

## State Implementation Plan

Under the [Clean Air Act](#), the U.S. Environmental Protection Agency (EPA) has established air quality standards to protect public health and the environment. The EPA has set [National Ambient Air Quality Standards](#) (NAAQS) for the six primary air pollutants. These include: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>).

When an area does not meet the air quality standard for one of the NAAQS pollutants, the area may be subject to the formal rulemaking process that designates the area's status as nonattainment. The Clean Air Act requires states with areas failing to meet the NAAQS to produce a state implementation plan (SIP).

A SIP is an enforceable plan developed at the state and local level that explains how the area will comply with the NAAQS. The SIP is the cumulative record of all air pollution strategies, state statutes, state and local rules, and local ordinances implemented under Title I of the Clean Air Act by governmental agencies within the state.

In general, a SIP will include historical background information, a description of the nonattainment area, an assessment of air quality conditions and ambient air quality data for the area, an emissions inventory of sources of pollutants, control strategies, an attainment demonstration, and contingency provisions.

The first Arizona SIP submittal was in 1972. Because there have been so many changes to federal, state and local air quality programs over the past 30 years, there is not a single definitive document that contains all of the SIP requirements. Rather than re-writing the entire SIP regularly, parts of the SIP are simply revised as needed.

Revisions are necessary when new federal or state requirements are enacted, when new data improves modeling techniques, when a specific area's attainment status changes, or when an area fails to reach attainment.

Revisions to Arizona's SIP must be submitted to the EPA by the director of the Arizona Department of Environmental Quality (ADEQ) on behalf of the governor. Once approved by the EPA and published in the Federal Register, the provisions contained in the SIP revision become enforceable by the federal government as well as by the appropriate governmental entities of Arizona. The cumulative and complete record of SIP revisions that have been approved by EPA and federally enforceable in Arizona is called the "applicable Arizona SIP".

## **Attainment Status**

Portions of Maricopa County have been designated as being in nonattainment for three pollutants: particulate matter (PM<sub>10</sub>), carbon monoxide (CO) and ozone (O<sub>3</sub>).

### **Maricopa County PM<sub>10</sub> Nonattainment Area**

#### **Attainment Status Designation: Serious Nonattainment**

Maricopa County was reclassified as a serious PM<sub>10</sub> nonattainment area on June 10, 1996. On July 9, 1999, the Maricopa Association of Governments (MAG) submitted to the EPA the [MAG 1999 Serious Area Particulate Plan for PM10](#), addressing both the 24-hour and annual standards.

A revised state implementation plan (SIP) was submitted in February 2000. The Plan, based on new most stringent measures, included an extension request for attainment no later than December 31, 2006. On January 10, 2002, the EPA announced approval of Arizona's plan to attain the standards for PM<sub>10</sub> in the metropolitan Phoenix area by 2006. The EPA's approval granted a 5-year extension of the attainment date for both the 24-hour and annual PM<sub>10</sub> standards to December 31, 2006. Both decisions were published in the Federal Register on July 25, 2002 ([67 FR 48717](#)).

On July 2, 2002, the EPA found that more work was needed to achieve attainment of the 24-hour standard in the area of the Salt River monitoring site. For more information on the Salt River Study Area see the [Proposed Revised PM<sub>10</sub> State Implementation Plan for the Salt River Area](#).

Despite the most stringent measures and best available control measures adopted and implemented earlier, the nonattainment area failed to attain the NAAQS by the extended deadline of December 31, 2006. This failure triggered a special requirement under [Section 189\(d\) of the Clean Air Act](#) that SIP revisions provide for annual reductions of PM<sub>10</sub> or PM<sub>10</sub> precursors of not less than 5 percent of the most recent emissions inventory, until the NAAQS is attained, be submitted to EPA by December 31, 2007. This [SIP revision](#) was prepared by the Maricopa Association of Governments and submitted to EPA by the deadline.

The primary sources of particulate pollution in the area are construction activities, paved road dust, unpaved roads and parking lots, agricultural activities, windblown dust from disturbed vacant lots, construction sites, and agricultural fields, fires and open burning, dust from off-road recreational vehicles, leaf blowers, and exhaust from cars.

## **Maricopa County CO Attainment Area with Maintenance Plan**

### **Attainment Status Designation: Attainment**

On April 8, 2005, the EPA redesignated the Phoenix metropolitan area to attainment status for CO and approved the attainment demonstration and maintenance plan which shows maintenance of the CO NAAQS through 2015. The Phoenix metropolitan area was originally designated as a moderate CO nonattainment area under the [Clean Air Act Amendments of 1990](#), with an attainment date of December 31, 1995. As a result of the area's failure to reach attainment by the end of 1995, the EPA reclassified the area as a serious nonattainment area in 1996, with a new attainment date of December 31, 2000. The Phoenix metropolitan area has not had an exceedance of the CO NAAQS since 1996. Cars and other gasoline-powered motor vehicles cause more than 75 percent of the area's CO.

## **Maricopa County Ozone Nonattainment Areas**

### **1-hour Ozone Attainment Area with Maintenance Plan**

#### **Attainment Status Designation: Attainment**

On June 14, 2005, EPA redesignated the Phoenix metropolitan area to attainment of the 1-hour ozone NAAQS and approved the attainment demonstration and maintenance plan which shows maintenance of the 1-hour ozone NAAQS through 2015. The 1-hour ozone NAAQS was revoked by EPA on June 15, 2005. However, certain control measures developed and implemented for the 1-hour NAAQS are required to remain in place to ensure continued progress toward attainment of the 8-hour NAAQS.

### **8-hour Ozone Nonattainment Area (1997 standard)**

#### **Attainment Status Designation: Subpart 1 Nonattainment**

On June 15, 2004, the EPA designated a 4,880 square mile area located mainly in Maricopa and Pinal Counties as an 8-hour ozone nonattainment area ([69 FR 23858](#); April 30, 2004).

The EPA's rule for implementing the 1997 8-hour ozone NAAQS required that the nonattainment area meet the NAAQS by 2009. The MAG [Eight-Hour Ozone Plan for the Maricopa Nonattainment Area](#) (June 2007), which demonstrates how the area will attain the standard, was submitted to the EPA on June 13, 2007. The [final map for the 1997 standard](#) is available from the EPA.

## **8-hour Ozone 2008 standard**

### **Attainment Status Designation: Pending**

On May 27, 2008, the EPA strengthened the air quality standards for ground-level ozone to improve public health protection ([73 FR 16436](#); March 27, 2008). Specifically, the EPA revised the level of the NAAQS to 0.075 parts per million (from 0.084 part per million). In February, 2009, MAG submitted the [MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa Nonattainment Area](#).

The [final map for the 2008 standard](#) is available from the EPA.

### **For more information:**

The Arizona Department of Environmental Quality's [Air Quality Plans](#) page contains recent relevant documents pertaining to Arizona nonattainment and attainment areas with maintenance plans.

The Maricopa Association of Government's [Regional Air Quality Planning](#) page contains further information about Arizona SIPs.

EPA Region 9's [Arizona Air Actions](#) page has links to recent EPA air quality actions for Arizona.