



2023
ANNUAL WATER QUALITY REPORT

Annual Drinking Water Quality Report for 2023 for Johnson City Water Department

Why Are You Getting This Report?

To comply with New York State regulations, the Johnson City Water Department annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water as well as 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 New York State standards. A detailed summary of any analytical results is available at the Johnson City Water Department which is located at 44 Camden Street, Johnson City, New York. A copy of this report is available at Johnson City Municipal Services, 60 Lester Ave, Johnson City, New York. Additional information may also be obtained by calling the Johnson City Water Department at 607-797-2523.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Village of Johnson City Board of Trustees meets the 1st and 3rd Tuesday of each month beginning at 7:30 p.m. at the municipal offices, located at 60 Lester Ave, Johnson City, NY.

Where Does Your Water Come From?

Drinking water sources include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Johnson City's water is produced from an abundant underground aquifer using five wells located throughout the Village. These wells are located on North Broad Street, Olive Street, and at our main plant on Camden Street in Westover. The total pumping capacity of these wells is 12,000,000 gallons per day. In addition, the Village has four reservoir tanks with a holding capacity of 5,000,000 gallons and additional booster stations are used to serve three different elevation zones. The water produced by these wells supplies all of the Village of Johnson City, Airport Road in the Town of Maine, Westover, Fairmont Park and Choconut Center in the Town of Union, and parts of the Town of Dickinson and the Village of Endicott. There are approximately 5,650 homes and businesses connected to 70 miles of water main, bringing safe drinking water to 15,174 (as taken from the 2010 census) people. We also provide water to 550 fire hydrants to help protect you and your home should the need arise. The Village of Johnson City wells are disinfected with liquid chlorination which is introduced at each well site. At our Camden Street treatment plant, Calciquest (a sequestering agent) is added to stabilize the water being pumped through air strippers. Air stripping is a process to remove any volatile contaminant that may be present in the raw water. The NYS Department of Health also supplies a source water assessment for our system showing possible and actual threats to the safety of our drinking water. The ratings, as shown in the **Susceptibility Table**, determine how susceptible each of our wells is to certain contaminants. These range from low to very high. This information is used to implement a plan for disinfection and treatment long before a problem arises.

What Are Some Potential Problems?

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 human activities. It should be noted that drinking water, including bottled water, may be reasonably expected to contain at least trace amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. A major disadvantage with groundwater supply is that the water may be excessively hard and contain minerals such as iron and manganese due to the leaching of minerals from the soil. However, groundwater is less susceptible to microbial contamination such as Cryptosporidium.

Is Your Water Safe?

YES! In order to ensure your tap water is safe to drink, New York State and the EPA put regulations in place that limit the number of certain contaminants in the water provided by public water systems. As these 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, total trihalomethanes, halo acetic acids, radiological and synthetic organic compounds. The State allows us to test for some contaminants less than once per year as the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

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 Broome County Health Department at 607-778-2887.

During 2023, the Johnson City Water Department was required to take a minimum of 20 bacteriological samples from the water distribution system per month. As you can see by the **Table of Detected Contaminants** (see page 8), we have learned through our testing that some contaminants have been detected. However, these contaminants are below New York State requirements and resulted in no violations.

Although our lead levels are below Action Level, 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. Endicott Water Department 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>.

Emerging Organic Contaminants

Perfluorooctanoic acid (PFOA), Perfluorooctansulfonic acid (PFOS), and 1,4-Dioxane (1,4-D)

PFOA, PFOS, and 1,4-D are relatively ubiquitous in the environment due to their historical widespread use and persistence. The New York State Health Department has instituted regulations requiring water systems to test for these contaminants.

PFOA and PFOS have been used in a variety of consumer and industrial products as surface coatings and/or protectants because of their nonstick properties. Research indicates that these compounds bioaccumulate in various organisms, including fish and humans.

1,4-D has been largely used as a solvent stabilizer for chemical processing but can also be found as a purifying agent in the manufacturing of pharmaceuticals as well as a contaminant in ethoxylated surfactants commonly used in consumer cosmetics, detergents, and shampoos. Research indicates that this chemical does not bioaccumulate in the food chain.

