

III.2 AIR QUALITY

Motor vehicles are a leading global source of air pollution and greenhouse gases (GHG). Other mobile sources of air pollution include construction equipment, trains, and airplanes. Federal and state agencies such as the federal Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) establish emission standards for mobile sources. Stationary sources, such as gasoline stations, power plants, dry cleaners, and other commercial and industrial facilities, also contribute to air pollution. Local air pollution control or management districts regulate stationary sources of air pollution, and the California Energy Commission (CEC) has the statutory responsibility for licensing thermal power plants 50 megawatts and larger and related facilities such as transmission lines, fuel supply lines, and water pipelines.

To manage the state's air resources on a regional basis, California is divided geographically into 15 air basins and 35 local air districts. The Plan Area encompasses parts of four air basins. Areas within each air basin share the same air masses and are expected to have similar ambient air quality throughout. However, the transport of pollutants between adjacent air basins does occur from time to time. If an air basin is not in either federal or state attainment for a particular pollutant standard, the basin is classified as a marginal, moderate, serious, severe, or extreme nonattainment area.

The following regulatory framework identifies the federal and state agencies in charge of monitoring and controlling mobile and stationary source air pollutants and describes measures being taken to achieve and maintain healthful air quality in the Plan Area.

Appendix R1.2 provides supporting information for this chapter, specifically a table and chart that identify the baseline air pollutant emissions reported for existing renewable energy projects during their construction in the Plan Area.

III.2.1 Regulatory Setting

III.2.1.1 Federal

III.2.1.1.1 *Criteria Pollutant Standards*

Ambient air quality standards represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act, enacted in 1970 and amended in 1977 and 1990 (42 United States Code [U.S.C.] 7401 et seq.), protects and enhances the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the mandates of Section 109 of the Clean Air Act (42 U.S.C. 7409), the EPA developed primary and secondary national ambient air quality standards (NAAQS).

EPA has designated seven pollutants of primary concern: ozone, carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), lead, and coarse and fine inhalable particulates (PM₁₀ and PM_{2.5}, respectively). PM₁₀ is particulate matter with an aerodynamic diameter of 10 microns or less, and PM_{2.5} is particulate matter with an aerodynamic diameter of 2.5 microns or less. The primary NAAQS “in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health” and the secondary standards “protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air” (42 U.S.C. 7409[b] [2]). The primary standards were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (children, senior citizens, and people with breathing difficulties).

Ozone is a primary air pollutant concern in California. In 1997 the EPA promulgated a new 8-hour ozone standard of 8 parts per hundred million (pphm) to replace the existing 1-hour standard of 12 pphm. Subsequent litigation delayed implementation of the rule. Designations under the new standards were made in June 2004. Per the EPA’s final Phase 1 rule for implementing the 8-hour ozone standard, the 1-hour ozone standard was to be revoked “in full, including the associated designations and classifications, one year following the effective date of the designations for the 8-hour NAAQS [for ozone]” (Vol. 69 of the Federal Register [FR] p. 23951). The final rule describes the requirements for transitioning from the 1-hour to 8-hour ozone standard.

Because of subsequent litigation concerning the Phase 1 implementation rule, the provisions of the 8-hour ozone standard Phase 1 implementation rule that placed 8-hour ozone non-attainment areas under Subpart 1, Part D, Title I of the Clean Air Act, instead of Subpart 2, were vacated. New designations were proposed for areas that had been classified under Subpart 1 (74 FR 2936) on January 16, 2009. On May 14, 2012, the former Subpart 1 non-attainment areas were classified under Subpart 2 (77 FR 28424), effective June 13, 2012.

The Great Basin Valleys Air Basin is classified attainment for the 1997 and 2008 8-hour ozone standards. Los Angeles and San Bernardino counties within the western portion of the Mojave Desert Air Basin are classified as severe-15 nonattainment for the 1997 and 2008 8-hour ozone standards (meaning it is projected to take 15 years to achieve attainment). Within the Salton Sea Air Basin, portions of Riverside County are classified severe-15 nonattainment for the 1997 and 2008 8-hour ozone standards, and Imperial County is classified as moderate nonattainment for the 1997 8-hour ozone standard and marginal nonattainment for the 2008 standard. The San Diego Air Basin is classified as in attainment of the 1997 8-hour ozone standard and in marginal nonattainment of the 2008 standard.

Under Subpart 2, consistent with Section 182 of the Clean Air Act, the maximum period of attainment from the effective date of designation for areas designated as nonattainment is shown in Table III.2-1 (69 FR 23951).

**Table III.2-1
 Attainment Periods**

Nonattainment Designation	Period (years)
Marginal	3
Moderate	6
Serious	9
Severe	15 or 17
Extreme	20

On April 30, 2012, the EPA provided final designations for the 2008 8-hour ozone standard of 0.075 ppm (annual fourth-highest daily maximum 8-hour average concentration, averaged over 3 years). Except for the Great Basin Valleys Air Basin and eastern portions of the Mojave Desert Air Basin, much of the Plan Area was designated nonattainment for the 2008 8-hour ozone standards.

On September 21, 2006, the EPA revised the NAAQS for particulate matter. The 24-hour PM_{2.5} standard was strengthened from 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 35 $\mu\text{g}/\text{m}^3$. The existing standard for annual PM_{2.5} of 15 $\mu\text{g}/\text{m}^3$ remained the same. The EPA also revised the standard for PM₁₀. Due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, the agency revoked the annual PM₁₀ standard effective December 18, 2006. NAAQS standards were further revised in 2012. On December 14, 2012, the EPA reduced the primary annual PM_{2.5} standard from 15 $\mu\text{g}/\text{m}^3$ to 12 $\mu\text{g}/\text{m}^3$. All other PM₁₀ and PM_{2.5} 24-hour and secondary annual standards were retained.

On June 2, 2010, the EPA established a new 1-hour SO₂ standard at a level of 75 parts per billion (ppb), effective August 23, 2010. The revised standard is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The EPA also revoked both the existing 24-hour SO₂ standard of 0.14 ppm and the annual primary SO₂ standard of 0.030 ppm, effective August 23, 2010. On March 20, 2012, the EPA took final action to retain the existing secondary SO₂ standard of 0.5 ppm averaged over 3 hours, not to be exceeded more than once per year (77 FR 20218). The final rule for the secondary standard is effective June 4, 2012.

On February 9, 2010, the EPA finalized the new 1-hour NO₂ standard to 100 parts per billion (ppb) based on the 3-year average of the 98th percentile of the annual distribution

of daily maximum 1-hour average concentrations (75 FR 6474). The annual NO₂ standard of 53 ppb remains unchanged. The EPA completed final designations for the new standards on January 20, 2012. The EPA determined that no area of the country, including the Plan Area, is violating the 2010 national standard for NO₂. All areas have therefore been designated as “unclassifiable/attainment.” To determine compliance with the standard, the new NO₂ rule also establishes new ambient air monitoring network and reporting requirements. Once the expanded network of NO₂ monitors is fully deployed and three years of air quality data have been collected, the EPA intends to redesignate areas in 2016 or 2017, as appropriate, based on the air quality data from the new monitoring network.

The secondary standards for NO₂ also underwent separate review. On March 20, 2012, the EPA took final action to retain the existing secondary NO₂ standard of 0.053 ppm averaged over a year (77 FR 20218). The final rule for the secondary standard took effect June 4, 2012.

In 2008, the EPA revised the primary standard for lead from 1.5 µg/m³ to 0.15 µg/m³ averaged over a rolling 3-month period evaluated over a 3-year period, and revised the secondary standard to be identical to the primary standard (73 FR 66964). On November 22, 2011, the EPA finalized designations for the 2008 lead standard. Although limited portions of Los Angeles County were designated as nonattainment, all other areas within the state of California were designated as unclassifiable/attainment (76 FR 72097). The 1978 lead NAAQS will be retained until one year after designations for the new standards, except in current nonattainment areas.

The Clean Air Act requires EPA to review the standards every five years. On August 31, 2011, the EPA finalized review of the carbon monoxide (CO) standards and concluded that the existing primary standards of 35 ppm averaged over a 1-hour period and 9 ppm averaged over an 8-hour period would be retained (76 FR 54294). The EPA also concluded that no secondary standard should be set for CO at this time. All areas of California are either unclassifiable or in attainment (maintenance) for CO standards.

The current NAAQS are presented in Table III.2-2.

**Table III.2-2
 Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone	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)		

**Table III.2-2
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Respirable Particulate Matter (PM10) ⁸	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 (PM2.5) ⁸	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	12 µg/m ³		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Nondispersive Infrared Photometry	35 ppm (40 mg/m ³)	—	Nondispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
Nitrogen Dioxide (NO ₂) ⁹	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹⁰	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹⁰	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹⁰	—	
Lead ^{11,12}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m ³		

**Table III.2-2
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ¹		Federal Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Visibility Reducing Particles ¹³	8 Hour	See footnote ¹³	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 ¹¹	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Source: CARB 2013.

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; – = not applicable.

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site 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 PM2.5, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr (torr is a unit of pressure equal to 1/760 atmosphere). Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

⁴ Any equivalent measurement method that can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

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 On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

⁹ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

- ¹⁰ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved. Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- ¹¹ The CARB has identified lead and vinyl chloride as ‘toxic air contaminants’ with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- ¹² The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- ¹³ In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.

III.2.1.1.2 Federal General Conformity Rule

Federal actions that cause emissions in a federal nonattainment area are subject to the General Conformity Rule under Section 176 of the Clean Air Act (40 Code of Federal Regulations [CFR] 93, Subpart B). Federal conformity requires each action to demonstrate that the emissions caused or initiated by the federal action do not disrupt progress toward achieving attainment. For actions that exceed applicability thresholds, the federal agency must make a formal conformity determination for the affected federal nonattainment area.

III.2.1.1.3 Class I Lands

The Clean Air Act Amendments of 1977 established Class I, II, and III areas where emissions of particulate matter and SO₂ are to be restricted. The restrictions are most severe in federal Class I areas and are progressively more lenient in Class II and III areas. Mandatory Class I federal lands include:

- International parks.
- National wilderness areas that exceed 5,000 acres in size.
- National memorial parks that exceed 5,000 acres in size.
- National parks that exceed 6,000 acres in size.

Figure III.2-1 shows the federal Class I lands in the vicinity of the Plan Area and identifies 68 areas within the Plan Area considered eligible for treatment as Class I lands administered by the Bureau of Land Management (BLM), the National Park Service (NPS), or the U.S. Fish and Wildlife Service (USFWS). Table III.2-3 shows the breakdown of these

areas by Desert Renewable Energy Conservation Plan (DRECP or Plan) ecoregion subarea. There are also a number of other Class I lands in the vicinity of the Plan Area.

