

Annual Drinking Water Quality Report for 2023

System Name: Town of Waterloo Water District, Border City Water District & Burgess Road Water District

*System Address: 66 Virginia Street Waterloo, NY 13165
(Town of Waterloo WD-4940015) (Border City WD – NY4911740) (Burgess Rd WD – NY4925000)*

INTRODUCTION

To comply with State regulations, Town of Waterloo, 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 did not violate 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 Josef Shaffer, Water/Sewer Maintainer, 315-539-9331 Ext. 6. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town board meetings. The meetings are held every 4th Monday at the Waterloo Town Office Building at 5:30 pm.

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 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 water system serves around 1,000 people and service connection, e.g. 900 people through 300 service connections). Our water source is the Village of Waterloo Water Treatment Plant which is located on Kime Road in the Village of Waterloo. Border City, Burgess Road and the Town of Waterloo Water Districts purchase water from the Village of Waterloo. The Village of Waterloo treats its water using state-of-the-art disinfection and filtration to remove or reduce harmful contaminants that may come from the source water, which includes cryptosporidium. Waterloo uses chlorine dioxide to disinfect and help oxidize organics and deter Zebra Mussels. Additionally, Waterloo adds activated carbon to adsorb organic contaminants in the raw water which help make the water taste better and provide an additional barrier of protection for the public water supply. The finished product is then re-disinfected with chloramines before it leaves the water plant in order to maintain the distribution system's residual integrity. A Source Water Assessment of Waterloo's water supply is available upon request at the Seneca County Health Department, 2465 Bonadent Drive, Waterloo 13165, (315) 539-1945.

Improvements and Changes in Disinfection & Operations:

The Village of Waterloo Water System uses chloramines (small but exact amounts of chlorine and ammonia which are added) instead of chlorine (free chlorine) to provide residual disinfection in your potable water supply distribution system. Chloramines are increasingly being applied by many utilities nationwide as a more effective disinfectant in the distribution system, as they persist in remote areas of the system, produce lower levels of by-products, and have the ability to minimize chlorinous or other objectionable tastes and odors.

Chlorinated water is safe for drinking, cooking, bathing, watering plants, and all the uses we have for water every day. However, there are two groups of people who need to take special care with chlorinated water: kidney dialysis

patients and fish owners. Chloramines must be removed from water used in the kidney dialysis process and from water that is used in fish tanks or ponds, because chloramines are harmful when they go directly into the bloodstream. This includes fish/turtle/reptile aquarium water, lobster tanks at grocery stores and restaurants, as well as fish containers at bait shops.

Kidney dialysis patients should check with their physician who will recommend the best pretreatment to be used. Fish tank owners should consult with their local pet store for the best dechloramination agent or filter to use. Chloramines can be reduced by using a high quality granular activated carbon filter, but will not be reduced by a reverse osmosis unit or by letting water sit for a few days.

The commitment to your water quality does not end when water leaves the treatment plant. Water samples from homes and businesses throughout the water system are tested daily. We work closely with the Seneca County Health Department to test the water using approved NYSDOH & USEPA procedures.

If you have any questions, please contact your physician, pet store, or call us at the Water Dept. at 315-539-9131 or Water Plant Office 315-585-9811.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, the Village of Waterloo routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, 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 drinking 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 Seneca County Health Department at 315-539-1919.

The Village of Waterloo 2023 Monitoring Results for Contaminants in Drinking Water Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Microbiological Contaminants							
Contaminant	Violation (Yes/No)	Date of Sample	Level Detected	Unit	MCLG Health Goal	Regulatory Limit (MCL, TT or ACL)	Potential Source of Contamination
Turbidity ¹	NO	11/5/2023	0.401	NTU	N/A	1.00	Soil runoff, algae
Distribution Turbidity ¹	NO	2/28/2023	1.18	NTU	N/A	5.00	Soil runoff
Inorganic Contaminants							
Nitrate	NO	10/12/2023	0.261	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural dep.
Nitrite	NO	10/12/2023	<0.0250	mg/L	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural dep.
Antimony	NO	10/12/2023	<0.0004	mg/L	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder

Sodium ²	NO	10/12/2023	70.9 (single sample)	mg/L	N/A	250	Naturally occurring
Barium	NO	10/12/2023	0.0250	mg/L	2	2	Erosion of natural deposits
Arsenic	NO	10/12/2023	<0.0010	mg/l	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production
Copper ³	NO	6/27/2023-8/1/2023	0.881 (90th percentile) 0.0206-1.45	mg/L	1.3	1.3=AL	Corrosion of plumbing systems; erosion of natural deposits.
Lead ⁴	NO	6/27/2023-8/1/2023	8.3 (90th percentile) <1-24.8	ug/L	0	15=AL	Corrosion of plumbing systems; erosion of natural deposits.
Fluoride ^{5a,5b}	NO	10/12/2023	<0.200	mg/L	0.8 - 2.2	2.2	Erosion of natural deposits
Nickel	NO	10/12/2023	0.0006	mg/L	N/A	N/A	Naturally Occurring

