Annual Drinking Water Quality Report for 2015
Village of Gowanda

27 East Main St.
Gowanda, N.Y. 14070
Public Water Supply ID# NY0400340

Prospect Street Water District

P.O Box 250
Perrysburg, NY 14129
Public Water Supply ID# NY0430098

INTRODUCTION

To comply with State regulations the Village of Gowanda 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. We routinely monitor for the presence of drinking water contaminants. Testing results in 2015 showed that we barely exceeded the standard or maximum contaminant level (MCL) for barium. The average of the two barium results was 2.04 mg/l. The standard for barium is 2.0 mg/l. As a result, we turned off well #1 and returned to using the Allen Springs as our primary source. 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 Jason Opferbeck, Water Superintendent, at (716) 532-9328. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village board meetings.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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 State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our system serves the Village of Gowanda and Prospect Street Water District. We have three water sources. One source is surface water (Point Peter Brook), second is the Allen Springs, and third is a groundwater source (well #1). Water is filtered to remove contaminants. During this time, chlorine is added to disinfect the water and fluoride is added to improve the dental health of the community. The treated water is stored in a 1.7 million gallon reservoir for distribution. In August 2009 and again in May 2014, our surface supply was damaged due to flooding. As such, it was necessary for us to start using well #1. As of January 14, 2016, we ceased using well #1 and returned to using the Allegan Springs within the Point Peter Brook Watershed. These springs will be used for the foreseeable future as the primary source of water for the Village of Gowanda. Historic monitoring data for these springs show no measurable detections of Barium. Well #1 will be used only on an emergency basis to supplement the springs. If it becomes necessary to use Well #1 on a permanent basis we will install the appropriate treatment for barium. During 2015, our system did not experience any water use restrictions.

In 2003, the NYS DOH completed a source water assessment for our water system, based on available information. Possible and actual threats to the drinking waters sources were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential contamination of the source water. It does not mean that the water delivered to consumers is, or will become contaminated. See section "ARE CONTAMINANTS IN OUR DRINKING WATER?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our primary water source is currently the Allen Springs. The amount of agricultural lands in the assessment area results in elevated potential for protozoa and pesticide contamination.

Please note that our water is continuously disinfected to ensure that the finished water delivered into your home meets the NYS drinking water standards for microbial contamination.

A copy of this assessment, including a map of the assessment area, can be obtained by contacting us as noted above.

FACTS AND FIGURES

Our water system serves 2,800 consumers through 1,400 service connections in the Village and 95 consumers through 47 connections in the Perrysburg TWD# 2. The amount of water produced in 2015 was 115,921,000 gallons for an average of 317,500 gallons per day. The amount delivered to customers was 94,684,000 gallons. This leaves an unaccounted for total of 25,876,000 gallons, or 21%. The water loss was due to backwashing sand filters, leakage, firefighting and main flushing. In 2015, village water customers were charged $40.00 min for first 4000 gallons and $5.25 for each additional 1000 gallons of water. The annual average village water charged per user was $307.00. Village of Gowanda also sells bulk water to the Town of Perrysburg to serve the Prospect Street water district.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

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

It should be noted that all drinking water, including bottled water, may 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 Cattaraugus County Health Department at (716) 701-3386.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Disinfectant							
Chlorine Residual -Gowanda Village -Prospect WD	 No No	 2015 2015	 Avg. = .70 (.30 – 1.41) Avg. = .43 (.10 – 1.04)	mg/l	N/A	MRDL = 4	Water additive used to control microbes.
Microbiological Contaminants							
Total Organic Carbon – Filtered[6]	No	2/12/14	0.862	mg/l	N/A	TT	Naturally present in the environment.
Total Organic Carbon – Raw[6]	No	2/12/14	0.877	mg/l	N/A	TT	Naturally present in the environment.
Turbidity[1,6]	No	2014	High = .12	NTU	N/A	TT = 0.3	Soil runoff.

