FEATURED

# Less is more: Robert Moylan Jr. Water Filtration plant lauded for low electricity use

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Even before the Green Worcester Plan was implemented, the Water and Sewer Operations of the Department of Public Works was working on conservation efforts and ways to better use technology to improve the city's drinking water.

Those efforts were recently rewarded with a 2020 Public Water System award for energy conservation from the Massachusetts Environmental Protection Agency. The Robert Moylan Jr. Water Filtration plant was the recipient of the award for innovating practices, and data from the plant now shows 2020 electricity usage has been the lowest in the past six years.

"I think we jumped on this before the Green Worcester Plan," said Philip Guerin, director of Water and Sewer Operations, "I don't think it was a driver in this at all."

Guerin is aware that the department "is often thought of as a dinosaur who can't get out of its own way but nobody forced us to do this." And he would like the public to know that "we have people who are bright and thinking and looking at what's out there for better tech and try to implement it when it makes sense."

The GWP has been cited as the driving force behind any green initiatives by other city institutions. While it's true that GWP encompasses multiple sections of the city's infrastructure, the perception that it's dragging various departments kicking and screaming into the realm of green tech is not accurate.

Graph displaying electricity use by the plant over the last six years. 2020 is by far the lowest.

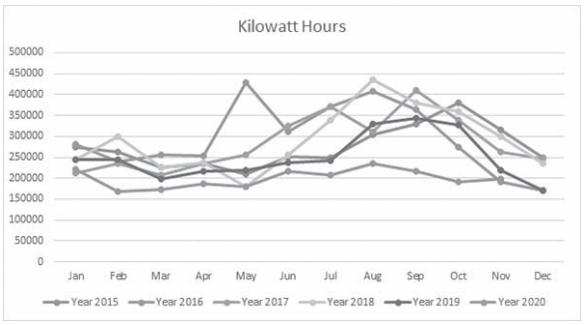
The plant uses an ozone treatment to disinfect drinking water and generated the needed ozone from oxygen drawn from the atmosphere — a process that requires heavy electricity usage. The new ozone system uses liquid oxygen instead of atmospheric air as a source of oxygen. This does not require the intensive use of compressors and dryers hence saves energy and is called the plate style ozone system.

Filtration plant staff in front of the new ozone generators holding the Mass EPA award.

PHILIP GUERIN, WORCESTER DEPARTMENT OF PUBLIC WORKS

It has even won kudos from 350 Central Mass, an environmental advocacy group, in the Worcester area. Paul Popinchalk, retired mechanical engineer and facilities manager, said he is "very impressed that the city is creating a culture of conservation" and called it an amazing system which reflects foresight, planning and application of technology.

Popinchalk believes it deserves more attention from city residents in order to further environmental goals. "Education of the public is critical because the City cannot do this alone," he explained. "We're the ones running the faucets and flushing the toilets — so the citizens have to be involved."

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While the award recognized the cumulative improvement that the city has made to the system so far, Guerin is hopeful about the scalability aspect of the system and the fact that capacity can be readily increased. Ensuring there is scope for upgrades, Water and Sewer Operations is building with an eye toward the future.

Cutting energy use while allowing further improvements to the city's drinking water quality may not be immediately visible to the larger Worcester community but is a clear achievement from an energy conservation standpoint.