



HOUSATONIC WATER WORKS COMPANY

SINCE 1897

PRESS RELEASE

June 15, 2023

Disinfection Byproducts Continue to Decrease

Housatonic Water Works Company, Inc. (HWWC) has announced in a letter to customers today the 2nd quarter 2023 monitoring results for disinfection byproducts (DBPs) in the treated drinking water supply.

The Massachusetts Department of Environmental Protection (MassDEP) has established a Maximum Contaminant Level (MCL) of 60 µg/L (or parts per billion, ppb) for the DBP class of haloacetic acids (HAA5). Compliance with the MCL is based on the calculated Locational Running Annual Average (LRAA) of monitoring results from four consecutive quarters.

- The May 2023 (2nd quarter) result for HAA5 for the new North Plain Road monitoring location was 43 ppb, and is shown in Figure 1. That is lower than the 54 ppb result observed in 2nd quarter 2022.
- Monitoring at the N. Plain Road location was started during February 2022 at MassDEP's request, and LRAA compliance calculations began with the November 2022 sample. The LRAA at that site is now 62 ppb, just above the MCL of 60 ppb (Figure 1).
- The other quarterly DBP monitoring location is at Depot Street (Figure 2), and that site has been in compliance with the HAA5 MCL for the past four quarters (3rd quarter 2022 through 2nd quarter 2023). The current LRAA is 50 ppb. After years of compliance, the Depot Street location exceeded the MCL for the first time in August 2021 due to an unprecedented HAA5 result (Figure 2) following record rainfall that was experienced in July 2021. The August 2021 HAA5 result was exceptionally rare.
- Historically, the HAA5 levels had been fairly steady and well below the MCL at the Depot St. location. But during the past four years results have varied more over time and are higher on average (Figure 2).
- HWWC's water has always met the water quality requirement for total trihalomethanes (TTHM), the other class of chlorinated disinfection byproducts, as shown by the red line in Figure 3 for the Depot Street location.

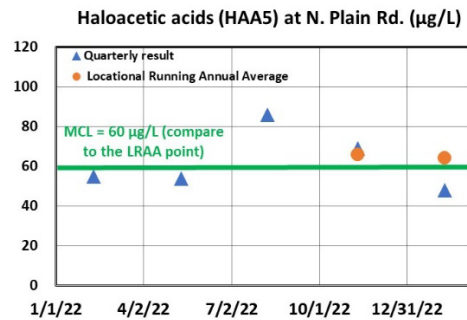


Figure 1.

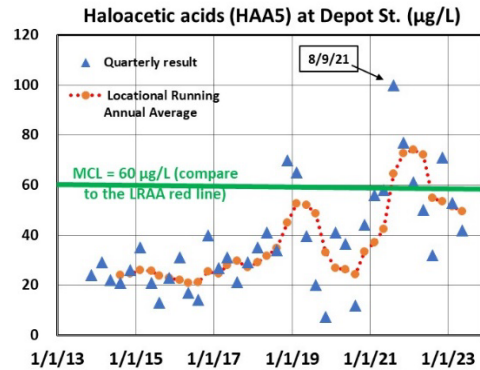


Figure 2.

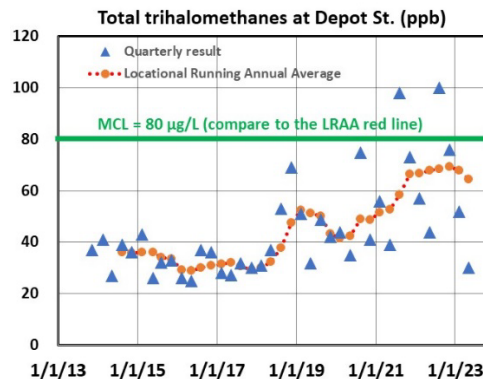


Figure 3.

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Haloacetic acids are chemical compounds that form when the chlorine disinfectant reacts with natural organic matter in the water. Per the MassDEP, people who drink water containing HAA5 in excess of the MCL over many years may have an increased risk of getting cancer.

More DBP reductions coming this summer

HWWC will be implementing a new two-stage chlorination system this summer that will substantially reduce the amount of chlorinated disinfection byproducts that are formed. The current single chlorine dose fed at the entrance to the chlorine contact basin will be reduced, and a second chlorine feed will be established to boost the chlorine residual just before entry to the distribution system. This will allow HWWC to still provide ample disinfection, while reducing the amount of chlorine present in the contact basin and subsequent 1.1-MG storage tank. The storage tank has a particularly long contact time for reaction of chlorine with the natural organic matter that is present in the source water, resulting in the formation of chlorinated DBPs. This plan takes advantage of relatively inexpensive operational flexibility without exposing customers to the costs of an expensive capital project.

