

Annual Drinking Water Quality Report for 2021
Ripley Water District
10168 West Lake Road
Ripley, NY 14775
Public Water Supply ID# NY0600372

INTRODUCTION

To comply with State regulations, Ripley Water District annually issues 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.

In 2021 we were required to install new treatment to address past lead and copper violations. Please read more information about this in the Table of Detected Contaminants and in the “What Does This Information Mean?” section of this report.

This report includes 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 Andrew Strine, Water Facility Superintendent, at 716-736-6000. 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 Thursday of every month at 7:30 PM in the Community Building located at 14 North State Street.

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 approximately 1600 people and several small businesses through 548 service connections. Our water source is surface water, which is treated by the Martin D. Cary filtration plant. The Martin D. Cary filtration plant is designed to produce 350,000-gallons per day using the slow sand filtration process with a final stage of chlorine disinfection prior to distribution.

The NYSDOH has evaluated this public water supply’s susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of pasture in the assessment area results in a high potential for protozoa contamination. No permitted discharges are found in the assessment area. There are no likely contamination threats associated with other discrete contaminant sources, even though oil and gas wells are found in high densities.

While the source water assessment rates our reservoir as being susceptible to microbial, please note that our water is filtered and disinfected to ensure that 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 above.

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 Chautauqua County Health Department at 716-753-4481.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation	Date of Sample	Level Detected	Unit Measure -ment	Regulatory Limit (MCL/ AL)	MCLG	Likely Source of Contamination
MICROBIOLOGICAL CONTAMINANTS							
Turbidity ¹	No	7/8/21	0.22	NTU	TT=<1.0 NTU	N/A	Soil Run-off
Turbidity ¹	No	July 2021	100% <0.3	NTU	TT=95% of samples <0.3NTU	N/A	Soil Runoff
Distribution Turbidity ²	No	August	0.5	NTU	MCL>5 NTU	N/A	Soil Run-off
INORGANIC CONTAMINANTS							
Copper ³	No	6/9/21 – 6/10/21	1.01; Range= 0.122-1.57	mg/l	1.3 (AL)	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead ⁴	No	6/9/21 – 6/21/21	6.54; Range= 2.16-19.8	ug/l	15 (AL)	0	Corrosion of household plumbing systems: Erosion of natural deposits.
Copper ⁵	No	12/7/21 – 12/15/21	1.10; Range= 0.096-1.68	mg/l	1.3 (AL)	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead ⁶	No	12/7/21 – 12/15/21	5.23; Range= ND-12.1	ug/l	15 (AL)	0	Corrosion of household plumbing systems: Erosion of natural deposits.
Lead ⁷ (Entry Point)	No	9/1/20	5.26	ug/l	15 (AL)	0	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Copper ⁷ (Entry Point)	No	9/1/20	0.0573	mg/l	1.3 (AL)	1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Alkalinity, Bicarbonate ⁷ (Entry Point)	No	8/31/20 9/1/20	Avg.=76.7 Range= 74.5-78.8	CaCO3/ L	N/A	N/A	N/A
Alkalinity, Bicarbonate ⁷ (Distribution System)	No	8/31/20 9/1/20	Avg.=79.9 Range= 76.7-83.1	CaCO3/ L	N/A	N/A	N/A
Conductivity ⁷ (Entry Point)	No	8/31/20 9/1/20	Avg.=208.5 Range= 202-215	µMHOS/ cm	N/A	N/A	N/A
Conductivity ⁷ (Distribution System)	No	8/31/20 9/1/20	Avg.=210.3 Range= 199.6-221.0	µMHOS/ cm	N/A	N/A	N/A
Calcium ⁷ (Entry Point)	No	8/31/20 9/1/20	Avg.=27.5 Range= 26.5-28.5	mg/l	N/A	N/A	N/A
Calcium ⁷	No	8/31/20	Avg.=29.6	mg/l	N/A	N/A	N/A

(Distribution System)		9/1/20	Range= 28.1-31.1				
Barium	No	3/10/21	0.0329	mg/l	2 (MCL)	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nickel	No	3/12/20	0.315	ug/l	N/A	N/A	Nickel enters groundwater and surface water by dissolution of rocks and soils, from atmospheric fallout, from biological decays and from waste disposal.