**Table III.2-3
 Class I Areas by Ecoregion Subarea**

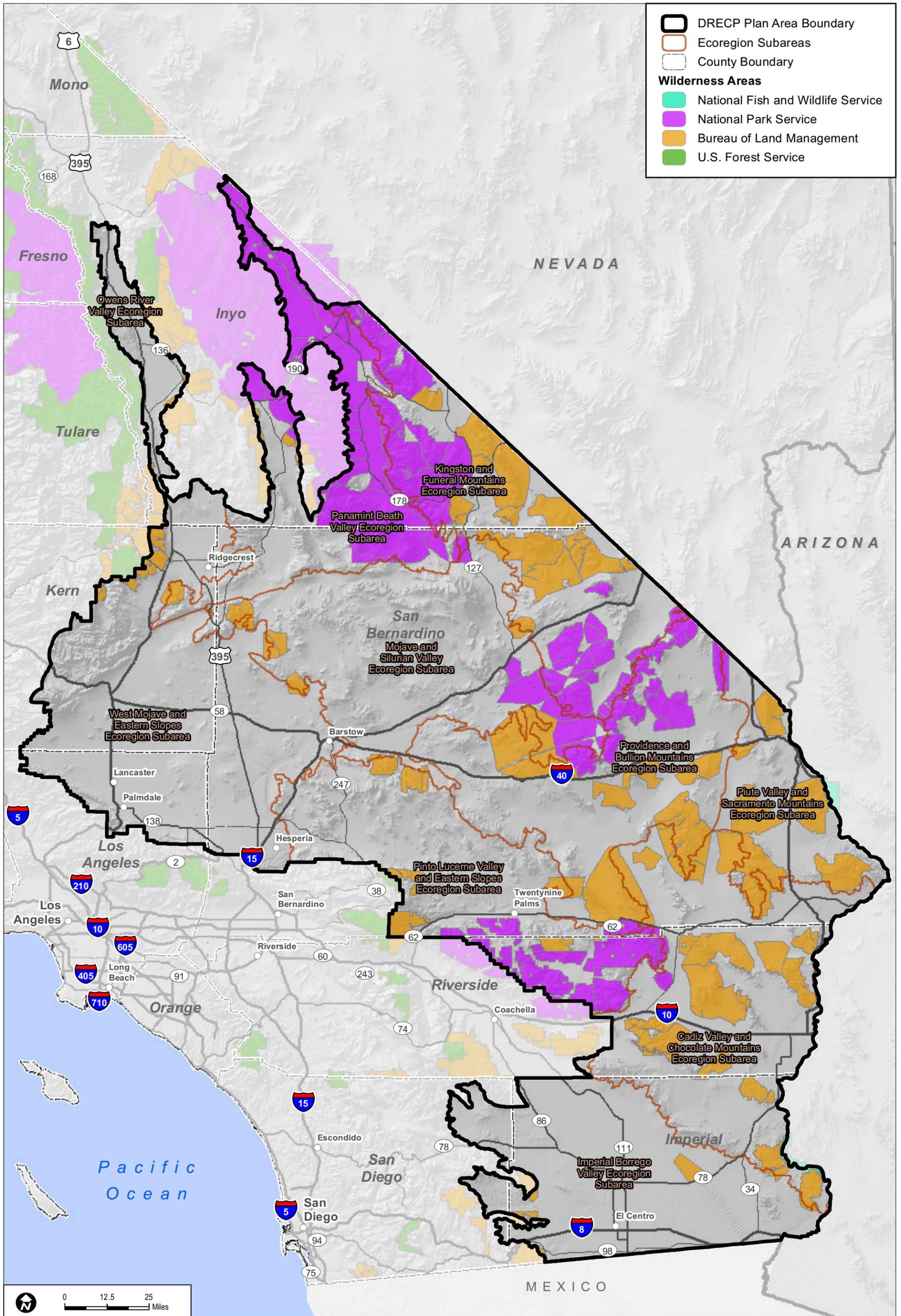
Ecoregion Subarea	Class I Areas	Agency
Cadiz Valley and Chocolate Mountains	Big Maria Mountains Wilderness	BLM
	Cadiz Dunes Wilderness	BLM
	Chuckwalla Mountains Wilderness	BLM
	Indian Pass Wilderness	BLM
	Little Chuckwalla Mountains Wilderness	BLM
	Little Picacho Wilderness	BLM
	Old Woman Mountains Wilderness	BLM
	Palen/McCoy Wilderness	BLM
	Palo Verde Mountains Wilderness	BLM
	Picacho Peak Wilderness	BLM
	Rice Valley Wilderness	BLM
	Riverside Mountains Wilderness	BLM
	Sheephole Valley Wilderness	BLM
	Stepladder Mountains Wilderness	BLM
	Turtle Mountains Wilderness	BLM
	Whipple Mountains Wilderness	BLM
Imperial Borrego Valley	Imperial Refuge Wilderness	USFWS
	Joshua Tree National Park	NPS
	Carrizo Gorge Wilderness	BLM
	Coyote Mountains Wilderness	BLM
	Fish Creek Mountains Wilderness	BLM
	Indian Pass Wilderness	BLM
	Jacumba Mountains Wilderness	BLM
	Little Picacho Wilderness	BLM
	North Algodones Dunes Wilderness	BLM
Orocopia Mountains Wilderness	BLM	
Kingston and Funeral Mountains	Picacho Peak Wilderness	BLM
	Funeral Mountains Wilderness	BLM
	Hollow Hills Wilderness	BLM
	Ibex Wilderness	BLM
	Kingston Range Wilderness	BLM
Mesquite Wilderness	BLM	

**Table III.2-3
Class I Areas by Ecoregion Subarea**

Ecoregion Subarea	Class I Areas	Agency
	Nopah Range Wilderness	BLM
	North Mesquite Mountains Wilderness	BLM
	Pahrump Valley Wilderness	BLM
	Resting Spring Range Wilderness	BLM
	Saddle Peak Hills Wilderness	BLM
	South Nopah Range Wilderness	BLM
	Stateline Wilderness	BLM
	Death Valley National Park	NPS
	Mojave National Park	NPS
Mojave and Silurian Valley	Black Mountain Wilderness	BLM
	Bristol Mountains Wilderness	BLM
	Golden Valley Wilderness	BLM
	Grass Valley Wilderness	BLM
	Hollow Hills Wilderness	BLM
	Kelso Dunes Wilderness	BLM
	Kingston Range Wilderness	BLM
	Newberry Mountains Wilderness	BLM
	Rodman Mountains Wilderness	BLM
	Death Valley National Park	NPS
	Mojave National Park	NPS
Owens River Valley	Coso Range Wilderness	BLM
	Inyo Mountains Wilderness	BLM
	Malpais Mesa Wilderness	BLM
	Sacatar Trail Wilderness	BLM
	Golden Trout Wilderness	USFS
	John Muir Wilderness	USFS
Panamint Death Valley	Argus Range Wilderness	BLM
	El Paso Mountains Wilderness	BLM
	Golden Valley Wilderness	BLM
	Manly Peak Wilderness	BLM
	Surprise Canyon Wilderness	BLM
	Death Valley National Park	NPS
Pinto Lucerne Valley and Eastern Slopes	Bighorn Mountain Wilderness	BLM
	Cleghorn Lakes Wilderness	BLM
	Newberry Mountains Wilderness	BLM
	Pinto Mountains Wilderness	BLM

**Table III.2-3
 Class I Areas by Ecoregion Subarea**

Ecoregion Subarea	Class I Areas	Agency
	Rodman Mountains Wilderness	BLM
	San Geronio Wilderness	BLM
	Joshua Tree National Park	NPS
	Bighorn Mountain Wilderness	USFS
	San Geronio Wilderness	USFS
Piute Valley and Sacramento Mountains	Bigelow Cholla Garden Wilderness	BLM
	Chemehuevi Mountains Wilderness	BLM
	Dead Mountains Wilderness	BLM
	Stepladder Mountains Wilderness	BLM
	Turtle Mountains Wilderness	BLM
	Whipple Mountains Wilderness	BLM
	Havasu Wilderness	USFWS
Providence and Bullion Mountains	Mojave National Park	NPS
	Bigelow Cholla Garden Wilderness	BLM
	Bristol Mountains Wilderness	BLM
	Cleghorn Lakes Wilderness	BLM
	Clipper Mountain Wilderness	BLM
	Kelso Dunes Wilderness	BLM
	Old Woman Mountains Wilderness	BLM
	Piute Mountains Wilderness	BLM
	Sheephole Valley Wilderness	BLM
	Trilobite Wilderness	BLM
	Joshua Tree National Park	NPS
Mojave National Park	NPS	
West Mojave and Eastern Slopes	Black Mountain Wilderness	BLM
	Bright Star Wilderness	BLM
	El Paso Mountains Wilderness	BLM
	Golden Valley Wilderness	BLM
	Grass Valley Wilderness	BLM
	Kiavah Wilderness	BLM
	Owens Peak Wilderness	BLM
	Kiavah Wilderness	USFS



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

**FIGURE III.2-1
Federal Class I Areas**

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III.2.1.2 State

The EPA allows states the option to develop stricter air quality standards. The State of California generally has set more stringent limits on the seven criteria pollutants (see Table III.2-2). The State of California has also set standards for other pollutants including visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The California Clean Air Act, also known as the Sher Bill or Assembly Bill (AB) 2595, became law on September 30, 1988, and took effect on January 1, 1989. The California Clean Air Act requires that air quality management districts (AQMDs) and air pollution control districts (APCDs) implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures, and further reduce stationary source emissions through ongoing rulemaking. The California Clean Air Act requires that a district must (South Coast AQMD 2007):

- Demonstrate the overall effectiveness of the air quality program.
- Reduce nonattainment pollutants or their precursors at a rate of 5% per year, or include all feasible measures and expeditious adoption schedules.
- Reduce population exposure to severe nonattainment pollutants according to a prescribed schedule.
- Rank control measures by cost effectiveness.

The CARB Portable Equipment Registration Program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

III.2.1.3 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (AB 1807 Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California Air Toxics Program establishes the process for the identification and control of toxic air contaminants, including provisions to make the public aware of significant toxic exposures and for reducing risk. The Air Toxics “Hot Spots” Information and Assessment

Act (AB 2588 Connelly), also enacted in 1987, requires stationary sources to report the types and quantities of certain substances routinely released into the air. The goals of the Air Toxics “Hot Spots” Act are to collect emission data, identify facilities with localized impacts, determine health risks, notify nearby residents of significant risks, and reduce those significant risks to acceptable levels.

The Children’s Environmental Health Protection Act, SB 25 (Chapter 731 Escutia, Statutes of 1999), focuses on children’s exposure to air pollutants. The act requires CARB to review its air quality standards from a children’s health perspective, evaluate the statewide air-monitoring network, and develop any additional air toxics control measures needed to protect children’s health. At the local level, toxic air pollutants are generally regulated through the local air district’s rules and regulations.

Diesel-exhaust particulate matter emissions have been established as TACs. Diesel emissions generated within California pose a potential hazard to residents and visitors. Following the identification of diesel particulate matter as an air toxic in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (CARB 2000). A statewide goal of CARB’s plan is to reduce the cancer risk arising from exposure to diesel particulate matter by 75% by 2010 and 85% by 2020.

A number of programs and strategies to reduce diesel particulate matter that have been either implemented or are in the process of being developed (CARB 2011a and 2011b) include:

1. **The Carl Moyer Memorial Air Quality Standards Attainment Program:** This CARB-administered program, initially approved in February 1999, provides incentive grants to cover an incremental portion of the cost of upgrading to cleaner-than-required engines, equipment, and other sources of pollution, providing early or extra emission reductions. Eligible projects include cleaner on-road, off-road, marine, locomotive, lawn and garden, light duty passenger vehicles (being scrapped), and agricultural equipment. The program guidelines are revised regularly, most recently in April 2011.
2. **On-Road Heavy-Duty Diesel Engine Reduced Emission Standards:** This rule reduces emission standards for 2007 and subsequent model year heavy-duty diesel engines (66 FR 5002, January 18, 2001).
3. **On-Road Heavy-Duty Diesel Engine In-Use Compliance Program:** This program requires in-use compliance testing beginning with 2005 model year engines to ensure that existing vehicles and engines meet applicable emission standards throughout their useful lives.

Other programs include:

1. **Off-Road Mobile Sources Emission Reduction Program:** The goal of this program is to develop regulations to control emissions from diesel, gasoline, and alternative-fueled off-road mobile engines. These sources include a range of equipment, from lawn mowers to construction equipment to locomotives.
2. **Heavy-Duty Vehicle Inspection and Periodic Smoke Inspection Programs:** The Heavy-Duty Vehicle Inspection and Periodic Smoke Inspection Programs were established to control excessive smoke emissions and tampering from heavy-duty diesel trucks and buses.
 - a. **Heavy-Duty Vehicle Inspection Program:** The Heavy-Duty Vehicle Inspection Program was adopted into law in 1988 (SB 1997), with the regulations (13 California Code of Regulations [CCR] 2180-2189) governing this program, last amended in 2013. The program requires heavy-duty trucks and buses to be inspected for excessive smoke and tampering, and engine certification label compliance. Any heavy-duty vehicle traveling in California, including vehicles registered in other states and foreign countries, may be tested. Tests are performed by CARB inspection teams at border crossings, California Highway Patrol weigh stations, fleet facilities, and randomly selected roadside locations.
 - b. **Periodic Smoke Inspection Program:** The Periodic Smoke Inspection Program was adopted into law in 1990 (SB 2330), with the regulations (13 CCR 2190–2194) governing this program last amended in 2013. The program requires that diesel and bus fleet owners conduct annual smoke opacity inspections of their vehicles and repair those with excessive smoke emissions to ensure compliance.
3. **Lower-Emission School Bus Program:** Under this program, and in coordination with the California Energy Commission and local air districts, CARB developed guidelines that provide criteria for purchasing new school buses and retrofitting existing school buses to reduce particulate matter emissions. In addition, Proposition 1B, approved by voters on November 7, 2006, enacts the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006. This bond act authorizes \$200 million for replacing and retrofitting school buses.
4. **School Bus Idling Airborne Toxic Control Measure:** Effective July 2003, CARB approved the Airborne Toxic Control Measure, which limits school bus idling and idling at or near schools. Idling is allowed only when necessary for either safety or operational concerns. The Airborne Toxic Control Measure to limit idling is intended to reduce diesel exhaust particulate matter and other TACs and air pollutants from heavy-duty motor vehicle exhaust.

