



Village of Richwood 2022 Drinking Water Consumer Confidence Report PWS# OH8000412

The Village of Richwood has an unconditional license to operate a water plant

Introduction

The Village of Richwood has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. Public participation and comments are encouraged at regular Village Council meetings, which meet the second and fourth Mondays of each month at the Administration Building at 153 N. Franklin Street. For more information on your drinking water, contact Monte Asher, Village Administrator at (740) 943-3315 during business hours.

Source Water Information

The Village of Richwood receives its drinking water from two wells located west of the North Union High School on North Franklin Street. Both of these wells are considered ground water sources with required treatment prior to being used for drinking. The water treatment plant currently operates as an iron removal plant and has the capacity to treat 374,000 gallons per day.

What are sources of contamination to drinking water?

The sources of drinking water (both tap water and bottled water) includes 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 activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. 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 Environmental Protection Agency's Safe Drinking Water Hotline ([1-800-426-4791](tel:1-800-426-4791)).

Drinking Water Source Assessment

This assessment indicates that The Village of Richwood's source drinking water has high susceptibility to contamination due to:

- A Presence of a relatively thin protective layer of clay/shale/other overlaying the aquifer.
- Shallow depth (less than 30 feet below ground surface) of the aquifer.
- No evidence to suggest that ground water has impacted by any significant levels of chemical contaminants from human activities.
- A presence of significant, potential contaminant sources in the protection area.

This susceptibility means that under currently existing conditions, the likelihood of the aquifer becoming contaminated is relatively high. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what consumers can do to help protect the aquifer is available on-line at <http://www.wapp.epa.ohio.gov.gis.swpa/OH8000412.pdf>. For a copy of the Drinking Water Source Assessment you can call the Village at 740-943-3315

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The Village of Richwood Water Department has conducted sampling for bacteria, nitrate, inorganic, radiological, volatile organic contaminants, Haloacetic Acids and Total Trihalomethanes. The Ohio EPA requires public water suppliers to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License to operate status:

In 2022, we had an unconditioned license to operate our water system.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular Village Council meetings. Meetings are held at 7PM on the second and fourth Monday of each month at the Village Administrative Offices. You may also contact the Village of Richwood with any questions at 740-943-3315.

Lead Educational Information

If present, elevated levels of 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. The Village of Richwood is responsible for providing high quality drinking water but cannot control the variety of material 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 drinking water, you may wish to have your water tested. A list of laboratories certified in the State of Ohio to test for lead may be found at <http://www.epa.ohio.gov/ddagw> or by calling (614) 644-2752. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the:

Safe Water Hotline at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>

PFAS Results and Educational Information

Ohio and states nationwide are faced with challenges related to Per- and Polyfluoroalkyl substances (PFAS), which have been manufactured and used for years in everyday items such as nonstick cookware, water-resistant clothing and personal care products. PFAS have also been widely used in firefighting foams, at military installations and fire training facilities. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.

In an announcement on September 27, 2019, Governor Mike DeWine directed the Ohio Environmental Protection Agency (EPA) and Ohio Department of Health (ODH) to develop a statewide PFAS action plan to analyze the prevalence of these substances in Ohio's drinking water. Under this plan, Ohio EPA is coordinating sampling and analysis through contracted environmental firms and certified laboratories, of approximately 1,500 public water systems statewide. These systems provide water to cities, mobile home parks, schools, and daycares and serve approximately 90 percent of Ohio's population.

Ohio EPA is testing for six specific PFAS identified in the table below and has worked with ODH to establish Action Levels for each. Action Levels are based on health advisory information published by U.S. EPA and other health-related research that has been conducted on PFAS exposures.

An Action Level is not a boundary between a "safe" and "dangerous" level of a chemical. Rather, it is a level that represents the concentration at below which no adverse non-cancer health effects would be anticipated to the most sensitive populations.

PFAS	PFOA	PFOS	GenX	PFBS	PFHxS	PFNA
Action Level in parts per trillion (ppt)	>70 single or combined with PFOS	>70 single or combined with PFOA	>700	>140,000	>140	>21

The Village of Richwood water was tested for the PFAS listed in the table above and no detectable levels of PFAS were found.

