

[Air quality sensors come ‘at a very important time,’ officials say](#)

By ERIN-LEIGH HOFFMAN and MADISON SCHOFIELD, Staff Writers Published: 09-30-2024 5:59 PM

Thanks to funding from the Massachusetts Office of Environmental Justice and Equity, Franklin County organizations will receive 21 of the total 213 air quality sensors being distributed statewide to help protect public health and fill in gaps in local air quality data.

The Mohawk Trail Regional School District received six air quality sensors, the town of Montague received five and the Franklin Regional Council of Governments (FRCOG) received 10. The sensors are fairly small, about the size of a softball, and measure the air quality by determining the concentration of particulate matter (PM) in the air.

“A laser counter uses a fan to draw a sample of air past a laser beam. Any particles in the air will reflect some light from the laser beam onto a detection plate, like dust shimmering in a sunbeam,” the Massachusetts Department of Environmental Protection explains in the installation guide for the sensors. “The reflection is measured as a pulse by the detection plate, and the length of the pulse determines the size of the particle, while the number of pulses determines the particle count.”

David Conlon, a sixth grade teacher at Buckland-Shelburne Elementary School, said he applied for the grant in hopes of providing a more comprehensive understanding of air quality in the region.

“I looked in the area and saw there were a ton in Greenfield and a few near Shelburne Falls, but not really any in West County,” Conlon said, referencing where air quality sensors are currently located.

There are sensors at the Buckland Highway Garage, the Buckland Fire Station and Mohawk Trail Regional School. The six new sensors will be placed at each of the district’s four elementary schools, as well as at Rowe Elementary School and the Emma L. Miller Elementary School in Savoy.

Conlon said it is important to know what is in the air, not just for general public health, but also to keep students and teachers safe.

The sensors will provide the public with information on what’s in the air they breathe, as well as give Conlon a chance to explore environmental science and climate change topics with his students using real-life examples that are relevant to them.

Conlon said he plans to set up the sensors at some point in the next week or two. After that, data from the sensors will be available for public viewing at map.purpleair.com.

“For me, as a sixth grade teacher, I envision looking at the averages and trends over time with my class,” he said.

FRCOG, through its Cooperative Public Health Service, was also a recipient of the air quality sensors. According to FRCOG’s grant application, 10 sensors were requested for Ashfield, Bernardston, Charlemont, Colrain, Conway, Erving, Heath, Leyden, Monroe and Shelburne, further filling in gaps in the western part of Franklin County as well as the northern region.

FRCOG’s Director of Community Health Phoebe Walker explained these sensors, placed within the participating towns, will help each town understand the air quality better at any given moment. With the evolving climate crisis, Walker said these sensors “come at a very important time.”

This air quality infrastructure is useful to help FRCOG meet the goal of the 2024-2028 Community Health Improvement Plan (CHIP) to improve “local public health access to air quality information for our region and education for the public,” Walker added.

Walker points to the ability for sensitive groups to check localized air quality data. For example, when MassDEP issues air quality alerts in the wake of wildfires, as was the case during Canadian wildfires in August, the state stresses particular caution for sensitive groups, including people with heart or lung disease, older adults, children, teenagers and people who are active outdoors. People with either lung disease or heart disease are at greater risk from exposure to air pollution.

Walker noted that having more local air quality data would allow for the planning of outdoor activities involving at-risk groups, such as at child care facilities.

“This all arises out of the pretty extreme poor air quality from the forest fire seasons the last few years,” she said.

Montague Health Director Ryan Paxton said the sensors placed in Montague will be used to apply localized data to the larger Healthy Air Network of Massachusetts, where real-time air quality data can be accessed online.

“Our hope is to get on to the Healthy Air Network to compile all these air sensors into one database,” Paxton said.

Paxton, like Walker, mentioned how having extra information about local air quality can help people with health conditions better plan their outdoor activities.

None of the five sensors have been installed in Montague yet, but Paxton said the goal will be to install them in neighborhoods like Turners Falls or Millers Falls.

An [information session](#) geared toward local boards of health will be held online on Wednesday, Oct. 2, from 3 to 4 p.m. The meeting will outline instructions on how to read the sensors, how to educate the public and how to use data from the Healthy Air Network. To register, visit frcog.org/event/air-quality-workshop-for-local-public-health.

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Source: <https://www.recorder.com/Air-quality-sensors-come-at-a-very-important-time-officials-say-57243819>