

Annual Drinking Water Quality Report for 2023

Village of Richfield Springs

P.O. Box 271, Richfield Springs, NY 13439

(Public Water Supply ID#NY3800156)

INTRODUCTION

To comply with State and Federal regulations, the Village of Richfield Springs, 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. During the year we conducted tests for 79 contaminants. We detected 44 contaminants, and only found 1 of those contaminants at a level higher than the state allows. As we told you at the time, our water temporarily exceeded a drinking water standard and we rectified the problem by working to lower the chlorine residuals throughout the village adding automatic flushing hydrants and by lowering storage levels. 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 **Doug Bordinger, Water Superintendent/Water Treatment Plant Operator**, at **(315) 858-1098**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled village board meetings. **The meetings are held on the 2nd and last Tuesday of each month at 7:00pm, at the Public Library Memorial Room, 102 Main Street, Richfield Springs 13439. Phone (315) 858-1710 for more info.**

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source is a surface water source, Allen Lake. The raw water flows by gravity to the reservoirs located on Rte. 20. It is then pumped from the reservoirs to the Water Filtration Plant. The water is then filtered and disinfected with a sodium hypochlorite solution. Fluoride for the prevention of dental caries and orthophosphate for corrosion control is added. The finished water is then stored in a 350,000-gallon clear well at the Water Plant before flowing by gravity to the distribution system, any water not consumed by our customers is stored in a 350,000-gallon pre-stressed concrete storage tank. The Water Plant produces about 125,000 gallons of finished water per day. Our water system serves a population of approximately 1200 through an estimated 588 service connections.

SOURCE WATER ASSESSMENT SUMMARY

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. While nitrates (and other inorganic 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. The nitrate levels in our sources are not considered high in comparison with other sources in this area. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. As mentioned before, our water is derived from Allen Lake. The analysis of available information for this source water assessment did not find any significant sources of contamination. No discrete sources were identified within the assessment area; however, this source has been rated as having a medium susceptibility to microbials due to agricultural practices in the

watershed. During the last five years there have been no large numbers of animals on the farms in our watershed. While the source water assessment rates our source as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted below. It should also be noted that a yearlong study monitoring our raw water source was completed in 2019. This study was done to satisfy the EPA LT2 raw water quality testing requirements. The results showed that our raw water fell well under the EPA limits that would require additional treatment.

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, 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 New York State Department of Health, Oneonta District Office at (607) 432-3911.

Table of Detected Contaminants

Contaminant	Violation Yes/ No	Date of Sample	Level Detected (Average) (Range)	Unit Mea sure ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity	No	Daily (0.09)	(0.04-0.22)			NTU N/A TT-0.3	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.
Inorganics							
Sodium ³	No	9/19/19	14.1 mg/L	N/A	(See Health Effects) ³		Naturally occurring; Road salt; water softeners; Animal wastes.
Lead *	No	9/7-8/2022		1*		ug/10 AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.

(ND-11)

*During 2022 we collected and analyzed 10 samples for lead and copper. The level included in this table represents the 90th percentile of the 10 samples collected. A percentile is the value on a scale 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 values detected at your water system. The action levels for lead and copper were not exceeded at any of the 10 sites tested.

Copper No	9/7-8/2022	0.015* (0.005 - 0.055)	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
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Nitrate No	1/19/23	0.099	mg/l	10	10	Runoff from fertilizer use. Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium No	10/12/23	0.0112	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride No	10/12/23	0.676	mg/l	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.

Nickel	No	10/12/23	ND	mg/l	N/A	N/A	Naturally Occurring
Chloride	No	9/19/19	22.8	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.
Sulfate	2.56	9/19/19	2.56	mg/L	N/A	250	Naturally occurring.

Disinfection By-Products							
No Each							
Total			Avg = 68.7		ug/l N/A 80 By-product of drinking water		
Trihalomethanes (TTHMs –	Quarter		chlorination needed to kill harmful organisms. TTHMs				

						are formed when source water contains organic matter.	
chloroform,		Range					
bromodichloro		= 49.2					
methane,		- 107				* The Richfield Springs water exceeded the MCL for	
dibromochloro methane, and bromoform)						TTHMs of 80 ug/l in the third quarter of 2023 with 107ug/l, but the LRAA was below the MCL.	
Haloacetic Acids: (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	Each Quarter	Avg. = 39.3 Range = 1.1-59.9	ug/l	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.

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 single turbidity measurement for the year occurred on 5/4/2022(0.28 NTU). 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. For the entire year we had no samples that exceeded 0.3 NTU therefore our levels were within the acceptable range allowed and did not constitute a treatment technique violation. 2- This level represents the annual quarterly average calculated from data collected.

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

WHAT DOES THIS INFORMATION MEAN?

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. In 2013 the Stage 2 Disinfectants and Disinfection Byproduct Rule (Stage 2) went into effect for our water system. Stage 2 establishes MCLs for TTHMs 80 ug/l, based on a locational running annual average (LRAA - the average of the four most recent quarterly samples from a specific sampling point). We had no MCL violations in 2023 although in the third quarter(September) we had 107ug/l but the LRAA was under 80 ug/l. We are continuing to work on lowering the TTHMs by lowering the chlorine residuals throughout the village, by adding automatic flushing hydrants and by lowering storage levels.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. In 2013 When the Stage 2 Rule went into effect, the MCL for HAAs became 60 ug/l based on the LRAA. We had no MCL violations for HAAs in 2023.

***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. Richfield Springs Village water system 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. You can take responsibility by identifying and removing lead materials in 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 Doug Bordinger, water superintendent at the Richfield Springs Water Plant, 315-748-8143. 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>.

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.

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.

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). **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

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During 2022, our system was in compliance with all applicable State drinking water operating, monitoring and reporting requirements. We are still in violation with the surface water treatment rule due to raw water users on our raw water transmission line.

Information on Radon

Radon is a naturally occurring gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from entering indoor air from soil under homes.

In 2017, we collected water samples that were analyzed for Gross Alpha, Beta, Radium-226, and Radium-228. The test showed that no levels were detected at the MDC or RL levels. For additional information call your state radon program (1800-458-1158) or call EPA’s Radon Hotline (1-800-SOS-RADON).

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 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 Center for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.7 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. During 2023 monitoring showed fluoride levels in your water were in the optimal range 100% of the time. None of the monitoring results showed fluoride levels that approach the 2.2 mg/l MCL for

fluoride.

WHY SAVE WATER AND HOW TO AVOID WASTING?

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 up 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. With the installation of the new radio-read water meters we can now detect some leaks when we read the meters. When we find these leaks, we will be notifying our water customers of the problems.

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, our way of life and our children's future. **Please call our office if you have questions at (315) 858-1098.**