RADIOLOGICAL

Gross Beta ⁸	No	8/13/13	2.3	pCi/l	50 (MCL)	0	Decay of natural deposits and man-made emissions.
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STAGE 2 DISINFECTION BYPRODUCTS (WASTEWATER TREATMENT PLANT)

Total Trihalomethanes	No	Quarterly (2021)	Avg.=65.34 Range= 38.0-90.2	ug/l	80 (MCL)	N/A	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
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STAGE 2 DISINFECTION BYPRODUCTS (HIGHWAY BARN)

Total Haloacetic Acids	No	Quarterly (2021)	Avg.=54.25 Range= 33.0-86.2	ug/l	60 (MCL)	N/A	By-product of drinking water chlorination needed to kill harmful organisms
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DISINFECTANTS

Chlorine Residual	No	Daily (2021)	Avg.=1.23 Range= 0.4-2.6	mg/l	4 (MCL)	N/A	Water additive used to control microbes
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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 7/8/21 (0.22 NTU). State regulations require that turbidity must always be less than or equal to 1.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. Although in the month of July 2021, we recorded our highest turbidity readings, at no time within the calendar year did we exceed the 0.3 NTU turbidity limit, all recorded were in acceptable range allowed and did not constitute a treatment technique violation.

2 - Distribution Turbidity is a measure of the cloudiness of the water found in the distribution system. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. Our highest average monthly distribution turbidity measurement detected during the year (0.5 NTU) occurred during August. This value is below the State's maximum contaminant level of 5 NTU.

3 - The level presented represents the 90th percentile of the 20 homes tested. A percentile is a value on a scale of 100 that indicates the percent of samples 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, 20 samples were collected at your water system and the 90th percentile value was calculated to equal the 3rd highest result which was 1.01 mg/l. The action level for copper was exceeded at one of the sites tested.

4 - The level presented represents the 90th percentile of the 20 homes tested. In this case, 20 samples were collected at your water system and the 90th percentile value for lead was 6.54 ug/l. The action level for lead was not exceeded at any of the sites tested.

5 - The level presented represents the 90th percentile of the 20 homes tested. In this case, 20 samples were collected at your water system and the 90th percentile value for copper was 1.10 ug/l. The action level for copper was exceeded at one of the sites tested.

6 - The level presented represents the 90th percentile of the 20 homes tested. In this case, 20 samples were collected at your water system and the 90th percentile value for lead was 5.23 ug/l. The action level for lead was not exceeded at any of the sites tested.

7 - These contaminants were collected as required by the lead level exceedance in 2020.

8 - The NYSDOH considers 50 pCi/l to be the level of concern for beta particles.

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 that is 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.

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).

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

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations in 2021. In 2020, we exceeded the action levels for both lead and copper. Ten water samples were collected from different homes in our water district in 2020 and a total of three out of ten samples exceeded the action level for copper and three of the ten samples exceeded the action level for lead. Out of 40 samples collected in 2022, the action level for copper was only exceeded twice and the action level for lead was not exceeded at all.

Extensive testing was done to determine the source of copper and lead and how we can best treat the water to reduce them in your homes. The source of copper and lead is from the corrosion of household plumbing that contains copper pipes with lead-soldered joints. We determined that the best treatment will be to add a corrosion inhibitor called orthophosphate to the water. This form of treatment provides a protective coating on the plumbing in our system to prevent the copper and lead from leaching into your drinking water. Work on installing this new treatment was finished in late 2021. In 2022, will continue sampling for lead and copper every 6 months to determine if the treatment is working properly. The Ripley Water District will continue to keep you updated and will notify you immediately if there are any additional problems.

What Are The Health Effects of Copper? Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a 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.

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.

We have learned through our testing that some other contaminants have also been detected; however, these contaminants were detected below the level allowed by the State. Lead and copper were detected within the system and of the forty samples collected none were found exceeding the action level for lead and two were found exceeding the action level for copper. 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 Ripley Water District 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>.

The NYSDOH has a free lead testing program – for more information go to:

https://www.health.ny.gov/environmental/water/drinking/lead/free_lead_testing_pilot_program

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2021, our system was in compliance with applicable State drinking water operating, monitoring, and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded most 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 FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

French

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.

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 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.

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. There is only cosmetic repair left for Sewer District 2, the Sewer main that follows Route 20 west bound, down Shortman Road and Route 5 west bound. An older sewer main located on the north side of Route 20 west bound has been replaced/repared and cosmetic repairs are currently underway. Water District 4, the continuation of our water main on Route 5 east bound, has been delayed. The delay is due to the national supply chain collapse that has followed after the national COVID-19 shut down. The contractor is working hard to secure the supplies needed to start the project. We ask that all our customers help us protect our water sources, which is the heart of our community. Please call our office if you have questions.