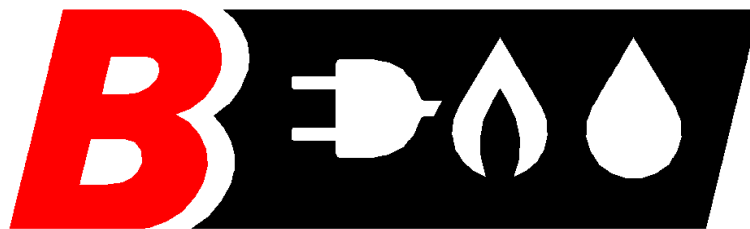


# Annual Drinking Water Quality Report for 2022

**Bath Consolidated**

*Village of Bath & Town of Bath Water Districts*  
(Public Water Supply ID: NY5001206)



***BATH ELECTRIC, GAS & WATER SYSTEMS***

7 South Avenue  
Bath, New York 14810

## **INTRODUCTION**

The Village of Bath owns a public water supply. In addition to residents and business in the Village of Bath, the Village's public water supply is also provided to residents and business in Town of Bath water districts. For this reason, the Village's public water supply is referred to as Bath Consolidated, and has the public water supply identification NY5001206.

Bath Consolidated is operated, maintained, and improved by the Village's utility department, Bath Electric, Gas and Water Systems (BEGWS).

To comply with State regulations, BEGWS annually issues a report for Bath Consolidated describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report, or concerning your drinking water, please contact Erin Bonacci, BEGWS Director of Municipal Utilities, by phone at (607) 664-9103 or via email at [ebonacci@begws.com](mailto:ebonacci@begws.com).

We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled meetings of the Village of Bath Municipal Utility Commission. Regular Meetings are held the second Tuesday of each month, at 4:30pm, in the large conference room of the BEGWS Commercial Office which is located at 7 South Avenue, Bath, New York 14810. We want you to be informed about your drinking water. If you want to learn more, please feel free to contact us so we can discuss any drinking water issues with you further.

## **WHERE DOES OUR WATER COME FROM?**

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the New York State Department of Health and the United States Environmental Protection Agency prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The New York State Department of Health's and the United States Food and Drug Administration's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is groundwater, which is drawn from four (4) wells, each drilled over eight feet in depth, located in the Village of Bath. Bath Consolidated has two storage tanks with a combined storage capacity of 2.5 million gallons. BEGWS operates an integrated water distribution system. This means that water from any one of the four groundwater wells may be delivered to any customer depending upon which well is in operation at any specific time. Chlorination treatment is provided for disinfection of the water in the distribution system, maintaining an average free chlorine residual of 0.21 mg/L, a high of 1.2 mg/L and a low of 0.21 mg/L for the year. Fluoride treatment is provided to prevent dental decay. There is presently enough water to supply all demands, including firefighting. During 2022 our system did not experience any restriction of our water source.

A Source Water Assessment Summary will be included when the data is available from the New York State Department of Health.

## **FACTS AND FIGURES**

Our water system serves approximately 6,500 people through approximately 2,600 service connections. The total water produced in 2022 was 256,750,971 gallons, or an average of 703,427 gallons of water per day treated and pumped into our distribution system. The total annual amount of water delivered (metered) to our customers was 199,617,100 gallons, with a total amount of unaccounted water lost from the system at 57,133,871 gallons or a percentage of 22%. Flushing mains, fighting fires, and water leaks account for some of the unaccounted water. In 2022, the average residential household used 3,983 gallons per month of water costing \$25.10, or \$0.84 per day. For an average family of four, the cost of water was \$0.21 per person per day.

## **ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, nitrate, lead and copper, volatile organic compounds, synthetic organic compounds and radioactive contaminants.

