The City of South Lebanon
Public Water System
Consumer Confidence Report

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Updated June 2024

The City of South Lebanon
Drinking Water Consumer Confidence Report
For *2024*

The City of South Lebanon 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.

In *2024* The City of South Lebanon had an unconditioned license to operate our water system.

The City of South Lebanon receives 100% of our drinking water from *Greater Cincinnati Water Works.* In addition to the water testing done by the City of South Lebanon, Greater Cincinnati Water Works also tests the water. We have also included their source water assessment report.
Copies of the source water assessment report prepared for ***Greater Cincinnati Water Works*** are available online at: https://www.cincinnati-oh.gov/water/water-quality-and-treatment/water-quality-reports/2024-water-quality-report-updated-march-2025/ . Paper copies are available upon request by calling 513-591-7700.

Sources of Your 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. As with all surface waters, the Ohio Environmental Protection Administration (OEPA) has classified the Ohio River as highly susceptible to potential contamination. OEPA has also classified our portion of the Great Miami Buried Valley Aquifer as highly susceptible to contamination due to lack of an overlaying protective clay layer, the presence of low levels of nitrate in the groundwater, and the presence of nearby potential contaminant sources.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- 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;
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- 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;

- 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, United States EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The 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 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 (EPA) 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.

OEPA requires regular sampling to ensure drinking water safety. The Village of South Lebanon conducted sampling for *Total Coliform, Trihalomethanes, Haloacetic Acids, Lead, Copper and Chlorine* during *2024*. Samples were collected for a total of 6 different contaminants most of which were not detected in the City of South Lebanon water supply. OEPA 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.

Monitoring & Reporting Violations & Enforcement Actions

CCR Content Violations

- **2017** – In the 2017 CCR, we triggered a Level 1 Assessment in September after several total coliform and e. Coli results and did not include the required information. We failed to provide the mandatory language for turbidity and did not explain that the source water report was available. In the Table of Detected Contaminants, we provided the incorrect 90th percentile values for copper and did not provide any data from the wholesale water provider.

- **2018** – In the 2018 CCR, we failed to provide information about South Lebanon's participation in in UCMR sampling and in the Table of Detected Contaminants, the columns and column headers were inadequate and we did not provide any data from our wholesale water provider as required.
- **2019** – In the 2019 CCR, South Lebanon failed to include adequate information regarding the 4th quarter 2019 disinfection byproduct monitoring violation and the November 2019 total coliform monitoring violation. Additionally, the required information for turbidity was not included and in the Table of Detected Contaminants: we failed to provide data from our wholesaler, included contaminants that were not detected in the water, failed to report data for TTHM or HAA5, gave incorrect data for MCLG for DBPs, and provided the incorrect 90th percentile values for lead and copper.
- **2022** – Several sanitary yard hydrants were found to be in violation of EPA standards. This was resolved by removing these hydrants.
- **2022** – South Lebanon did not have an updated Asset Management Plan. This was resolved by updating the Asset Management Plan.

Monitoring Violation and Public Notification

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets certain health standards. We **failed to monitor during the below time periods for the listed contaminants.**

1. **Disinfection by products (DBP) were not sampled in 4th quarter 2019.** Sampling conducted in 2024 showed DBP levels within acceptable levels.
2. **Total coliform bacteria was not sampled in November 2019 or October 2020**. Test results in 2024 did not show a presence of total coliform bacteria.

What Should I Do? This notice is only to inform you that we did not monitor and report results for as required by the Ohio EPA, and therefore cannot be sure of the quality of water at that time. **What is Being Done?** Upon being notified of this violation, the water supply was required to have the drinking water analyzed; we will take steps to ensure that adequate monitoring is conducted in the future. **Questions?** Please contact us at 513-494-2296 if you have any questions. Please share this information with others that may not receive the notice directly (ex. People in apartments, nursing homes, schools and businesses.

Listed below is information on those contaminants that were found in the City of South Lebanon drinking water.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MRDLG	MRDL	Avg. Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Disinfectants							
Chlorine (as CL2) ppm	4.0	4.0	.80 mg/L	.41 to 1.24 mg/L	No	2024	Additive used to control microbes

Disinfection By Products							
Contaminants (Units)	**MCLG**	**MCL**	**Level Found**	**Range of Detections**	**Violation**	**Sample Year**	**Typical Source of Contaminants**
(TTHM) ppb Total Trihalomethanes	NA	80	48.9 ug/l	37.7 – 61.3	No	2024	By-Product of drinking water disinfection
(HAA5) ppb Halocetic Acids	NA	60	8.3 ug/l	4.2 – 12.8	No	2024	By-Product of drinking Water disinfection
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	0.6 ppb0	No	2024	Corrosion of household plumbing systems; erosion of natural deposits	
	__0__ out of __20__ samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	0	.021 ppm	No	2024	Corrosion of household plumbing systems; erosion of natural deposits	
	_0_ out of _20_ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						

Greater Cincinnati Water Works Water Table of Detected and Unregulated Contaminants are listed in the table below:

Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL), or Treatment Technique (TT). These standards protect drinking water by limiting the amount of certain substances that adversely affect public health and are known or anticipated to occur in public water systems.

The City of South Lebanon also participated in the testing of Unregulated Contaminates in 2024. These results were all under the minimum reporting levels. These results are available by contacting the City of South Lebanon Utility Office at 513-494-2296.