As an ongoing process, ARB will continue to establish new programs and regulations for the control of diesel particulate emissions, as appropriate. The continued development and implementation of these programs and policies will ensure that public exposure to diesel particulate matter will continue to decline.

III.2.1.4 State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving federal air quality standards. Within the SIP, areas may have an air quality attainment plan or a maintenance plan if necessary to ensure against potential deterioration into nonattainment. In California, individual AQMDs and APCDs are responsible for preparing and implementing the portions of SIP that apply to their respective jurisdictions. The Plan Area boundaries encompass areas under the jurisdiction of the following air districts (Figure III.2-2):

- Antelope Valley AQMD
- Great Basin Unified APCD
- Imperial County APCD
- Eastern Kern County APCD
- Mojave Desert AQMD
- San Diego County APCD
- South Coast AQMD

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These districts adopt rules, regulations, and programs to attain federal and state air quality standards and appropriate the money necessary (including permit fees) to achieve those objectives.

III.2.1.5 California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general and regional plans, including applicable air quality attainment, maintenance plan, or SIP.

III.2.1.6 Local

The local APCD or AQMD regulates air quality at the local level. Each of these agencies prepares the portion of the SIP that is pertinent to its jurisdiction and develops rules and regulations for managing local air resources. Each of the district's rules and regulations appears on the CARB website at <http://www.arb.ca.gov/drdb/drdbtxt.htm>. Any proposed development in the Plan Area would require compliance with appropriate rules and regulations and the approval of relevant permits. In addition to these rules and regulations, various districts have developed guidance to aid in the evaluation of potential impacts from renewable energy development projects. This guidance is explained below, by agency. The local air districts also generally administer the New Source Review and Operating Permits programs under the oversight of CARB and the EPA.

III.2.1.6.1 Antelope Valley Air Quality Management District

The Antelope Valley AQMD is responsible for a portion of the Mojave Desert Air Basin (see Figures III.2-2 and III.2-3). The Antelope Valley AQMD has developed CEQA and Federal Conformity Guidelines (2011).

III.2.1.6.2 Eastern Kern County Air Pollution Control District

The Eastern Kern County APCD is responsible for a portion of the Mojave Desert Air Basin (see Figures III.2-2 and III.2-3). The Eastern Kern County APCD has developed CEQA Guidelines (1999) and the CEQA Greenhouse Gas Policy (2012).

III.2.1.6.3 Great Basin Unified Air Pollution Control District

The Great Basin Unified APCD is responsible for the Great Basin Valleys Air Basin (see Figures III.2-2 and III.2-3). The district has developed a number of air quality plans including the 2010 Coso Junction PM10 Maintenance Plan (2010), the Air Quality Management Plan for the Town of Mammoth Lakes (1990), the Final Mono Basin Planning Area PM10 SIP (1995), and the Owens Lake PM10 SIP (2008).

III.2.1.6.4 Imperial County Air Pollution Control District

The Imperial County APCD is responsible for a portion of the Salton Sea Air Basin (see Figures III.2-2 and III.2-3). The Imperial County APCD has developed a CEQA Air Quality Handbook (2007), the Final 2009 1997 8-Hour Ozone Modified Air Quality Management Plan (2010a), the Final 2009 Reasonably Available Control Technology SIP (2010b), and the Final 2009 PM10 SIP (2009).

III.2.1.6.5 Mojave Desert Air Quality Management District

The Mojave Desert AQMD is responsible for a portion of the Mojave Desert Air Basin (see Figures III.2-2 and III.2-3). The Mojave Desert AQMD has developed the CEQA and Federal Conformity Guidelines (2011).

III.2.1.6.6 San Diego County Air Pollution Control District

The San Diego County APCD is responsible for the San Diego Air Basin (see Figures III.2-2 and III.2-3). The San Diego County APCD prepared the 1991/1992 Regional Air Quality Strategy (RAQS) in response to requirements set forth in AB 2595. The draft was adopted with amendments on June 30, 1992 (County of San Diego 1992). Attached, as part of the strategy, are the Transportation Control Measures for the air quality plan prepared by the San Diego Association of Governments (SANDAG) in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The strategy and measures set forth the steps needed to accomplish attainment of state ambient air quality standards. The required triennial updates of the Regional Air Quality Strategy and corresponding Transportation Control Measures were adopted in 1995, 1998, 2001, 2004, and 2009.

The following plans are also available: the 8-Hour Ozone Attainment Plan for San Diego County (2007), the 1-Hour Ozone Redesignation Request and Maintenance Plan for San Diego County (2002), Measures to Reduce Particulate Matter in San Diego County (2005a), the Wildfire Natural Events Action Plan for San Diego County (2005b), and the Redesignation Request and Maintenance Plan for San Diego County (2012).

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III.2.1.6.7 South Coast Air Quality Management District

Within the Plan Area, the South Coast AQMD is responsible for portions of the Mojave Desert and Salton Sea Air Basins (see Figures III.2-2 and III.2-3). Outside of the Plan Area, the South Coast AQMD is also responsible for the air resources in urbanized areas of the South Coast Air Basin. The South Coast Air Basin has or has had some of the worst air quality in the nation. The South Coast AQMD implements and periodically updates the comprehensive plans with strategies for improving air quality. Relevant plans include the current 2012 Air Quality Management Plan including an update in process for 2016, the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (2005), the CEQA Air Quality Analysis Guidance Handbook (1993), the Final 2003 Coachella Valley PM10 SIP (2003), and the Coachella Valley PM10 Attainment Redesignation Request and Maintenance Plan.

III.2.2 Geographic Setting

Section III.1.1, Overview of the Plan Area, describes the Plan Area boundaries encompassing six geomorphic provinces: the Mojave Desert, Basin and Range, Colorado Desert, Sierra Nevada (southern portion only), Transverse Ranges (eastern portion only), and Peninsular Ranges (eastern portion only). (California Geological Survey 2002) (see also Figure III.1-1). The Plan Area includes portions of four air basins — the Great Basin Valleys Air Basin, the Mojave Desert Air Basin, the Salton Sea Air Basin, and the San Diego Air Basin (Figure III.2-3).

III.2.3 Air Quality Baseline Analysis for the Plan Area

Air quality at a particular location is a function of the types amounts, and dispersal rates of pollutants emitted into the air locally and throughout the basin. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (affected by inversions, surface roughness, and other factors), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed either federal standards set by the EPA or state standards set by CARB. CARB, air districts and the NPS operate 33 air-monitoring stations within the Plan Area (see Figure III.2-3). There are an additional 5 air monitoring stations within 10 miles of the Plan Area. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Scientists then use these measurements to help forecast daily air pollution levels.

III.2.3.1 Ozone

Nitrogen oxides and hydrocarbons (reactive organic gases) are the chief precursors of ozone. These compounds react in the presence of sunlight to produce ozone. Because sunlight plays

such an important role in its formation, ozone pollution, or smog, is mainly a concern during the daytime in summer months. As mentioned, the EPA phased out the national 1-hour ozone standard and replaced it with the more stringent 8-hour ozone standard to counter the adverse health effects from prolonged exposure.

Not all of the ozone within the Plan Area is necessarily from local sources. Under certain meteorological conditions, ozone and other pollutants travel from upwind air basins and combine with ozone formed from local emission sources, raising ozone levels in the area. Local agencies cannot control either the source or the transportation of pollutants from outside air basins under their jurisdiction. Therefore, the general policy of the local air districts is to control local sources effectively enough to reduce locally produced contamination to clean air standards.

III.2.3.2 PM10

PM10, the coarse inhalable particulate matter with an aerodynamic diameter of 10 microns or less, is about one-seventh of the diameter of a human hair. Particulate matter is a complex mixture of very tiny solid or liquid particles composed of chemicals, soot, and dust. Under typical conditions (for example, no wildfires) particles classified under the PM10 category are mainly emitted directly from activities that disturb the soil including travel on roads, construction, mining, and agricultural operations. Other sources include windblown dust, salts, brake dust, and tire wear.

III.2.3.3 PM2.5

Airborne, fine inhalable particles with aerodynamic diameters of 2.5 microns or less are air quality concerns that require regular monitoring. Fine particles can be emitted directly from fires or fuel combustion or formed from chemical reactions in the air. These chemicals come from a variety of sources including cars, trucks, buses, construction equipment, industrial facilities and power plants. Construction activities are also a source of PM2.5.

III.2.3.4 Nitrogen Dioxide

Motor vehicles, industrial facilities, and power plants emit nitrogen dioxide (NO₂). Nitrogen dioxide and nitric oxide are products of all types of combustion. In the summer months, NO₂ is a major component of photochemical smog. At ambient concentration levels nitrogen dioxide is an irritating gas that may constrict the airways of asthmatics and increase the susceptibility to infection in the general population.

III.2.3.5 Sulfur Dioxide

Sulfur dioxide (SO₂) is primarily a combustion by-product of coal, fuel oil, and diesel fuel. Only small quantities of SO₂ come from gasoline-fueled motor vehicle exhaust. Sulfur dioxide is emitted directly into the atmosphere and can remain suspended for days, allowing for its wide distribution. Sulfur dioxide can constrict human airways, causing particular difficulties for asthmatics. Children can experience increased respiratory tract infections and even healthy people may experience sore throats, coughing, and breathing difficulties. Long-term exposure is associated with the increased risk of death from respiratory or cardiovascular disease.

III.2.3.6 Carbon Monoxide

Carbon monoxide (CO), a by-product of incomplete combustion, is emitted directly into the atmosphere primarily from motor vehicle exhaust. Carbon monoxide concentrations typically peak nearest its source, such as roadways, and decrease rapidly as distance increases from the source. The lungs readily absorb carbon monoxide. It decreases the blood's ability to transport oxygen, leading to health risks for unborn children and people suffering from heart and lung diseases. The symptoms of excessive exposure—headaches, fatigue, slow reflexes, and dizziness—also occur in healthy people.

III.2.3.7 Lead

Lead is a harmful air pollutant identified by CARB as a toxic air contaminant. Certain forms of lead can be found in air, water, soil, food, consumer products, dust, and lead-based paint chips. Lead in the air can cause lead levels in the blood to increase, which in turn can increase the likelihood of cancer and noncancerous health affects in both adults and children. Lead can affect the nervous, reproductive, digestive, and blood-forming systems, and can affect the kidneys. Children are especially sensitive to lead in the air since they absorb lead more easily and have developing nervous systems that are susceptible to adverse lead-related health effects, including learning disabilities.

III.2.4 Air Quality within the Plan Area

III.2.4.1 Air Quality – Federal Standards

As discussed above, if an air basin is not in either federal or state attainment for a particular pollutant, the basin is classified as a nonattainment area. Figure III.2-4 shows the 1997 8-hour ozone standard attainment status of the areas in and around the Plan Area. As seen in this figure, the attainment status within the Plan Area ranges from unclassified/attainment to severe-15 nonattainment under Subpart 2.

Figure III.2-5 shows the 2008 8-hour ozone standard attainment status for the areas in and around the Plan Area. As seen in this figure, the attainment status within the Plan Area ranges from unclassified/attainment to severe-15 nonattainment.

Figure III.2-6 shows the 24-hour PM10 attainment status of the areas in and around the Plan Area. As seen in this figure, the attainment status within the Plan Area ranges from attainment (maintenance) to serious nonattainment.

Figure III.2-7 shows the 24-hour PM2.5 attainment status of the areas in and around the Plan Area. As seen in this figure, only a portion of the Salton Sea Air Basin in Imperial County is classified as a nonattainment area. The rest of the Plan Area is unclassified/attainment for 24-hour PM2.5.

The air basins within the Plan Area are unclassified/attainment for NO₂, SO₂, CO, annual PM2.5, and lead.

