



**SPRINGFIELD WATER AND SEWER COMMISSION
P.O. BOX 995, SPRINGFIELD, MA 01101**

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Contact: Katie Shea
Communications Specialist
Springfield Water and Sewer Commission
Email: katherine.shea@waterandsewer.org
Phone: 413-452-1311

FOR IMMEDIATE RELEASE

Public Notification About Drinking Water Test Results from the Springfield Water and Sewer Commission

The Springfield Water and Sewer Commission (Commission) is notifying its customers of an exceedance of the maximum contaminant level (MCL) for haloacetic acids (HAA5) in drinking water. Sample results taken on December 2, 2021, indicate that levels for HAA5 at the 8 sample locations exceeded the maximum contaminant level (MCL) established by the Massachusetts Department of Environmental Protection's (MassDEP) Safe Drinking Water Act regulations.

The MCL is 60 parts per billion (ppb) and is calculated as the average of the results from the past four quarters at an individual sample site. The Commission first experienced elevated HAA5 in September 2018, which led to the violation of the drinking water standard in successive quarters until December 2020. Quarterly sampling in 2020 and earlier in 2021 indicated a reduction in the HAA5 levels in the drinking water. HAA5 levels have since increased, due in part to significant rainfall in summer 2021, and annual reservoir turnover in fall 2021.

The exceedance was not an immediate health hazard and customers may continue consuming and using their water as normal. If this had been a public health emergency, customers would have been notified within 24 hours.

Raw Water Quality and HAA5 Formation

HAA5 forms when chlorine reacts with dissolved natural organic matter (NOM) found in surface water bodies such as the Commission's Cobble Mountain Reservoir, the main source of the drinking water supply. The amount of chlorine necessary to maintain safe disinfection is determined by the amount and types of dissolved NOM in Cobble Mountain Reservoir.

Extreme weather patterns can impact raw water quality and the amount and types of NOM in Cobble Mountain Reservoir. During summer 2020, the region experienced warm, dry weather with little precipitation, resulting in less NOM entering the reservoir from rain running over natural plant matter and soil in the forest. Water quality sample results from December 2020, March 2021, and June 2021 indicated that dissolved NOM levels in the reservoir had decreased from elevated levels and that the water treatment process had been effective in the reduction of HAA5.

The higher-than-average rainfall in July and August 2021 resulted in an increase in the amount of dissolved NOM in Cobble Mountain Reservoir. Additionally, annual reservoir turnover, during which the top layer of water shifts



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to the bottom of the reservoir, occurred in fall 2021, impacting raw water quality. The increase in NOM in the raw water and necessary chlorine dosages contributed to elevated HAA5 levels in the distribution system.

HAA5 Regulation

HAA5 is regulated because some studies suggest that consumption of water with HAA5 in excess of the MCL *over many years* (i.e. decades or a lifetime) may result in potential health risks. The MCL set for HAA5 provides a wide margin of protection against health effects.

The Commission expects exceedances of the HAA5 MCL may re-occur in 2022. This is in part because the regulatory limit for HAA5 is a running annual average, and the elevated results may impact future compliance calculations. The next sampling will take place in March 2022.

Long Term Solutions

The Commission has been actively working to reduce HAA5 in the drinking water since 2015, when it initiated a comprehensive planning process to upgrade the West Parish Filters Water Treatment Plant. While the Commission has regularly optimized existing plant processes to meet regulatory changes over the years, the plant's last comprehensive upgrade was in 1974. Regulations related to HAA5 were first adopted in 1998 and revised in 2012.

As part of the planning process, a pilot study was completed in the fall of 2020 to determine the most effective treatment process to remove more dissolved NOM. Results from the pilot study are currently being used to design treatment plant upgrades necessary to ensure consistent water quality and regulatory compliance for disinfection byproducts, including HAA5. A panel of national experts convened by the Commission is guiding these activities.

After the design is approved by MassDEP, construction is anticipated to begin in FY24 at an estimated cost of \$168 million. The project is being financed in part by a \$250 million low-interest loan from the U.S. Environmental Protection Agency's (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) Program. The unique and flexible terms of the WIFIA Program will allow the Commission to advance the plant upgrades on an accelerated schedule and address multiple pressing needs at once to reduce risk, improve water quality, strengthen climate resiliency, and ensure reliability well into the 21st century.

More information on the Water and Wastewater Infrastructure Renewal Program and the West Parish Filters Water Treatment Plant Facilities Improvements is available on the Commission's website <https://waterandsewer.org/wifia/>.

Additional Information

Customers with questions about the public notification or HAA5 should contact the Commission by calling 413-310-3501, or by emailing info@waterandsewer.org.

More information can be found on the Commission's website at: <http://waterandsewer.org/haa5-frequently-asked-questions/>

MassDEP also provides information on HAA5 at: <https://www.mass.gov/service-details/haa5-in-drinking-water-information-for-consumers>

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