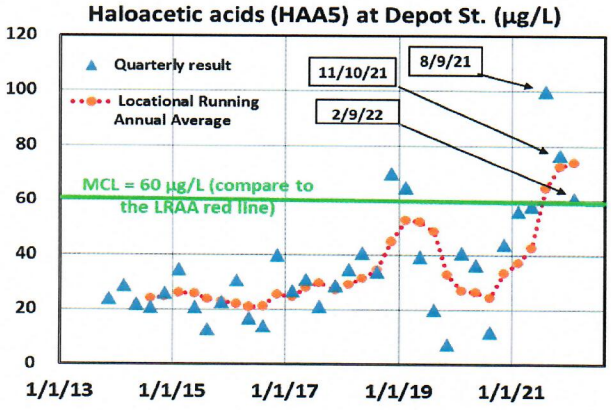
HOUSATONIC WATER WORKS COMPANY

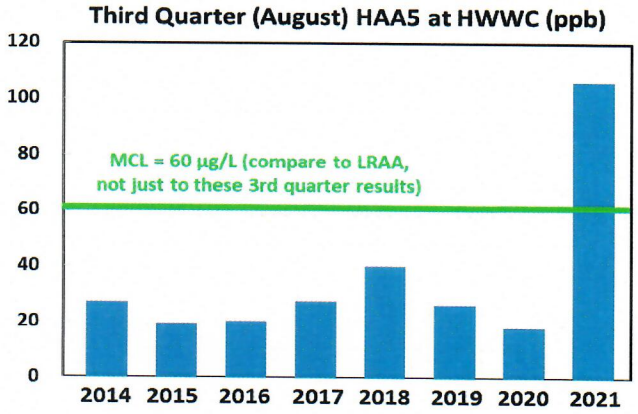
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PRESS RELEASE

MARCH 30, 2022

Housatonic Water Works Company, Inc. (HWWCO) has announced in a letter to customers today the 1st quarter 2022 monitoring results for disinfection byproducts in the treated drinking water supply. For the third quarter in a row, the Maximum Contaminant Level (MCL) of 60 µg/L (or parts per billion, ppb) was exceeded for the DBP class of haloacetic acids (HAA5). This was expected, given the atypically high results from 3rd and 4th quarters 2021, and that MCL compliance is based on a Locational Running Annual Average (LRAA), so the August and November results are included as part of this quarter's compliance. February's result for HAA5 was 61 µg/L, bringing the LRAA to 74 µg/L, as shown in the below plot. HWWCO's DBP compliance samples are collected in February, May, August, and November.





HAA5 are disinfection byproducts (DBPs) that form when the chlorine disinfectant reacts with natural organic matter in the water. Per the Massachusetts Department of Environmental Protection (MassDEP), people who drink water containing HAA5 in excess of the MCL over many years may have an increased risk of getting cancer.

HWWCO recently submitted to the Massachusetts Department of Environmental Protection (MassDEP) an evaluation of the cause of the relatively high HAA5 compounds found recently since August 2021. Those monitoring results were atypically high (see above plots), and were likely caused by historically heavy rainfall in July 2021.

As shown in the table below, HAA5 levels vary seasonally, with HWWCO's higher levels generally being in February (1st quarter) and lower levels in August (3rd quarter). That's part of why last August's high results were so unexpected.

Historical average HAA5 (2013 – 2021) vs. recent results (since August 2021) in µg/L (ppb)

Month	Historical average	Recent result	Recent difference from average	Recent sample date
August	22	103	+ 81	8/9/21
November	33	77	+ 44	11/10/21
February	40	61	+ 21	2/9/22
May	33	NA	NA	NA

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The good news is that not only have the HAA5 sample results been decreasing since last August's atypically high value, but the difference compared to the historical average for their seasons has been decreasing, cutting in about half from August to November and then again in half from November to February. That suggests the water is returning to its more normal state in terms of the potential for formation of HAAs, though it is still somewhat elevated. In the past, the recent February HAA5 result of 61 µg/L generally would not have put the LRAA over the MCL, given February was usually the highest result of the four quarters.