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity[1,6]	No	2014	100% ≤ 0.3	NTU	N/A	TT = 95% of samples ≤0.3 NTU	Soil runoff.
Distribution Turbidity[2,6]	No	3/2014	0.27	NTU	N/A	TT = ≤5.0	Soil runoff.
Inorganic Contaminants							
Barium - Pt. Peter - Well #1	 No **YES** **YES**	 1/23/12 1/20/15 6/18/15	 .096 2.02 2.06	mg/l	2.0	MCL = 2.0	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper[3]	No	9/23/15	181 (ND - 255)	ug/l	1,300	AL = 1,300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	No	2015 Daily	.70 – 1.05	mg/l	N/A	MCL = 2.2	Water additive that promotes strong teeth.
Lead[4]	No	9/29/12	3.5 (ND - 4)	ug/l	0	AL = 15	Corrosion of household plumbing; erosion of natural deposits.
Nitrate - Pt. Peter - Well #1	 No No	 12/6/13 1/20/15	 1.49 1.20	mg/l	10	MCL = 10	Run off from fertilizer; leaching from septic tanks, sewage; erosion from natural deposits.
Sodium – Well #1	No	12/30/14	50	mg/l	N/A	See Health Effects[5]	Naturally occurring; road salt; water softeners; animal waste.
Disinfection By-products							
Haloacetic Acids	No	2014	High LRAA = 20.7 (10.2 – 38.9)	ug/l	N/A	LRAA ≤ 60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes	No	2014	High LRAA = 35.15 (15.3 – 53.8)	ug/l	N/A	LRAA ≤ 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Radioactive Contaminants							
Combined Radium 226 and 228 - Pt. Peter - Well #1	 No No	 10/15/13 2011	 .512 Avg. – 1.23 (.80 – 1.67)	pCi/L	0	MCL = 5	Erosion of natural deposits.
Gross Alpha - Pt. Peter - Well #1	 No No	 10/15/13 2011	 .849 Avg. = 2.64 (.55 – 4.14)	pCi/L	0	MCL=15	Erosion of natural deposits.

Notes:

1 - Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest turbidity measurement for 2014 was 0.12 NTU which occurred on multiple days in 2014. State regulations require that turbidity must always be below 1.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.

2 - Our highest average monthly distribution turbidity measurement of 0.27 NTU occurred in March 2014. This value is below the turbidity standard of 5 NTU assigned to our system.

3 - The level presented represents the 90th percentile of the 10 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 copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the second highest value, 181 ug/l. The action level for copper was not exceeded at any of the sites tested.

4 - The 90th percentile level for lead was 3.5 ug/l. None of the ten sites exceeded the action level of 15 ug/l.

5 - Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets.

6 - Data is from 2014 as we didn't use our surface water source in 2015.

Definitions:

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

Locational Running Annual Average (LRAA): This is a calculation of the average of all the readings in the year preceding the date of sampling for a particular sample site.

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.

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

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

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

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

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

WHAT DOES THIS INFORMATION MEAN?

Testing results we received from a sample collected on January 20, 2015, showed that well #1 slightly exceeded the maximum contaminant level (MCL) for barium. Once we learned of this result we collected a confirmation sample on June 18, 2015. The average of the 2 samples was 2.04 mg/l. The standard for barium is 2.0 mg/l. As of January 14, 2016, we ceased using well #1 and returned to using the spring supply within the Point Peter Brook Water shed. If it becomes necessary for us to use well #1 on a permanent basis then we will install appropriate treatment. Be advised that some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

Also, we have learned through our testing that other contaminants have been detected; however, these contaminants were detected below New York State standards. Regardless, we are required to provide the following information on lead in drinking water. 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. The Village of Gowanda 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

On September 11, 2015, the Village was issued a violation from the Cattaraugus County Health Dept. for failure to collect Stage 2 Disinfection By-Products (DBPs) samples in August 2015. Although this is not an emergency, as our customers you have a right to know what happened and what we are going to do to correct this situation.

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 your drinking water meets health standards. During 2015, we failed to monitor for DBPs and therefore cannot be sure of the quality of your drinking water during that time. However, all samples collected in 2014 were below the MCLs. We will be correcting the violation by sampling for DBPs in 2016.

There is nothing you need to do at this time. If a situation was to ever arise where the water is no longer safe to drink, you would be notified immediately.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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).

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 1.0 mg/l. None of the routine monitoring results showed fluoride 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 saves energy and some of the costs associated with both of these necessities of life;
- 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 fire fighting 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. 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 can 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 save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

CLOSING

In November 2015 the Village received a letter advising us that we were awarded a Water Fluoridation Quality Award from the U.S. Centers for Disease Control and Prevention for 2014. This award recognizes our initiatives to maintain community water fluoridation.

Thank you for allowing us to continue to provide your family with quality drinking water this past 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.