

Information Request:

Refer to Schedule 4, Explanatory Statement at 3 n.2. Please provide complete and detailed documentation supporting the statement that haloacetic acids levels have complied with federal and state requirements from October 2023 to present.

Response:

The Maximum Contaminant Level (MCL) allowed for haloacetic acids (HAA5) by both the US Environmental Protection Agency (USEPA) and Massachusetts Department of Environmental Protection (MassDEP) is 60 micrograms per liter, µg/L (or parts per billion, ppb). Compliance with the MCL is determined separately for each designated monitoring location based on the Locational Running Annual Average (LRAA) that is determined at the end of each quarter. The 1st quarter is January through March, 2nd quarter is April – June, 3rd quarter is July – September, and 4th quarter is October – December.

The LRAA for a particular quarter is determined by averaging the results for the four most recent quarters. The result for each quarter is determined by averaging the results from each of the three months (if multiple samples are collected); in HWWC's case one sample is collected each quarter, assigned by MassDEP to be in February, May, August, and November. Per the definition of HAA5 (the sum of the five HAA chemicals that are regulated) all results and calculations must be rounded to two significant digits.

HWWC has two monitoring locations for HAA5 in the distribution system. The sample site at 10 Depot St. has been used for many years. Monitoring at a second location – 314 North Plain Road – was required by MassDEP to be started in February 2022 (1st quarter), with the LRAA first calculated for compliance after 4th quarter 2022. The MCL for HAA5 must be met at both monitoring locations for compliance to be achieved during any particular quarter.

The table below presents the laboratory results for HAA5 at both monitoring locations starting in 1st quarter 2022, along with the calculated LRAAs for each quarter:

10 Depot St. (MassDEP Location #10003):									
Quarter:	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1
Sample date:	02/09/22	05/11/22	08/08/22	11/10/22	02/08/23	05/10/23	08/07/23	11/07/23	02/13/24
HAA ₅ result (ppb)	61	50	32	71	53	42	35	59	79
HAA ₅ LRAA (ppb)	74	72	55	54	52	50	50	47	54
314 N. Plain Rd. (DEP Location #10004)									
Quarter:	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2024 Q1
Sample date:	02/09/22	05/11/22	08/08/22	11/10/22	02/08/23	05/10/23	08/07/23	11/07/23	02/13/24
HAA ₅ result (ppb)	55	54	86	69	48	43	63	53	73
HAA ₅ LRAA (ppb)	NA	NA	NA	66	64	62	56	52	58
Note: highlight = exceeded MCL									

The haloacetic acid levels at both locations have complied with federal and state requirements since 3rd quarter 2023, with the highest LRAA being 58 ppb. The MCL was last exceeded at the 314 North Plain Road location in 2nd quarter 2023 with an LRAA of 62 ppb (sample on 5/10/23). The MCL was last exceeded at the 10 Depot St. location in 2nd quarter 2022 with an LRAA of 72 ppb (sample on 5/11/22). As of preparation of this response on 5/16/24 the HAA5 results for 2nd quarter 2024 are not yet available.

The original analytical reports from the certified laboratory are attached:

- Attachment DPU-SP-2-2(a): Test date 2/9/2022
- Attachment DPU-SP-2-2(b): Test date 5/11/2022
- Attachment DPU-SP-2-2(c): Test date 8/8/2022
- Attachment DPU-SP-2-2(d): Test date 11/10/2022
- Attachment DPU-SP-2-2(e): Test date 2/8/2023
- Attachment DPU-SP-2-2(f): Test date 5/10/2023
- Attachment DPU-SP-2-2(g): Test date 8/7/2023
- Attachment DPU-SP-2-2(h): Test date 11/7/2023
- Attachment DPU-SP-2-2(i): Test date 2/13/2024