

Annual Drinking Water Quality Report for 2023
Town of Henderson
Water Districts 1&2
(Public Water Supply ID#2230027)

INTRODUCTION

To comply with State regulations, the Town of Henderson, 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 P&T Supply and Services, Inc., Water Facilities Operation and Maintenance, at (315)782-6080. 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 on the second Wednesday of every month at 7:00p.m. at the Town Offices.

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 a population of approximately 500 through 350 service connections. Our water source is surface water drawn from Lake Ontario. The water is pumped from Lake Ontario through three pressure filters and three activated carbon filters. It is then pumped to the elevated storage tank where the chlorine contact time is met prior to distribution.

The New York State Department of Health has evaluated the Public Water System's (PWS) susceptibility to contamination under the Source Water Assessment Program, and their findings are summarized 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 the 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.

The Great Lake's Watershed is exceptionally large and too big for a detailed evaluation in the Source Water Assessment Program. General drinking water concerns for public water supplies which uses

these sources include; storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels – intake clogging or taste and odor problems). The summary below is based on the analysis of the contamination inventory compiled for the drainage area deemed most likely to impact drinking water quality at the PWS intake.

This assessment found a moderate susceptibility to the contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for DBP precursors and pesticide contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on the density in the assessment area.

A copy of this assessment can be obtained at the town clerk’s office and on our website <https://www.townofhendersonny.org/sanitation--water.html>.

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, 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 Jefferson Health Department at (315)785-2277.

Table of Detected Contaminants								
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination	Health Effects Language
Total Coliform Bacteria	No	Monthly	ND	n/a	0	Any positive sample	Naturally present in the environment.	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination	Health Effects Language
Copper(2)	No	9/6/21 9/7/21	0.3423 0.0038-0.5895	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient but some people who drink water containing copper in excess of the action level over relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor
Lead(3)	No	9/6/21 9/7/21	ND	ppb	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Total Trihalomethanes (TTHM- chloroform, bromodichloromethane, dibromochloromethane, and bromoform)(4)	No	2/24/23 5/25/23 8/22/23 11/21/23	Max: 101 LRAA: 66.775	ug/l	n/a	MCL=80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.
Haloacetic Acids (HAAS- mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)(4)	No	2/24/23 5/25/23 8/22/23 11/21/23	Max: 30.0 LRAA: 25.375	ug/l	n/a	MCL= 60	By-product of drinking water disinfection needed to kill harmful organisms.	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
Nitrates	No	12/21/23	0.247	mg/l	10mg/l	10mg/l	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Runoff from fertilizer use; leaking from septic tanks, sewage; erosion of natural deposits
Turbidity(1)	No	6 Times/day	Max:.26	NTU		TT≤1.0	Soil Runoff	Turbidity has no health effects However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statement in this document regarding Cryptosporidium.

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination	Health Effects Language
Turbidity(1)	No	6 Times/day	Ave:0.12	NTU		TT= 95% of samples ≤ 0.3	Soil Runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statement in this document regarding <i>Cryptosporidium</i> .
Gross alpha Activity (including radium-226 But excluding radon and uranium)	No	12/6/16	0.83	pCi/L	0	MCL=1.5	Erosion of natural deposits.	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 226	No	12/6/16	0.143	pCi/L	0	MCL=1.5	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Radium 228	No	12/6/16	0.773	pCi/L	0	MCL=1.5	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Fluoride	No		0.63 (4-9)	mg/l	1.3	MCL= 2.2	Erosion of natural deposits; 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.
Perfluorooctanoic acid (PFOA)	No	11/21/23	2.18	ng/l	n/a	MCL=10	Released into the environment from widespread use in commercial and industrial applications.	PFOA caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposure to PFOA in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA in animals.

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination	Health Effects Language
Perfluorooctane sulfonic acid (PFOS)	No	11/21/23	2.41	ng/l	n/a	MCL=10	Released into the environment from widespread use in commercial and industrial applications.	PFOS caused a range of health effects when studied in animal at high exposure levels. The most consistent findings were effects on the liver and immun-system and impaired fetal growth and development. Studies of high-level exposure to PFOS in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOS in animals.
1,4-Dioxane	No	11/21/23	ND	ug/l	n/a		Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.	Laboratory studies show that 1,4-dioxane caused liver cancer in animals exposed at high levels throughout their lifetime. Whether 1,4-dioxane causes cancer in humans is unknown. The United States Environmental Protection Agency considers 1,4-dioxane as likely to be carcinogenic to humans based upon studies of animals exposed to high levels of this chemical over their entire lifetimes.
Perfluorobutanoic Acid (PFBA)	no	11/21/23	2.66	ng/l	n/a	10ppt	Released into the environment from widespread use in commercial and industrial applications.	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic Acid (6:2FTS)	no	11/21/23	2.94	ng/l	n/a	10ppt	Released into the environment from widespread use in commercial and industrial applications.	