In response to the HAA5 results, HWWCO has lowered the chlorine residual level while maintaining more than enough to exceed all disinfection requirements, and will be conducting increased monitoring for total organic carbon (TOC) in both the source water and treated water.

HWWCO's current slow sand filtration plant already does a very good job at removing natural organic matter, with TOC removals recently measured at 34% to 55%. That is impressive for slow sand filters, which typically are expected to remove only ~15 to 20% of the TOC. Perhaps this success is partly due to the well-established age of the microbial population and HWWCO XTJ2935's custom designed hydraulic rake filter cleaning system. Periodically cleaning the sand surface with water instead of physically removing the top layer of sand has allowed the sand to not be replaced in many years, providing better treatment while also saving you money.

A copy of the DBP evaluation report can be found on the HWWCO website (https://housatonicwater.com). The report was completed by HWWC's water quality consultant, Dr. Richard Gullick of Water Compliance Solutions, LLC. Dr. Gullick has a very successful record of DBP evaluations, and his research work on the formation and fate of disinfection byproducts is cited by USEPA in their guidance manual for conducting the DBP evaluations.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Haloacetic Acid 5 (HAA_5) MCL Violation at Housatonic Water Works Company

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we have done to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from the 1st Quarter of 2022 show that our system exceeded the standard, or maximum contaminant level (MCL), for HAA_5. The standard for HAA_5 is 60 parts per billion (ppb). Compliance is determined by averaging all samples collected at each sampling location for the past 12 months (the Locational Running Annual Average). The level of HAA_5 averaged at our system's monitoring location for May 2021 through February 2022 was 74 ppb, with individual quarterly results ranging from 58 to 103 ppb. We also exceeded the MCL for HAA5 in August and November 2021, as we reported to you previously.

What should I do?

- **There is nothing you need to do. You DO NOT need to boil your water or take other corrective actions.** If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.
- However, if you have a severely compromised immune system, have an infant, are pregnant, or are elderly, you may be at increased risk and should seek advice from your health care providers about drinking this water.
- You may reduce your exposure by using bottled water for preparing formula, beverages, or food that retains water (e.g., hot cereals, rice, or pasta).

What does this mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours. HAA_5 are five haloacetic acid compounds which form when disinfectants react with natural organic matter in the water. *People who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.* [Please see the link https://www.mass.gov/service-details/haa5-in-drinking-water-information-for-consumers for a fact sheet on HAA_5.]

What is being done?

Historically, HWWC never had any HAA5 compliance issues prior to last summer. The HAA5 results from August 2021 were well above the average for that month (103 ppb vs. 22 ppb average), possibly a result of the historical record rains during July 2021 affecting the source water in Long Pond. Since then, the HAA5 levels have been lower, and the February 2022 result was 61 ppb.

The amount of disinfectant used impacts the formation of HAA_5, and there is a balance required between using chlorine to control pathogenic microorganisms and the undesirable byproducts of the chlorination process. In response to the HAA_5 levels observed, we have since reduced the chlorine dosing while maintaining more than enough chlorine residual to meet and exceed all disinfection requirements.

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.

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. This notice is being sent to you by the Housatonic Water Works Company. PWS ID #1113003.

Date distributed: 03/30/2022

HOUSATONIC WATER WORKS COMPANY

SINCE 1897

BY EMAIL

Ms. Deirdre Doherty
Massachusetts Department of Environmental Protection
Western Regional Office
436 Dwight Street
Springfield, MA 01103

March 30, 2022

Re: Response to Notice of NonCompliance for DBPs
PWS #1113003

Dear Ms. Doherty:

This letter is in response to your letter dated March 3, 2022 containing a Notice of NonCompliance (NON) for haloacetic acid (HAA5) Maximum Contaminant Level (MCL) exceedance violations during the third and fourth quarter of 2021, and also alleged reporting and public notice violations during those quarters. Please consider this letter to serve as the required written violation response/compliance schedule approval form that is due April 4th, and to include the 1st quarter of 2022 for which the MCL for HAA5 was also exceeded.