The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bath Electric, gas and water systems is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, please contact Erin Bonacci at (607) 664-9103. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

**Table of Detected Contaminants**

Contaminant	Violation Yes / No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL, AL or TT)	Likely Source of Contamination
<b>Inorganic Chemicals</b>							
<b>Lead</b> (Include 90% and Range of lowest to Highest levels)	No	9/15/20	90%: 0.00324 Range: <0.0010 – 0.0237	mg/L	0	AL: 0.015	Corrosion of household plumbing systems; Erosion of natural deposits.
<b>Copper</b> (Include 90% and Range of lowest to Highest levels)	No	9/15/20 9/15/20 9/15/20	90%: 0.0531 Range: 0.0132 – 0.141	mg/L	1.3	AL: 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
<b>Barium</b>	No	2/3/22 12/6/22 12/6/22 9/20/16	Well # 4: 0.103 Well # 7: 0.154 Well # 8: 0.171 Well # 6: 0.206	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<b>Chlorine</b>	No	Daily	2022 Well # 4: Average: 0.96 Range: 0.46 – 1.5 Well # 6: Average: 0.77 Range: 0.36 – 1.36 Well # 7: Average: 0.70 Range: 0.26 – 1.16 Well # 8: Average: 0.88 Range: 0.22 – 1.67	mg/L	4.0	4.0	Additive for disinfection
<b>Fluoride</b>	No	Daily	2022 Well # 4: Average: 0.64 Range: 0.29 – 1.1 Well # 6: Average: 0.66 Range: 0.42 – 0.85 Well # 7: Average: 0.65 Range: 0.10 – 0.91 Well # 8: Average: 0.66 Range: 0.39 – 0.1.7	mg/L	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
<b>Nickel</b>	No	2/3/22 12/6/22 12/7/22	Well # 4: 0.0009 Well # 7: 0.0007 Well # 8: 0.0010	mg/L	N/A	N/A	Dissolution of rocks and soil, atmospheric fallout, biological decays, and from waste disposals
<b>Nitrate</b>	No	2/3/22 12/6/22 12/6/22 12/6/22	Well # 4: <0.0250 Well # 6: 0.349 Well # 7: 0.987 Well # 8: 1.11	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Selenium</b>	No	2/3/22	Well #4: < 0.0051	ug/L	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
<b>Sodium</b>	No	2/3/22 12/6/22 12/6/22 12/6/22	Well #4: 84.7 Well #6: 84.5 Well #7: 26.0 Well #8: 53.9	mg/L	N/A	N/A	The natural erosion of salt deposits and sodium bearing rock minerals and the infiltration of surface waters or storm waters contaminated by road salt; additional sources may include irrigation and precipitation waters leaching through soils high in sodium.
<b>Arsenic</b>	No	2/3/22 9/20/16 12/6/22 12/7/22	Well # 4: <0.0010 Well # 6: <0.0010 Well # 7: <0.0010 Well # 8: <0.0010	ug/L	N/A	0.01	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.

<b>Table of Detected Contaminants (continued)</b>							
<b>Contaminant</b>	<b>Violation Yes / No</b>	<b>Date of Sample</b>	<b>Level Detected (Avg/Max) (Range)</b>	<b>Unit of Measure</b>	<b>MCLG</b>	<b>Regulatory Limit (MCL, AL or TT)</b>	<b>Likely Source of Contamination</b>
<b>Organic Chemicals – Disinfection Byproducts</b>							
<b>Total Trihalomethanes (TTHMs)</b> (chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	No  <b>MRT: Max Res. Time</b>	08/16/22	Total  19.1 Wildflower Hills	ug/L	80	80	Byproduct of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic mater
<b>Haloacetic Acids (HAA5s)</b> (mono-, di- and tri-chloroacetic acid, and mono- and di-bromoacetic acid)	No  <b>MRT: Max Res. Time</b>	08/16/22	3.9 Wildflower Hills	ug/L	60	60	Byproduct of drinking water chlorination needed to kill harmful organisms
<b>Trichloroethene</b>	No	12/6/22 12/6/22 12/17/19	Well #4: <0.50 Well #7: <0.50 Well #8: <0.50	ug/L	5	0	Discharge from metal degreasing and other factories
<b>Radiological</b>							
<b>Combined Radium 226 and 228</b>	No	11/24/20  11/24/20  3/19/14  12/6/22	Well #4 226: 0.746 228: 0.813 Well #6: 226: 0.729 228: 0.811 Well #7: 226: 0.13 228: 0.48 Well #8: 226: 0.709 228: 0.625	pCi/L	5	0	Erosion of natural deposits.
<b>Gross Alpha</b>	No	11/24/20 11/24/20 3/19/14 12/6/22	Well #4: 2.84 Well #6: 2.92 Well #7: 2.01 Well #8: 2.80	pCi/L	15	0	Erosion of natural deposits.
<b>Uranium</b>	No	11/24/20	Well #6: 0.262	ug/L	N/A	N/A	Erosion of natural deposits.
<b>Additional Organic Chemicals</b>							
<b>Perfluorooctanesulfonic Acid (PFOS)</b>	No	6/16/22	Well #4: 2.08 Well #6: <1.88 Well #7: <1.88 Well #8: <1.89	ng/L		2.0	Released from manufacturing sites, industrial use, fire/crash training areas, and industrial or municipal waste sites where products are disposed of or applied.

