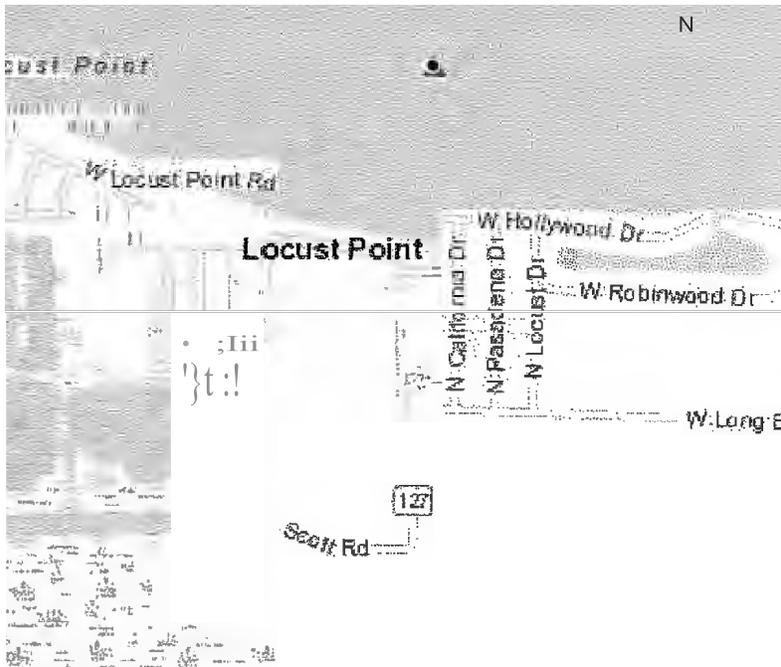


Carroll Water & Sewer District

2018 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.

Where does my water come from?



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 and this back-up system was not used during 2018.

Source water assessment and its availability

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 waste water 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 Henry Biggert 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 Water Drinking 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 2018. 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).

Monitoring & Reporting Violations & Enforcement Actions

Monitoring requirements were not met for the Carroll Water and Sewer Public Water System. The December 24, 2017 source water sample for E. coli counts was not collected in the time frame allowed by OAC Rule 3745-81-65(I)(2).

We are required to collect these samples to determine if additional treatment of our source water is necessary. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

What Should I Do?

- There is nothing you need to do at this time. You do not need to boil your water or take other corrective action.

What is being done?

Upon being notified of this violation, the water supply was directed to revise the sampling schedule to add an E. coli count sample in October 2018 to replace the missed December 24, 2017 sample. The water supplier will take steps to ensure that adequate monitoring will be performed in the future. For more information, please contact Henry Biggert at (419) 898-5028 or at 10340 W State Route 2.

Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects such as diarrhea, cramps, Nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.



TABLE OF DETECTED CONTAMINANTS							
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbiological Contaminants							
Turbidity (NTU)	NA	TT	0.25	0.04-0.25	No	2018	Soil Runoff.
Turbidity (% meeting Standard)	NA	TT	100%	100%	No	2018	
Total Organic Carbon (% Removal)	NA	TT	1.0	1.5	No	2018	
Radioactive Contaminants							
Alpha emitters (pCi/l)	0	15	3.0	NA	No	2016	Erosion of natural deposits
Radium (combined 226/228) (pCi/l)	0	5	1.0	NA	No	2016	Erosion of natural deposits
Disinfectant and Disinfectant By-Products							
Total Chlorine (ppm)	MRDL = 4	MRL = 4	1.58	1-1.84	No	2018	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	27.6	16.6-31.9	No	2018	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	NA	80	51.6	27.9-75.9	No	2018	By-product of drinking water disinfection
Contaminants (Units)							
Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Inorganic Contaminants							
Nitrate (ppm)	10	10	3.25	0.28-3.25	No	2018	Run off from fertilizer use, Leaching from septic tanks, sewage; Erosion of natural deposits
Barium (ppm)	2	2	0.023	0.023	No	2018	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

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	No	2016	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	1.3 ppm	0.627	0	No	2016	Erosions of natural deposits; leaching from wood preservatives; Corrosions of household plumbing systems

Table of Unregulated Contaminants

Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location
Manganese (ppb)	2018	2	0-8	Entry Point

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 2018 was 0.25 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

Additional Information for Lead

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 <http://www.epa.gov/safewater/lead>.

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.

License to Operate (LTO) Status Information

In 2018 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 third Wednesday of each month at the Carroll Water Treatment Plant at 6 pm. For more information on your drinking water contact Henry Biggert 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.
pCi/L	pCi/L: picocuries per liter (a common measure of radioactivity)
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”.

Important Drinking Water Definitions	
Term	Definition
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.

For more information, please contact:

Contact Name: Henry Biggert
Address: 10340 W State Route 2
Oak Harbor, OH 43449
Phone: 419-898-5028