The Housatonic Water Works Company acknowledges the MCL for HAA5 was exceeded in the 3rd and 4th quarters of 2021 and the 1st quarter of 2022. HWWC did implement an immediate response to the high HAAs by reducing the chlorine residual, while maintaining sufficient levels for primary and secondary disinfection.

The Notice of Non-Compliance references three reporting violations for both the 3rd and 4th quarters of 2021. HWWC acknowledges the three reporting violations for third quarter 2021, as they were completed at the same time as the 4th quarter notifications. However, all reporting requirements were met for the 4th quarter of 2021, and we deny any reporting violations occurred during that quarter. Please update MassDEP's record to reflect this correction.

HWWC received the 4th quarter monitoring results on December 16, 2021, and notified MassDEP on December 21st of both the results and the MCL exceedance. Per the regulations, those need to be reported to MassDEP within 10 days after the end of the quarter, which would be January 10th. The public notice was distributed on January 10, 2022, within the required 30 days after HWWC learned of the violation which was on December 16th. The public notice certification was also provided to MassDEP on January 10, 2022.

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There also were no reporting violations for 1st quarter 2022. The analytical results were received on March 2nd, and MassDEP was notified on March 4th. The required public notice was distributed on March 30, 2022, and the public notice certification will be submitted to MassDEP and the local Board of Health. This demonstrates HWWC's fundamental determination to meet MassDEP's notification requirements, and the remainder of this letter will address the MCL violations.

HWWC is not a repeat violator of the MCL, and in fact has never had an exceedance of either the HAA or total trihalomethanes (TTHM) MCLs during the full time of the Stage 2 Disinfectants/Disinfection Byproduct Rule. As shown in the plots below, the recent monitoring results were atypically high, and were likely caused by the historically heavy rainfall that fell in July 2021. We understand several other surface water supplies in western Massachusetts also experienced elevated DBPs last August and fall, and those water systems also attributed that to the unique weather circumstances.

The recent data give good news in that not only have the HAA levels been decreasing since last August's atypically high value, but the difference compared to the historical average for their seasons has been decreasing, cutting in about half from August to November and then again in half from November to February (see table below). That suggests the water is returning to its more normal state in terms of the potential for formation of DBPs, though it is still somewhat elevated. In the past, the recent February result of 61 µg/L generally would not have put the LRAA over the MCL, given February was usually the highest result of the four quarters.

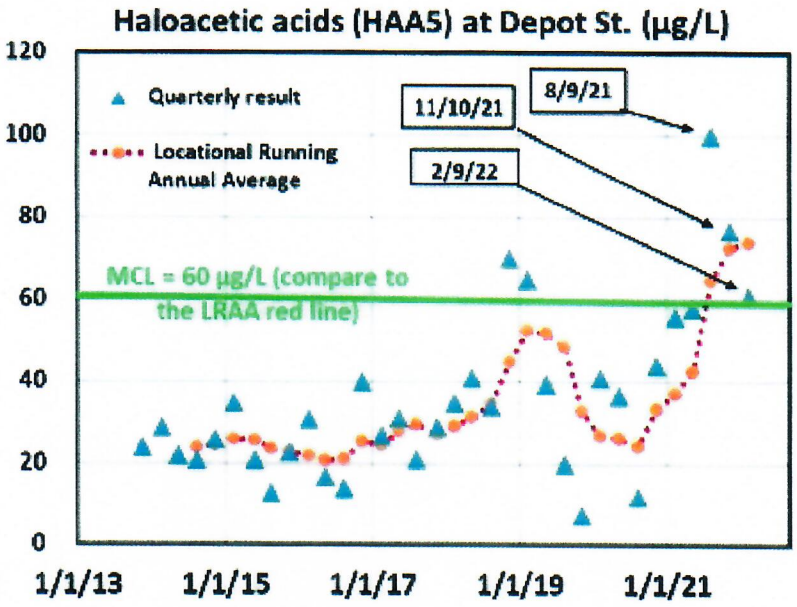
HWWC's current slow sand filtration plant already does a very good job at removing natural organic matter, with TOC removals recently measured from 34% (February) up to 55% (September) with treated water TOC levels just under 2.0 mg/L. That is impressive for slow sand filters, which typically are expected to remove only ~15 to 20% of the TOC. Perhaps this success is partly due to the well-established age of the microbial population and HWWC's custom hydraulic rake filter cleaning system. Periodically cleaning the sand surface with water instead of physically removing the top layer of sand has allowed the sand to not be replaced for many years.