2024 CCR Data for GCWW Wholesale Customers

Regulated Contaminants[1]**:** Contaminants subject to a Maximum Contaminant Level (MCL), Action Level (AL) or Treatment Technique (TT)*

				Miller Water				Bolton Water				Typical Source of Contamination
Substance	Unit	Maximum Allowed (MCL, AL, TT)*	MCLG*	Highest Compliance Level Detected	Range of Detections	Violation	Year Sampled	Highest Compliance Level Detected	Range of Detections	Violation	Year Sampled	
Fluoride	ppm	4	4	0.90	0.72-0.96	No	2024	0.86	0.72-1.00	No	2024	Additive which promotes strong teeth. May come from erosion of natural deposits.
Nitrate	ppm	10	10	0.96	0.47-0.96	No	2024	1.08	na[2]	No	2024	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Turbidity	NTU	TT1 < 1 NTU Max *and* TT2 < 0.3 NTU 95% of the time	na na	0.17 100% < 0.3 NTU	0.04-0.17	No	2024	nr	nr	No	na	Soil runoff
Total Organic Carbon[3]	na	TT	na	3.11	2.05-3.22	No	2024	nr	nr	No	na	Naturally present in the environment.
Barium	ppm	2	2	0.04	na[2]	No	2024	0.02	na[2]	No	2024	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.

Unregulated Contaminants[1] for which EPA requires monitoring to determine where certain substances occur and whether it needs to regulate those substances.

			Miller Water				Bolton Water				Typical Source of Contamination
Substance	Unit	MCLG*	Average Level Detected	Range of Detections	Violation	Year Sampled	Average Level Detected	Range of Detections	Violation	Year Sampled	
Chloroform	ppb	70	2.4	na[2]	na	2024	0.7	na[2]	na	2024	Byproducts of drinking water disinfection.
Bromodichloromethane	ppb	0	3.4	na[2]	na	2024	2.2	na[2]	na	2024	
Dibromochloromethane	ppb	60	3.8	na[2]	na	2024	6.4	na[2]	na	2024	
Bromoform	ppb	0	<0.5	na[2]	na	2024	9.3	na[2]	na	2024	
Sulfate	ppm	na	61	38 - 86	na	2024	42	na	na	2024	Erosion of natural deposits.

Per- and Polyfluoroalkyl Substances (also known as Forever Chemicals)

For the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR5), U.S. EPA issued a list of unregulated contaminants that may be present in drinking water but are not yet subject to U.S. EPA drinking water standards. In 2024, Greater Cincinnati Water Works finished sampling and analysis of Miller Water for the UCMR5. PFAS compounds were not detected in Miller water in the final round of monitoring. In addition to UCMR5 results, the contaminants listed below were analyzed during routine monitoring conducted by GCWW. Additional contaminants were monitored and not detected. If you would like additional information on the results of UCMR5 or routine PFAS monitoring, please call 513.591.7700.

			Miller Water					Bolton Water				Typical Source of Contamination
Substance	Unit	MCL*	MRL*	Average Level Detected	Range of Detection	Violation	Year Sampled	Average Level Detected	Range of Detection	Violation	Year Sampled	
Perfluorooctanoic acid (PFOA)	ppt	4.0	2.0	nd	na	na	2024	3.9	2.3 - 5.0	na	2024	Perfluoralkyl and polyfluoralkyl substances (PFAS compounds) are manmade chemicals that have been used in consumer products since the 1940s, usually in the manufacture of non-stick coatings, clothing, carpet, and food wrappers. Research into the harm that PFAS compounds may cause to human health is ongoing. GCWW meets all current EPA regulations. EPA established regulatory standards (MCL) for the group of PFAS compounds shown in this part of the table. The standards do not take effect for several years, but GCWW is working with the Ohio EPA to investigate source water quality and operational or treatment modifications to minimize PFAS levels in the drinking water. Please see GCWW's website for more information - https://www.cincinnati-oh.gov/water/water-quality-and-treatment/water-your-health/pfas/
Perflourooctanesulfonic acid (PFOS)	ppt	4.0	2.0	nd	na	na	2024	4.2	2.8 - 5.4	na	2024	
Perfluorohexanesulfonic acid (PFHxS)	ppt	10	2	nd	na	na	2024	3	nd - 4	na	2024	
Hexafluoropropylene oxide dimer acid (HFPO-DA or GenX)	ppt	10	2	1	nd - 6	na	2024	nd	na	na	2024	
Perfluorononanoic acid (PFNA)	ppt	10	2	nd	na	na	2024	nd	na	na	2024	
Perfluorobutanesulfonic acid (PFBS)	ppt	na	2	nd	na	na	2024	3	nd - 4	na	2024	
Perfluorobutanoic acid (PFBA)	ppt	na	5	nd	na	na	2024	na	na	na	2024	

[1]Detected contaminants from the plant tap.
[2]GCWW collects one sample per year.
[3]The value reported under "Highest Compliance Level Detected" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

Results of GCWW Voluntary Monitoring for *Cryptosporidium*:
GCWW has tested for *Cryptosporidium* (Crypto) in treated waters and has never detected it.
Crypto is a microscopic microorganism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms.
GCWW also tested for Crypto in the Ohio River surface water and it was detected in 1 of 4 samples during 2024. The organism is found in surface waters and comes from animal and human wastes which enter the watershed. Crypto is eliminated by an effective combination of treatment including sedimentation, filtration, and disinfection.

