

Dear Water Customer:

The notice on the opposite side of this page was developed using a template provided by the Virginia Department of Health (VDH). That template was utilized to ensure that the Town met notice requirements. This page was developed by the Town of Berryville to provide our customers with additional information about the details of this possible exceedance of primary maximum contaminant levels for haloacetic acids and the actions being taken to return to compliance.

Plans to Lower Disinfection By-products

The Town has been evaluating the water treatment process and distribution system with our consulting engineer and VDH since early 2023.

As directed by consulting engineers, half of the identified flushing sites within our water distribution system are flushed each month on a rotating basis, so all sites are flushed in a 60-day period. Autoflushers were installed strategically and operate during frost-free months.

Berryville's three water storage tanks and their mixers were cleaned and inspected during the first quarter of 2024. Each was deemed to be in good condition. All treatment protocols were reviewed, including chlorine feed and residual rates, potassium permanganate, alum, and carbon. None of these products or practices were determined to be contributing factors to the exceedance.

In December 2023, jar testing suggested that a change from alum to DelPAC 2020 may reduce organics and coagulate more effectively at a wider variety of pH in the raw water. Full-scale testing was conducted in January 2024, the results underwent review by VDH and our consulting engineers, and we have changed to DelPAC 2020 under their supervision.

A chemist has been retained to develop an optimized treatment protocol and train operators in monitoring raw water conditions. Jar testing and process analysis is ongoing. This optimization is expected to generate site, process, and product specific recommendations. This undertaking is the current primary focus of our efforts to identify and remedy any contributing factor(s).

The Town feels strongly that construction of a new water treatment plant is the most effective long-term solution to address regulatory compliance for disinfection byproducts. This does not mean that there will be any lessening of current efforts to reduce the levels of DBPs. Design of the new treatment plant is currently underway and construction is anticipated to begin in 2025.

The Town of Berryville recognizes that it is unacceptable to provide anything less than fully-compliant water to the community we serve. We are committed, corporately and individually, to determining the cause of our exceedance, returning to compliance, and continuing to evaluate and improve our water. Currently, all best practices continue as directed by VDH and consulting engineers. VDH has made it clear that disinfection byproduct exceedances are not normally managed quickly.

Sincerely,

Ernest Bussert, Chief Plant Operator



COMMONWEALTH of VIRGINIA

Karen Shelton, MD, FACOG
State Health Commissioner

Department of Health
OFFICE OF DRINKING WATER
Culpeper Field Office

400 S. Main Street, 2nd Floor
Culpeper, VA 22701
Phone: 540-829-7340

June 21, 2024

NOTICE OF ALLEGED VIOLATION

SUBJECT: Clarke County
Waterworks: Berryville, Town of
PWSID No: 2043125

Town of Berryville
Attn.: Mr. Keith Dalton
101 Chalmers Court, Suite A
Berryville, VA 22611

Re: Primary Maximum Contaminant Level for Haloacetic Acids in Community Waterworks

Dear Mr. Dalton:

We have received the results of total trihalomethane (TTHM) and haloacetic acid (HAA5) analyses that were performed on water samples collected from the subject waterworks on May 14, 2024. Below, you will find a summary of the results of TTHM and HAA5 sampling for the previous four quarters.

Results for TTHM (mg/L)						
Sample Location	3 rd quarter 2023	4 th quarter 2023	1 st quarter 2024	2 nd Quarter 2023	Locational Running Annual Avg	Operational Evaluation Level
320 Dunlop	0.112	0.044	0.029	0.058	0.061	0.051
409 McNeil	0.124	0.056	0.036	0.060	0.069	0.053

Results for HAA5 (mg/L)						
Sample Location	3 rd quarter 2023	4 th quarter 2023	1 st quarter 2024	2 nd Quarter 2023	Locational Running Annual Avg	Operational Evaluation Level
320 Dunlop	0.093	0.058	0.054	0.063	0.067	0.060
409 McNeil	0.088	0.068	0.056	0.064	0.069	0.063

Bolding indicates results that are higher than the Primary Maximum Contaminant Level (MCL) for TTHM or HAA5. The TTHM maximum contaminant level is 0.080 mg/L and the HAA5 maximum contaminant

level is 0.060 mg/L. Compliance with the TTHM and HAA5 maximum contaminant levels is based on the four-quarter locational running annual average (LRAA).

The operational evaluation level (OEL) is calculated based on the past three quarters of results and assigns greater weight to the most recent quarter's results as an early warning when TTHM and HAA5 levels are at risk of causing an LRAA exceedance.

This notice is to advise that you may be in violation of §12 VAC 5-590-410 of the *Waterworks Regulations* for exceeding the Primary Maximum Contaminant Level (PMCL) for haloacetic acids (HAA5) during the second quarter 2024 compliance period.

According to our records, the locational running annual average level of HAA5 during the compliance period was 0.067 mg/L at the Dunlop Boulevard location and 0.069 mg/L at the McNeil Street location. The *Waterworks Regulations* characterize this as a Tier 2 violation.

Required Actions

Public Notice: Section 12 VAC 5-590-540 of the *Waterworks Regulations* requires you to give public notice whenever a PMCL is exceeded. The public notice must be handled as follows:

- You must distribute a notice to consumers within 30 days from the date of this letter, no later than **July 20, 2024**.
- Your notice to consumers must be posted in conspicuous locations throughout the area served by your waterworks or mailed or directly delivered to the persons served by your waterworks.
- If your waterworks serves consumers who would not be reached by your posted, mailed, or hand-delivered notice, you must also use other distribution methods to provide notice to these consumers as well. For example, such persons may include those who may not see a posted notice because it is not in a location they routinely pass by. Examples of other methods include (but are not limited to) publication of a notice through a company newsletter, or by E-mail to staff or students.
- Posted notices must be posted for a minimum of seven days even if the violation has been resolved and must remain in place as long as the violation persists.
- You must repeat distribution of the notice every three months, for as long as the violation persists.

Draft Notice: Attached is a draft notice for you to distribute to consumers. You may use this notice as is, or modify it to better meet your situation, as long as the information is accurate, and the notice contains all of the required elements and mandated language. If you decide to change the notice, we ask that you contact this Office to verify that your proposed changes meet the requirements of the *Waterworks Regulations*.

Public Notice Confirmation: Within ten (10) days of completing public notification, but no later than **July 30, 2024**, you must provide this Office with a copy of the notice you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute public notice and report to the Virginia Department of Health may be a violation of the *Waterworks Regulations*. A certification form is enclosed for your use.

Operational Evaluation Report: The Operational Evaluation Level has also been exceeded for HAA5 at the McNeil Street location. When the OEL is exceeded, the Stage 2 D/DBP Rule requires that you conduct an operational evaluation and submit a written report to this office for approval. Because this exceedance is part of an ongoing issue that you are actively working to address, we will not require a complete OEL Report specific to the 2nd quarter 2024 exceedance. Instead, please submit a **written summary of actions** of your team's investigation of potential operational changes within 30 days from the date of this letter, **no later than July 20, 2024**.

Continue to monitor for TTHM and HAA5 on a quarterly basis according to your D/DBP monitoring plan.

If you have any questions or would like to meet to discuss this requirement, please do not hesitate to contact me at 804-510-3962 or paige.johns@vdh.virginia.gov

Sincerely,

DocuSigned by:

Paige Johns

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Paige C. Johns, PE
District Engineer

Enclosures:

1. Public Notification Template
2. Certification of Public Notification

cc: Town of Berryville, attn.: Mr. Ernest Bussert, dirutilities@berryvilleva.gov
Clarke County Health Department
VDH, ODW-Central Office