Bath Electric, Gas & Water Systems
Annual Drinking Water Quality Report for 2015
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 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. Last year, your tap water met all State drinking water health standards. We are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. 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. Daniel L. Borhman, Underground Lines & Maintenance 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, while fluoride treatment is provided to prevent dental decay. There is presently enough water to supply all demands, including firefighting. During 2015 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 2015, 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 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

BEGWS 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 2015 was 327,252,476 gallons, or a daily average of 896,582 gallons of water per day treated and pumped into our distribution system. The total annual amount of water delivered (metered) to our customers was 235,823,636 gallons, with a total amount of unaccounted water lost from the system at 91,428,840 gallons or a percentage of 27.94%. In 2015, the average residential household used 4,523 gallons per month of water costing $26.34, or $.88 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 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.

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.

It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the NYS Department of Health at (607) 324-8371.

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	9/16/14	90% = .0071 Range: <0.0005 – .0158	mg/L	0	AL =.015	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (Include 90% and Range of lowest to Highest levels)	No	9/16/14	90%= 0.187 Range: .0065-.446	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Barium	No	12/15/15 12/30/10 7/16/13	Well # 4: 0.089 Well # 7: 0.144 Well # 8: 0.181	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	No	Det. from Monthly Lab Results 2015	Average 2015 Well # 4: .72 Well # 6: .79 Well # 7: .74 Well # 8: .78	mg/L	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	No	**12/15/15**	Well # 4: 0 .829 Well # 6: 0.386 Well # 7: 1.03 Well # 8: 0.978	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	No	**7/16/13**	Well #8: 3.8	ug/L	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.
Arsenic	No	12/15/15 7/16/13 12/30/10 7/16/13	Well # 4: <.001 Well # 6: 1.5 Well # 7: 0.7 Well # 8: 0.9	ug/L	N/A	.01	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Organics							
Total Trihalomethanes (TTHMs) (chloroform, bromodichloro-methane, dibromochloro-methane, and bromoform)	No **Entry point Sample results**	12/15/15 12/15/15 12/22/09 12/15/15	Well # 4: 7.3 Well #6: 8.9 Well # 7: 2.7 Well # 8: 2.5	ug/L	0	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic mater
Total Trihalomethanes (TTHMs) (chloroform, bromodichloro-methane, dibromochloro-methane, and bromoform)	No **MRT: Max Res. Time**	08/26/15	Total 26.4 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**	08/26/15	7.8 Wildflower Hills	ug/L	60	60	By-product of drinking water Chlorination.
Trichloroethene	No	12/16/14	Well #4: 0.57	ug/L	5	0	Discharge from metal degreasing and other factories
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.

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 0.0071 mg/L for lead and 0.187 mg/L for copper in 2014. 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2015, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements. We are required to monitor your drinking water for specific contaminants on a regular basis. This public water supply is required to collect disinfection by-product samples per Part 5 of the New York State Sanitary Code between August 1 – August 31,2015. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During August 1 – August 31,2015, we did monitor for disinfection by-products, and our drinking water meets the health standards.

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).

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 2015, we again did a system wide leak detection survey that was performed by the BEGWS Water Department personnel. We also had an outside contractor (Miles Leak Detections) perform an independent leak survey. We also continue to repair system main leaks, valves, and services to try to reduce our water losses.

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.