III.2.4.1.1 Great Basin Valleys Air Basin

The Great Basin Valleys Air Basin includes all of Inyo and Mono counties. As discussed above and seen in Figures III.2-4 through III.2-7, the Great Basin Valleys Air Basin is in attainment for all pollutant standards except for those related to PM10. The Owens Valley Planning Area is a Serious PM10 nonattainment area, while the Coso Junction Planning Area is a PM10 maintenance area. The remainder of the Great Basin Valleys Air Basin is unclassified/attainment for PM10. Table III.2-4 summarizes the air quality data in the Great Basin Valleys Air Basin during the years 2006 to 2012.

Owens Lake is the largest single source of PM10 in the nation (Great Basin Unified APCD 2011). To deal with this issue, the Great Basin Unified APCD developed the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment SIP. This SIP contains the Great Basin Unified APCD's strategy for attaining federal PM10 standards.

**Table III.2-4
Ambient Air Quality Summary with Respect to Federal Standards – Great Basin Valleys Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
O ₃	8 hrs	0.075 ppm	A	0.088	0.094	0.094	0.086	0.076	0.079	0.077	9	18	5	2	1	3	1
CO	1 hr	35 ppm	A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	A	Na	Na	Na	Na	Na	Na	Na							
NO ₂	1 hr	0.100 ppm ^d	A	Na	Na	Na	Na	Na	Na	Na							
NO ₂	Annual	0.053 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	1 hr	0.075 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	150 µg/m ³	U, A, N	8299	10020	2769	1506	4570	13380	3972	9/9.74*	14/23.67*	7/9.1*	5/5.02*	16/16.00*	9/10.69*	24/24.00*
PM2.5	24 hrs	35 µg/m ³	A	22	35	44	36	18/8.2	61/44.1	24/28.1	1/Na*	2/6.3*	4/12.1*	4/8.7*	5/5.0*	9/9.0*	4/4.0*
PM2.5	Annual	12 µg/m ³	A	Na	5.8	7.1	6.8	7.1	8.1	6.7	NX						

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if CARB determines they would occur less than once per year on average.

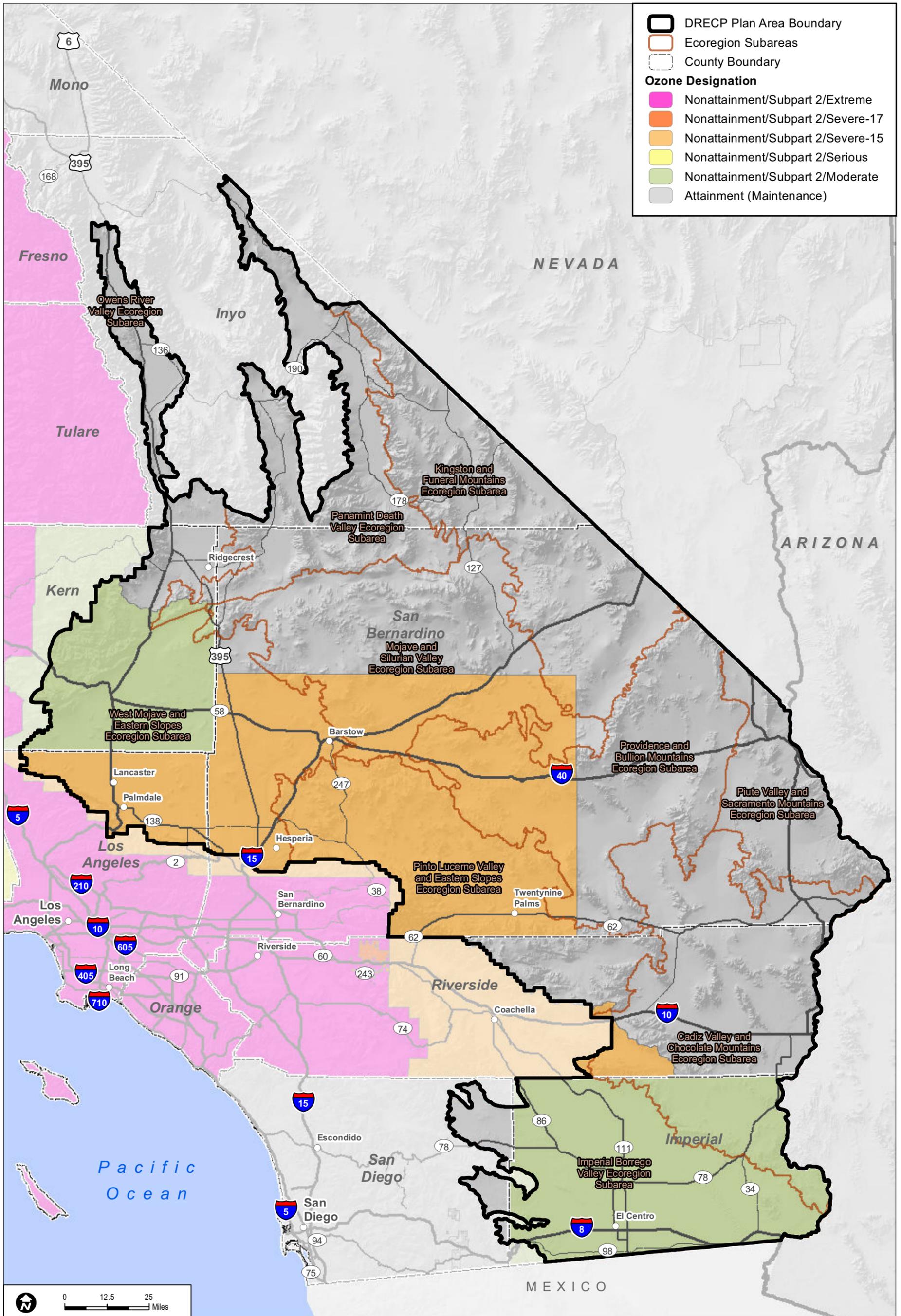
^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

^c A = attainment; N = nonattainment; U = Unclassifiable; Na = data not available; NX = annual average not exceeded

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

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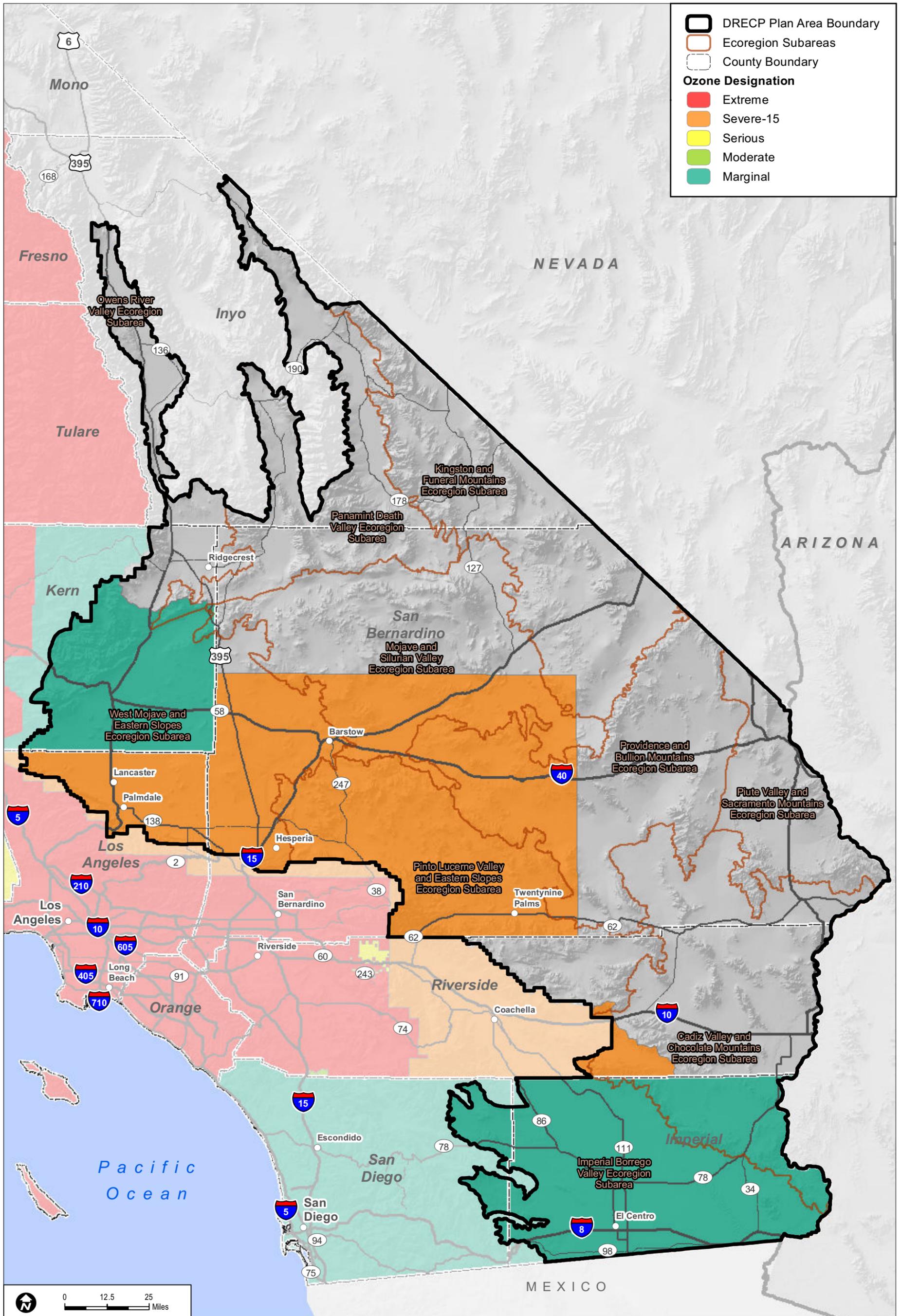


Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); EPA (2013)

FIGURE III.2-4

1997 Federal 8-hour Ozone Attainment Status

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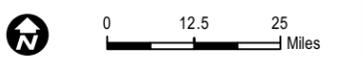


Legend

- DRECP Plan Area Boundary
- Ecoregion Subareas
- County Boundary

Ozone Designation

- Extreme
- Severe-15
- Serious
- Moderate
- Marginal

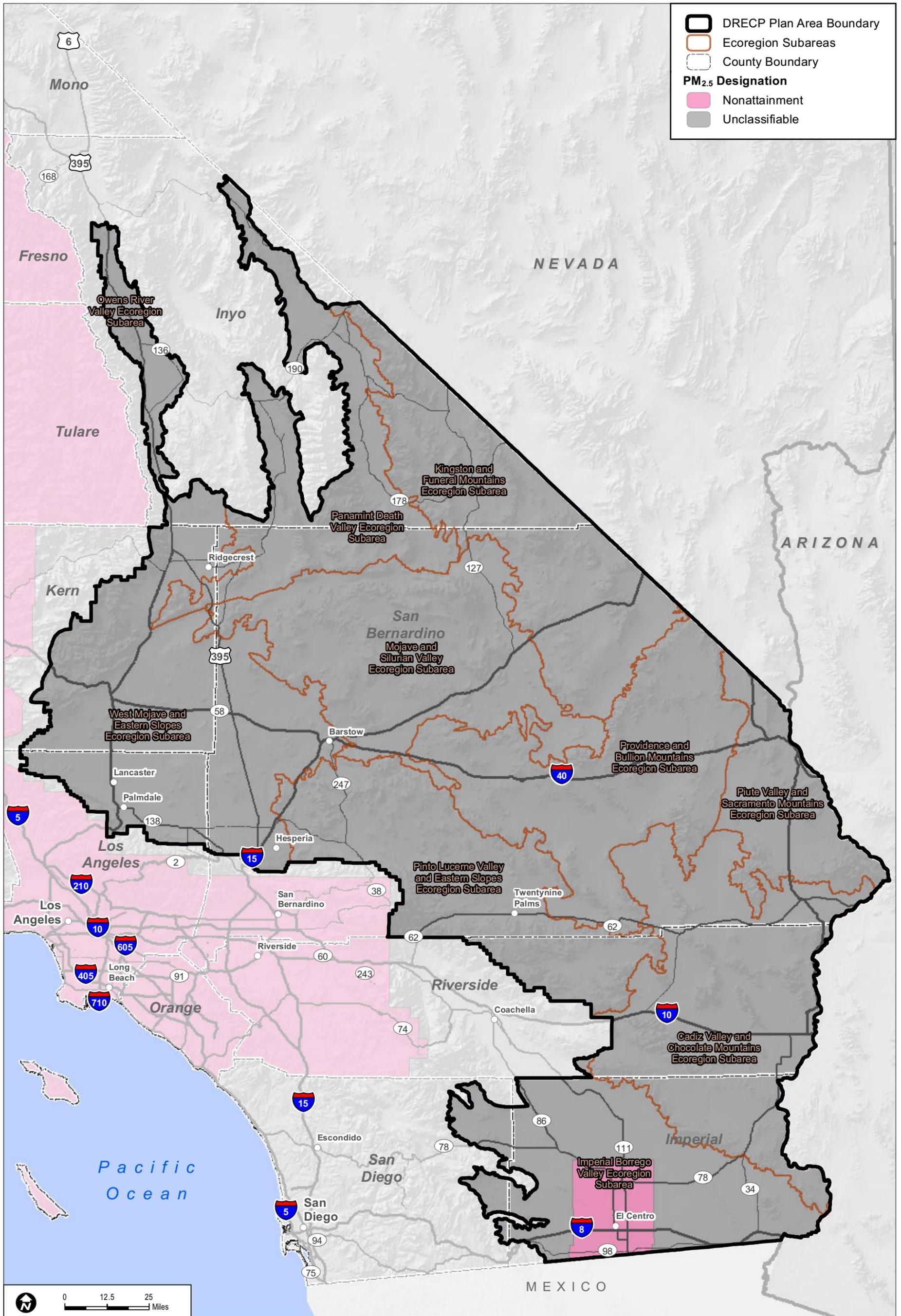


Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); CARB (2011)