Sodium: GCWW has tested for sodium in treated water as it leaves the treatment plants and has found 28 mg (milligrams) per liter in the Miller water and 32 mg per liter in the Bolton water. There are approximately 4 cups in a liter.

Turbidity: We are required to report on the turbidity as an indication of the effectiveness of our filtration system. Turbidity is a measure of the cloudiness of water. 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 in the table above, GCWW's highest recorded turbidity result for 2024 was 0.17 NTU (Miller Water) and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

GCWW has a current unconditioned license to operate our water system. GCWW was in compliance with all state primary drinking water rules during 2024.

The Miller Treatment Plant uses the Ohio River as its source water. As with all surface waters, the Ohio EPA has classified the Ohio River as highly susceptible to contamination. The Ohio EPA has also classified the portion of the Great Miami Buried Valley Aquifer that supplies water to the well fields for the Bolton Treatment Plant as highly susceptible to contamination. It does not have an overlying protective clay layer, the ground water has low levels of nitrate, and there are potential sources of contamination nearby.

Abbreviations
ppt: parts per trillion or nanograms per liter
ppb: parts per billion or micrograms per liter
ppm: parts per million or milligrams per liter
na: not applicable
NTU: Nephelometric Turbidity Unit, used to measure clarity in drinking water
nd: not detectable at testing limits
nr: not regulated

***Definitions**
Minimum Reporting Level or MRL: The level of a contaminant that can reliably be detected using the specified analytical method.
Maximum Contaminant Level Goal or 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 or MCL: 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. MCLs for PFAS compounds will be effective in 2029.
Action Level or AL: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system shall follow.
Treatment Technique or TT: A method for treating water to achieve acceptable levels of the contaminants in lieu of establishing a maximum contaminant level.
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.

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The City of South Lebanon also has an *Emergency* connection with the Warren County Water and Sewer Department. During *2024,* we used zero (0) gallons from this connection over 365 days. On average, this connection is used for approximately zero (0) days each year. This report does not contain information on the water quality received from the Warren County Water and Sewer Department. A copy of their consumer confidence report can be obtained by clicking the following link: https://water.warrencountyohio.gov/WaterConditions/Water_Quality_Report.pdf or by contacting Warren County Water and Sewer Department at 513-695-1377.

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 *Greater Cincinnati Water Works* highest recorded turbidity result for 2024 was 0.17 NTU and 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. *The City of South Lebanon* 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.
Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of The City of South Lebanon which meets every 1st and 3rd Thursday of each month. For more information on your drinking water contact *Don Justison at 513-494-2296.*

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

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.

2024 GCWW WATER QUALITY REPORT

A Service of The City of Cincinnati

GREATER CINCINNATI
WATER WORKS

Using the most advanced technology to bring you the cleanest, highest quality...

water

Our Most Essential Resource

Where Your Water Comes From

GCWW supplies water from two sources: the Ohio River and the Great Miami Buried Valley Aquifer (GMBVA). Surface water from the Ohio River is treated at the Richard Miller Treatment Plant. This plant, located on the east side of Hamilton County, supplies about 88% of drinking water to GCWW's customers. The Charles M. Bolton Treatment Plant treats groundwater from 13 wells in the GMBVA. It is located in the southern part of Butler County and supplies about 12% of drinking water to GCWW customers.