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 single turbidity measurement for the year occurred on). State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. Although November was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

2 – The level presented represents the 90th percentile of the 5 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, five samples were collected at your water system and the 90th percentile value was the .3155mg/l. The action level for copper was not exceeded at any of the sites tested.

3 – The level presented represents the 90th percentile of the ten samples collected. The action level for lead was exceeded at 0 of the 5 sites tested.

4 – This level represents the highest locational running annual average calculated from data collected.

Testing was done for the following contaminants of which none were detected:

Aldicarb Sulfoxide	Aldicarb Sulfone	Oxamyl (Vydate)
Methomyl (Lannate)	3-Hydroxy Carbofuran	Aldicarb (Temik)
Propoxur (Baygon)	Carbofuran	Carbaryl (Sevin)
Methiocarb	Dalapon	Dicamba
2,4-D	Pentachlorophenol	2,4,5-TP (Silvex)
2,4,5-T	2,4-DB	Dinoseb
Picloram	Acifluorfen	Simazine
Atrazine	Metribuzin	Alachlor (Lasso)
Metolachlor (Dual)	Butachlor	Hexachlorocyclopentadiene
Propachlor	Trifluralin	Hexachlorobenzene
HCH, Alpha	HCH, Gamma (Lindane)	HCH, Beta
HCH, Delta	Heptachlor	Aldrin
Heptachlor Epoxide	Endosulfan I	4,4'-DDD
Endosulfan II	4,4'-DDT	Endrin Aldehyde
Endosulfan Sulfate	Methoxychlor	Mirex
Toxaphene	Chlordane, Technical	Aroclor 1016
Aroclor 1221	Aroclor 1232	Aroclor 1242
Aroclor 1248	Aroclor 1254	Aroclor 1260
1,2-Dibromoethane (EDB)	1,2,3-Trichloropropane	Dibromo-3-chloropropane
Dichlorodifluoromethane	Chloromethane	Vinyl Chloride
Bromomethane	Chloroethane	Trichlorofluoromethane
Acetone	1,1-Dichloroethene	Methylene Chloride
1,1-Dichloroethane	Methyl Ethyl Ketone	Cis-1,2-Dichloroethene
Bromochloromethane	2,2-Dichloropropane	1,2-Dichloroethane
1,1,1-Trichloroethane	1,1-Dichloropropene	Carbon Tetrachloride
Benzene	Dibromomethane	1,2-Dichloropropane

Trichloroethene	Cis-1,3-Dichloropropene	Methyl Isobutyl Ketone
Trans-1,3-Dichloropropene	1,1,2-Trichloroethane	Toluene
1,3-Dichloropropane	Tetrachloroethene	1,1,1,2-Tetrachloroethane
Chlorobenzene	m/p-Xylene	Styrene
1,1,2,2-Tetrachloroethane	o-Xylene	1,2,3-Trichloropropane
Isopropylbenzene	Bromobenzene	n-Propylbenzene
2-Chlorotoluene	4-Chlorotoluene	1,3,5-Trimethylbenzene
Tert-Butylbenzene	1,2,4-Trimethylbenzene	sec-Butylbenzene
1,3-Dichlorobenzene	1,4-Dichlorobenzene	p-Cymene
1,2-Dichlorobenzene	n-Butylbenzene	1,2,4-Trichlorobenzene
Naphthalene	Hexachlorobutadiene	1,2,3-Trichlorobenzene
Arsenic	Selenium	Cadmium
Antimony	Thallium	Beryllium
Chromium	Nickel	Cyanide, Hydrolyzable
Mercury	Aluminum	Molybdenum
Silver	Vanadium	

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.

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

Level 1 Assessment: A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

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

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).

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

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

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

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

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

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 New York State requirements.

We are required to present 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 Town of Henderson 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?

We constantly test for various contaminants in the water supply to comply with regulatory requirements. During 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

1. 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).

2. Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immunocompromised 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 20 pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

3. 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 that 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

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. *Giardia* is removed/inactivated through a combination of filtration and disinfection or by disinfection. Ingestion of *Giardia* may cause giardiasis, an intestinal illness. People exposed to *Giardia* may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The *Giardia* parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

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).

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 90% of the time.

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.