Other

Chlorine Dioxide	NO	8/6/2023	620	ug/L	MRDLG=800	MRDL=800	Water additive used to control microbes. (Primary Disinfection).
Chlorite	NO	10/23/23	610	ug/L	1000	1000	Byproduct of drinking water disinfection
Chloramines	NO	7/4/2023	3.99	mg/L	N/A	4.00	Water additive used to control microbes. (Primary Disinfection).
Trihalomethanes 1/year	NO	8/4/2023	10.5 site 1 12.0 site 2	ug/L	0	80	Byproduct of drinking water disinfection MCL is 80
Haloacetic Acids (HAA5) 1/yr	NO	8/4/2023	9.57 site 1 9.94 site 2	ug/L	N/A	60	Byproduct of drinking water disinfection MCL is 60
Trihalomethanes 1/year Border City WD	NO	8/22/2023	8.5	ug/L	0	80	Byproduct of drinking water disinfection MCL is 80
Haloacetic Acids (HAA5) 1/yr Border City WD	NO	8/22/2023	8.3	ug/L	N/A	60	Byproduct of drinking water disinfection MCL is 60
Trihalomethanes 1/year Burgess Road WD	NO	8/22/2023	11.9	ug/L	0	80	Byproduct of drinking water disinfection MCL is 80
Haloacetic Acids (HAA5) 1/yr Burgess Road WD	NO	8/22/2023	8.2	ug/L	N/A	60	Byproduct of drinking water disinfection MCL is 60
Trihalomethanes 1/year Town of Waterloo	NO	8/22/2023	8.0	ug/L	0	80	Byproduct of drinking water disinfection MCL is 80
Haloacetic Acids (HAA5) 1/yr Town of Waterloo	NO	8/22/2023	6.0	ug/L	N/A	60	Byproduct of drinking water disinfection MCL is 60
TOC (Total Organic Carbon)	NO	4/21/2023	3.86	mg/L	N/A	N/A	Naturally Occurs
PFAS:							
PFOA Perfluorooctanoic acid	NO	1/13/23 4/25/23 10/16/23	4.24, 1.7 1.61, 1.46 1.47	ng/L	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
PFBA ^{6,7} Perfluorobutanoic acid	NO	1/13/23 4/25/23 10/16/23	1.8 1.83 1.37	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.
FSA ^{6,7} Fluorotelomer sulfonic acid	NO	4/25/23	1.02	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.

PFHxA ^{6,7} Perfluorohexanoic acid	NO	1/13/23 4/25/23	2.93, 0.95 0.964	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.
PFHpA ^{6,7} Perfluoroheptanoic acid	NO	1/13/23	0.64	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.
PFHxS ^{6,7} Perfluorohexanesulfonic acid	NO	1/13/23	0.71	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.
PFOS Perfluorooctane sulfonate	NO	1/13/23	0.84	ng/L	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
PFPeA ^{6,7} Perfluoropentanoic acid	NO	1/13/23 4/25/23	1.0 0.953	ng/L	N/A	50,000	Released into the environment from widespread use in commercial and industrial applications.

All of our Water System Operators are New York State Department of Health certified, or a trainee in order to operate the water plant and/or water distribution system.

Are there Contaminants in our Drinking Water?

According to State regulations, the Village of Waterloo routinely monitors your drinking water for various contaminants. Your water is tested for radiological contaminants, inorganic contaminants, nitrate, lead and copper, volatile organic contaminants, synthetic organic contaminants and trihalomethanes. Additionally, your water is tested for E. coli, coliform, and other bacteria. Only the contaminants detected in your drinking water are included in the Table of Detected Contaminants.

Drinking water, including bottled water, may reasonably be 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 (1-800-426-4791).

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 USEPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The New York State Health Department and the FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 using the best available treatment technology.

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.

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

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

90th Percentile: 90% of samples are equal to or less than the number in the chart.

NTU (or Nephelometric Turbidity Units): A measure of clarity.

NA: Not applicable.

ppt: (or parts per trillion): Corresponds to one part of liquid to one trillion parts of liquid. (nanograms per liter (ng/l).)

ppb: (or parts per billion): Corresponds to one part of liquid to one billion parts of liquid. (micrograms per liter (ug/l).)

ppm: (or parts per million): Corresponds to one part of liquid to one million parts of liquid. (milligrams per liter (mg/l).)

pCi/L (or picocuries per liter): a measure of radioactivity in water.

MRDL: Maximum Residual Disinfectant Level. 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.

MRDLG: Maximum Residual Disinfectant Level Goal. 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.

NOTES:

¹Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year 2023 was 0.401 NTU. State regulations require that turbidity samples collected have measurements below 1.00 NTU. All levels recorded were within the acceptable range allowed and did not constitute a treatment technique. No distribution system turbidity exceeded the NYS allowance.

2 Water containing more than 20mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

3 – The level presented represents the 90th percentile of the 30 sites tested. The action level for copper was exceeded at one of the sites tested.

4 – The level presented represents the 90th percentile of the 30 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 lead values detected at your water system. In this case, thirty samples were collected at your water system and the 90th percentile value was the third highest value (8.3 ug/l). The action level for lead was exceeded at one of the sites tested.

5a The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one-year-old.

5b Water additive that promotes strong teeth; discharge from fertilizer and aluminum factories. Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.

Note: The Village of Waterloo *does not* add any fluoride to its drinking water.

6 USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.

7 All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L = 50,000 ng/L.

Taste & Odor:

If at any time your water tastes different than normal, please do not hesitate to call the Water Treatment Plant at 315-585-9811. We will do our best to help you find the cause of the anomaly. With the exception of the annual late summer earthy/musty season due to increased blue-green algae in Seneca Lake, there should not be any reason for your water to taste like anything but plain water.

Summary of the SWAP (Source Water Assessment Program):

The NYS DOH has evaluated this PWS's (Public Water System's) susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph(s) below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards. This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for phosphorus, DBP precursors, and pesticide contamination. While there is not a great density of permitted discharges in assessment area, the total amount of wastewater discharged from these facilities is high enough to raise the potential for contamination (particularly for protozoa). There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: CBS and landfills.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

We are required to present the following information on lead in drinking water:

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. The Town of Waterloo 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, contact the Town of Waterloo at 315-539-9331 Ext. 6. 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>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2023, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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 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 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. 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.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions.