Drinking Water

Consumer Confidence Report

2022

Butler County
WATER & SEWER

130 High Street, Hamilton, OH 45011
513.887.3066 • water.bcohio.us

In accordance with EPA regulations, BCWS has prepared this report to provide information about the quality of the drinking water we serve. Water distributed by BCWS met all EPA standards for 2022.

Source Water Information

BCWS purchases the treated drinking water that we deliver to you from two suppliers:

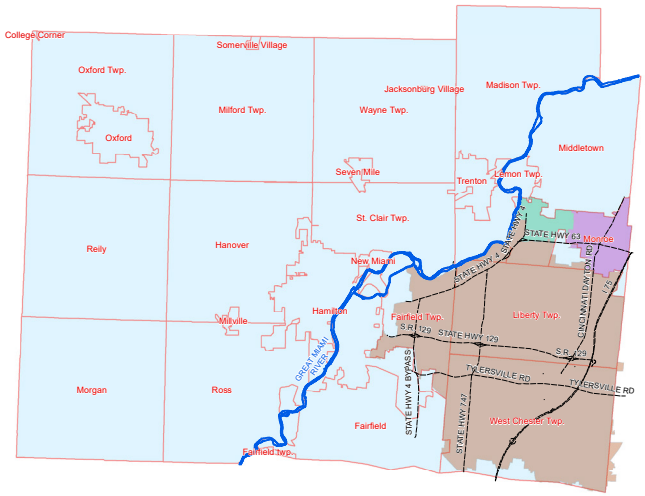
- City of Hamilton, which supplies ground water
- Greater Cincinnati Water Works (GCWW), which supplies ground and surface waters

BCWS also protects its system through interconnections with Warren County, the city of Cincinnati and the city of Monroe to ensure a supply during emergency conditions. BCWS did not utilize the emergency connection in 2022.

Other Sources of Drinking Water Information

OEPA Division of Drinking Water & Groundwater:
https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters

EPA Safe Drinking Water: 1-800-426-4791 or www.epa.gov/safewater



BCWS Water Service Area

Ground Water Protection

The Great Miami Buried Valley Aquifer is one source of our water and while it is a very high-quality aquifer, it is highly susceptible to contamination. OEPA has determined that the aquifer is vulnerable because the aquifer does not have a protective clay layer, the water is shallow, there are potential contamination sources nearby and there are low levels of nitrates in the aquifer. This does not mean that the aquifer is contaminated only that it is vulnerable to contamination.

BCWS partners with the Hamilton to New Baltimore Groundwater Consortium (www.gwconsortium.org) which administers an award-winning groundwater protection program to prevent contamination from entering the aquifer.

Surface Water Protection

Some of the water we deliver is from the Ohio River. All surface waters, including the Ohio River have been classified by OEPA as highly susceptible to contamination because they are open to the environment and pollution may spread quickly with the flow of the river.

Our supplier GCWW, works with the Ohio River Valley Water Sanitation Commission (www.orsanco.org) and other utilities to monitor contamination in the river. There are several barriers between potential pollution and your tap water such as turning off the intake until pollution passes and altering treatment processes. Other barriers include Granular Activated Carbon (GAC) and Ultra Violet (UV) used as part of the treatment process which is the best available technology for removing common chemicals found in the Ohio River.

Protect Your Water

Individuals play an important role in protecting ground water from contamination and costly cleanup. Help safeguard your water source by properly disposing of materials. For more information on how and where to properly dispose of household hazardous waste, including unused pharmaceutical products, please contact the Butler County Solid Waste District at 513-887-3653.

For more information about source water protection, visit the Ohio River Valley Water Sanitation Commission (www.orsanco.org) and the Hamilton to New Baltimore Groundwater Consortium (www.gwconsortium.org) websites. Additional information on source water protection can be found on OEPA's website: http://epa.ohio.gov/ddagw/swap.aspx . To obtain a copy of the source water assessments, call our Customer Care Staff at 513-887-3066 or by directly contacting GCWW at 513-591-7700 and City of Hamilton at 513-785-7206.

Substances in Drinking Water

BCWS continues to bring you a plentiful supply of the highest quality water. Your water has consistently met all state and federal health standards for drinking water.

The sources of drinking water (both tap 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 the 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 at (1-800-426-4791).

Important Health Information

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).

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. BCWS 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 1-800-426-4791 or at http://www.epa.gov/safewater/lead.

