



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

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FOR IMMEDIATE RELEASE

Public Notification About Drinking Water Test Results

The Springfield Water and Sewer Commission (Commission) is notifying its customers of an exceedance of the maximum contaminant level (MCL) for the disinfection byproducts (DBPs) haloacetic acids (HAA5) and total trihalomethanes (TTHM) in drinking water. Sample results taken on March 3, 2022, indicated that our system exceeded the standard or maximum contaminant level (MCL) established by drinking water regulations for haloacetic acids (HAA5) at 8 sample locations and for total trihalomethanes (TTHM) at 4 sample locations.

The MCL for HAA5 is 60 parts per billion (ppb) and for TTHM is 80 ppb calculated as the average of the results from the past four quarters at an individual sample site. The Commission has experienced elevated levels of HAA5 in the finished drinking water since Fall 2018, when it first reported an exceedance. This quarter is the first exceedance of the MCL for TTHM, which is another category of DBP regulated by the Stage 2 Disinfection Byproduct Rule.

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 DBP Formation

Disinfection byproducts (HAA5 and TTHM) form 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. The higher-than-average rainfall in summer 2021 resulted in an increase in the amount of dissolved NOM in Cobble Mountain Reservoir. Following annual reservoir turnover in fall 2021, during which the top layer of water shifts to the bottom of the reservoir, NOM levels in the reservoir remained unprecedentedly high through the winter. The increase in NOM in the raw water and necessary chlorine dosages contributed to elevated HAA5 and TTHM levels in the distribution system.

According to the Massachusetts Executive Office of Health and Human Services, "The risk of illness from DBPs is much lower than the risk of illness from drinking most surface water...that [has] not been disinfected. The major health risks from DBPs are from long-term exposures." (<https://matracking.ehs.state.ma.us/index.html>)



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DBP Regulation

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

While the Commission moves forward with implementing permanent solutions, it is expected that exceedances of the MCL for DBPs will reoccur over the next several years. This is in part because the regulatory limit for DBPs is a running annual average, and past elevated results may impact future compliance calculations. The next sampling will take place in June 2022.

Solutions

To address regulatory compliance for disinfection byproducts and replace end-of-life infrastructure the Commission is advancing a major \$238 million upgrade to the West Parish Filters Water Treatment Plant. The new drinking water treatment plant will incorporate a new step – Dissolved Air Flotation (DAF) – to the treatment process, which will remove more NOM from the raw water prior to filtration and limit the formation of DBPs in the distribution system. Design of the treatment plant upgrades, including a DAF facility, are currently underway and on schedule, with construction expected to be complete by 2027.

New West Parish Filters Water Treatment Plant

- West Parish Filters Water Treatment Plant was constructed in 1909 and last modernized in 1974.
- Regulations related to DBPs were first adopted in 1998 and revised in 2012.
- The West Parish Filters Facility Improvements Plan, initiated in 2015, was completed in 2021 and determined a multi-phase approach to replace aging infrastructure and address regulatory compliance for disinfection byproducts.

Underway: Planning, Design, and Phase 1 Construction

- Design of the new treatment plant and DAF facility is currently underway and on schedule.
- Phase 1 construction of some initial treatment plant improvements, including the new [Clearwell and Backwash Pump Station](#), got underway in 2021. The Clearwell and Backwash Pump Station project is expected to be complete by 2023.

Upcoming: Design Approval and Construction

- Final designs of the new treatment plant must be approved by MassDEP before construction can begin.
- Construction of the new treatment plant and DAF facility is anticipated to start in 2024 at an estimated cost of \$238 million.

Strategic Financing and Accelerated Project Schedule

- In 2021 the Commission secured a highly competitive \$250 million low-interest loan from the U.S. Environmental Protection Agency's (EPA) Water Infrastructure Finance and Innovation Act (WIFIA) Program to help finance the treatment plant upgrades and other critical capital projects.
- The [WIFIA](#) Program's unique and flexible terms will allow most of the West Parish Filters Water Treatment Plant construction to occur simultaneously over the next six years, accelerating critical upgrades, and saving ratepayers approximately \$60 million in borrowing costs.

Design and construction of a new treatment plant that will meet system needs to improve water quality, maintain regulatory compliance, and ensure reliability for the next several decades is a lengthy and complex process. Until



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the new treatment plant comes online the Commission expects there will continue to be exceedances of the MCL for DBPs, especially as the region experiences more extreme weather patterns. Customers will receive notification anytime there is an exceedance.

More information on the West Parish Filters Water Treatment Plant Facilities Improvements and other project updates are available on the Commission's website <https://waterandsewer.org/projects/drinking-water-projects-2/west-parish-filters-facilities-plan/>.

Additional Information

Customers with questions about the public notification or DBPs 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:
<https://waterandsewer.org/dbps-faqs/>

MassDEP also provides information on DBPs:

- HAA5 information - <https://www.mass.gov/service-details/haa5-in-drinking-water-information-for-consumers>
- TTHM information - <https://www.mass.gov/service-details/tthm-in-drinking-water-information-for-consumers>

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