MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Air Monitoring Network Plan for 2024: Executive Summary

The Michigan Department of Environment, Great Lakes, and Energy, Air Quality Division (AQD), has developed the Ambient Air Monitoring Network Plan for 2024 (Network Plan). The Network Plan describes current and historical changes to regulations, and the current ambient air monitoring being conducted statewide, and any proposed changes for the next calendar year. Development of the Network Plan is a requirement of the Federal Clean Air Act.

The purpose of ambient air monitoring is to measure air pollutants over a long period of time to ensure areas of the state are meeting air quality standards, to identify pollution trends, support air pollution forecasting, provide real-time air quality information, assess community exposure, and to be used in air quality models. Ambient air monitors are not used to determine if specific industrial sources are in compliance with air permits or meeting state and federal regulations. Industrial compliance is assessed through inspections, stack testing, and other types of review and investigations.

The AQD operates more than 45 stationary (semi-permanent) air monitoring locations throughout the state with specialized equipment to measure the levels of certain pollutants in the outdoor (ambient) air. Ambient air is defined as the air that the public breathes where we live, work, and play. It is not a measurement of specific pollution from industrial properties. The monitoring network measures:

National Ambient Air Quality Standards (NAAQS) for "criteria pollutants"	Non-criteria pollutants
• ozone, • carbon monoxide, • sulfur dioxide, • nitrogen dioxide, • lead, and • fine particulates (PM_{10} and $PM_{2.5}$).	• air toxics (including volatile organic compounds, semi-volatile organic compounds, carbonyl compounds, and trace metals), • black carbon, • speciated particulate matter (chemicals in the particulate matter), and • meteorological parameters such as wind speed and wind direction.

The US Environmental Protection Agency (US EPA) has requirements for the number of air monitoring devices and the type of pollutants measured based on several factors including population census data. Each year, the Network Plan is written to describe how the monitoring network is meeting the federal requirements for each of the criteria pollutants. Each criteria pollutant has a dedicated chapter in the plan. The Network Plan also describes any changes that are anticipated in the next calendar year. Changes could include adding a new air monitoring locations or removing an existing location. It could include adding or removing pollutant measurements at an existing location. The Network Plan is a technical document and is required by federal regulation to contain specific information. The US EPA reviews this plan and provides an approval if the monitoring network is meeting all the federal requirements.

Proposed changes to the network for 2024:

- A new site around Northeast Detroit in the vicinity near GM Hamtramck and US Ecology-North to measure PM_{10} and $PM_{2.5}$ and black carbon. Anticipated to be functional in fall 2023 or spring 2024.
- A new site with a continuous $PM_{2.5}$ sampler in an enclosure at a location in Marquette County.
- New continuous $PM_{2.5}$ samplers for the Oak Park, E. 7 Mile, and Little River Band of Ottawa Indians tribal site in Manistee.

The AQD does not plan to shut down any existing monitoring locations or to discontinue any existing pollution monitors. Additional monitoring could occur in 2024 if increased funding for staffing and equipment are received and depending on opportunities to receive additional grant funding. Questions about the ambient air monitoring network can be directed to: Susan Kilmer, Air Monitoring Section Manager, at KilmerS@Michigan.gov