

Village of Ripley
Drinking Water Consumer Confidence Report
For 2020

Introduction

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality.

The Village of Ripley 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.

Source Water Information

The Village of Ripley receives its drinking water from five underground aquifer wells located near the Ohio River.

A contamination susceptibility analysis was conducted on the aquifer that supplies drinking water to the Village of Ripley. It concluded that there is a high susceptibility to contamination due to the following reasons; Water quality results indicate the presence of volatile organic compounds and elevated nitrate concentrations. This implies that a pathway exists from the ground surface to the aquifer. The depth to water in the buried valley aquifer is less than 30 feet below the ground surface. A layer of sand, silt and clay approximately 20 feet thick is present between the ground surface and the aquifer, offering minimal protection from contaminant movement from the ground surface to the aquifer. Potential significant contaminant sources exist within the protection area. Copies of the full susceptibility analysis can be obtained by calling the Village of Ripley Office at 937-392-4377.

The Village of Ripley also has an Emergency connection with the Brown County Rural Water Association on the East side of the distribution system. During 2020, we used zero gallons from this connection over zero days. On average, this connection is used for approximately zero days each year. This report does not contain information on the water quality received from the Brown County Rural Water Association, but a copy of their consumer confidence report can be obtained by contacting Doug Kelsey at (937) 375-4106.

What are sources of contamination to drinking water?

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 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, USEPA 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 Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

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, 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 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 Ripley conducted sampling for bacteria; inorganic; radiological; synthetic organic; and volatile organic compounds during 2020. Samples were collected to check for a total of 47 different contaminants, most of which were not detected in the Village of Ripley water supply. The Ohio EPA requires us 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.

Table of Detected Contaminants

Listed below is information on those contaminants that were found in the Village of Ripley drinking water.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Bacteriological							
Fecal Indicator-E. coli at the source	0	0	0	0.0/0.0	No	2020	Human and animal waste
Radioactive Contaminants							
Inorganic Contaminants							
Fluoride (PPM)	4	4	ND	0.0/0.0	No	2020	Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	10	10	2.32	NA/NA	No	2020	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Synthetic Organic Contaminants including Pesticides and Herbicides							
Alachlor	0.0	.20	ND	0.0/0.0	No	2020	
Atrazine	0.0	.30	ND	0.0/0.0	No	2020	
Simazine	0.0	.35	ND	0.0/0.0	No	2020	
Volatile Organic Contaminants							
1,1,1, Trichloroethane (ppb)	200	200	ND	NA/NA	No	2020	Discharge from metal degreasing sites
1,1,2- Trichloroethane (ppb)	3	5	ND	NA/NA	No	2020	Discharge from chemical factories
Dichloroethylene	7	7	0.5	00/0.5	No	2018	Discharge from factories
1,2,4 Trichlorobenzene (ppb)	70	70	ND	NA/NA	No	2020	Discharge from textile finishing factories
1,2 Dichloropropane (ppb)	0	5	ND	NA/NA	No	2020	Discharge from chemical factories
1,2 Dichloroethane (ppb)	0	5	ND	Na/NA	No	2020	Discharge from chemical factories

Benzene (ppb)	0	5	ND	NA/NA	No	2020	Discharge from factories; Leaching from gas storage tanks and landfills
Carbon Tetrachloride (ppb)	0	5	ND	NA/NA	No	2020	Discharge from chemical plants
Chlorobenzene (monochlorobenzene (ppb)	100	100	ND	NA/NA	No	2020	Discharge from chemical factories
Dichloromethane (ppb)	0	5	0.5	0.0/0.5	No	2018	Discharge from chemical factories
Ethylbenzene (ppb)	700	700	ND	NA/NA	No	2020	Discharge from petroleum refineries
Styrene (ppb)	100	100	ND	NA/NA	No	2020	Discharge from rubber or plastic factories; leaching from landfills
Tetrachloroethylene (ppb)	0	5	0.5	0.0/0.5	No	2018	Discharge from factories and dry cleaners
Toulene (ppm)	1	1	ND	NA/NA	No	2020	Discharge from petroleum factories
Trichloroethylene (ppb)	0	5	0.5	0.0/0.5	No	2020	Discharge from metal degreasing sites
Vinyl Chloride (ppb)	0	2	ND	NA/NA	No	2020	Leaching from PVC piping; Discharge from plastics factories
Xylenes (ppm)	10	10	ND	NA/NA	No	2020	Discharge from petroleum and chemical factories
o-Dichlorobenzene (ppb)	600	600	ND	0.0/0.5	No	2020	Discharge from chemical factories
p-Dichlorobenzene (ppb)	75	75	ND	0.0/0.5	No	2020	Discharge from chemical factories
Residual Disinfectants							
Chlorine (as CL2) (ppm	4	4	1.7	1.03/1.65	No	2020	Water additive to control microbes
Lead and Copper							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15 ppb	0.0	0.00	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of _0_ samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	1.79 ppm	0.171	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits	
	0 out of _0_ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						

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 Ripley 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 at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

License to Operate (LTO) Status Information

In 2020 we had an unconditioned license to operate our water system.

Public Participation and Contact Information

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of The Village of Ripley, which meets monthly on the second and fourth Tuesday. For more information on your drinking water contact Village Administrator Wayne Gates at (937) 392-4377.

Definitions of some terms contained within this report.

- **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 Contaminant level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- **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 contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of 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.
- **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.

- Contact Time (CT) means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).
- Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- Cyanobacteria: Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- Cyanotoxin: Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as “algal toxin”.
- Level 1 Assessment is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- PFAS: Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.
- Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
- Parts per Billion (ppb) or Micrograms per Liter (µg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- The “<” symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.
- Picocuries per liter (pCi/L): A common measure of radioactivity.