We are informing you that although our testing detected 1,4-Dioxane, PFOA, and PFOS in all of our wells during 2023, they did not exceed the MCL set forth by the New York State Health Department.

Is Our Water System Meeting Other Rules That Govern Operations?

During 2023, our system was determined to be in violation of the following drinking water operating, monitoring and reporting requirements.

Violations of the Lead & Copper Rule

Failed to complete and/or utilize a materials evaluation of the distribution system in order to identify a sufficiently large pool of sampling sites meeting the site selection criteria of the Lead and Copper Rule. A new Lead & Copper Sampling Plan has been developed.

Failed to report to the state the designation of new sampling locations and an explanation of sampling site changes for the lead and copper tap monitoring. A new Lead & Copper Sampling Plan has been developed and any deviations from the plan shall be approved by NYSDOH and BCHD.

Failed to provide evidence that all first-draw lead and copper samples collected during the 2022 sampling event met the stagnation requirements. An updated homeowner sampling form has been developed to include stagnation time. In addition, all sampling forms shall now be kept for the appropriate retention time with the sample results.

Lead and copper results were reported for the water system as a whole and indicated that the Lead and Copper levels met health standards. However, we failed to provide the results to the individual homeowners who participated in the sampling. Individual participating homeowner notification shall now occur no more than 30 days following receipt of sample results.

Failed to report to the state the tier designation, or criteria under which the sampling locations for the 2022 lead and copper sampling event were selected. Tier reporting shall now be included.

Violation of the Stage 2 Disinfection Byproducts Rule

Failed to maintain an up-to-date and accurate Stage 2 monitoring plan. The sampling plan has been updated and approved by the USEPA.

Violation of the Consumer Confidence Report (Annual Water Quality Report) Rule

Failed to provide contact information and public participation information in the Annual Water Quality Report. The information is now provided.

What Improvements Are We Making?

- 1250ft of new water main and valves was upgraded on North Broad St in 2023.
- New 6in water main added on Diment St, providing better circulation of water in that area.
- 800 ft of 6in water main was added on Miriam St, between Viginia & Ukrainian Hill.
- New drives for Reynolds and Fairview pump station were installed and completed in 2023
- 800ft of 8in water main was installed on Peterson St.
- 275ft of 6in water main between Harrison and Baldwin St was upgraded as part of an ongoing water main replacement project on Grand Ave.
- A valve cluster replacement took place on Greenridge & Burbank.
- A new hydrant and valve cluster was installed on Enid Pl.
- A new line valve was installed on Brown St.
- A new valve cluster was installed on Leigh St and Ukrainian Hill.

Why Save Water and How to Avoid Wasting It

Are Water Leaks Costing You Money? Periodically You Should:



Check all faucets for drips. Replace worn and leaking washers, gaskets, pipes or defective fixtures.

Check for leaks on outside faucets, and make sure the valve closes properly.

Check toilets for leaks--they are the most common cause of high bills! Check the

overflow of the tank to make sure no water is running over (float level may be set too high) The flapper valve in the bottom of the tank is also a location of a possible leaking toilet. To check for a flapper valve leak, put a small amount of food coloring in the toilet tank after it has filled. Do not flush the toilet for at least an hour, or overnight if possible. If the food coloring shows up in the bowl without flushing, you most likely have a leaking flapper or plunger ball valve.

How Much Water Do I Use?

Many customers ask the question "how much water does the average person use each day? The answer to this question requires a definition of the "average person". In general, per capita water use ranges from about 40 to 80 gallons per day (gpd). The following chart shows estimates of personal water use:

USE	Average / Person (gpd)
Bathing	15 - 25
Sink	3 - 5
Toilet	5 - 15
Washing Clothes	10 - 20
Washing Dishes	5 - 10
Cooking	1 - 2
Miscellaneous	1 - 3
Total	40 -80

How to Check for Leaks



Studies show that dripping faucets and leaking toilets account for as much as 14% of all indoor water use, equivalent to 10 gallons per person of water lost per day.

Read Your Water Meter - Use your water meter to check for leaks in your home. Start by turning off all faucets and water- using appliances and make sure no one uses water during the test period. Take a reading on your water meter, wait for about 30 minutes, and then take a second reading. If the dial has moved, you have a leak.

