

3.7.1.6 Sulfur Dioxide

Sulfur dioxide (SO₂) is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO₂ levels. SO₂ irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

The entire SCAB is in attainment with both federal and State sulfur dioxide standards.

3.7.1.7 Lead

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

3.7.1.8 Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (all particles less than or equal to 10 micrometers in diameter, or PM₁₀) come from a variety of sources, including windblown dust and grinding operations. Fine particles (less than 2.5 micrometers, or PM_{2.5}) often come from fuel combustion, power plants, and diesel buses and trucks. Fine particles can also be formed in the atmosphere through chemical reactions. Coarse particles (PM₁₀) can accumulate in the respiratory system and aggravate health problems such as asthma. EPA's scientific review concluded that fine particles (PM_{2.5}), which penetrate deeply into the lungs, are more likely than coarse particles to contribute to adverse health effects.

The entire SCAB is a nonattainment area for the federal and State PM₁₀ standards. The attainment status of PM_{2.5} in the SCAB has not been established by the EPA or the CARB at the time this analysis was prepared.

3.7.2 Local Air Quality

The SCAQMD maintains ambient air quality monitoring stations throughout the SCAB, as shown in Figure 3.7.1. There are seven air quality monitoring stations in the SCAB area of Riverside County: Norco, Riverside-Rubidoux, Riverside-Magnolia, Banning-Allesandro, Banning Airport, Perris, and Lake Elsinore. These seven air monitoring stations are in western Riverside County.

The ambient air quality levels at these stations show that nitrogen dioxide and carbon monoxide levels are either not monitored or are below the relevant state and federal standards at most of these seven air monitoring stations, except at the Banning Airport station, where the monitored nitrogen dioxide level exceeded the state standard on one day in both 1998 and 1999. The federal standard for nitrogen dioxide was not exceeded at all monitoring stations. Ozone levels exceeded the State and federal standards in almost every year of the past five years at all five monitoring stations (except Norco and