Monitoring for Cryptosporidium

BCWS' surface water supplier, GCWW, has monitored for Cryptosporidium (Crypto) in the treated water and has never detected it. GCWW also tested for Cryptosporidium in the Ohio River source water and it was not detected in 9 samples taken during 2022. Cryptosporidium is a microscopic organism that when ingested can result in diarrhea, fever and other gastrointestinal symptoms. The organism is found in surface waters and comes from animal and human wastes which enter the watershed. Cryptosporidium is eliminated by an effective combination of treatment processes including sedimentation, filtration and disinfection.

Test Results

Regular testing of the water is necessary to ensure drinking water safety. Numerous tests are conducted throughout the year and the majority of these samples have results that are below detectable limits. Monitoring requirements vary for BCWS and our water suppliers, depending upon the facility, the size of the system or the type of source water.

The charts on the following pages show the water testing results for 2022 which had detectable results and how they compare to federal and state standards. The data in the chart are from the most recent testing done in accordance with regulations. Some of the data is more than one year old but is still accurate. The EPA requires monitoring for these substances less than once per year because the concentrations of these contaminants do not change frequently.

Unregulated Substances

Unregulated substances are required to be monitored by EPA but there is no MCL or TT established yet. This monitoring helps EPA determine whether it needs to regulate those contaminants. Results for Unregulated Contaminant Monitoring Rule 4 are available on request by calling 513-887-3066.

Unregulated Substances Found (units)	MCLG (ideal goal)	MCL (level allowed)	Average Level Detected	Range of Detections	Is this a Violation?	Sample Year
Bromodichloromethane (ppb)	n/a	n/a	7.86	2.5-10.9	n/a	2022
Dibromochloromethane (ppb)	n/a	n/a	9.56	6.6-16.7	n/a	2022
Bromoform (ppb)	n/a	n/a	5.31	0.6-9.8	n/a	2022
Chloroform (ppb)	n/a	n/a	6.79	1.1-12.2	n/a	2022
Dibromoacetic acid (ppb)	n/a	n/a	3.48	1.8-6.1	n/a	2022
Dichloroacetic acid (ppb)	n/a	n/a	3.68	1.5-7.3	n/a	2022
Monobromoacetic acid (ppb)	n/a	n/a	<1.0	ND - <1.0	n/a	2022
Monochloroacetic acid (ppb)	n/a	n/a	<1.0	ND - <1.0	n/a	2022
Trichloroacetic acid (ppb)	na/	n/a	2.05	0.0-3.0	n/a	2022
Sulfate (ppm)	n/a	n/a	59	40-74	n/a	2022
Total Microcystin	n/a	n/a	<0.03	ND - <0.03	n/a	2018
Anatoxin-a	n/a	n/a	<0.03	ND - <0.03	n/a	2018
Cylindrospermopsin	n/a	n/a	<0.09	ND - <0.09	n/a	2018
Germanium	n/a	n/a	<0.3	ND - <0.3	n/a	2018
Manganese	n/a	n/a	1.6	<0.4 - 3.52	n/a	2018
Alpha-Hexachlorocyclohexane	n/a	n/a	<0.01	ND - <0.01	n/a	2018
Chlorpyrifos	n/a	n/a	<0.03	ND - <0.03	n/a	2018
Dimethipin	n/a	n/a	<0.2	ND - <0.2	n/a	2018
Ethoprop	n/a	n/a	<0.03	ND - <0.03	n/a	2018
Oxyfluorfen	n/a	n/a	<0.05	ND - <0.05	n/a	2018
Profenofos	n/a	n/a	<0.3	ND - <0.03	n/a	2018
Tebuconazole	n/a	n/a	<0.2	ND - <0.2	n/a	2018
Total Permethrin (cis- & trans-)	n/a	n/a	<0.04	ND - <0.04	n/a	2018
Tribufos	n/a	n/a	<0.07	ND - <0.07	n/a	2018

