

Air Quality Index and Sensors

In Nebraska, we are fortunate to have exceptional air quality. How do we know this? The state has a network of ambient air quality monitors that provide data used to assess our air quality. Monitoring locations are determined by a number of variables, including population, vehicle traffic, and the location of large sources of pollutant emissions. Although monitors are not present in every community, they are placed in locations where the risk for air quality impacts are the greatest.

The EPA has established the Air Quality Index, or AQI, which indicates the level of pollutants in the air. Data from the monitors is converted to AQI values and a graphic map is produced to show the real-time AQI (updated hourly) and forecast AQI. Each AQI numerical value translates to a level of health concern (ranging from Good to Hazardous) along with a corresponding color that will display on the map. For each level of health concern above Good, protective actions are recommended for the public to follow in order to protect their health. The AQI and related information are accessible at airnow.gov. The EPA also developed a system to notify citizens of air quality information called Enviroflash, which sends an email or text with the o get automatic emails or text messages about the air quality in your area and suggested safety measures and health precautions to take. For more information, visit www.enviroflash.info.

Sensors are becoming a novel way for citizens to participate in the science of air quality. These devices are low-cost monitors that can be purchased by an individual, group, or business and connected to an existing network of monitors. Although these monitors are not the technical equivalent of those in the state's air monitoring network, they have the ability to provide a basic assessment of air quality. The EPA has developed the Air Sensor Toolbox www.epa.gov/air-sensor-toolbox to assist in the selection and use of low-cost portable air sensors, along with information to understand the results obtained from the use of these devices.