FIGURE III.2-5
2008 Federal 8-hour Ozone Attainment Status

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); EPA (2013)

FIGURE III.2-7

Federal PM_{2.5} Attainment Status

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III.2.4.1.2 Mojave Desert Air Basin

The Mojave Desert Air Basin includes portions of Kern, Los Angeles, Riverside, and San Bernardino counties. As discussed above and seen in Figures III.2-4 through III.2-7, the Mojave Desert Air Basin is in attainment of all pollutant standards except for those related to ozone and PM10. A large portion of San Bernardino County (including the Trona Planning Area) is a moderate PM10 nonattainment area, a portion of East Kern County in the basin is a Serious PM10 nonattainment area, and the Indian Wells Planning Area (also in Kern County) is a PM10 maintenance area. The remainder of the Mojave Desert Air Basin is unclassified/attainment for PM10.

A portion of Eastern Kern County within the basin was a moderate 1997 8-hour ozone nonattainment area; however, effective January 2013, the EPA determined that Eastern Kern County attained the federal 1997 8-hour ozone standard. Portions of Los Angeles and San Bernardino counties are severe-15 1997 8-hour ozone nonattainment areas under Subpart 2. A portion of Eastern Kern County within the basin is a marginal 2008 8-hour ozone nonattainment area, and portions of Los Angeles and San Bernardino counties in the western portions of the Mojave Desert Air Basin are severe-15 2008 8-hour ozone nonattainment areas.

Table III.2-5 summarizes the air quality data in the Mojave Desert Air Basin during the years 2006 to 2012.

III.2.4.1.3 Salton Sea Air Basin

The Salton Sea Air Basin includes portions of Riverside County and all of Imperial County. As discussed above and seen in Figures III.2-4 through III.2-7, the Salton Sea Air Basin is in attainment of all pollutant standards except for those related to ozone, PM10, and PM2.5. The Coachella Valley (Riverside County) portion of the basin within the Plan Area is a serious PM10 nonattainment area, as is the Imperial Valley Planning Area in Imperial County. The remainder of the Salton Sea Air Basin within the Plan Area is unclassified/attainment for PM10.

A portion of south-central Imperial County is nonattainment for the PM2.5 24-hour standard. The remainder of the Salton Sea Air Basin is unclassified/attainment for the PM2.5 24-hour standard.

The Riverside County portion of the Salton Sea Air Basin is a severe-15 1997 8-hour ozone nonattainment area under Subpart 2. The Imperial County portion of the Salton Sea Air Basin is a moderate 1997 8-hour ozone nonattainment area under Subpart 2. The Riverside County portion of the Salton Sea Air Basin is a severe-15 2008 8-hour ozone nonattainment

area. The Imperial County portion of the Salton Sea Air Basin is a marginal 2008 8-hour ozone nonattainment area.

Table III.2-6 summarizes the air quality data in the Salton Sea Air Basin during the years 2006 to 2012.

III.2.4.1.4 San Diego Air Basin

The San Diego Air Basin includes all of San Diego County. As discussed above and seen in Figures III.2-4 through III.2-7, the San Diego Air Basin is in attainment of all pollutant standards except for those related to ozone. The San Diego Air Basin was previously a 1997 8-hour ozone nonattainment area under Subpart 1. However, on May 14, 2013, San Diego County was redesignated to an ozone attainment area for the 1997 8-hour ozone; their plan for continuing to attain the 1997 ozone standard for 10 years beyond redesignation was approved. The San Diego Air Basin is a marginal 2008 8-hour ozone nonattainment area.

Table III.2-7 summarizes the air quality data in the San Diego Air Basin during the years 2006 to 2012.

III.2.4.2 Air Quality – State Standards

Ozone

All air basins of the Plan Area are nonattainment for the state ozone standards.

PM10

All air basins of the Plan Area are nonattainment for the state PM10 standards.

PM2.5

Figure III.2-8 shows the state PM2.5 attainment status of the air basins in and around the Plan Area. As seen in this figure, within the Plan Area the San Bernardino County portion of the federal Southeast Desert Modified Air Quality Management Area for ozone is classified as a PM2.5 nonattainment area, as is the portion of the Plan Area within the San Diego Air Basin. The rest of the Plan Area is unclassified/attainment for PM2.5.

**Table III.2-5
Ambient Air Quality Summary with Respect to Federal Standards – Mojave Desert Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
O ₃	8 hrs	0.075 ppm	A	0.124	0.109	0.110	0.104	0.114	0.113	0.108	100	98	107	87	91	95	81
CO	1 hr	35 ppm	A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	A	1.6	1.61	1.23	1.14	5.17	1.51	1.83	0	0	0	0	0	0	0
NO ₂	1 hr	0.100 ppm ^d	A	0.073	0.068	0.066	0.059	0.065	0.062	0.096	0	0	0	0	2	0	7
NO ₂	Annual	0.053 ppm	A	0.015	0.014	0.013	0.012	0.012	0.015	Na	NX	NX	NX	NX	NX	NX	Na
SO ₂	1 hr	0.075 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	150 µg/m ³	U, A, N	184.3	358.0	285.5	307.2	96.3	143.4	181.6	2/2.2*	1/7.0*	2/Na*	1/1.0*	0/Na*	0/0.0	1/Na*
PM2.5	24 hrs	35 µg/m ³	A	19.0	20.0	17.8	17.0	15.0	50.0	21.8	0	0	0	0	0	1/0.0*	2/2.1*
PM2.5	Annual	12 µg/m ³	A	10.4	9.7	7.1	9.0	7.2	6.3	6.5	NX						

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

**Table III.2-6
Ambient Air Quality Summary with Respect to Federal Standards – Salton Sea Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
O ₃	8 hrs	0.075 ppm	N	0.109	0.102	0.101	0.098	0.099	0.098	0.100	72	68	57	59	63	59	58
CO	1 hr	35 ppm	A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	A	9.76	7.53	6.34	7.46	5.61	9.01	4.47	1	0	0	0	0	0	0

**Table III.2-6
Ambient Air Quality Summary with Respect to Federal Standards – Salton Sea Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
NO ₂	1 hr	0.100 ppm ^d	A	0.80	0.77	0.73	0.072	0.068	0.063	0.066	2	3	1	1	1	2	0
NO ₂	Annual	0.053 ppm	A	0.014	0.014	0.014	0.014	0.014	0.014	0.014	NX						
SO ₂	1 hr	0.075 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	150 µg/m ³	N	261	296	138	265.8	117.3	324	387.3	3/16.3*	2/13.0*	3/3.0*	3/18.3*	0/0	2/2.0*	2/9.9*
PM2.5	24 hrs	35 µg/m ³	A, N	46.0	38.5	24.0	39.9	31.7	29.4	56.3	5/17.1*	3/9.2*	1/0*	4/3.1*	2/6.3*	3/6.2*	4/13.1*
PM2.5	Annual	12 µg/m ³	A, N	12.5	13.0	8.4	8.0	12.8	7.5	15.8	EX	EX	NX	NX	EX	NX	EX

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>. CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

**Table III.2-7
Ambient Air Quality Summary with Respect to Federal Standards – San Diego Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
O ₃	8 hrs	0.075 ppm	N	0.100	0.092	0.109	0.097	0.088	0.093	0.083	38	27	35	24	14	10	10
CO	1 hr	35 ppm	A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	A	3.61	5.18	3.51	3.54	2.46	2.44	3.61	0	0	0	0	0	0	0
NO ₂	1 hr	0.100 ppm ^d	A	0.086	0.082	0.095	0.077	0.074	0.073	0.072	N/A						
NO ₂	Annual	0.053 ppm	A	0.024	0.022	0.024	0.021	0.021	0.020	0.020	NX						

**Table III.2-7
Ambient Air Quality Summary with Respect to Federal Standards – San Diego Air Basin**

Pollutant	Average Time	National Ambient Air Quality Standards ^b	Attainment Status ^c	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding National Standard–2006	Number of Days Exceeding National Standard–2007	Number of Days Exceeding National Standard–2008	Number of Days Exceeding National Standard–2009	Number of Days Exceeding National Standard–2010	Number of Days Exceeding National Standard–2011	Number of Days Exceeding National Standard–2012
SO ₂	1 hr	0.075 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	150 µg/m ³	U	134	392	158	123	108	126	126	0/0.0*	1/6.1*	1/6.1*	0/N0.0*	0/0.0*	0/0.0*	0/Na*
PM2.5	24 hrs	35 µg/m ³	A	28.4	37.7	30.2	25.2	26.6	27.4	26.0	3/2.1*	17/11.4*	5/3.5*	4/3.4*	2/2.0*	3/3.0*	2/1.0*
PM2.5	Annual	15 µg/m ³	A	13.1	13.3	13.7	13.5	12.7	13.2	13.1	NX						

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if the CARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

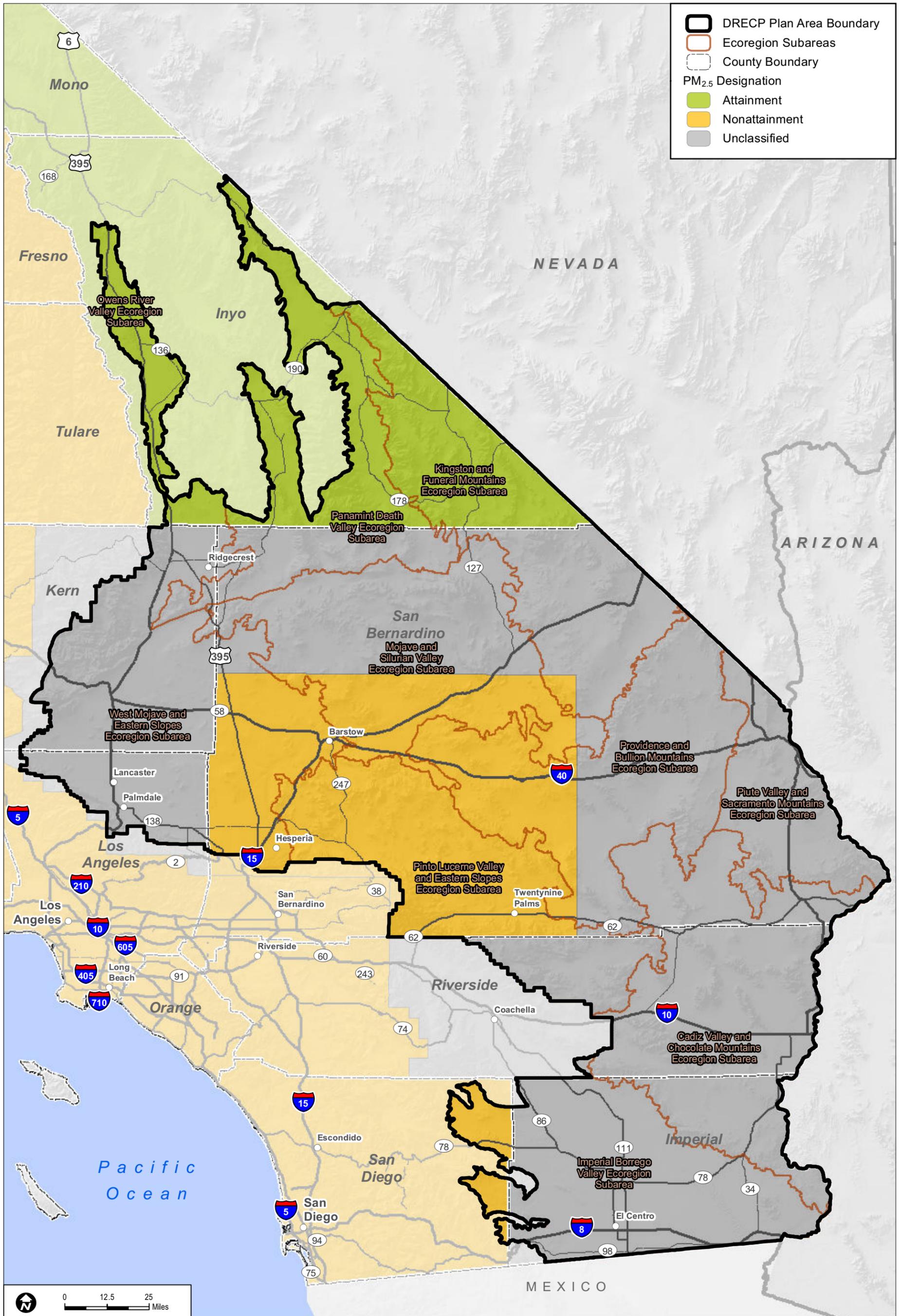
^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded.

