

4.3.10 Programmatic Impact Avoidance and Mitigation Strategies

In addition to the above mitigation measures, the following strategies will be implemented as appropriate to address the potential impacts of long-term projects. The following programmatic impact avoidance and mitigation strategies will be considered during long-term project planning and development. Specific mitigation measures will be adopted for each project. Not all strategies may be applicable to all projects due to differences in the location and timing of each project.

Strategy 4.3.1 Construction of long-term projects will be subject to Mitigation Measures 4.3.1 through 4.3.13, as required to reduce the air quality effects of construction activity, to below the screening level standards established in the County of San Diego Guidelines for determining significance, including but not limited to those identified above.

Strategy 4.3.2 Construction and operation of long-term projects will be subject to Mitigation Measures listed in Section 4.16, Greenhouse Gases and Energy, as listed above and as required to reduce the air quality effects associated with energy generation.

4.3.11 Level of Significance after Mitigation

Feasible mitigation measures have been identified for the significant construction and operational effects of the proposed project.

ROG emissions from the application of paint and other architectural coatings during the construction period exceed the daily construction emissions thresholds. The URBEMIS model assumes, and Mitigation Measure 4.3.13 included in this EIR requires, the use of low VOC paints; however, due to the amount of painting activity that is associated with new construction (hotel, exhibit halls, sports training facility), these emissions remain significant and unavoidable.

Operational emissions of PM₁₀ result from vehicular emissions associated with the project-generated trips. The 22nd DAA has little control over the fleet mix of cars that people drive to the Fairgrounds site. Also, the air quality models used in the analysis reflect current planned introduction of improved emission standards for cars in the State. Mitigation Measures 4.16.11, 4.16.15, and 4.16.16 in Section 4.16, Greenhouse Gases and Energy, of this EIR, result in reduced emissions from vehicles. However, actual reduction in vehicular emissions are not known, and therefore operational emissions of PM₁₀ are considered significant after mitigation. In the long term, the implementation of the seasonal train platform is expected to reduce the number of motor vehicle trips. The commitments identified in the Sustainability component of the Master Plan state that the 22nd DAA will continue to seek new opportunities to promote commuter carpooling, as well as alternative transportation for the Fair and Race Meet. Also, the 22nd DAA will evaluate, promote, and provide amenities for alternative

transportation modes by providing bicycle racks, accommodating bus stops on site, providing shuttle service, and coordinating with transit providers to provide bus connections from the Solana Beach Train Station during the Fair and Race Meet Seasons, in addition to working with transit agencies to locate a seasonal train platform on the Fairgrounds site (identified as one of the long-term Master Plan projects). In order to further reduce emissions from motor vehicles, the Master Plan Sustainability Component also includes the phase-in of an effective replacement of the 22nd DAA's existing fleet (as vehicles age) with low- and zero-emission vehicles and will require comparable efforts by the Race Meet operator. The 22nd DAA will require contractors to use zero- or low-emission vehicles and equipment when possible. There are no other feasible identifiable measures that can be applied to reduce this significant impact. Operations emissions of PM_{10} remain significant and unavoidable.

The proposed near-term and long-term projects are not reflected in current plans available to SANDAG and SDAPCD, and therefore, the proposed Master Plan projects are considered to be inconsistent with the SANDAG forecast, and is therefore inconsistent with the RAQS. Mitigation described above calls for the 22nd DAA to submit the updated Master Plan to SANDAG and SDAPCD upon its adoption. It is anticipated that the regional agencies will incorporate the updated Master Plan when next updating the model runs for regional air quality. The decision if and when to incorporate the updated Master Plan in regional air quality modeling is not within the control of the 22nd DAA; therefore, this impact remains significant and unavoidable after mitigation.

Implementation of the proposed near-term projects will result in exceedances of the ROG (an ozone precursor) construction threshold and the PM_{10} operational threshold. These impacts are significant project-level impacts. The Basin is in serious non-attainment for 1-hour O_3 and PM_{10} (as well as $PM_{2.5}$). Therefore, the project's incremental contribution of these pollutants is considered to be cumulatively considerable. The proposed project results in a significant unavoidable cumulative impact to air quality for ROG, O_3 , and PM_{10} .

Depending upon the specific construction schedule for individual long-term projects and how the project construction activities overlap, the long-term projects may result in the violation of construction emission thresholds for one or more constituents. The long-term projects are not expected to require substantial application of paint and architectural coatings. Strategy 4.3.1 requires that the plans for the long-term projects incorporate mitigation to reduce construction impacts to below the screening level thresholds established in the County of San Diego Guidelines for Determining Significance. Implementation of this strategy is expected to reduce construction air quality effects of the proposed long-term projects to below a level of significance.

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