Water Testing Results

Substances Found (units)	MCLG (ideal goal)	MCL (level allowed)	Compliance Level	Range of Detections	Is this a Violation?	Sample Year	Typical Sources
Microbiological Contaminants							
Turbidity (NTU)	n/a	TT <1 NTU max and <0.3 NTU 95% of the time*	0.11 100% <0.3 NTU	0.03 - 0.11	No	2022	Soil runoff.
Total Organic Carbon	n/a	TT** (value >1 indicates compliance)	1.68	1.60-3.49	No	2022	Naturally present in the environment.
Total Coliform (% of positive samples)	0	5% of monthly samples in systems collecting 40 or more per month	2.91	0.0-2.91	No	2022	Naturally present in the environment.
Radioactive Contaminants							
Alpha emitters (pCi/L)	0	15	2.8 ± 1.99	n/a	No	2020	Erosion of natural deposits.
Radium 228 (pCi/L)	0	5	0.673 ± 0.47	n/a	No	2020	Erosion of natural deposits.
Inorganic Contaminants							
Fluoride (ppm)	4	4	0.95	0.25-1.16	No	2022	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	1.79	nd-1.79	No	2022	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Antimony (ppb)	6	6	0.68	n/a	No	2020	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Thallium (ppb)	0.5	2	0.55	n/a	No	2020	Leaching from ore-processing sites; discharge from electronics; glass; and drug factories.
Barium (ppm)	2	2	0.04	n/a	No	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Volatile Organic Contaminants							
Total Trihalomethanes (ppb)	n/a	80	39.35	19.8-39.4	No	2022	By-product of drinking water chlorination.
Haloacetic Acids HAA5 (ppb)	n/a	60	8.07	4.1-12.0	No	2022	By-product of drinking water chlorination.
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	0.85	0.50-1.3	No	2022	Water additive used to control microbes.
Chlorine Dioxide (ppb)	MRDLG = 800	MRDL = 800	580	110-580	No	2022	Water additive used to control microbes.
Chlorite (ppm)	0.8	1.0	0.66	0.00-0.72	No	2022	Byproduct of Drinking water chlorination.

Substances Found (units)	Action Level (AL)	Individual Results Over AL	90% of Test Levels Were Less Than	Is this a Violation?	Sample Year	Typical Sources
Lead & Copper						
Lead (ppb)	15 ppb	n/a	1.49 (0 out of 51 samples were found to have lead levels in excess of the lead action level of 15 ppb.)	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper (ppm)	1.3 ppm	n/a	0.0186 (0 of 51 samples were found to have copper levels in excess of copper action leavel of 1.3ppm.)	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits.

** Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of the filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed one NTU at any time. As reported in the chart, the highest recorded turbidity result for 2022 was 0.11 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.*

*** TT - The value reported under "highest compliance level detected" for Total Organic Carbon (TOC) is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of >1 indicates that the water system is in compliance with TOC removal requirements. A value of <1 indicates a violation of the TOC removal requirements.*

Terms to Know

AL (Action Level): The concentration of a contaminant which if exceeded, triggers treatment or other requirements that 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 a 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 contamination.

n/a (not applicable): There is no set MCL, MCLG or the test is not required.

ND (Not Detected): The substance was not detected in the test.

NTU (Nephelometric Turbidity Units): A unit of measure for the size and concentration of particles in water.

ppm (parts per million): A unit of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

ppb (parts per billion): A unit of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

< (Less than): A symbol meaning "less than." Example: A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

> (Greater than): A symbol meaning "greater than." Example: The Treatment Technique used for Total Organic Carbon (TOC) must be a number greater than 1 to be in compliance.

License Status

BCWS has a current, unconditioned license to operate.

Your Involvement in Water Decisions

We encourage public comment on decisions affecting drinking water. The Butler County Board of Commissioners' meetings are open to the public and are held on Mondays. Call 513-887-3247 for details.

If you have questions or comments about this report or other water issues, please contact us by mail, through our website at water.bucohio.us or by phone at 887-3066.

Please share this report with renters or others who do not receive water bills. If you need more copies please contact us.

A Further Protection—Water Security System

Security has always been a priority in providing high quality water to our community. A diligent sampling and monitoring program is part of standard operations throughout the entire water system. BCWS has implemented a Water Watchers Program, enlisting volunteers who live by water facilities to observe and report any suspicious persons, vehicles, or irregular activities that cause concern. If you see any suspicious activities or know of a threat to any of our facilities, please call 513-887-3066.

Water Theft

Under Ohio law, unauthorized connection to the water or sewer service or tampering with meters or utility equipment is theft, and could result in criminal prosecution.

Backflow

You can help to prevent water contamination by eliminating all cross connections on your property and by using an approved backflow prevention device where required. For more information about BCWS' Backflow Program, visit our website at: http://water.bcohio.us/html/drinkingwater/BackFlowProgram.cfm

To report a suspected or known cross connection call 513-887-3686 and ask to speak with someone about backflow.