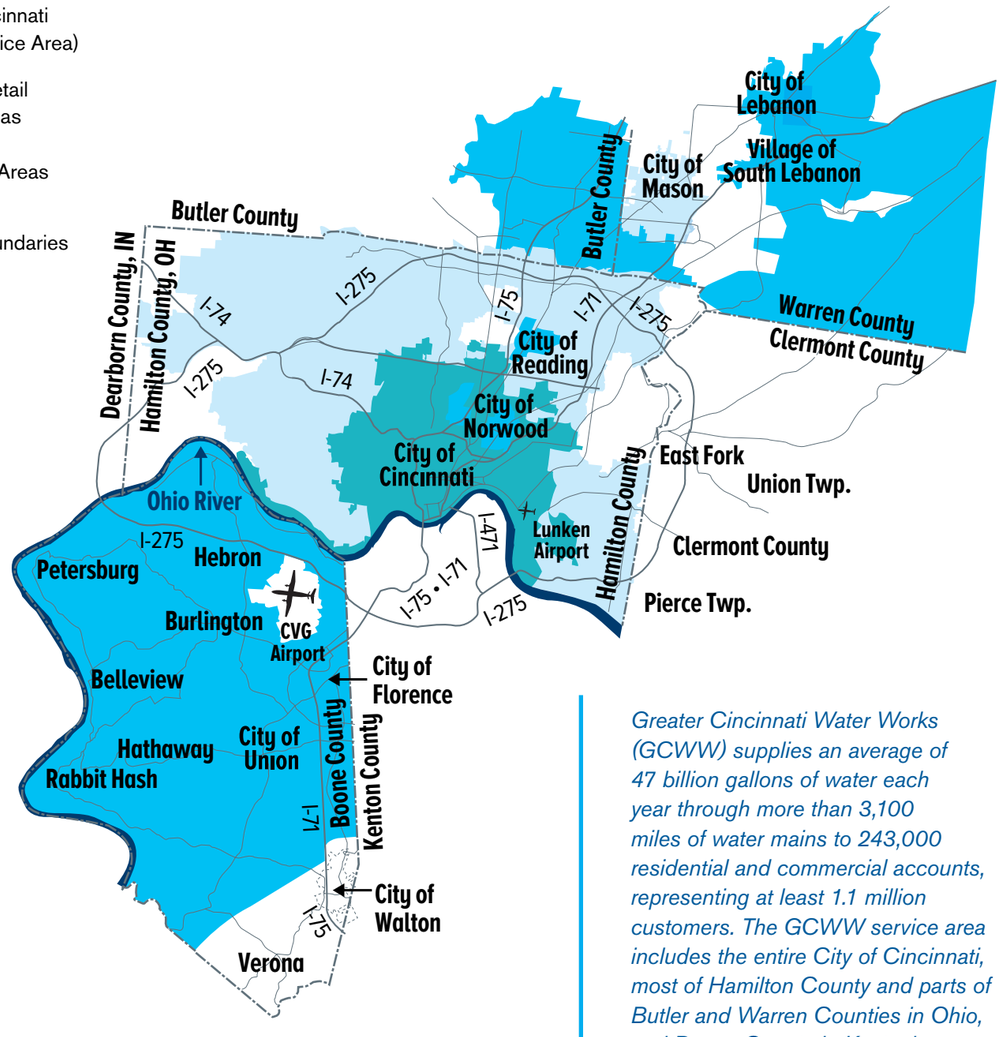
Service Area Map

City of Cincinnati (Retail Service Area)

GCWW Retail Service Areas

Wholesale Areas

County Boundaries



Greater Cincinnati Water Works (GCWW) supplies an average of 47 billion gallons of water each year through more than 3,100 miles of water mains to 243,000 residential and commercial accounts, representing at least 1.1 million customers. The GCWW service area includes the entire City of Cincinnati, most of Hamilton County and parts of Butler and Warren Counties in Ohio, and Boone County in Kentucky.

Only Your Tap Water Delivers These Protective Benefits

Protection of Public Health and Welfare

A safe water supply is critical to protecting public health. In the United States, water utilities monitor for more than 100 contaminants and must meet close to 90 regulations for water supply and quality. The same system of water mains, pumps and storage tanks transports water to home faucets and fire hydrants.

GCWW also takes great care to protect your water supply from chemical spills into the Ohio River that may contaminate the drinking water supply. GCWW has the ability to shut down river intake pumping, utilize stored and supplementary water until the spill passes, and use advanced treatment systems to remove contaminants.

Sources of Your Drinking Water

The sources of drinking water - both tap and bottled - 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 (in some cases radioactive material) and can pick up substances resulting from the presence of animals or from human activity. As with all surface waters, the Ohio EPA has classified the Ohio River as highly susceptible to potential contamination. The Ohio EPA has also classified our portion of the Great Miami Buried Valley Aquifer as highly susceptible to contamination due to lack of an overlaying protective clay layer, the presence of low levels of nitrate in the groundwater, and the presence of nearby potential contaminant sources.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- Pesticides and herbicides, which may come from variety of sources such as agriculture, urban stormwater runoff and residential uses;
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and
- Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

Protecting Your Drinking Water

GCWW actively participates in two regional collaborative source water protection programs:

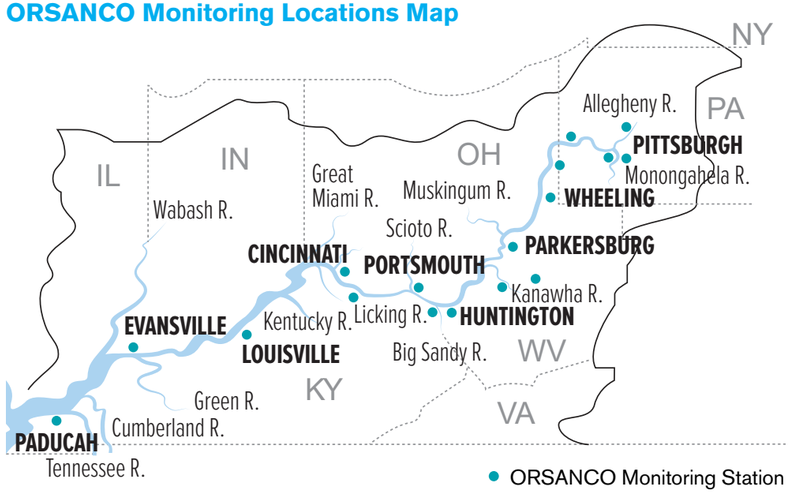
1. Protection of the Ohio River in the Cincinnati Area

GCWW has partnered with the Northern Kentucky Water District and the Ohio River Valley Water Sanitation Commission (ORSANCO) to implement an Ohio EPA-endorsed source water protection program for the Ohio River near Cincinnati. ORSANCO maintains 17 monitoring stations strategically placed along the Ohio River to detect and warn drinking water treatment plants about spills. GCWW participates as one of the monitoring stations for this program by analyzing Ohio River water multiple times a day, every day of the year.

