



QUABBIN HEALTH DISTRICT

Suite D, 126 Main Street
Ware, Massachusetts 01082
Phone: (413) 967-9615 -- Fax: (413) 967-9646
Serving the Communities of Belchertown, Pelham, and Ware

The Quabbin Health District has obtained a grant from the Massachusetts Department of Environmental Protection for air sensors called “PurpleAir” to measure levels of fine particulate matter (PM2.5) in the District communities’ outdoor air for one year.

PM2.5 is a mixture of solid particles and liquid droplets found in the air and can be made up of hundreds of different chemicals. These particles are so small that they can be inhaled deep into the lungs and may enter the person’s bloodstream. PM2.5 is the most common primary pollutant in air quality reports because it is exceptionally small, persistent, and widespread. It originates from nearly all major pollution sources—vehicles, industrial emissions, wildfires, agricultural burning, and household activities, making it a universal marker of poor air quality. Some of the most common manmade sources of pollutant PM2.5 are:

- Motor vehicle combustion
- Power plant combustion
- Industrial processes
- Stoves, fireplaces, and home wood burning
- Smoke from fireworks
- Smoking



Short term symptoms of exposure to high levels of particulate matter include irritation of the throat and airways, coughing, and difficulty breathing.

Long term exposure symptoms can include more serious and long-term complications such as heart and lung disease, bronchitis, premature death in people with heart or lung disease, non-fatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. People with heart or lung diseases, children, and older adults are the most likely to be affected by PM2.5 pollution exposure.

The PurpleAir sensors are used to measure PM2.5 by using laser particle counters to count the number of particles by their sizes and use the count data to calculate mass concentrations of PM1.0, PM2.5, and PM10. The sensors automatically report to the PurpleAir website and to EPA’s Fire and Smoke Map at <https://fire.airnow.gov/>.

To view the data from these sensors in your Town, please visit <https://www2.purpleair.com>. Just click on the search icon at the top right-hand side and search your Town. For example: Belchertown MA. The data in real time for PM2.5 will be displayed.

PurpleAir sensors are located at the following locations for monitoring air quality and will be up and running collecting data until March 1, 2027:

- Belchertown Town Hall
- Pelham Public Safety Building (fire/police station)
- Ware Town Hall

Please reach out with any questions about the PurpleAir sensors to Andrea Crete; Director of Public Health, Quabbin Health District. Phone: 413-967-9615 or email: acrete@townofware.com