**Notes:**

1. The level presented represents the 90<sup>th</sup> percentile of the 21 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the individual lead and copper detected on the water system. In this case, 21 samples were collected for lead and copper on the water system and the 90<sup>th</sup> percentile value was 0.003 mg/L for lead and 0.0531mg/L for copper in 2021. The action levels for copper and lead were not exceeded at any of the sites tested.

**Definitions:**

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.

**Milligrams per liter (mg/L):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (ug/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Million Fibers per Liter (MFL):** Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Picocuries per liter (pCi/L):** Picocuries per liter is a measure of the radioactivity in water.

**Maximum Residence Time (MRT):** The water that is in the distribution system the longest period of time.

**Health Advisory Level (HAL):** A non-regulatory health-based reference level of chemical traces (usually in ppm) in drinking water at which there are no adverse health risks when ingested over various periods of time. Such levels are established for one day, 10 days, long-term and life-time exposure. They contain a wide margin of safety.

## **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Although our drinking water met or exceeded State and Federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the **Safe Drinking Water Hotline (800-426-4791)**.

## **IS OUR SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 2022, we did not complete all monitoring for Principal Organic Chemicals for Well 7 and Well 8, and therefore cannot be sure of the quality of your drinking water during that time. With that said, samples were collected at Well 7 and Well 8 on March 16, 2023, and were analyzed for Principal Organic Chemicals. The results came back under New York State limits.

## **INFORMATION ON FLUORIDE ADDITION**

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2022, monitoring showed that fluoride levels in your water were within 0.2 mg/L of the target level for 83% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/L MCL for fluoride.

## **WHY SAVE WATER AND HOW TO AVOID WASTING IT?**

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Some conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you could save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you could save more than 30,000 gallons a year.

## **SYSTEM IMPROVEMENTS**

In 2022, the magnetic flow meters at all four wells were replaced as a result of a grant we received from the Susquehanna River Basin Commission.

We continued proactively surveying our distribution system for leaks. We performed routine flushing of our water mains. We also exercised hydrants and mainline valves. We continued addressing identified leaks within our system on mains, valves, hydrants, and service lines in an effort to reduce our water losses.

In addition to repairing leaks, we began proactively replacing troublesome and leak prone water main. In 2022, water main was replaced on Perkins Place, Park Place and Muck Circle. Water main replacement will continue in 2023 as the water main on Haverling Street will be replaced.

Detailed engineering design will be completed in 2023 for the water main replacement on State roads within our Village (*i.e.*, State Route 54, State Route 415), with construction planned for 2024. This water main replacement work has received \$3,000,000 in grant funding through New York State's Water Infrastructure Improvement Act funding program.

Also planned for 2024 and 2025 is the water main replacement on Colonial Lawns, Allen Street, Vermont Street and Maine Street.

## **CLOSING**

Thank you for allowing us the privilege of providing you, your family, and/or your business with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life.