

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 (a by-product of the interaction of chlorine and organics) and the actions being taken to ensure compliance in the future. Please find below additional information on frequency of testing, plans to lower disinfection by-products, how the Town will update its customers on this matter, and where you can find additional information about the Town's drinking water.

Frequency of Testing

The Town of Berryville is required to test for certain chlorination by-products each quarter. VDH regulations are based on the average of tests because individual quarters (particularly during warm months) sometimes exceed maximum contaminant levels (MCL's*). Essentially, water providers must strike a balance between ensuring disinfection, maintaining necessary chlorine residual levels, and not exceeding chlorination by-product limits over time.

* Maximum Contaminant Levels (MCL's) are set at very stringent levels by the U.S. Environmental Protection Agency. In developing the standards, EPA assumes that the average adult drinks 2 liters of water each day throughout a 70-year life span. EPA generally sets MCL's at levels that will result in no adverse health effects for some contaminants or a one-in-ten-thousand to one-in-a-million chance of having the described health effect for other contaminants.

After consultation with the VDH and its consulting engineer, the Town developed a water quality surveillance program that provides for additional testing at various points in the treatment process and various locations in the water distribution system. The Town is making changes in its practices and procedures as suggested by VDH and its consulting engineer. These changes are being made incrementally to permit proper examination of post-adjustment test results.

Plans to Lower Disinfection By-products (particularly HAA5 and TTHM)

After consulting with VDH and its consulting engineer, the Town has:

- made adjustments to the feed rates of chlorine, alum, potassium permanganate, and granulated activated carbon, and
- made adjustments to its distribution system flushing program.

The Town is also working with its storage tank maintenance contractor to determine if there are measures available that can be employed within water storage facilities to either limit the production of chlorination by-products or eliminate the by-products before water is released.

Updates on this Matter

The Town will perform a Virginia Department of Health-required test for chlorination by-products in November. When the Town receives the results of that test, they will be posted at www.berryvilleva.gov. As a part of that posting, the Town will also update the public on actions that have been taken to address this matter. Because this possible exceedance represents an average of test results, it may take more than one quarter to return to compliance. Additional public notices will be forthcoming if the exceedance continues.

Annual Drinking Water Quality Report

The 2022 Annual Drinking Water Quality Report is available on the Town's website (www.berryvilleva.gov). This report provides a great deal of information about the Town's drinking water.

We take this matter very seriously and are working to return to full compliance with Virginia Department of Health requirements.

Sincerely,
Ernest Bussert, Chief Plant Operator



COMMONWEALTH of VIRGINIA

Department of Health
OFFICE OF DRINKING WATER
Culpeper Field Office

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

Colin M. Greene, MD, MPH
State Health Commissioner

October 12, 2023

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 recently collected from the subject waterworks. 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	4 th quarter 2022	1 st quarter 2023	2 nd quarter 2023	3 rd quarter 2023	Locational Running Annual Avg	Operational Evaluation Level
320 Dunlop	0.050	0.031	0.057	0.112	0.063	0.078
409 McNeil	0.053	0.029	0.058	0.124	0.066	0.084

Results for HAA5 (mg/L)						
Sample Location	4 th quarter 2022	1 st quarter 2023	2 nd quarter 2023	3 rd quarter 2023	Locational Running Annual Avg	Operational Evaluation Level
320 Dunlop	0.073	0.034	0.069	0.093	0.067	0.072
409 McNeil	0.065	0.040	0.067	0.088	0.065	0.071

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 third quarter 2023 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 0.065 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 **November 10, 2023**.
- 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*.

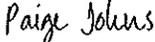
Public Notice Confirmation: Within ten (10) days of completing public notification, you must provide this Office with a copy of the notice you distributed, along with a signed certification that the distribution was completed in the required time and manner. Failure to distribute public notice and report 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 both TTHM and HAA5 at one or both locations. **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 within 90 days.** We understand that you enlisted the services of a consulting firm to investigate the potential causes of ongoing disinfection byproduct exceedances following the Maximum Contaminant Level violation during the 2nd quarter 2023 monitoring period. According to our records, we have not yet received an operational evaluation report from you or your consultant, as initial data was inconclusive. This report was due on September 30, 2023 and is overdue; please submit it as soon as possible. If the report is based on compliance data from both the 2nd and 3rd quarter, it may serve as the operational evaluation report for both OEL exceedances. The report must address the elements listed in the enclosed OEL template and checklists; it is not necessary to use the exact template if you prefer to present your findings in another format.

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:

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Paige C. Johns, PE
District Engineer

Enclosures:

1. Public Notification Template
2. Certification of Public Notification
3. Operational Evaluation Reporting Form (*Attachment A.3*)
4. Distribution System Evaluation Checklist (*Attachment A.4*)
5. Treatment Process Evaluation Checklist (*Attachment A.5*)
6. Source Water Evaluation Checklist (*Attachment A.6*)

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