



2014 Air Quality Report - Introduction

New Jersey Department of Environmental Protection



New Jersey Department of Environmental Protection
Bureau of Air Monitoring
Trenton, New Jersey

www.njaqinow.net

INTRODUCTION

This report summarizes the New Jersey air quality monitoring data for 2014. It contains information on the Air Quality Index (AQI), and concentrations of individual pollutants including carbon monoxide, nitrogen oxides, ozone, particulate matter, and sulfur dioxide. Data on atmospheric deposition, haze, speciation of fine particulates, ozone precursors, air toxics, and meteorological data are also provided.

The state of New Jersey has been monitoring air quality since 1965. During that time pollution levels have improved significantly, the result of state, regional and national air pollution reduction efforts.

Air quality problems still exist across the state. Ozone can reach significant levels in the summer months, and has been found to have serious health effects at lower levels than previously thought. In response, the United States Environmental Protection Agency (USEPA) revised the National Ambient Air Quality Standards (NAAQS) for ozone in 2008, and emission reduction strategies continue to be implemented to meet the new standards.

In addition to ozone, sulfur dioxide (SO₂) and nitrogen dioxide (NO₂) are also known cause serious health problems, especially for sensitive individuals such as children, the elderly, and people with asthma. In 2010, USEPA revised the NAAQS for both SO₂ and NO₂ in response to new public health information. New Jersey continues to closely monitor these pollutants to keep them within the NAAQS.

Fine particles are defined as particles less than 2.5 micrometers in diameter and are referred to as PM_{2.5}. These small particles can be inhaled deep into the lungs, and are known to have a greater impact on public health than larger particles, which were the focus of previous particulate matter ambient air quality standards. Monitoring data indicate PM_{2.5} levels may be a problem in some areas of New Jersey.

Additionally, there is concern about a class of air pollutants referred to as “air toxics.” These pollutants can cause cancer or other serious health effects. 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 began measuring ambient levels of specific air toxics in 1989, and has expanded its network over the years to better understand the issues and protect the health of its residents.

2014 data from New Jersey’s extensive air monitoring network are summarized in the specific sections of this report. Questions or comments can be made by e-mailing us at bamweb@dep.nj.gov, by phone at (609) 292-0138, or by writing to us at:

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