Given the unique circumstance of this HAA violation, the unlikelihood of it continuing on a regular basis, and the existence of an effective TOC removal system already in place at HWWC, we expect compliance with the HAA5 MCL to be achieved naturally over time as the source water returns to its more usual condition. Nonetheless, we intend on investigating additional methods to further reduce levels during our pilot study this summer.

Because of the impact of including results from previous quarters in the compliance determination, we don't expect compliance will be met until after the August and November 2021 results are replaced in the calculation by the August and November 2022 results. Thus compliance is expected to be met by 1st quarter 2023 or soon thereafter. Given HAAs do not have acute health effects at these levels, and chronic exposure over decades is expected to be required before there would possibly be any impact, there is no health concern expected from such a short-term excursion of the MCL.

We believe that this approach makes sense, is cost effective, and should be sufficient for achieving compliance. We respectfully request that this letter and the included logical rationale suffice in place of the report required to be completed by May 20 by a Massachusetts Registered Professional Engineer.

Regardless, HWWC plans to consider additional TOC removal as part of its investigation into new treatment for manganese removal. That project and the corresponding pilot plant study are being led by the Cornwell Engineering Group from Newport News, VA, who are recognized experts in DBP control.



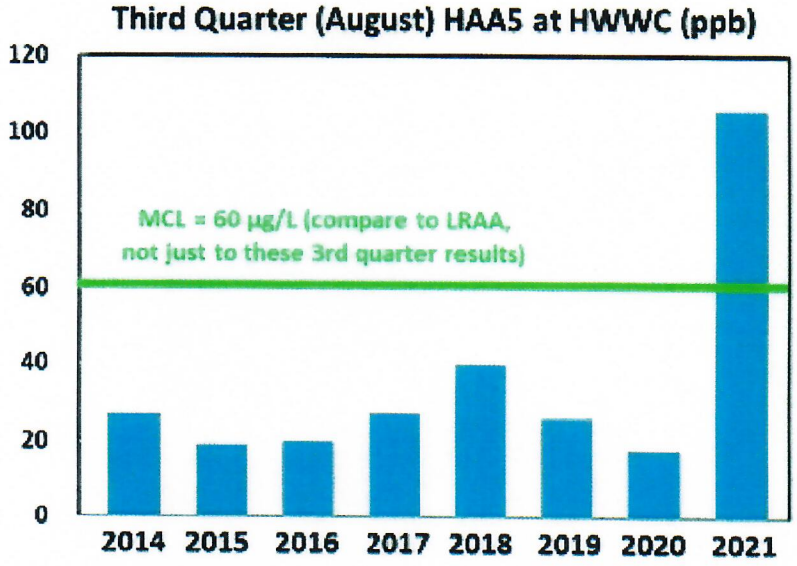


Table 1. Historical average HAA5 (2013 – 2021) vs. recent results (since August 2021) in µg/L

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August	22	103	+ 81	8/9/21
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February	40	61	+ 21	2/9/22
May	33	NA	NA	NA

We thank you for your consideration of the unique circumstances of this particular HAA5 MCL exceedance, and of our plan for returning to compliance.

Sincerely,

James J. Mercer

cc: via e-mail
Douglas Paine, MassDEP
Hem Pokharel, MassDEP
Rebecca Jurczyk, Town of Great Barrington
Richard Gullick, Water Compliance Solutions, LLC