



VILLAGE OF RICHFIELD SPRINGS

PO Box 271
Richfield Springs, NY 13439

2017 Annual Drinking Water Quality Report

Public Water Supply #38-00150
Douglas J. Bordinger, Water Plant Operator
wtp.bordinger@richfieldsprings.org
315-858-1098

Dear Water Customer,

To comply with New York State and Federal regulations, the **Village of Richfield Springs** publishes an annual 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 over 80 contaminants. 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 the water system in general, please contact me as outlined above. We want our valued customers to be informed about their water utility. If you want to learn more, feel free to attend the any of the Village Board of Trustees monthly meetings scheduled at 7pm on the **2nd and last Tuesday in the Public Library Memorial Room at 102 Main Street in Richfield Springs.**

Village Office phone (315) 858-1710.

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 1500 through 635 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 medium microbial susceptibility to 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 microbial, 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 September 2009. 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.

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 coli form, 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 Otsego County Health Department at (607) 432-3911.**

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity	No	Daily	(0.07) (0.04-0.25)	NTU	N/A	TT-0.5	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.

Synthetic Organic Chemicals							
Dalapon	No	7/20/17	.79	ug/l	N/A	50	Runoff from herbicide used on rights of way.
Inorganics							
Lead #2	No	7/20/16	90 th % 2.3	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper #3	No	7/20/16	90 th % 70	ug/l	1300	AL = 1300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	1/12/17	0.205	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	No	7/05/16	16	ug/l	2000	2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	No	Monthly	0.71	mg/l	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nickel	No	2/6/14	6	ug/l	N/A	N/A	Naturally Occuring
Disinfection By-Products							
TTHM ₈ (Total Trihalomethanes)#4	Yes	Each Quarter	(70.2) (61.9 6 77.2)	ug/l	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
HAA5 (Total Haloacetic Acids)#4	No	Each Quarter	(39.3) (28 6 50.9)	ug/l	N/A	60	By-product of drinking water chlorination.

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 12/14/17(0.25 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. The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was exceeded at 1 of the 10 sites tested.
3. The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile value was the 115 ug/l value. The action level for copper was not exceeded at any of the sites tested.
4. This level represents the annual quarterly average calculated from data collected.

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 contamination.

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.

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

Nephelometric Turbidity Unit (NTU): A measure of 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 this year. The village of Richfield Springs Water system was found to have an average concentration of 70.2 parts per billion (ppb) of total Trihalomethanes for all 4 quarters of 2017. This does not exceed the maximum concentration level (MCL), established by the New York State Health Department for total trihalomethanes, which is 80 ppb as an average of four quarterly sample results. Water suppliers are required to provide written public notification to consumers when an MCL is exceeded.

People are exposed to trihalomethanes in the air they breathe, the food they eat, and the water they drink. Trihalomethanes are a concern because epidemiological studies suggest a potential human health risk after long term exposure. 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. Trihalomethanes in drinking water are produced as a by-product of the treatment process when chlorine is added for disinfection. Factors that affect the potential levels of trihalomethanes are organic matter in the raw water, ph, temperature, time and chlorine residual.

Trihalomethanes are commonly found in drinking water supplies throughout the United States in concentrations ranging from 1 to 540 ppb. Based on quarterly testing performed since 1992, trihalomethane levels in the Richfield Springs water system have ranged from 66-111 ppb. Health effects are not expected from this exposure and no special precautions are needed regarding consumption of this water. Consumers having questions on any of the above can contact the Water Treatment Plant Operator at 315-858-1098 or the EPA's SFE Drinking Water Hotline at 800-426-4791. We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below New York State requirements. It should be noted that the action level for lead was ***Not*** exceeded. 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 Village of Richfield Springs 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?

During 2017, our system was in compliance with all applicable State drinking water requirements.

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 2008, we collected four representative water samples (one per calendar quarter) that were analyzed for radon Gross Alpha, 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 (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-RADON).

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 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 2017 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.