

Bath Electric, Gas & Water Systems

Annual Drinking Water Quality Report for 2020

Village of Bath with Water Districts

Public Water Supply ID#: NY5001206 Village of Bath; NY5001225 District #1; NY5001227 District #2; NY5030073 District #4; NY5030074 District #5; NY5030085 District #6; & NY5030116 District #7

INTRODUCTION

To comply with State and Federal regulations, Bath Electric Gas & Water Systems, which is the utility department of the Village of Bath, will be annually issuing a report 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 *Mr. Andrew Burdin, Bath Electric, Gas and Water Systems Underground Lines & Mains Supervisor, 14 Ark Street, Bath, NY at (607) 664-9118*. 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 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 State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water sources consist of *four* groundwater well sites, each *over eighty feet in depth*, which pump from aquifers located near the Cohocton River. All our water system wells are within the Village of Bath limits with Well #4 on Ark Street, Well #6 on Crane Street, Well #7 on Cameron Street and Well #8 on Cameron Place. The Village of Bath uses two water storage tanks with capacities of *1 and 1.5 million gallons* respectively. Bath Electric, Gas and Water Systems operates an integrated water distribution system which means that water from any of 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 .23 mg/L, a high of 1.2 mg/L and a low of .20 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 2020 our system did not experience any restriction of our water source.

Our system is one of the many drinking water systems in NYS that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers of Disease Control, *fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.7 to 1.2 mg/l (parts per million)*. To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health *requires we monitor fluoride levels on a daily basis*. During 2020, monitoring showed *fluoride levels in your water were in the range 100% of the time*. Our fluoride addition facility is designed and operated to meet this optimal range. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l Maximum Contaminant Level (MCL) for fluoride.

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

FACTS AND FIGURES

The Village of Bath is a publicly owned utility whose water system is regulated by the *New York State Department of Health*. The water system was *established in 1887*, and has grown into a water distribution system supplying the Village of Bath along with spurs of the distribution system extending into the Town of Bath. With *the population of the Village of Bath at approximately 5,432 people, there are 2,420 average service connections in the Village, 242 average service connections in the Town of Bath*. Water District #1 serves approximately 200 people through about 91 service connections. Water District #2 serves approximately 200 people through 7 service connections. This *District is considered a non-transient, non-community public water supply*. Water District #4 serves approximately 90 people through 26 service connections. Water District #5 serves about 51 people through 17 service connections, Water District #6 serves approximately 250 people with approximately 80 service connections and finally Water District #7 serves approximately 54 people through 1 service connection. The total water produced in 2020 was *346,922,106 gallons, or an average of 947,875 gallons of water per day treated and pumped into our distribution system*. The *total annual amount of water delivered (metered) to our customers was 214,938,000 gallons, with a total amount of unaccounted water lost from the system at 131,984,106 gallons or a percentage of 38.04%*. In 2020, *the average residential household used 4,223 gallons per month of water costing \$26.21, or \$.87 per day*. For an average family of four, *the cost of water was \$.22 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, sodium 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, is more than one year old.

If present, *elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children*. It is possible that lead levels at your home may be higher than at other homes in the community *as a result of materials used in your home's plumbing*. Bath Electric, Gas & Water Systems is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. *When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking*. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from **the Safe Drinking Water Hotline** (1-800-426-4791) or 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
Inorganics							
Lead (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.
Copper (Include 90% and Range of lowest to Highest levels)	No	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.
Barium	No	12/3/20 326/20 12/17/19 12/17/19	Well # 4: 0.126 Well # 6: 0.209 Well # 7: 0.136 Well # 8: 0.176	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chlorine	No	Daily	Average 2020 Well # 4: 0.73 Average Range 0.25-1.3 Well # 6: 0.68 Average Range 0.68 Well #7: Average Range 0.21-1.1 Well #8: 0.83 Average Range 0.34-1.3	Mg/L	4.0	4.0	Additive for disinfection
Fluoride	No	Det. from Monthly Lab Results 2019	Average 2020 Well # 4: 0.92 Range 0.52-1.1 Well # 6: 0.68 Range 0.68 Well # 7: 0.68 Range 0.13-1.1 Well # 8: 0.76Range 0.13-1.1	mg/L	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nickel	No	12/3/20 3/26/20 12/17/19 12/17/19	Well # 4: 0.0009 Well # 6: 0.0014 Well # 7: 0.0010 Well # 8: 0.0010	mg/L	N/A	N/A	Dissolution of rocks and soil, atmospheric fallout, biological decays, and from waste disposals
Nitrate	No	11/24/20 11/24/20 11/24/20 11/24/20	Well # 4: 1.08 Well # 6: 0.172 Well # 7: 0.562 Well # 8: 0.966	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	No	12/3/20	Well #4: < 0.0051	ug/L	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Arsenic	No	12/3/20 3/26/20 12/17/19 12/17/19	Well # 4: <0.0010 Well # 6: 0.0042 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.
Organics							
Total Trihalomethanes (TTHMs) (chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	No MRT: Max Res. Time	08/18/20	Total 26.2 Wildflower Hills	ug/L	80	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic mater
Haloacetic Acids (HAA5s) (mono-, di- and tri-chloroacetic acid, and mono- and di-bromoacetic acid)	No MRT: Max Res. Time	08/18/20	3.7 Wildflower Hills	ug/L	60	60	By-product of drinking water Chlorination.

Table of Detected Contaminants (Continued)							
Contaminant	Violation Yes / No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit of Measure	MCLG	Regulatory Limit (MCL,HAL, AL or TT)	Likely Source of Contamination
Organics (Continued)							
Trichloroethene	No	12/17/19 12/17/19 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
Sodium	No	11/24/20	Well #6: 83.4	mg/L	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Radioactive Contaminants Combined Radium 226 and 228	No	11/20/13 04/16/13 02/19/13	Well #4: 226: 0.19 228: 0.54 Well #6: 226: 0.21 Well #7: 226: 0.13 228: 0.48 Well #8: 226: 0.21 228: 0.34 226: 0.36 228: 0.66	pCi/L	Combined 226 and 228: 5	0	Erosion of natural deposits.
Gross Alpha	No	11/20/13 4/16/13 2/19/13	Well #4: 1.77 Well #6: 1.42 Well #7: 2.01 Well #8: 2.25 0.34	pCi/L	15	0	Erosion of natural deposits.
Uranium	No	11/20/13	Well #6: 0.69	pCi/L	N/A	N/A	Erosion of natural deposits.
Unregulated Contaminants							
Perfluorooctanesulfonic Acid (PFOS)	No	11/24/20	Well#6<1.00 Well#7<1.00 Well#8<1.00	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.
Perfluorooctanoic Acid (PFOA)	No	11/24/20	Well#6<1.00 Well#7<1.00 Well#8<1.00	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 90th 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 90th 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 90th percentile value was 0.003 mg/L for lead and 0.0531mg/L for copper in 2020. 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-Detect (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 PRECAUTION

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).

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 the year 2020, Bath Electric, Gas and Water Systems:

- ♦ Implemented a hydrant inspection and exercising program
- ♦ Implemented a mainline valve inspection and exercising program
- ♦ Performed system wide leak detection survey
- ♦ Repaired and/or replaced troublesome hydrants
- ♦ Repaired system main leaks
- ♦ Replaced water services where leaks were located
- ♦ Retained assistant from engineering consultants to perform the watermain replacement design of identified troublesome watermains along with the discharge piping replacement for Well No. 7

CLOSING

Thank you for allowing us to continue to provide your family 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. Please call our office if you have questions.