

Mobile Air Monitoring Program

For over 50 years, Maricopa County has been monitoring the air quality throughout this region using a network of fixed air monitoring sites. The department manages [25 locations](#) which monitor various pollutants, including carbon monoxide, ozone, particulates, nitrogen dioxide, hydrocarbons, sulfur dioxide and metals.

In November 2006, the Maricopa County Board of Supervisors approved the next phase in our monitoring network: a mobile air monitoring program. This system enables us to monitor criteria pollutants and a wide range of other air toxics by doing so on a mobile platform. The Mobile Air Monitoring Program differs from fixed air monitoring sites as it assesses the air quality in specific areas rather than providing representative samples throughout the county. Our top-of-the-line equipment is used to perform case studies, complaint investigations and stack testing.

Case Studies

This section of the Mobile Air Monitoring Program participates in studies to determine the effectiveness of rules and regulations. In addition, it helps quantify the need for new rules in Maricopa County.

Complaint Investigations

The Mobile Air Monitoring Program investigates specific areas based on past and present air pollution complaints and concerns at the discretion of the air pollution control officer.

Stack Testing

The Mobile Air Monitoring Program performs spot testing on stack emissions to determine whether or not permitted sources are within compliance.

Equipment

The Mobile Air Monitoring Program includes a fully equipped vehicle with highly technical capabilities. The Gas Chromatograph/Mass Spectrometer (GC/MS), for example, monitors air toxics, hydrocarbons and sulfur-containing compounds directly from the air, or it can process samples taken over a wide area. The stack monitors measure the following pollutants from industrial stacks:

- Sulfur Dioxide
- Nitrogen Oxide
- Carbon Monoxide
- Carbon Dioxide
- Oxygen
- Volatile Organic Compounds



In addition, there are meteorological monitors which measure wind speed and direction, relative humidity, ambient temperature, barometric pressure, and solar radiation. An added bonus to the van is a video surveillance system.

The air monitoring program includes a trailer that has continuous air pollutant monitors measuring criteria pollutants such as ozone, particulate matter [PM-10 and PM-2.5], carbon monoxide, nitrogen dioxide, sulfur dioxide and lead.