Details of this proposed solution are available in HWWC's February 1, 2023 evaluation of the cause of DBP formation and potential means of control. MassDEP already gave approval to this plan and is currently reviewing the engineering details. Once that is approved, HWWC will install the necessary equipment for the second chlorine feed and implement the change.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

This report contains important information about your drinking water.

Please translate it or speak with someone who understands it or ask the contact listed below for a translation.

Elevated Disinfection Byproducts at the Housatonic Water Works Company

Our water system exceeded a drinking water standard, or maximum contaminant level (MCL), for haloacetic acids (HAA5) during the 2nd quarter of 2023. HAA5 are a disinfection byproduct (DBP) formed during the treatment process. Compliance with the standard is based on comparing the MCL with the average of the concentrations in all samples collected at each sampling location for the past 12 months (the Locational Running Annual Average, LRAA). The standard for HAA5 is 60 micrograms per liter ($\mu\text{g/L}$, or parts per billion, ppb)]¹.

Testing results came from routine monitoring of drinking water contaminants from August 8, 2022 to May 10, 2023. The level of HAA5 at our system's 314 North Plain Road location averaged 62 $\mu\text{g/L}$, above the standard limit of 60 $\mu\text{g/L}$.

What does this mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours.

Chlorine or ozone are added to drinking water sources to disinfect drinking water. They can interact with natural material in the water to form DBPs.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

In addition, young children (including infants), pregnant women, or those who may become pregnant may be potentially more susceptible to risks from exposures to chemicals, such as HAA5.

What is Being Done?

In response to the higher levels of HAA5 experienced in recent years and these MCL exceedances, HWWC submitted to MassDEP an evaluation of alternative methods for reducing these compounds in the future. On March 1, 2023 MassDEP approved HWWC's proposed concept for revising the chlorine disinfection procedure by reducing the amount of chlorine currently applied in the treatment plant and installing a second chlorine feed to boost the chlorine residual just before the entry to the distribution system. This will allow HWWC to still provide ample disinfection for controlling pathogenic microorganisms, while reducing the amount of chlorine present in HWWC's 1.1 million-gallon (MG) water storage tank, which has a long contact time for reaction of chlorine with the natural organic matter that is present in the source water. This plan takes advantage of relatively inexpensive operational flexibility without exposing customers to the costs of an expensive capital project. We anticipate implementing this solution and resolving the problem within the next four months.

¹ $\mu\text{g/L} = \text{mg/L} / 1000$

For more information, contact your water system operator at 413-528-1780.

What should I do?

You can choose to limit the amount of tap water used if you are pregnant, may become pregnant or are giving water to young children. For example, you can use water from another source, such as bottled water.

While breast milk can be a source of HAA5 exposure for infants, the Centers for Disease Control and Prevention recommends that nursing mothers continue to breastfeed their babies because of the numerous protective health benefits, despite the potential presence of environmental contaminants.

You can also use home water filters to reduce exposures. (See MassDEP's HAA5 in Drinking Water Information for Consumer Fact Sheet - <https://www.mass.gov/media/2532591/download>).

If you have questions about your water system's operation, water quality monitoring, or response to this issue, please contact the system's operator directly. If you have questions about the drinking water regulations or health risks posed by these contaminants², you can contact the MassDEP Drinking Water Program at: program.director-dwp@mass.gov. If you have questions about specific symptoms, you can contact your doctor or other health care provider. If you have general questions about your health, you can contact the Massachusetts Department of Public Health at 617-624-5757. Further information is available in MassDEP's HAA5 in Drinking Water Information for Consumers Fact Sheet (<https://www.mass.gov/media/2532591/download>).

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by:

Housatonic Water Works Company. PWS ID#: 1113003 Date distributed: June 15, 2023

For more information, please contact the Housatonic Water Works Company at 413-528-1780, housatonicwater@gmail.com, or write to us at 80 Maple Ave, Suite 1, Great Barrington, MA 01230.

² <https://www.mass.gov/doc/supporting-documentation-for-drinking-water-standards-and-guidelines/download>