Check for Leaky Toilets - The most common source of leaks is the toilet. Check toilets for leaks by placing a few drops of food coloring in the tank. If after 15 minutes the dye shows up in the bowl, the toilet has a leak.

Leaky toilets can usually be repaired inexpensively by replacing the flapper.

- Toilets can account for almost 30% of all indoor water use, more than any other fixture or appliance.
- Older toilets (installed prior to 1994) use 3.5 to 7 gallons of water per flush and as much as 20 gallons per person per day.
- Replacing an old toilet with a new model can save the typical household 7,900 to 21,700 gallons of water per year, cutting both your water and wastewater bills.




An average of 20% of all toilets leak!!

Check for Leaky Faucets - The next place to check for a leak is your sink and bathtub faucets. Replacing the rubber O-ring or washer inside the valve can usually repair dripping faucets.

The following table at the bottom of this page shows the amount of water that can be lost (and billed to your account) for various size leaks.

How Can I Check My Water Usage?

To determine your average daily use or to check your appliance usage, you can read your meter on an hourly, daily, or weekly basis. Simply record your meter reading at the beginning of a measurement period and again at the end of a period. The difference between these two-meter readings will be the water used during that period. [Note that your water meter reads in cubic feet](#) and can easily be converted to gallons by multiplying the reading by 7.48 gallons per cubic foot.

Leak Size		Gallons Per Day	Gallons Per Month	Cubic Feet per Quarter
	A dripping leak consumes:	15 gallons	450 gallons	180 Cubic Feet
	A 1/32 in. leak consumes:	264 gallons	7,920 gallons	3,168 Cubic feet
	A 1/16 in. leak consumes:	943 gallons	28,300 gallons	11,319 Cubic Feet
	A 1/8 in. leak consumes:	3,806 gallons	114,200 gallons	45,681 Cubic Feet
	A 1/4 in. leak consumes:	15,226 gallons	456,800 gallons	182,721 Cubic feet
	A 1/2 in. leak consumes:	60,900 gallons	1,827,000 gallons	730,800 Cubic Feet

Information about water conservation ideas can be found at <https://www.epa.gov/watersense/water-conservation-plan-guidelines>

What Does Your Water Cost You?

Customers Inside of the Village	Up to 1000 cu ft	1,001 cu ft - 5,000 cu ft	5,001 cu ft - 10,000 cu ft	over 10,001 cu ft
Water rates/100 cu ft	\$45.00	\$7.00	\$8.00	\$9.00

Customers Outside of the Village	Up to 1000 cu ft	1,001 cu ft - 5,000 cu ft	5,001 cu ft - 10,000 cu ft	over 10,001 cu ft
Water rates/100 cu ft	\$55.00	\$7.75	\$8.75	\$9.75

VILLAGE OF JOHNSON CITY MUNICIPAL SERVICES 607-798-7861 243 Main Street, Johnson City, NY 13790					RETURN STUB WITH PAYMENT		PRESORTED FIRST CLASS MAIL U.S. POSTAGE PAID BINGHAMTON, NY 13905 Permit No. 219	
ACCOUNT NUMBER		SERVICE I.D.			DUE DATE		25.96	
012345		012345			04/30/2012		TEMP RETURN SERVICE REQUESTED	
PREV. READ DATE		CUR. READ DATE			NET AMOUNT		AFTER DUE DATE	
11/15/2012		02/15/2012			216.32		216.32	
SERVICE	PREVIOUS READING	PRESENT READING	CONSUMPTION	AMOUNT	ACCOUNT NUMBER		SERVICE I.D.	
WATER	1551	1585	3400	60.32	012345		012345	
SEWER			3400	94.00				
REFUSE				62.00				
SEND PAYMENTS TO:								
243 Main Street, Johnson City, NY 13790								
PAST DUE AMOUNT		CURRENT CHARGES		NET AMOUNT				
0.00		216.32		216.32				
DUE DATE		AFTER DUE DATE		NET AMOUNT				
04/30/2012		216.32		216.32				
100 Main Street								
SERVICE ADDRESS								
					25.96			

