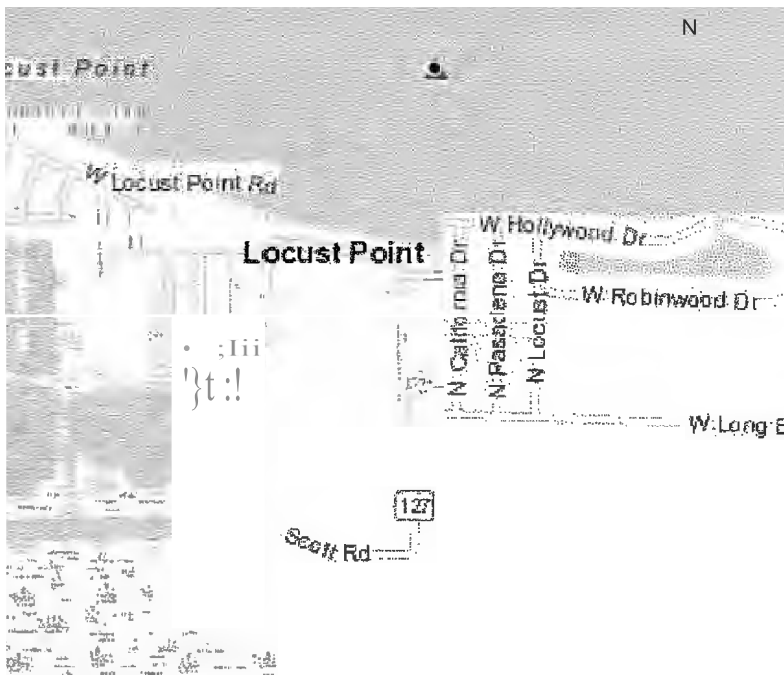


# Carroll Water & Sewer District

## 2021 Drinking Water Consumer Confidence Report

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. Your drinking water met all Ohio EPA standards. We are committed to providing you with information because informed customers are our best allies.

### Source Water Information



The Carroll Water Treatment Plant receives its drinking water from an intake in Lake Erie, which is located 1100 feet off the shore of Locust Point. Lake Erie is considered a surface water source and requires extensive treatment before it can be used as drinking water. An auxiliary or back-up water source is installed at Turtle Creek Marina. This source was not utilized at any time in the reporting period. Furthermore, the District's distribution system is interconnected with Ottawa County's. During 2021 they used 1,550,000 gallons from this connection over 18 days.

The Carroll Water and Sewer Public Water System uses surface water drawn from an intake in Lake Erie. For the purposes of source water assessments, in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to intake. Although the water system's surface water intake is located in Lake Erie, the proximity of several onshore sources increases the susceptibility of the source water to contamination. The Carroll Water and Sewer Public Water system's drinking water source protection area is susceptible to contamination from leaking underground storage tanks, municipal waste-water treatment discharges, industrial wastewater discharges, oil and gas production and transportation, and accidental releases and spills from rail and vehicular traffic as well as from commercial shipping operations and recreational boating. The Carroll Water and Sewer Public Water System treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie. More information is provided in the Carroll Water and Sewer Public Water System's Drinking Water Source Assessment report, which can be obtained by calling Adam Lohman at 419-898-5028

## **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. Food and Drug Administration (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 the 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 infections. 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 Carroll Water & Sewer District conducted sampling for bacteria; inorganic, radiological; synthetic organic; volatile organic during 2021. Samples were collected for many different contaminants most of which were not detected in the Carroll Water & Sewer District 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. This means that the most recent results might be from a year prior to the current report year (e.g., triennial monitoring).

**Table of Detected Contaminants:**

Listed below is the information on those contaminants that were found in the Carroll Water and Sewer District's drinking water.

<b>TABLE OF DETECTED CONTAMINANTS</b>							
<b>Contaminants (Units)</b>	<b>MCLG</b>	<b>MCL</b>	<b>Level Found</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Sample Year</b>	<b>Typical Source of Contaminants</b>
<b>Microbiological Contaminants</b>							
Turbidity (NTU)	NA	TT	0.22	0.04-0.22	No	2021	Soil Runoff.
Turbidity (% meeting Standard)	NA	TT	100%	100%	No	2021	
Total Organic Carbon (% Removal)	NA	TT	1.0	1.0	No	2021	
<b>Disinfectant and Disinfectant By-Products</b>							
Total Chlorine (ppm)	MRDL = 4	MRL = 4	1.65	1.24-2.01	No	2021	Water additive used to control microbes
Halo acetic Acids(HAA5) (ppb)	NA	60	19.7	11.2-30.03	No	2021	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	NA	80	65.5	22.1-114	No	2021	By-product of drinking water disinfection
<b>Contaminants (Units)</b>							
<b>Contaminants (Units)</b>	<b>MCLG</b>	<b>MCL</b>	<b>Level Found</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Sample Year</b>	<b>Typical Source of Contaminants</b>
<b>Inorganic Contaminants</b>							
Nitrate (ppm)	10	10	4.63	0.69-4.63	No	2021	Run off from fertilizer use; Erosion of natural deposits
Barium (ppm)	2	2	0.023	0.023	No	2021	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits

Fluoride (ppm)	4	4	0.14	0.14	No	2021	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
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<b>Lead and Copper</b>						
<b>Contaminants (units)</b>	<b>Action Level (AL)</b>	<b>Individual Results over the AL</b>	<b>90% of test levels were less than</b>	<b>Violation</b>	<b>Year Sampled</b>	<b>Typical source of Contaminants</b>
Lead (ppb)	15 ppb	0	0	No	2019	Corrosion of household plumbing systems.
	0 out of 10 samples were found to have lead in excess of the lead AAL of 15 ppb					
Copper (ppm)	1.3 ppm	0	.245	No	2019	Corrosions of household plumbing systems
	0 out of 10 samples were found to have cooper in excess of the copper AL of 1.3 ppm.					

**Table of Unregulated Contaminants**

<b>Contaminants (Units)</b>	<b>Sample Year</b>	<b>Average Level Found</b>	<b>Range of Detections</b>	<b>Sample Location</b>
Manganese (ppb)	2021	5.7	0-10	Entry Point

## **Unregulated Contaminant Monitoring Rule (UCMR) Sampling**

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2021 Carroll Water & Sewer District participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call Adam Lohman at (419) 898-5028.

## **Turbidity**

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Carroll Water & Sewer District's highest recorded turbidity result for 2021 was 0.22 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

## **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. Carroll Water & Sewer 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 or at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

## **Revised Total Coliform Rule (RTCR) Information**

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the PWS.

## **Reporting information about your participation in Ohio EPA's PFAS sampling**

In 2020, our PWS was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS, please visit [pfas.ohio.gov](http://pfas.ohio.gov).

## License to Operate (LTO) Status Information

In 2021 we had an unconditional license to operate our water system.

## How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Board of Trustees for the Carroll Water & Sewer District which meets on the second Wednesday of each month at the Carroll Water Treatment Plant at 6 pm. For more information on your drinking water contact Adam Lohman at 419-898-5028.

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, 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.
ppb	ppb: parts per billion, 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.
“<”	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.
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
NA	NA: not applicable
ND	ND: Not detected
	Microcystins: Liver toxins produced by a 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 toxins”.

<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
MCLG	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.
MCL	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.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
PFAS	Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that apply 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.

**For more information, please contact:**

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