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

Note that the Plan Area only includes a small portion of the San Diego Air Basin, and none of the San Diego Air Basin monitoring stations are located within the Plan Area. This data is provided for informational purposes.

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); CARB (2004)

FIGURE III.2-8
State PM_{2.5} Attainment Status

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Hydrogen Sulfide

Figure III.2-9 shows the state hydrogen sulfide (H₂S) attainment status of the air basins in and around the Plan Area. As seen in this figure, within the Plan Area the portion of the Searles Valley Planning Area in San Bernardino County is classified as an H₂S nonattainment area. The rest of the Plan Area is unclassified/attainment for H₂S.

Carbon Monoxide, Lead, Nitrogen Dioxide, Sulfates, Sulfur Dioxide, and Visibility Reducing Particles

All air basins within the Plan Area are unclassified/attainment with regard to state standards for CO, lead, NO₂, sulfates, SO₂, and visibility reducing particles.

III.2.4.2.1 Great Basin Valleys Air Basin

The Great Basin Valleys Air Basin is nonattainment for ozone and PM₁₀. The Great Basin Valleys Air Basin is unclassified/attainment for all other state standards. Table III.2-8 summarizes the air quality data in the Great Basin Valleys Air Basin during the years 2006 to 2012.

III.2.4.2.2 Mojave Desert Air Basin

The Mojave Desert Air Basin is nonattainment for ozone and PM₁₀. The San Bernardino County portion of the federal Southeast Desert Modified Air Quality Management Area for Ozone is classified as a PM_{2.5} nonattainment area. The Searles Valley Planning Area in San Bernardino County is classified as an H₂S nonattainment area. The Mojave Desert Air Basin is unclassified/attainment for all other state standards.

Table III.2-9 summarizes the air quality data in the Mojave Desert Air Basin during the years 2006 to 2012.

III.2.4.2.3 Salton Sea Air Basin

The Salton Sea Air Basin is nonattainment for ozone and PM₁₀. The Salton Sea Air Basin is unclassified/attainment for all other state standards. Table III.2-10 summarizes the air quality data in the Salton Sea Air Basin during the years 2006 to 2012.

III.2.4.2.4 San Diego Air Basin

The San Diego Air Basin includes all of San Diego County. As discussed above, the San Diego Air Basin is nonattainment for ozone, PM₁₀ and PM_{2.5}. The San Diego Air Basin is unclassified/attainment for all other state standards. Table III.2-11 summarizes the air quality data in the San Diego Air Basin during the years 2006 to 2012.

III.2.5 Air Quality within the DRECP Ecoregion Subareas

As indicated above, the Plan Area overlies portions of four air basins. Areas within each air basin share the same air masses and are expected to have similar ambient air quality. Therefore, the air quality within each ecoregion subarea within the Plan Area is dependent on the associated air basin(s). The current air quality conditions for each of the affected air basins are described in Section III.2.4.

Table III.2-12 provides a breakdown of the air basins associated with each ecoregion subarea. As seen from this table, the Plan Area encompasses approximately 33% of the Great Basin Valleys Air Basin, approximately 94% of the Mojave Desert Air Basin, approximately 70% of the Salton Sea Air Basin, and approximately 10% of the San Diego Air Basin. Further breakdowns for each ecoregion subarea follow.

III.2.5.1 Cadiz Valley and Chocolate Mountains Ecoregion Subarea

The Cadiz Valley and Chocolate Mountains ecoregion subarea lies within portions of the Mojave Desert and Salton Sea Air Basins. Approximately 74% of the ecoregion subarea lies within the Mojave Desert Air Basin, and 26% of the ecoregion subarea lies within the Salton Sea Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Imperial County APCD, the Mojave Desert AQMD, and the South Coast AQMD (see Figure III.2-2). Figure III.2-1 shows that this ecoregion subarea contains a small portion of the Joshua Tree National Park, a federal Class I area.

Portions of the Cadiz Valley and Chocolate Mountains ecoregion subarea are designated moderate or severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards (see Figure III.2-4). Portions of this ecoregion subarea are designated marginal or severe-15 nonattainment for the 2008 federal 8-hour ozone standards (see Figure III.2-5). Portions of this ecoregion subarea are designated moderate or serious nonattainment for the federal PM₁₀ standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM_{2.5} standards (see Figure III.2-7).

**Table III.2-8
Ambient Air Quality Summary with Respect to State Standards – Great Basin Valleys Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
O ₃	1 hr	0.09 ppm	U, N	0.092	0.107	0.098	0.098	0.081	0.084	0.082	0	3	1	1	0	0	0
O ₃	8 hrs	0.07ppm	U, N	0.089	0.095	0.095	0.086	0.077	0.079	0.078	33	35	21	4	2	20	8
CO	1 hr	20 ppm	U, A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	U, A	Na	Na	Na	Na	Na	Na	Na							
NO ₂	1 hr	0.18 ppm	A	Na	Na	Na	Na	Na	Na	Na							
NO ₂	Annual	0.030 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	1 hr	0.25 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	24 hrs	0.04 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	50 µg/m ³	N	7709	8338	2342	433	248	999	499	36/38.2*	26/3.2*	24/23.6*	25/26.0*	16/18.4*	31/34.8*	17/20.3*
PM10	Annual	20 µg/m ³	N	63	14.5	21.9	22.6	16.5	25.6	19.7	EX	NX	EX	EX	NX	EX	NX
PM2.5	Annual	12 µg/m ³	A	Na	5.8	7.1	Na	Na	Na	Na	NX	NX	NX	Na	Na	Na	Na
H ₂ S	1 hr	0.03 ppm	A	0.005	0.008	0.010	0.010	0.015	0.007	0.009	0	0	0	0	0	0	0

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

- * Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.
 - ^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hr and 24-hr), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hr, 8-hr, or 24-hr averages, may be excluded if CARB determines they would occur less than once per year on average.
 - ^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hr ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.
 - ^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.
 - ^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.
- ppm = parts per million, µg/m³ = micrograms per cubic meter.

**Table III.2-9
Ambient Air Quality Summary with Respect to State Standards – Mojave Desert Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
O ₃	1 hr	0.09 ppm	N	0.148	0.132	0.140	0.123	0.137	0.132	0.119	61	50	71	51	46	57	44
O ₃	8 hrs	0.07ppm	N	0.125	0.110	0.110	0.104	0.114	0.114	0.108	124	124	134	120	121	138	123

**Table III.2-9
Ambient Air Quality Summary with Respect to State Standards – Mojave Desert Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
CO	1 hr	20 ppm	U, A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	U, A	1.6	1.61	1.23	1.14	5.17	1.51	1.83	0	0	0	0	0	0	0
NO ₂	1 hr	0.18 ppm	A	0.082	0.073	0.081	0.065	0.137	0.077	0.146	0	0	0	0	0	0	0
NO ₂	Annual	0.030 ppm	A	0.015	0.014	0.013	0.012	0.012	0.015	Na	NX	NX	NX	NX	NX	NX	Na
SO ₂	1 hr	0.25 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	24 hrs	0.04 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	50 µg/m ³	N	77.0	339	144.8	81.0	829.0	138.7	96.6	4/25.6*	6/36.6*	3/13.0*	2/12.2*	2/0.0*	18/11.8*	18/19.*
PM10	Annual	20 µg/m ³	N	30.4	35.9	22.3	25.0	18.7	22.3	27.5	EX	EX	EX	EX	NX	EX	EX
PM2.5	Annual	12 µg/m ³	A	10.3	9.7	Na	9.3	7.6	Na	Na	NX						
H ₂ S	1 hr	0.03 ppm	A	0.100	0.197	0.112	0.343	0.077	0.073	0.078	71	119	104	33	48	91	80

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if CARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

**Table III.2-10
Ambient Air Quality Summary with Respect to State Standards – Salton Sea Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
O ₃	1 hr	0.09 ppm	N	0.129	0.126	0.135	0.150	0.122	0.124	0.126	51	39	36	40	24	29	27
O ₃	8 hrs	0.07ppm	N	0.109	0.102	0.101	0.098	0.099	0.095	0.098	94	99	85	82	94	81	93

**Table III.2-10
Ambient Air Quality Summary with Respect to State Standards – Salton Sea Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
CO	1 hr	20 ppm	A	Na	Na	Na	Na	Na	Na	Na							
CO	8 hrs	9 ppm	A	9.76	7.53	6.34	7.46	5.61	9.01	4.47	1	0	0	0	0	0	0
NO ₂	1 hr	0.18 ppm	A	0.101	0.112	0.146	0.122	0.141	0.130	0.081	0	0	0	0	0	0	0
NO ₂	Annual	0.030 ppm	A	0.012	0.012	0.012	0.010	0.011	0.011	Na	NX	NX	NX	NX	NX	NX	Na
SO ₂	1 hr	0.25 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	24 hrs	0.04 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	50 µg/m ³	N	261	296	138	265.8	117.3	324	387.3	38/240.6*	53/219.1*	31/186.8	34/207.4	43/55.0*	93/93.4*	103/210*
PM10	Annual	20 µg/m ³	N	71.6	65.5	53.9	65.4	37.7	40.9	63.7	EX						
PM2.5	Annual	12 µg/m ³	U, N	17.3	23.2	17.2	18.7	12.7	12.7	14.2	EX						
H ₂ S	1 hr	0.03 ppm	A	Na	Na	Na	Na	Na	Na	Na							

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>. CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if CARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

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^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

**Table III.2-11
Ambient Air Quality Summary with Respect to State Standards – San Diego Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
O ₃	1 hr	0.09 ppm	N	0.121	0.134	0.139	0.119	0.107	0.114	0.101	23	21	18	8	7	5	2
O ₃	8 hrs	0.07 ppm	N	0.1	0.092	0.11	0.098	0.088	0.093	0.084	68	50	69	47	21	33	25
CO	1 hr	20 ppm	A	Na	Na	Na	Na	Na	Na	Na							

**Table III.2-11
Ambient Air Quality Summary with Respect to State Standards – San Diego Air Basin**

Pollutant	Average Time	California Ambient Air Quality Standards ^a	Attainment Status	Maximum Concentration–2006	Maximum Concentration–2007	Maximum Concentration–2008	Maximum Concentration–2009	Maximum Concentration–2010	Maximum Concentration–2011	Maximum Concentration–2012	Number of Days Exceeding State Standard–2006	Number of Days Exceeding State Standard–2007	Number of Days Exceeding State Standard–2008	Number of Days Exceeding State Standard–2009	Number of Days Exceeding State Standard–2010	Number of Days Exceeding State Standard–2011	Number of Days Exceeding State Standard–2012
CO	8 hrs	9 ppm	A	3.61	5.18	3.51	3.54	2.46	2.44	3.61	0	0	0	0	0	0	0
NO ₂	1 hr	0.18 ppm	A	0.097	0.101	0.123	0.091	0.091	0.100	0.072	0	0	0	0	0	0	0
NO ₂	Annual	0.030 ppm	A	0.017	0.015	0.015	0.016	0.013	0.013	Na	NX	NX	NX	NX	NX	NX	Na
SO ₂	1 hr	0.25 ppm	A	Na	Na	Na	Na	Na	Na	Na							
SO ₂	24 hrs	0.04 ppm	A	Na	Na	Na	Na	Na	Na	Na							
PM10	24 hrs	50 µg/m ³	N	134	392	158	123	108	126	126	27/ 159.4*	27/ 158.6*	30/ 163.4*	25/ 146.4*	22/ 136.0*	23/ 138.5*	6/ 6.1*
PM10	Annual	20 µg/m ³	N	54	58.4	56.1	53.9	47	46.2	24.3	EX						
PM2.5	Annual	12 µg/m ³	N	13.1	13.3	14.9	12.2	10.8	10.9	Na	EX	EX	EX	EX	NX	NX	Na
H ₂ S	1 hr	0.03 ppm	A	Na	Na	Na	Na	Na	Na	Na							

Source: CARB 2011c. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>; CARB 2013. California Air Quality Data Statistics. California Air Resources Board website. <http://www.arb.ca.gov/adam/welcome.html>.