Ray Jones
200 Oak Street
Anywhere, USA
67890

Each property is assigned an **account number**. There is a minimum of one service billed quarterly. The difference between the **previous** and **present reading** is the **consumption of water** for that quarter. The **amount** is the charge for that specific service. **Water** billing is based on actual **consumption**. We do not estimate readings. Sewer is billed off water consumption, but at a different rate. Rates can be found on our website, <https://www.villageofjc.com/water/>. **Refuse** is a flat fee based on both the property type and number of units. If there is a **past due amount**, it will be noted in the **past due** box. The **past due** plus the **current charges** is the **net amount**. The **net amount** is the total amount due. The **previous** and **current read dates** cover the quarterly period of service. The **due date** is when the bill needs to be paid in full in order to avoid a 12% penalty charge. The **service address** is the property the services are supplied to.

If there is a water meter installed in a property, a minimum bill will continue to be generated. To avoid incurring a minimum bill, the meter must be removed. The water will be shut off, and all services (including refuse pick-up) will be terminated. There is a meter reinstallation fee of \$150.00 for any property.

Shut Off Policy

After the due date, a 12% penalty will be added to overdue accounts. Notices of Nonpayment will be mailed and posted to any delinquent accounts. A **\$50.00 administration fee** will be added 15 days past the due date in addition to the current outstanding balance. The balance, including all penalties and fees, must be paid in full to avoid having your water service shut off.

If water is **shut off**, payment of a **service charge** of **\$150.00** will be incurred and payment is required prior to restoration of service to these premises. Please note that if your water is shut off, the property will be posted uninhabitable and water service **will not be restored until the next business day**.

This diagram will help you understand your water meter. The digital display will go dormant in order to conserve battery. **Using a flashlight**, shine it on the top of the meter to bring up the numbers and LCD display so you can read your meter and the other indicators explained below.

Solar Cell **(1)**

Leak Icon **(f)**

Flow Indicators **(0)**

Date of Manufacture **(C)**

LCD Display **(0)**

	<p>SOLAR CELL Located at the top of the E-Coder, supplies power for the LCD panel (light activated)</p>										
	<p>FLOW INDICATOR Shows the direction of flow through the meter:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; background-color: #cccccc;">ON</td> <td>Water in use.</td> </tr> <tr> <td style="background-color: #cccccc;">OFF</td> <td>Water not in use.</td> </tr> <tr> <td style="background-color: #cccccc;">FLASHING</td> <td>Water is running slowly.</td> </tr> <tr> <td style="background-color: #cccccc;">(-)</td> <td>Reverse flow.</td> </tr> <tr> <td style="background-color: #cccccc;">(+)</td> <td>Forward flow.</td> </tr> </table>	ON	Water in use.	OFF	Water not in use.	FLASHING	Water is running slowly.	(-)	Reverse flow.	(+)	Forward flow.
ON	Water in use.										
OFF	Water not in use.										
FLASHING	Water is running slowly.										
(-)	Reverse flow.										
(+)	Forward flow.										
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; background-color: #cccccc;">LEAK INDICATOR</td> <td>Displays a possible leak:</td> </tr> <tr> <td style="background-color: #cccccc;">OFF</td> <td>No leak indicated.</td> </tr> <tr> <td style="background-color: #cccccc;">FLASHING</td> <td>Intermittent leak indicates that water has been used for at least 50 of the 96 15-minute intervals during a 24-hour period.</td> </tr> <tr> <td style="background-color: #cccccc;">ON CONTINUOUSLY</td> <td>Indicates water use for all 96 15-minute intervals during a 24-hour period.</td> </tr> </table>	LEAK INDICATOR	Displays a possible leak:	OFF	No leak indicated.	FLASHING	Intermittent leak indicates that water has been used for at least 50 of the 96 15-minute intervals during a 24-hour period.	ON CONTINUOUSLY	Indicates water use for all 96 15-minute intervals during a 24-hour period.		
LEAK INDICATOR	Displays a possible leak:										
OFF	No leak indicated.										
FLASHING	Intermittent leak indicates that water has been used for at least 50 of the 96 15-minute intervals during a 24-hour period.										
ON CONTINUOUSLY	Indicates water use for all 96 15-minute intervals during a 24-hour period.										

