Goal
Meet state and federal air quality standards in all regions of the state.

Why it is Important
California is home to the worst air quality in the nation. Ozone and particulate matter are the pollutants of most concern in the state. Both ozone and particulate matter have been linked to the respiratory and cardiovascular disease. Particulate matter that is less than 2.5 microns in diameter (PM-2.5) is of particular concern from a health perspective. Ozone also contributes to damage to materials, plants, and crops.

Ozone is not directly emitted, but is formed in the atmosphere through a chemical reaction involving hydrocarbons and oxides of nitrogen. PM-2.5 can be directly emitted, but is also formed by atmospheric reactions.

Both the state and federal governments have established air quality standards for a suite of air pollutants. The National Ambient Air Quality Standards (NAAQS) require that all regions meet the standards, with the deadline for attainment set depending on the severity of the regions air quality problem. The South Coast Air Basin and the South Coast Air Basin both regularly exceed the NAAQS for ozone over 100 days per year. The deadline for attainment in both regions is not until after 2020.

Recent Trends

Each of the state’s most populous regions fails to meet the federal 8-hour ozone standard, although the severity of the problem varies. The map to the right shows the outlines of the state’s air districts and counties and identifies counties where portions of the county or the entire county are out of attainment with the federal 8-hour ozone standard.

The US Environmental Protection Agency (EPA) updated the federal air quality standard for PM-2.5 in 2012. Designations for non-attainment areas are still in development.
The South Coast Air Basin, which encompasses the greater Los Angeles area, Orange County, parts of San Diego County, and areas to the east has been home to some of the worst air quality in the nation for decades. The San Joaquin Valley also faces a formidable air quality challenge. Both regions violate the federal ozone standard over one hundred days per year.

What California is Doing
California is committed to meeting federal air quality standards in all regions of the state. Regions that are out of attainment with standards are required to prepare air quality attainment plans and the state prepares and State Implementation Plan that outlines regional and state actions being taken to reduce emissions.

Local air districts are required to reduce emissions from stationary sources (e.g., power plants, refineries, factories, and other industrial sources). The state is responsible for setting standards for passenger vehicles and fuels. The federal government also contributes by establishing programs to reduce emissions from some off-road vehicles and other transportation sources.

Data Sources and Scale
Air quality data are collected and maintained by the California Air Resources Board. Data can be accessed here: http://www.arb.ca.gov/adam/index.html