2. Protection of the Great Miami Buried Valley Aquifer

The Hamilton to New Baltimore Groundwater Consortium is comprised of seven public and industrial ground water producers/suppliers in southwest Ohio. The Consortium maintains a network of early-warning monitoring stations, works with facilities that store hazardous substances to minimize the risk of spills, and educates the public on what they can do to protect groundwater.

ORSANCO Monitoring Locations Map



For more information about source water protection or to find out what you can do to help, visit myGCWW.org, email info@gcww.cincinnati-oh.gov, call Greater Cincinnati Water Works at 513.591.7700, or call the Groundwater Consortium at 513.785.2464.

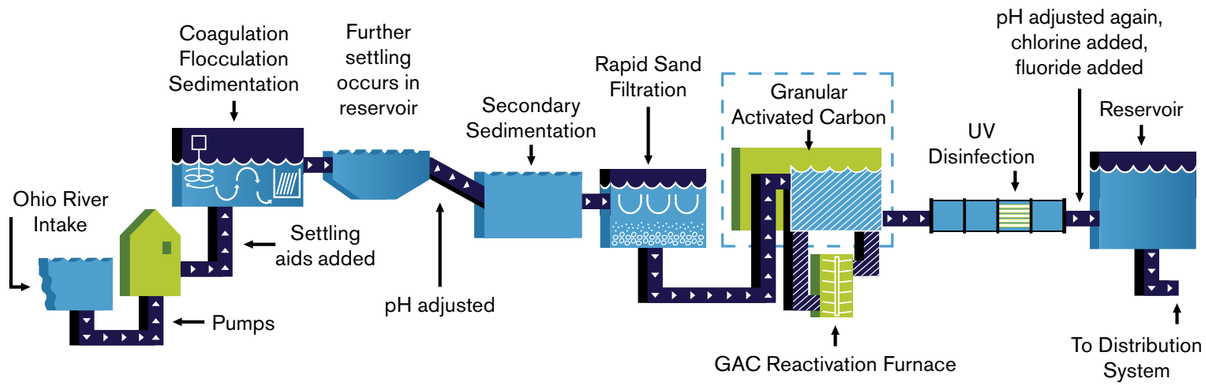
A Leader in Water Quality Treatment and Technology

GCWW uses state-of-the-art water treatment processes that create multiple barriers to protect public health. GCWW treatment processes include Coagulation/Flocculation/Sedimentation, Sand Filtration, Granular Activated Carbon (GAC), ultraviolet (UV) light and chlorine to remove and treat for natural and man-made contaminants from our drinking water. It is one of the first in the nation to use a combination of all these treatment methods.

GCWW typically treats about 120 million gallons of water a day, and ensures that all the treatment processes are effective by using more than 600 daily tests.

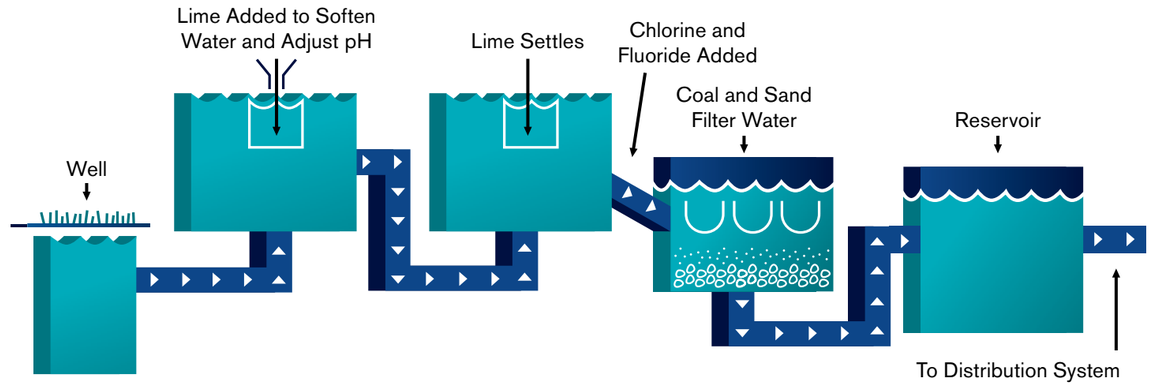
GCWW also treats the drinking water specifically to minimize the amount of lead that may leach into the drinking water from home plumbing — this treatment process is called corrosion control. There is no lead in the water as it leaves GCWW treatment plants, and this process minimizes the chance that lead can be picked up from home plumbing. Page 5 illustrates the treatment processes at the Richard Miller and Charles M. Bolton Plants.

Treatment Process at the Richard Miller Plant on the Ohio River



Backwash water from the sand filters and plant recycle water is returned to the beginning of the treatment process.

Treatment Process at the Charles M. Bolton Plant on the Great Miami Buried Valley Aquifer



Granular Activated Carbon

GCWW's Richard Miller Treatment Plant is one of only a few water treatment plants in the nation that incorporates granular activated carbon (GAC) with on-site reactivation into its water treatment process. This state-of-the-art technology uses granular carbon, which contains numerous microscopic cavities. When water is passed through the GAC, impurities adhere to the carbon and are removed from the water. Benefits of GAC include: barrier against chemical spills in the Ohio River; barrier against impurities in raw source water; less chlorine required for disinfection; reduced disinfection by-products; and improved control of taste and odor.