TABLE OF DETECTED CONTAMINANTS - Village of Johnson City 2023

Contaminant	Violation Yes/No	Sample Location	Date of Sample	Level Detected (range)	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria ¹	No	Distribution	1/23/2023 4/10/2023	Positive	N/A	0	Any positive sample	Naturally present in the environment.
Inorganic Contaminants								
Nickel	No	Well #6 Well #7	7/17/2023 7/17/2023	0.0017 0.0008	mg/l	0.1	0.1	Leaching from metals; Erosion of natural deposits.
Barium	No	Camden St. Well #6 Well #7	7/17/2023 7/17/2023 7/17/2023	0.0814 0.0870 0.0839	mg/l	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Lead ²	No	Distribution	9/7- 9/9/2022	1.9 (ND-7.0)	ug/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Copper ²	No	Distribution	9/7- 9/9/2022	0.431 (0.0104- 0.798)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Nitrate (as Nitrogen)	No	Camden St. Well #6 Well #7	4/12/2023 4/12/2023 4/12/2023	ND 0.80 ND	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Chromium	No	Camden St. Well #6 Well #7	7/17/2023 7/17/2023 7/17/2023	0.0015 0.0011 0.0013	mg/l	0.1	0.1	Discharge from steel and pulp mills; Erosion of natural deposits.
Sodium ³	No	Camden St. Well #6 Well #7	4/12/2023 4/12/2023 4/12/2023	103 70.7 65.9	mg/l	N/A	See Health Effects	Naturally occurring; Road salt; Water softeners; Animal waste.
Disinfectants								
Chlorine Residual	No	Distribution	Daily	0.85 (0.20- 1.87)	mg/l	N/A	4	Water additive used to control microbes.
Disinfection Byproducts								
Total Trihalomethanes ⁴	No	Distribution	7/17/2023 10/11/2023	27.3 45.7	ug/l	N/A	80	By-product of drinking water chlorination.

Haloacetic Acids ⁵	No	Distribution	7/17/2023 10/11/2023	5.51 6.80	ug/l	N/A	60	By-product of drinking water chlorination.	
Emerging Organic Contaminants									
Perfluorooctanoic Acid (PFOA)	No	Camden St. Well #6 Well #7	10/11/2023 10/11/2023 10/11/2023	1.2 2.5 2.0	ng/l	N/A	10	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.	
Perfluorooctanesulfonic Acid (PFOS)	No	Camden St.	10/1/2023	0.88	ng/l	N/A	10	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.	
PFBS PFHxA	PFHxS PFHpA	No	Camden St. Well #6 Well #7	2023 Quarterly	ND - 4.9	ng/l	N/A	N/A	There are no regulations establishing an MCL for these compounds currently. Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
1,4-Dioxane	No	Camden St. Well #6 Well #7	2023 Quarterly	0.45-0.59 0.077-0.53 0.053-0.58	ug/l	N/A	1	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.	
Radiological Contaminants									
Gross Alpha	No	Camden St. Well #6 Well #7	2/12/2019 2/12/2019 2013-2015	0.811 0.565 1.29	pCi/L	0	15	Erosion of natural deposits.	
Radium-226 & Radium-228	No	Camden St. Well #6 Well #7	2/12/2019 2/12/2019 2013-2015	0.426 0.312 0.95	pCi/L	0	5	Erosion of natural deposits.	
Notes:									
1	All required repeat samples were negative for coliform.								
2	The level presented represents the 90 th percentile of the 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 90 th percentile is equal to or greater than 90% of the lead/copper values detected at your water system.								
3	Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.								

4	These levels represent the Locational Running Annual Average levels (annual sampling) of the following contaminants: chloroform, bromodichloromethane, dibromochloromethane, bromoform.
5	These levels represent the Locational Running Annual Average levels (annual sampling) of the following contaminants: dibromoacetic acid, dichloroacetic acid, monochloroacetic acid, monobromoacetic acid, and trichloroacetic acid.
Definitions:	
	<u>Maximum Contaminant Level (MCL)</u> : The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.
	<u>Maximum Contaminant Level Goal (MCLG)</u> : 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.
	<u>Action Level (AL)</u> : The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
	<u>Non-Detects (ND)</u> : Laboratory analysis indicates that the constituent is not present.
	<u>Milligrams per liter (mg/l)</u> : Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
	<u>Micrograms per liter (ug/l)</u> : Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
	<u>Nanograms per liter (ng/l)</u> : Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).
	<u>Picocuries per liter (pCi/L)</u> : A measure of the radioactivity in water.

