

Introduction

This report presents the results of air quality monitoring conducted throughout Arizona in calendar year 2000. Data from more than 100 monitoring sites, many of which have multiple instruments measuring a variety of gaseous, particulate, and visibility parameters are reported. The majority of the air quality measurements are for conventional pollutants (ozone, particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide, lead) for which the U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS). Visibility-related measurements are an increasing part of air monitoring activities in Arizona. In addition to the ADEQ monitoring network, Maricopa County, Pima County and Pinal County air quality agencies also operated network, as did several industrial facilities. Their data are summarized in this report.

The report on ambient air quality monitoring networks, which begins on Page 1, discusses the various air monitoring networks in Arizona with regards to their purpose, measurement methods, and the specific scale of geographic resolution of each network.

Beginning on Page 17, the monitoring data report summarizes the monitoring data and shows the compliance status for criteria pollutants and consists of three sections, measurement of traditional criteria pollutants, compliance status of the criteria pollutants and visibility characterization. The text describes how the measurements are made and how they relate to compliance with the NAAQS.

The report on special projects, which begins on Page 77, summarizes activities from special monitoring projects undertaken in 2000 and 2001. Some of the projects presented in this report are the expanding Class I visibility monitoring network for larger national parks and wilderness areas, an ongoing PM₁₀ study centered on the Greenwood monitoring site, a new and expanding effort to characterize ozone precursors, the intensive ozone project held in Phoenix in summer 2001 and results from the Governor's Brown Cloud Summit.

Air quality trends are reported beginning on Page 89. Air quality trends at most of the long-term monitors reveal improved air quality. Concentrations of carbon monoxide, lead and sulfur dioxide have dramatically improved since measurements began in the 1970s, and all monitors for these pollutants have shown compliance with health standards in recent years. Particulate matter (PM₁₀) concentrations have also improved in rural and industrial areas where controls have been implemented, while less dramatic improvements have occurred in Phoenix and Tucson. Ozone concentrations have been fairly steady in Tucson and Yuma but have decreased since 1997 in Phoenix. Phoenix is the only area where violations of the ozone standard have been recorded, although concentrations have fallen significantly in recent years, and no exceedances have

been recorded since 1997. Shorter periods of record for visibility in the urban and national parks and wilderness areas make trend assessments less definitive, but trend assessments are shown for the two urban areas.