Ultraviolet Disinfection

GCWW is the largest water utility in North America to use UV disinfection following rapid sand filtration and GAC adsorption. UV disinfection, which uses rays of intense light to disinfect water, is one of the most effective methods used to protect against microorganisms such as *Cryptosporidium*.

GCWW Meets or Exceeds All State and Federal Health Standards

GCWW is proud to say that our water meets or exceeds every health standard developed by both the USEPA and Ohio EPA. In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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 shall provide the same protection for public health. The tables on pages 6-9 show the substances detected in GCWW drinking water while performing the most up-to-date monitoring required by the EPA. The Ohio EPA requires GCWW to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Because of this, some of our data, though accurate, is more than one year old. For a complete listing of GCWW test results and additional water quality information, visit wqt.myGCWW.org, or call 513.591.7700.

Regulated Contaminants (Table A): Substances subject to a Maximum Contaminant Level (MCL), Action Level (AL), or Treatment Technique (TT). These standards protect drinking water by limiting the amount of certain substances that can adversely affect public health and are known or anticipated to occur in public water systems.

Abbreviations
ppt: *parts per trillion or nanograms per liter;*
ppb: *parts per billion or micrograms per liter;*
ppm: *parts per million or milligrams per liter;*
nr: *not regulated;*
na: *not applicable;*
NTU: *Nephelometric Turbidity Unit (used to measure clarity in drinking water);*
nd: *not detectable at testing limits;*
TTHMs: *Total Trihalomethanes;*
HAA5: *Haloacetic Acids*

Refer to pages 8-9 for definitions and footnotes.

TABLE A: Regulated Contaminants				Miller Water (from the Ohio River)				Bolton Water (from the Great Miami Valley Buried Aquifer)				Typical Source of Contamination
Substance (Unit)		Maximum Allowed (MCL)	MCLG	Highest Compliance Level Detected	Range of Detection	Violation	Year Sampled	Highest Compliance Level Detected	Range of Detection	Violation	Year Sampled	
Fluoride (ppm)		4	4	0.90	0.72-0.96	No	2024	0.86	0.72 - 1.00	No	2024	Additive which promotes strong teeth. May come from erosion of natural deposits.
Nitrate (ppm)		10	10	0.96	0.47-0.96	No	2024	1.08	na[3]	No	2024	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
TTHMs (ppb) [Total Trihalomethanes][1]		80	na	49.6	14.0-60.3	No	2024	49.6	14.0-60.3	No	2024	Byproduct of drinking water chlorination.
HAA5 (ppb) [Total Haloacetic Acids][1]		60	na	9.9	2.0-13.2	No	2024	9.9	2.0-13.2	No	2024	Byproduct of drinking water chlorination.
Turbidity (NTU)		TT1 < 1 NTU Max *and* TT2 < 0.3 NTU 95% of the time	na na	0.17 100% < 0.3 NTU	0.04 - 0.17	No	2024	nr	nr	No	na	Soil runoff.
1st Compliance Period (Jan - June)	Lead[1] (ppb)	AL = 15 (the 90th percentile must be less than 15 ppb)	0	90th percentile 1.12 ppb	nd - 253	No	2024	90th percentile 1.12 ppb	nd - 253	No	2024	May come from erosion of natural deposits. There is no detectable lead in our water as it leaves the treatment plants. However, corrosion of household plumbing is a source of lead and copper contamination. GCWW tests water samples collected at customers taps, as required by the Safe Drinking Water Act to ensure safe water.
				(1 of 107 samples tested during the first compliance period were > the AL)[4]				(1 of 107 samples tested during the first compliance period were > the AL)[4]				
	Copper[1] (ppm)	AL = 1.3 (the 90th percentile must be less than 1.3 ppm)	1.3	90th percentile 0.024 ppm	nd - 481	No	2024	90th percentile 0.024 ppm	nd - 481	No	2024	
				(0 of 107 samples tested during the first compliance period were > the AL)				(0 of 107 samples tested during the first compliance period were > the AL)				
2nd Compliance Period (July - Dec)	Lead[1] (ppb)	AL = 15 (the 90th percentile must be less than 15 ppb)	0	90th percentile 2.32 ppb	nd - 9.21	No	2024	90th percentile 2.32 ppb	nd - 9.21	No	2024	
				(0 of 103 samples tested during the second compliance period were > the AL)[4]				(0 of 103 samples tested during the second compliance period were > the AL)[4]				
	Copper[1] (ppm)	AL = 1.3 (the 90th percentile must be less than 1.3 ppm)	1.3	90th percentile 0.019 ppm	nd - 0.095	No	2024	90th percentile 0.019 ppm	nd - 0.095	No	2024	
				(0 of 103 samples tested during the second compliance period were > the AL)				(0 of 103 samples tested during the second compliance period were > the AL)				
Total Organic Carbon[2]		TT	na	3.11	2.05-3.22	No	2024	nr	nr	No	na	Naturally present in the environment.
Total Chlorine[1] (ppm)		MRDL = 4	MRDLG = 4	1.09	0.97 - 1.12	No	2024	1.09	0.97 - 1.12	No	2024	Water additive used to control microbes.
Barium (ppm)		2	2	0.04	na[3]	No	2024	0.02	na[3]	No	2024	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries.

