



2011 Air Quality Report

New Jersey Department of Environmental Protection

SUMMARY

This report summarizes the New Jersey air quality monitoring data for 2011. It contains information on the Air Quality Index (AQI), concentrations of individual pollutants – carbon monoxide, nitrogen oxides, ozone, particulate matter, and sulfur dioxide. Data on acid precipitation, speciation of fine particulates, ozone precursors, toxic air contaminants, including mercury, and meteorological data are also provided.



INTRODUCTION

The State of New Jersey has been monitoring air quality since 1965. During that time, pollution levels have improved significantly as a result of state regulations, which are among the most stringent in the country, as well as regional and national air pollution reduction efforts.

Air quality problems still exist across the state. Ozone continues to be a significant problem in the summer months, and has been found to have serious health effects at lower levels than previously thought. The United States Environmental Protection Agency (USEPA) revised the National Ambient Air Quality Standards (NAAQS) for ozone in 2008 to account for this public health information and emission reduction strategies continue to be implemented to meet these standards.

In addition to ozone, sulfur dioxide (SO₂) and nitrogen dioxides (NO₂) have also been proven to have serious respiratory health problems with sensitive individuals, especially children, the elderly and people with asthma. In 2010, the USEPA revised the NAAQS for both SO₂ and NO₂ to account for this new public health concern. New Jersey continues to closely monitor these pollutants to keep them within the NAAQS.

Fine particles are also a problem that faces the state of New Jersey. Fine particles are defined as particles less than 2.5 micrometers in diameter and are referred to as PM_{2.5}. These small particles have been found to have a greater impact on public health than larger particles, which were the focus of the previous standards. Monitoring data indicate PM_{2.5} levels could be a problem in some areas of New Jersey.

Additionally, there is an increasing concern about a class of air pollutants termed "air toxics". These pollutants include substances known to cause cancer or other serious health problems. The list of potential air toxics is very large and includes many different types of compounds including heavy metals and toxic volatile organic compounds. New Jersey continues to use the results of an EPA air toxics study and other information to address this complex problem. More comprehensive monitoring of ozone, fine particles, and air toxics in New Jersey is being implemented and data from these programs are presented in this report.

Questions or comments concerning this report can be made by e-mailing us at bamweb@dep.state.nj.us, by phone at (609) 292-0138 or by writing to us at:

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