The results of the sampling data for The Village of Richwood have been posted on the state website at [pfas.ohio.gov](https://www.pfas.ohio.gov).

Ohio EPA and ODH are also closely coordinating on outreach and educational materials for residents on PFAS, including health-related information and steps to reduce potential exposures. A state website has been set up to provide information about PFAS at [pfas.ohio.gov](https://www.pfas.ohio.gov). We encourage you to visit this website for helpful information about PFAS and reducing your exposure risks.

On June 15, 2022, U.S. EPA released new Lifetime Health Advisories (HALs) for PFOA, PFOS, PFBS, and GenX. To read U.S. EPA's press release visit <https://www.epa.gov/newsreleases/epa-announces-new-drinking-water-health-advisories-pfas-chemicals-1-billion-bipartisan>

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Listed below is information on those contaminants that were found in The Village of Richwood drinking water. The Village of Richwood samples for a number of contaminants, most are non-detects. *The table below only indicates the contaminants that were detected.*

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violations	Sample Year	Typical Source of Contaminants	Health Effects Language
Residual Disinfectants								
Chlorine (ppm)	4	4	1.45	0.50-2.19	N	2022	Water Additives used to control Microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritation effects to their eyes and nose. Some People who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort
Total Trihalomethane, TTHMs (ppb)	N/A	80	16.7-19.0	17.85 ppb	N	2022	By-product of drinking water chlorination	Some people who drink water containing trihalomethane 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, HAA5 (ppb)	N/A	60	4.7-4.9	4.8 ppm	N	2022	By-product of drinking water chlorination	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violations	Sample Year	Typical Source of Contaminants	Health Effects Language
Inorganic Contaminants								
Barium (ppm)	2	2	99.9	99.9	N	2022	Discharge from drilling waste; Discharge of metal refineries; Erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Fluoride (ppm)	4	4	1.29	1.29	N	2016	Erosion of natural deposits; Water additive which 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.
Nitrate (ppb)	10	10	0.02	0.02	N	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
Arsenic (ppb)	0	10	0.9	0.9	N	2022	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

Regulated Contaminants

Lead & Copper						
Contaminants (Units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violations	Year Sampled	Typical Source of Contaminants
Lead (ppb)*	15 ppb	N/A	ND	N	2022	Corrosion of household plumbing; Erosion of natural deposits
Copper (ppm)**	1.3 ppm	N/A	0.242	N	2022	Erosion of natural deposits, leeching from wood and preservatives, corrosion of household plumbing systems

Regulated Contaminants *0 out of 10 samples were found to have lead levels in excess of the lead action level of 15 ppb.

** 0 out of 10 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.

Radioactive Contaminants								
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violations	Sample Year	Typical Source of Contaminants	Health Effects Language
Alpha emitters (pCi/L)	0	15	13.1	13.1	N	2022	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined Radium 226/228	0	5	1.04	ND-1.04	N	2022	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

Synthetic Organic Chemicals (SOC)								
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violations	Sample Year	Typical Source of Contaminants	Health Effects Language
Alachlor (ppb)	0	2	<0.00002 ppb	N/A	N	2021	Runoff from herbicide used on row crops	Some people who drink water containing Alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	3	3	<0.00003 ppb	N/A	N	2021	Runoff from herbicide used on row crops	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Simazine (ppb)	4	4	<0.000035 ppb	N/A	N	2021	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood
Volatile Organic Chemicals (VOC)								
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detection	Violations	Sample Year	Typical Source of Contaminants	Health Effects Language
Toluene (ppm)	1	1	0.1	0.1	N	2022	Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.

Table Definitions- In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions.

AL (Action Level)	The concentration of a contaminant which if exceeded, triggers treatment or other requirements which a water system must follow.
MCL (Maximum Contaminant Level)	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG (Maximum Contaminant Level Goal)	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.
MRDL (Maximum Residual Disinfectant Level)	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG (Maximum Residual Disinfectant Level Goal)	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 contaminants.
N	None
N/A (Not Applicable)	
PPB (Parts per Billion)	One part substance per billion parts water (or micrograms per liter)
PPM (Parts per Million)	One part substance per million parts water (or milligrams per liter)