Unregulated Contaminants (Table B): 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.

Per- and Polyfluoroalkyl Substances (also known as Forever Chemicals): For the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR5), U.S. EPA issued a list of unregulated contaminants that may be present in drinking water but are not yet subject to U.S. EPA drinking water standards. In 2024, Greater Cincinnati Water Works finished sampling and analysis of Miller Water for the UCMR5. PFAS compounds were not detected in Miller water in the final round of monitoring. In addition to UCMR5 results, the contaminants listed in this section of Table B were analyzed during routine monitoring conducted by GCWW. Additional contaminants were monitored and not detected. If you would like additional information on the results of UCMR5 or routine PFAS monitoring, please call 513.591.7700.

TABLE B: Unregulated Contaminants	Miller Water (from the Ohio River)					Bolton Water (from the Great Miami Buried Valley Aquifer)					Typical Source of Contamination
Substance (Unit)	Violation	Year Sampled	MCLG	Average Level Detected	Range of Detection	Violation	Year Sampled	MCLG	Average Level Detected	Range of Detection	
Chloroform (ppb)[1]	na	2024	70	11.1	1.1-32.3	na	2024	70	11.1	1.1-32.3	Byproducts of drinking water disinfection, measured at representative points in the distribution system.
Bromodichloromethane (ppb)[1]	na	2024	0	8.8	3.2-14.7	na	2024	0	8.8	3.2-14.7	
Dibromochloromethane (ppb)[1]	na	2024	60	10.2	2.8-23.0	na	2024	60	10.2	2.8-23.0	
Bromoform (ppb)[1]	na	2024	0	5.4	nd - 19.7	na	2024	0	5.4	nd - 19.7	
Monochloroacetic Acid (ppb)[1]	na	2024	70	nd	nd - nd	na	2024	70	nd	nd - nd	
Monobromoacetic Acid (ppb)[1]	na	2024	na	nd	nd - nd	na	2024	na	nd	nd - nd	
Dichloroacetic Acid (ppb)[1]	na	2024	0	3.2	nd - 8.0	na	2024	0	3.2	nd - 8.0	
Trichloroacetic Acid (ppb)[1]	na	2024	20	1.1	nd - 4.0	na	2024	20	1.1	nd - 4.0	
Dibromoacetic Acid (ppb)[1]	na	2024	na	3.0	nd - 8.5	na	2024	na	3.0	nd - 8.5	
Sulfate (ppm)	na	2024	na	61	38 - 86	na	2024	na	42	na	Erosion of natural deposits.

TABLE B Continued: Per- and Polyfluoroalkyl Substances (also known as Forever Chemicals)													
	Violation	Year Sampled	MCL*	MRL	Average Level Detected	Range of Detection	Violation	Year Sampled	MCL	MRL	Average Level Detected	Range of Detection	
Perfluorooctanoic acid (PFOA) (ppt)	na	2024	4.0	2.0	nd	na	na	2024	4.0	2.0	3.9	2.3 - 5.0	Perfluoralkyl and polyfluoralkyl substances (PFAS compounds) are manmade chemicals that have been used in consumer products since the 1940s, usually in the manufacture of non-stick coatings, clothing, carpet, and food wrappers. Research into the harm that PFAS compounds may cause to human health is ongoing. GCWW meets all current EPA regulations. EPA established regulatory standards (MCL) for the group of PFAS compounds shown in this part of Table B. The standards do not take effect for several years, but GCWW is working with the Ohio EPA to investigate source water quality and operational or treatment modifications to minimize PFAS levels in the drinking water. Please see GCWW's website for more information: www.cincinnati-oh.gov/water/water-quality-and-treatment/water-your-health/pfas/
Perflourooctanesulfonic acid (PFOS) (ppt)	na	2024	4.0	2.0	nd	na	na	2024	4.0	2.0	4.2	2.8 - 5.4	
Perfluorohexanesulfonic acid (PFHxS) (ppt)	na	2024	10	2	nd	na	na	2024	10	2	3	nd - 4	
Hexafluoropropylene oxide dimer acid (HFPO-DA or GenX) (ppt)	na	2024	10	2	1	nd - 6	na	2024	10	2	nd	na	
Perfluorononanoic acid (PFNA) (ppt)	na	2024	10	2	nd	na	na	2024	10	2	nd	na	
Perfluorobutanesulfonic acid (PFBS) (ppt)	na	2024	na	2	nd	na	na	2024	na	2	3	nd - 4	
Perfluorobutanoic acid (PFBA) (ppt)	na	2024	na	5	nd	na	na	2024	na	5	na	na	

Definitions

Minimum Reporting Level or MRL: The contaminant level that can reliably be detected using the specified analytical method.

Maximum Contaminant Level Goal or 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 or MCL:** 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. MCLs for PFAS compounds will be effective in 2029.

Action Level or AL: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system shall follow.

Treatment Technique or TT: A method for treating water to achieve acceptable levels of the contaminants in lieu of establishing a maximum contaminant level.

Maximum Residual Disinfection Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfection Level Goal or 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.

Turbidity: Utilities who treat surface water are required to report on turbidity as an indication of the effectiveness of the filtration system. Turbidity is a measure of the cloudiness of water. 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 in the table, GCWW's highest turbidity result for 2024 was 0.17 NTU (Miller Water) and lowest monthly percentage of samples meeting the turbidity limits was 100%.