* Measured Days/Calculated Days – Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. Data to determine federal calculated days were not available.

^a California standards for ozone, carbon monoxide (except at Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM10 are values that are not to be exceeded. Some measurements gathered for pollutants with air quality standards that are based upon 1-hour, 8-hour, or 24-hour averages, may be excluded if ARB determines they would occur less than once per year on average.

^b National standards other than for ozone and particulates, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one.

^c A = attainment; N = nonattainment; U = Unclassifiable; N/A = not applicable; Na = data not available; NX = annual average not exceeded; EX = annual average exceeded.

^d Effective January 22, 2010. Not applicable to monitoring from 2005 through 2009.

ppm = parts per million, µg/m³ = micrograms per cubic meter.

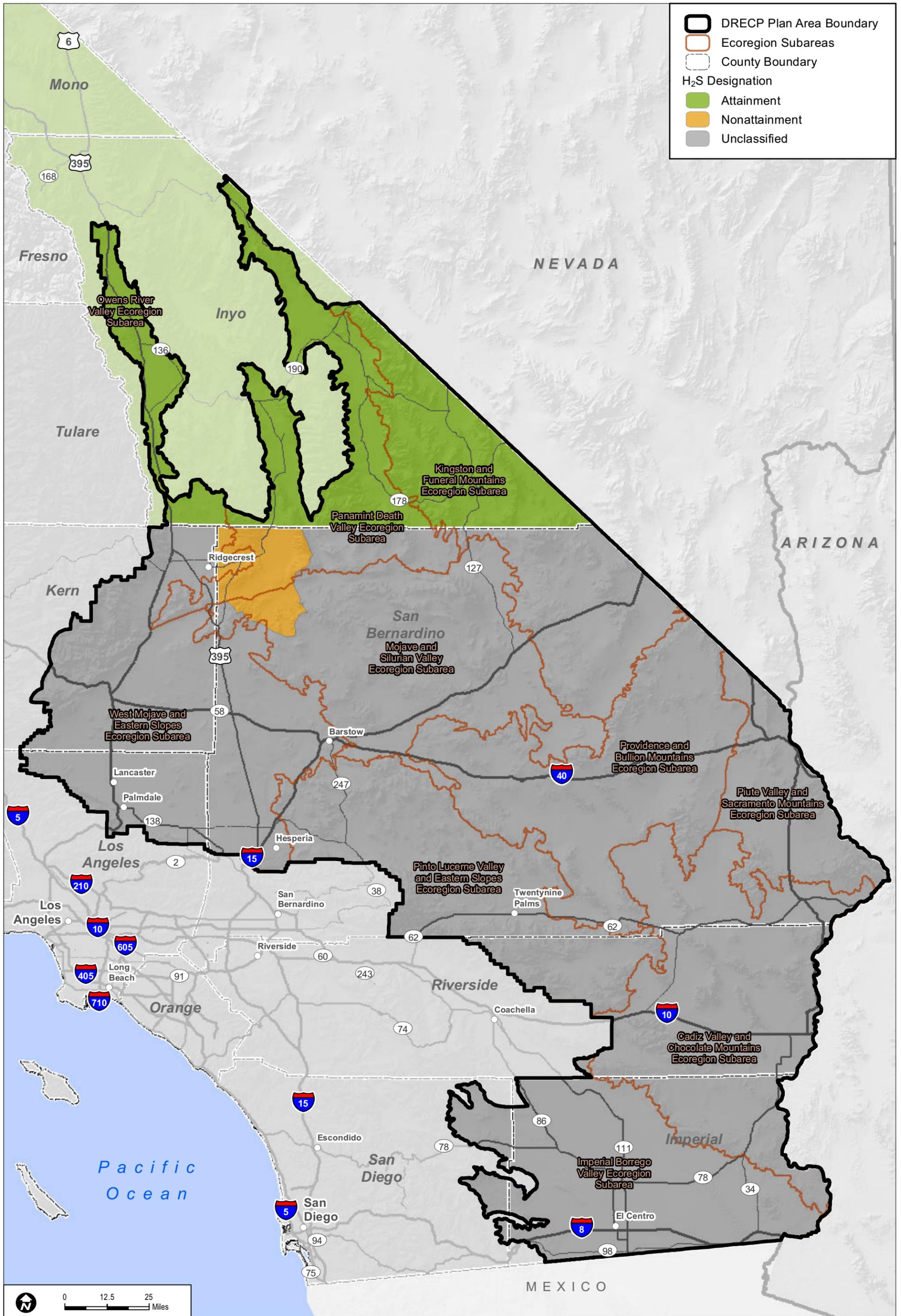
**Table III.2-12
DRECP Ecoregion Subarea Air Basins (acres)**

Ecoregion Subarea	Great Basin Valleys Air Basin	Mojave Desert Air Basin	Salton Sea Air Basin	San Diego Air Basin	Total
Cadiz Valley and Chocolate Mountains	—	2,253,269 (74%)	798,853 (26%)	—	3,052,122
Imperial Borrego Valley	—	--	2,143,060 (89%)	267,680 (11%)	2,410,740
Kingston and Funeral Mountains	1,203,007 (49%)	1,268,356 (51%)	—	—	2,471,363
Mojave and Silurian Valley	—	2,646,012 (100%)	—	—	2,646,012
Owens River Valley	417,797 (100%)	--	—	—	417,797
Panamint Death Valley	1,252,193 (65%)	686,708 (35%)	—	—	1,938,901
Pinto Lucerne Valley and Eastern Slopes	—	2,308,782 (99.5%)	11,339 (0.5%)	—	2,320,121
Piute Valley and Sacramento Mountains	—	1,091,932 (100%)	—	—	1,091,932
Providence and Bullion Mountains	—	2,616,046 (100%)	—	—	2,616,046

Table III.2-12
DRECP Ecoregion Subarea Air Basins (acres)

Ecoregion Subarea	Great Basin Valleys Air Basin	Mojave Desert Air Basin	Salton Sea Air Basin	San Diego Air Basin	Total
West Mojave and Eastern Slopes	116,841 (3%)	3,511,787 (97%)	—	—	3,628,628
Total	2,989,838	16,382,892	2,953,252	267,680	22,593,662
Total Air Basin Area	9,026,556	17,396,073	4,248,952	2,712,291	—
Percentage of Total Air Basin	33%	94%	70%	10%	—

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); CARB (2012)

FIGURE III.2-9

State H₂S Attainment Status

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As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The Cadiz Valley and Chocolate Mountains ecoregion subarea is designated unclassified for the state PM2.5 standards (see Figure III.2-8).

III.2.5.2 Imperial Borrego Valley Ecoregion Subarea

The Imperial Borrego Valley ecoregion subarea lies within portions of the Salton Sea and San Diego Air Basins. Approximately 89% of the ecoregion subarea lies within the Salton Sea Air Basin and 11% of the ecoregion subarea lies within the San Diego Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Imperial County APCD, the San Diego County APCD, and the South Coast AQMD (see Figure III.2-2).

Much of this ecoregion subarea is designated moderate nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards; the remaining San Diego Air Basin portion is designated as attainment for the 1997 federal 8-hour ozone standards (see Figure III.2-4). Except for a small piece that is designated severe-15 for the 2008 federal 8-hour ozone standards, all of this ecoregion subarea is designated a marginal nonattainment area for the 2008 federal 8-hour ozone standards (see Figure III.2-5).

Much of the Imperial Borrego Valley ecoregion subarea is designated serious nonattainment for the federal PM10 standards (see Figure III.2-6). A portion of south-central Imperial County within this ecoregion subarea is nonattainment for the federal 24-hour PM2.5 standard. The remainder of the ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The westernmost portion of the Imperial Borrego Valley ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is designated Unclassified for the state PM2.5 standards (see Figure III.2-8).

III.2.5.3 Kingston and Funeral Mountains Ecoregion Subarea

The Kingston and Funeral Mountains ecoregion subarea lies within portions of the Great Basin Valleys and Mojave Desert Air Basins. Approximately 49% of the ecoregion subarea lies within the Great Basin Valleys Air Basin, and 51% of the ecoregion subarea lies within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Great Basin Unified APCD and the Mojave Desert AQMD (see Figure III.2-2).

A very small portion of the Kingston and Funeral Mountains ecoregion subarea is designated severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards (see Figure III.2-4). A very small portion of this ecoregion subarea is designated

severe-15 nonattainment for the 2008 federal 8-hour ozone standards (see Figure III.2-5). A portion of this ecoregion subarea is designated moderate nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. A small portion in the southwest of the Kingston and Funeral Mountains ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is either designated unclassified or attainment for the state PM2.5 standards (see Figure III.2-8).

III.2.5.4 Mojave and Silurian Valley Ecoregion Subarea

The Mojave and Silurian Valley ecoregion subarea lies entirely within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Eastern Kern County APCD and the Mojave Desert AQMD (see Figure III.2-2).

Portions of the Mojave and Silurian Valley ecoregion subarea are designated moderate or severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards (see Figure III.2-4). A very small portion of this ecoregion subarea is designated a marginal nonattainment area for the 2008 federal 8-hour ozone standards, and the southern portion of the ecoregion subarea is designated a severe-15 nonattainment area for the 2008 federal 8-hour ozone standards (see Figure III.2-5). Virtually all of this ecoregion subarea is designated moderate nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. Much of the southern portion of the Mojave and Silurian Valley ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is designated unclassified for the state PM2.5 standards (see Figure III.2-8). This ecoregion subarea also contains a portion of the Searles Valley Planning Area in San Bernardino County, which is designated nonattainment for the state H₂S standards (see Figure III.2-9).

III.2.5.5 Owens River Valley Ecoregion Subarea

The Owens River Valley ecoregion subarea lies entirely within the Great Basin Valleys Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Great Basin Unified APCD (see Figure III.2-2).

The Owens River Valley ecoregion subarea is unclassified/attainment for the 1997 and 2008 federal 8-hour ozone standards (see Figures III.2-4 and III.2-5). The majority of this ecoregion subarea is designated serious nonattainment for the federal PM10 standards. The relatively small remaining portions of the ecoregion subarea are designated either unclassified or attainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The Owens River Valley ecoregion subarea is designated attainment for the state PM2.5 standards (see Figure III.2-8).

III.2.5.6 Panamint Death Valley Ecoregion Subarea

The Panamint Death Valley ecoregion subarea lies within portions of the Great Basin Valleys and Mojave Desert Air Basins. Approximately 65% of the ecoregion subarea lies within the Great Basin Valleys Air Basin, and 35% of the ecoregion subarea lies within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Great Basin Unified APCD, the Eastern Kern County APCD, and the Mojave Desert AQMD (see Figure III.2-2). This ecoregion subarea includes portions of the Death Valley National Park, a federal Class I area.

