



Monitoring Our Air

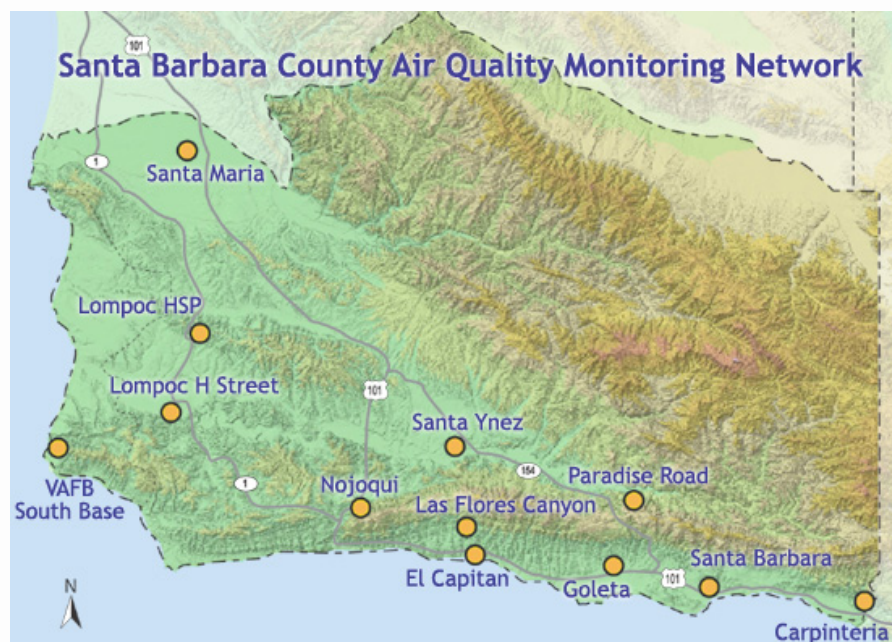
In Santa Barbara County, a network of 18 stations monitors what's in the air we breathe. The stations are small, portable structures containing electronic instruments to measure the concentrations of air pollutants.

Twelve stations, shown on the map below, continuously measure ground-level ozone, a principal component of smog. Particulate matter less than 10 microns in diameter (PM10) and less than 2.5 microns in diameter (PM2.5) are both measured continuously at the Santa Barbara, Goleta, Lompoc, and Santa Maria stations. PM10 is also measured continuously at the Las Flores Canyon and El Capitan stations.

Other pollutants measured at our stations include carbon monoxide, nitrogen oxides, and sulfur dioxide. Weather conditions — temperature, wind speed, and wind direction — are also recorded.

Data are available in real time on our website. Data collected are summarized in regular required reports to the California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (U.S. EPA), and in the District's Annual Air Quality Report. Data are also used for planning and permitting to help predict future pollution.

Ozone Monitoring Stations in Santa Barbara County



Frequently Asked Questions

Are the monitoring stations staffed?

No. Data are transmitted automatically to the District. The stations require regular visits by technicians to calibrate equipment, change filters, and perform routine maintenance and repairs.

What do the stations measure?

In addition to pollution measurements, instruments record weather conditions, including temperature, and wind speed and direction. This helps the District track trends and evaluate the likely cause of high pollution levels. In an emergency, data on wind speed and direction could help us predict the movement of a fire or toxic cloud.

What happens when the air pollution levels are high?

We watch air pollution levels daily. When high wind or dust events and wildfires occur, the District works with the County Public Health Department to issue advisories that alert residents of high pollution levels and provide tips to protect health.

Types of Monitoring Stations

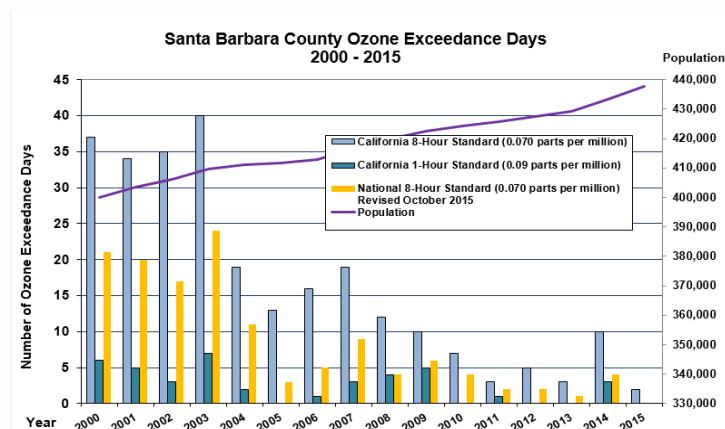
Stations fall into two categories: SLAMS and PSD stations. Six SLAMS (State and Local Air Monitoring Stations) measure urban and regional air quality. Two SLAMS stations are operated by ARB (Santa Barbara and Santa Maria) and four by the District (Lompoc, Santa Ynez, El Capitan, and Goleta). Five of these stations measure ambient concentrations of ozone, PM10, carbon monoxide, nitrogen oxides, and sulfur dioxide.

Twelve PSD (Prevention of Significant Deterioration) stations determine baseline air quality and the impacts of specific operations, such as large oil and gas facilities. Most PSD stations are operated by the facility; four are operated by the District. These stations monitor the air around a facility to determine if there are any significant impacts caused by the facility being in operation. Most PSD stations are located near the facility; some are placed in distant areas to measure background concentrations of pollutants, or to measure regional pollutants, such as ozone, in areas downwind from the facility.

Improving Air Quality

Based on current data, the county is in attainment of the new federal ozone standard (announced in October 2015); the U.S. EPA has indicated that attainment/non-attainment designations for the new standard will be made in October 2017. The county does not meet the state eight-hour ozone standard or the state standard for PM10.

However, ozone levels have been steadily decreasing, as shown in the chart below.



Notes

Siting of Stations

Each monitoring station is sited to meet one or more of the following objectives:

- to determine representative concentrations of air pollution in highly populated areas;
- to determine the impact of specific businesses or other sources of pollution;
- to determine general background pollution levels in areas not directly affected by cars, businesses, and other man-made pollution sources;
- to determine the highest pollution levels in the county.

The network of all stations combined must meet all four objectives.

The Air Quality Index (AQI)

The Air Quality Index (AQI) is a measure of air quality based on a percentage of the federal air quality standard. An AQI of 100 means the pollutant level is equal to the federal standard. The higher the number, the more air pollution we are breathing. An AQI below 100 means the air quality is better than the standard, and above 100 can be considered unhealthy.

The District reports both ozone and particulate matter on our website.

Learn More

To view levels of ozone and particulate matter updated hourly, visit www.OurAir.org

For more information, call (805) 961-8800.