UNREGULATED CONTAMINANT MONITORING 2023		
<p>The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the U.S. Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. Unregulated contaminants are those that don't yet have a drinking water standard set by US EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. The following unregulated contaminants were detected in our water system during 2019:</p>		
Manganese	ND - 19.8 ug/l	Source is erosion of natural deposits.
Bromide	102 - 217 ug/l	Naturally occurring. Tested as a precursor of disinfection byproducts.
Total Organic Carbon	ND - 657 ug/l	Naturally occurring. Tested as a precursor of disinfection byproducts.
Haloacetic Acids*	3.62 - 11.8 ug/l	By-product of drinking water disinfection needed to kill harmful organisms.

* - These levels represent the total levels of the following contaminants: Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Dibromoacetic Acid, Bromochloroacetic Acid, Bromdichloroacetic Acid, Chlorodibromoacetic Acid, Tribromoacetic Acid		
The following unregulated contaminants were detected in our water system during 2023:		
Lithium	ND - 15.0 ug/l	Source is erosion of natural deposits.
Perfluorobutanoic Acid (PFBA) stain	ND - 5.9 ng/l	Chemical used in a wide range of consumer and industrial products such as non-stick cookware, resistant carpet and clothing, and cosmetics.
Perfluoropentanoic Acid (PFPeA) stain	4.0 - 9.4 ng/l	Chemical used in a wide range of consumer and industrial products such as non-stick cookware, resistant carpet and clothing, and cosmetics.
Perfluorohexanoic Acid (PFHxA) stain	ND - 4.8 ng/l	Chemical used in a wide range of consumer and industrial products such as non-stick cookware, resistant carpet and clothing, and cosmetics.

**Johnson City Water Works
NY0301668
AWQR Source Water Assessment Summary**

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state 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, called the well sensitivity. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected. While inorganic and organic contaminants were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk.

As mentioned before, our water is derived from four active drilled wells and one emergency well (not evaluated in this assessment). The source water assessment has rated wells #2, #3 (Camden St.) and #6 (Burns St.) as highly sensitive to both chemical and microbial contaminants. The wells rate a high sensitivity because of historic detections of chemical contaminants and because the wells are located in a very productive, unconfined aquifer where the subsurface soils allow large volumes of water to move through the aquifer. Well #7 (North Broad St.) is in an area where the aquifer is somewhat protected with a low permeability layer above and has rated a medium sensitivity to microbials but a high sensitivity to chemical contaminants, also due to historic chemical detections.

Potential contaminant sources were then evaluated and given a contaminant prevalence rating. The sensitivity and contaminant prevalence then determine the susceptibility of a particular well. The source water assessment has rated the Johnson City Water Works wells as having a low to high susceptibility to microbials, such as enteric bacteria and enteric viruses, and a medium-high to very high susceptibility to various chemical contaminants as

noted in the table below. While significant sources of some types of contamination have not been identified in the assessment area, wells may have been given an elevated susceptibility rating for other chemicals because of high well sensitivities.

SUSCEPTIBILITY TABLE				
CONTAMINANT	Well #2	Well #3	Well #6	Well #7
Cations/Anions (Salts)	High	High	High	High
Enteric Bacteria	High	High	Medium-High	Low
Enteric Viruses	High	High	Medium-High	Low
Halogenated Solvents	Very High	Very High	Very High	Very High
Herbicides/Pesticides	High	High	Medium-High	Medium-High
Metals	High	High	High	High
Nitrate	High	High	High	High
Other Industrial Organics	High	High	High	High
Petroleum Products	Very High	Very High	High	High
Protozoa	High	High	Medium-High	Low

While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination.

The Village of Johnson City currently has an active wellhead and watershed protection plan in place to ensure drinking water safety. The source water assessment is another tool that can help direct further refinements to the plan. County and state health departments will also use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education program