A small portion of the Panamint Death Valley ecoregion subarea is designated moderate nonattainment for the 1997 federal 8-hour ozone standards (see Figure III.2-4). Effective January 2013, the EPA determined that this portion (Eastern Kern County) attained the federal 1997 8-hour ozone standard. A very small portion of the ecoregion subarea is designated a marginal nonattainment area for the 2008 federal 8-hour ozone standards (see Figure III.2-5). The southern portion of this ecoregion subarea is designated moderate nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The Panamint Death Valley ecoregion subarea is designated either unclassified or attainment for the state PM2.5 standards (see Figure III.2-8). This ecoregion subarea also contains a portion of the Searles Valley Planning Area in San Bernardino County, which is designated nonattainment for the state H₂S standards (see Figure III.2-9).

III.2.5.7 Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea

The Pinto Lucerne Valley and Eastern Slopes ecoregion subarea lies within portions of the Mojave Desert and Salton Sea Air Basins. Essentially 100% of the ecoregion subarea lies within the Mojave Desert Air Basin, with less than 1% of the ecoregion subarea lying within

the Salton Sea Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Mojave Desert AQMD and the South Coast AQMD (see Figure III.2-2). Figure III.2-1 shows that this ecoregion subarea contains much of the Joshua Tree National Park, a federal Class I area.

Much of the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea is designated severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards. The remainder of the ecoregion subarea is unclassified/attainment for the 1997 federal 8-hour ozone standards (see Figure III.2-4). A majority of the ecoregion subarea is designated a severe-15 nonattainment area for the 2008 federal 8-hour ozone standards (see Figure III.2-5).

Much of this ecoregion subarea is designated moderate nonattainment for the federal PM10 standards. A small portion in the south of the ecoregion subarea is designated serious nonattainment for the federal PM10 standards. The remainder of the ecoregion subarea is unclassified for the federal PM10 standards (see Figure III.2-6). The Pinto Lucerne Valley and Eastern Slopes ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. Much of the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is designated unclassified for the state PM2.5 standards (see Figure III.2-8).

III.2.5.8 Piute Valley and Sacramento Mountains Ecoregion Subarea

The Piute Valley and Sacramento Mountains ecoregion subarea lies entirely within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Mojave Desert AQMD (see Figure III.2-2).

The Piute Valley and Sacramento Mountains ecoregion subarea is unclassified/attainment for the 1997 and 2008 federal 8-hour ozone standards (see Figures III.2-4 and III.2-5). The entire ecoregion subarea is designated moderate nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The Piute Valley and Sacramento Mountains ecoregion subarea is designated unclassified for the state PM2.5 standards (see Figure III.2-8).

III.2.5.9 Providence and Bullion Mountains Ecoregion Subarea

The Providence and Bullion Mountains ecoregion subarea lies entirely within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Mojave Desert AQMD (see Figure III.2-2). Figure III.2-1 shows that this ecoregion subarea contains a small portion of the Joshua Tree Wilderness.

A portion of the Providence and Bullion Mountains ecoregion subarea is designated severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards (see Figure III.2-4). The western portion of the ecoregion subarea is designated a severe-15 nonattainment area for the 2008 federal 8-hour ozone standards (see Figure III.2-5). The entire ecoregion subarea is designated moderate nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. The western portion of the Providence and Bullion Mountains ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is designated unclassified for the state PM2.5 standards (see Figure III.2-8).

III.2.5.10 West Mojave and Eastern Slopes Ecoregion Subarea

The West Mojave and Eastern Slopes ecoregion subarea lies within portions of the Great Basin Valleys and Mojave Desert Air Basins. Approximately 3% of the ecoregion subarea lies within the Great Basin Valleys Air Basin, and 97% of the ecoregion subarea lies within the Mojave Desert Air Basin (see Figure III.2-3). This ecoregion subarea is within the jurisdictional boundaries of the Antelope Valley AQMD, the Great Basin Unified APCD, the Eastern Kern County APCD, and the Mojave Desert AQMD (see Figure III.2-2).

Much of the West Mojave and Eastern Slopes ecoregion subarea is designated either moderate or severe-15 nonattainment under Subpart 2 for the 1997 federal 8-hour ozone standards (see Figure III.2-4). Large areas of this ecoregion subarea are designated either marginal or severe-15 nonattainment for the 2008 federal 8-hour ozone standards (see Figure III.2-5). Portions of this ecoregion subarea are designated either moderate or serious nonattainment for the federal PM10 standards (see Figure III.2-6). This ecoregion subarea is unclassifiable/attainment for the federal PM2.5 standards (see Figure III.2-7).

As indicated above, all air basins within the Plan Area are designated nonattainment for the state ozone and PM10 standards. A portion in the southeast of the West Mojave and Eastern Slopes ecoregion subarea is designated nonattainment for the state PM2.5 standards. The remainder is designated either unclassified or attainment for the state PM2.5

standards (see Figure III.2-8). This ecoregion subarea also contains a portion of the Searles Valley Planning Area in San Bernardino County, which is designated nonattainment for the state H₂S standards (see Figure III.2-9).

III.2.6 Affected Environment for the Natural Community Conservation Plan

The affected environment for the Natural Community Conservation Plan (NCCP) is the same as that described above for the entire Plan Area. While there are Department of Defense (DOD) lands and tribal lands within the Plan boundaries, the Plan does not analyze effects on these lands so they are not included in the description of the affected environment.

III.2.7 Affected Environment for the General Conservation Plan

The affected environment for the General Conservation Plan (GCP) includes a subset of the lands covered by Plan-wide analysis and the NCCP. In addition to excluding DOD and tribal lands, the GCP lands exclude all other federal lands (e.g., BLM-administered public lands, national parks). The GCP acreage is less than that in the Plan Area. However, projects would still occur in each air basin, and the affected environment for air quality would be the same as described in Section III.2.5.

III.2.8 Baseline Emissions for the Plan Area

The Plan Area's 50 existing renewable energy projects listed in Appendix O create air pollutant emissions as a result of construction, operation and maintenance, and decommissioning activities. The reported construction-phase emissions from several of the existing renewable energy projects are listed as examples in Appendix R1.2-1.

III.2.9 Air Quality Outside of Plan Area

The Environment Outside of the Plan Area is very limited in size when compared to the Plan Area and is located within the same air districts as the Plan Area, with the addition of the Los Angeles area and the San Joaquin Valley. Aside from these areas for transmission, the affected environment for the Environment Outside the Plan Area is the same as described in Section III.2.5.

III.2.9.1 Transmission

In addition to the area within the DRECP, the federal and state regulatory environment presented in Sections III.2.1.1 and III.2.1.2 encompasses transmission corridors outside of the Plan Area.

III.2.9.1.1 San Diego Area

The Outside of Plan Area corridor in San Diego is within the San Diego Air Basin. Existing air quality conditions in this Out of Plan Area corridor would be the same as those presented in Section III.2.4.1.4, Table III.2-7, Ambient Air Quality Summary with Respect to Federal Standards – San Diego Air Basin and Section III.2.4.2.4, Table III.2-11, Ambient Air Quality Summary with Respect to State Standards – San Diego Air Basin.

III.2.9.1.2 Los Angeles Area

The Out of Plan Area corridor in Los Angeles is within the South Coast Air Basin (SoCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SoCAB is bounded by the Pacific Ocean and Ventura County to the west, the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east, and San Diego County to the south. Table III.2-13 summarizes the 2013 attainment status of the SoCAB. As shown, the SoCAB is in attainment of all pollutant standards except for those related to ozone and particulate matter (both PM10 and PM2.5).

**Table III.2-13
 2013 Attainment Status for the South Coast Air Basin**

Pollutant	Attainment Status	
	Federal	State
Ozone – 1 Hour	N/A	Nonattainment
Ozone – 8 Hour	Extreme Nonattainment	Nonattainment
CO	Attainment	Attainment
NO ₂	Unclassifiable/Attainment	Attainment
SO ₂	Unclassified/Attainment	Attainment
PM10	Attainment (Maintenance)	Nonattainment
PM2.5	Nonattainment	Nonattainment

Sources: California Air Resources Board, “Area Designations Maps/State and National.” 2012. <http://www.arb.ca.gov/desig/adm/adm.htm>. U.S. Environmental Protection Agency. “Air Quality Maps.” 2013. <http://www.epa.gov/region9/air/maps/index.html>.

III.2.9.1.3 North Palm Springs–Riverside

The Outside of Plan Area corridor in the North Palm Springs–Riverside Area is within the Mojave Desert Air Basin, Salton Sea Air Basin, and the SoCAB. Existing air quality conditions along this Out of Plan Area corridor would be the same as those presented in Section III.2.4.1.2 and Table III.2-5, Ambient Air Quality Summary with Respect to Federal Standards – Mojave Desert Air Basin; Section III.2.4.2.2 and Table III.2-9, Ambient Air Quality Summary with Respect to State Standards – Mojave Desert Air Basin; Section

III.2.4.1.3 and Table III.2-6, Ambient Air Quality Summary with Respect to Federal Standards – Salton Sea Air Basin; Section III.2.4.2.3 and Table III.2-10, Ambient Air Quality Summary with Respect to State Standards – Salton Sea Air Basin; and those presented above in Table III.2-13 for the SoCAB.

III.2.9.1.4 Central Valley

The Outside of Plan Area corridor in the Central Valley is within the Mojave Desert Air Basin and the San Joaquin Valley Air Basin. Existing air quality conditions along this Out of Plan Area corridor would be the same as those presented in Section III.2.4.1.2 and Table III.2-5, Ambient Air Quality Summary with Respect to Federal Standards – Mojave Desert Air Basin and Section III.2.4.2.2 and Table III.2-9, Ambient Air Quality Summary with Respect to State Standards – Mojave Desert Air Basin.

Table III.2-14 summarizes the 2013 attainment status of the San Joaquin Valley Air Basin. As shown, the San Joaquin Valley Air Basin is in attainment of all pollutant standards except for those related to ozone and particulate matter (both PM10 and PM2.5).

Table III.2-14
2013 Attainment Status for the San Joaquin Valley Air Basin

Pollutant	Attainment Status	
	<i>Federal</i>	<i>State</i>
Ozone – 1 Hour	N/A	Nonattainment
Ozone – 8 Hour	Extreme Nonattainment	Nonattainment
CO	Attainment	Attainment
NO ₂	Unclassifiable/Attainment	Attainment
SO ₂	Unclassified/Attainment	Attainment
PM10	Attainment (Maintenance)	Nonattainment
PM2.5	Nonattainment	Nonattainment

Sources: California Air Resources Board, “Area Designations Maps/State and National.” 2012. <http://www.arb.ca.gov/desig/adm/adm.htm>. U.S. Environmental Protection Agency. “Air Quality Maps.” 2013. <http://www.epa.gov/region9/air/maps/index.html>.

III.2.9.2 Bureau of Land Management Land Use Plan Amendment Decisions

The BLM Land Use Plan Amendment (LUPA) decisions affected environment for air quality includes BLM-administered lands under the BLM California Desert Conservation Area (CDCA) Plan. These areas are a subset of the larger area, so the affected environment for the Environment Outside the Plan Area is the same as described in Section III.2.9. These areas are located within portions of the Great Basin Valleys, Mojave Desert Salton Sea,

San Diego, and San Joaquin Valley Air Basins. Table III.2-15 summarizes the land areas within each of these Air Basins.

**Table III.2-15
 BLM LUPA Land Outside the Plan Area Air Basins (acres)**

	Great Basin Valleys Air Basin	Mojave Desert Air Basin	Salton Sea Air Basin	San Diego Air Basin	San Joaquin Valley Air Basin	Total
BLM LUPA Land Outside Plan Area	671,611 (63%)	6,701 (1%)	372,937 (35%)	6,434 (1%)	185 (<1%)	1,057,868
Total Air Basin Area	9,026,556	17,396,073	4,248,952	2,712,291	15,151,934	48,535,806
Percentage of Total Air Basin	7%	<1%	9%	<1%	<1%	2%

Table III.2-14 shows a majority of these areas lie within the Great Basin Valleys and the Salton Sea Air Basins. Existing air quality conditions in these areas would be identical to those presented in Section III.2.4.1.1, Table III.2-4, Ambient Air Quality Summary with Respect to Federal Standards – Great Basin Valleys Air Basin; Section III.2.4.1.3, Table III.2-6, Ambient Air Quality Summary with Respect to Federal Standards – Salton Sea Air Basin; Section III.4.2.1, Table III.2-8, Ambient Air Quality Summary with Respect to State Standards – Great Basin Valleys Air Basin; and Section III.2.4.2.3, Table III.2-10, Ambient Air Quality Summary with Respect to State Standards – Salton Sea Air Basin.

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