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.

Lead Threshold Level: The concentration of lead in an individual tap water sample. The lead threshold level is exceeded at 0.015 milligrams per liter (15 ppb) concentration of lead in an individual tap water sample.

Footnotes: 1. *Miller and Bolton were considered as one distribution system for regulatory purposes by Ohio EPA during 2024. Data listed for each system represents the combined distribution system.* **2.** *The value reported under "Highest Compliance Level Detected" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.* **3.** *GCWW collects one sample per year.* **4.** *1 of 107 samples were found to have lead levels in excess of the lead threshold level of 15 ppb during the first compliance period of 2024 (Jan-June): 1 result was 253 ppb. 0 of 103 samples were found to have lead levels in excess of the lead threshold level of 15 ppb during the second compliance period of 2024 (July-Dec).*

Frequently Asked Questions

1 If there are reported contaminants, how can my water be safe?

Drinking water, including bottled water, may reasonably be expected to contain small amounts of contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.

However, some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 healthcare providers. More information about contaminants and potential health effects can be obtained by calling the United States Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at 800.426.4791.

2 What is *Cryptosporidium*?

Cryptosporidium (Crypto) is a microscopic organism, that when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. Crypto is found in surface waters and comes from animal and human waste.

GCWW routinely tests for Crypto and did not detect it in our finished water in 2024. GCWW also tested for Crypto in the Ohio River surface water and it was detected in 1 of 4 samples during 2024. USEPA/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 at 800.426.4791.

3 Why is fluoride added to my water?

Fluoride is added to the water to protect teeth as required by a state law passed in 1969. According to the American Dental Association, persons who drink fluoridated water have a 20% to 40% reduction in the amount of cavities that would have occurred without fluoride. Some home filtration devices remove fluoride. Bottled water may not contain fluoride.

4 How much sodium is in my water?

GCWW has tested for sodium in treated water as it leaves the treatment plants and has found 28 mg (milligrams) per liter in the Richard Miller Water and 32 mg per liter in the Charles M. Bolton Water. There are approximately four cups in a liter.

5 Is there lead in my water?

There is no detectable lead in drinking water as it leaves the treatment plants. 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. GCWW 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 3 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.

A list of laboratories certified in the State of Ohio may be found at 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 Drinking Water Hotline 800.426.4791 or at epa.gov/safewater/lead.

GCWW tests customers' water for lead at no cost. Lead information, including a lead service line lookup map which identifies where lead lines are located, and request for test kits, can be found at lead.myGCWW.org or by calling 513.651.LEAD (5323).

6 Sometimes my water is reddish-brown. What should I do?

The reddish-brown color can be caused by rust from corrosion in GCWW's pipes, the pipes in your home or from corrosion in your home's water heater. If you have rusty water, try running cold water for several minutes.

If you have questions or your laundry is stained from rusty water, call GCWW at 513.591.7700. We will deliver a laundry aid to remove the rust. Do NOT put stained laundry in the dryer.

7 Why does drinking water sometimes look cloudy?

Cloudy water that clears quickly from the bottom up is caused by tiny air bubbles in the water similar to gas bubbles in soda. The bubbles rise to the top and disappear. This cloudiness occurs more often in the winter when drinking water is cold. Air does not affect the safety of water.

8 How hard is GCWW's water?

Hard water is water that contains more minerals, such as calcium and magnesium. Water from GCWW's Richard Miller Plant has an average hardness of 125 mg per liter or 7 grains per gallon. Water from the Charles M. Bolton Plant averages 138 mg per liter or 8 grains per gallon. Hardness does not affect the safety of water.

For More Information About...

Lead Awareness
Website: lead.myGCWW.org
Phone: 513.651.LEAD (5323)

USEPA Safe Drinking Water
Website: epa.gov/ground-water-and-drinking-water
Safe Drinking Water Hotline: 800.426.4791

The Food and Drug Administration (FDA)
Website: fda.gov
Phone: 888.463.6332

NSF International
Website: nsf.org
Phone: 800.673.6275

Contact GCWW

For more information about water quality, customer billing, or to request additional copies or submit comments about this report, call 513.591.7700 or visit myGCWW.org.

Attend the Following Meetings to Participate in Water Decisions:

City of Cincinnati Council
Website: cincinnati-oh.gov
Phone: 513.352.3246

ORSANCO
Website: orsanco.org
Phone: 513.231.7719

OKI Regional Council of Governments Groundwater Committee
Website: oki.org
Phone: 513.621.6300

Educational Resources

Two online Teacher Resource areas are available for teachers, students and parents. These sites are full of educational resources, videos, activity ideas, links, and more -- schedule a group tour of the Water Museum or Historic Old River Station online as well!

Water Quality
Website: cincinnati-oh.gov/water/about/teacher-resources

Stormwater
Website: cincinnati-oh.gov/stormwater/teacher-resources

The GCWW lead program is being used to meet a portion of the notification requirements in OAC Rule 3745-83-02. This report meets the Ohio and USEPA's National Primary Drinking Water Regulation for Consumer Confidence Reports. GCWW has a current unconditioned license to operate from the Ohio Environmental Protection Agency.

city of CINCINNATI