

2022 City of Lebanon Drinking Water Quality Report

The Lebanon Public Water System met all Ohio EPA Standards

The City of 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 and how to participate in decisions concerning your drinking water and water system contact information. In 2022 your water met all Ohio EPA standards. The City of Lebanon and Greater Cincinnati Water Works (GCWW) have a current unconditional license to operate our respective water system issued by Ohio Environmental Protection Agency (OEPA). Lebanon and GCWW were in compliance with all state primary drinking water rules in 2022.

Source Water Information

The City of Lebanon purchases its potable water from GCWW. The water supplied by GCWW comes from both the Ohio River, a surface water source, and the Bolton Well Field in the Great Miami Aquifer, a ground water source. The surface water is treated at the Richard Miller Treatment Plant and the ground water is treated at the Bolton Treatment Plant. Before water is delivered to the consumer GCWW and the Lebanon Water Department take many steps to ensure your water quality and safety. Our priority is safe drinking water. On average GCWW will perform 600 tests per day throughout the treatment and delivery process followed by additional quality and safety testing by the Lebanon Water Department.

The Miller Treatment Plant uses a combination of pre-settling, final settling; filtration followed by granular activated carbon (GAC) filtration for organics removal. GAC is state of the art technology that serves as a barrier against impurities from the raw water source. Final treatment consists of pH adjustment, chlorine and UV disinfection and the addition of Fluoride for dental health. The Bolton Plant utilizes a lime softening process followed by settling and filtration prior to disinfection and the addition of Fluoride. If you have question about the GCWW treatment process please call (513) 591-7700. You can view GCWW's consumer confidence report at: <https://www.cincinnati-oh.gov/water/water-quality-and-treatment/water-quality-reports/2021-water-quality-report-updated-february-2022/>

The City of Lebanon also maintains an emergency backup connection with Warren County and Western Water systems. During 2022 the City of Lebanon did not receive water from Warren County or Western Water. A copy of Warren County Water quality can be found at http://www.warrenwater.com/wq-Water_Quality. This report does not contain information on the water quality from Western Water. A copy of their report can be found at: <http://www.western-h2o.com>

What are the sources of contamination to drinking water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic

and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

GCWW's Bolton Treatment Plant treats groundwater from the Great Miami Aquifer and provides water to the northwestern area of Hamilton County and parts of Butler and Warren Counties. The OEPA has classified Bolton water as having a high susceptibility to contamination because the Great Miami Aquifer does not have a protective clay layer, the water is shallow, there are potential contamination sources nearby; and there are low levels of nitrate in the aquifer. This does not mean that the aquifer is contaminated; only that it is vulnerable to contamination. Cincinnati recognized the vulnerability of the aquifer over a decade ago and has worked as a member of the Hamilton to New Baltimore Groundwater consortium to develop an award-winning source-water-protection program to protect the aquifer (www.gwconsortium.org). For more information about source water protection or to find out what you can do to help, call (513) 591-7700, e-mail info@gcww.cincinnati-oh.gov or visit: www.myGCWW.org.

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The City of Lebanon conducted sampling for coliform bacteria, chlorine, lead, copper and disinfection byproducts during 2022. Samples were collected for a total of over 20 different contaminants most of which were not detected in the City of Lebanon water supply. Over 1000 water samples were analyzed and all results were in compliance with drinking water standards. The Ohio EPA requires The City of Lebanon 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, is more than one year old.

Smart 9-1-1 & Rave Notification System

Alerts powered by Rave Smart911 is the official emergency notification system used by the City of Lebanon to communicate with community residents during emergencies. Examples of emergencies for notification to our residents: water main breaks, boil advisories, bomb threats, chemical spill or gas leak, fires, floods, missing person and other emergency incidents where rapid and accurate notification is essential for public safety. Sign up now to receive free alerts from the City of Lebanon via text message, email and / or voice message at the following link:

<https://www.smart911.com/smart911/registration/registrationLanding.action?cdnExternalPath=>

Table of Detected Contaminants

Listed below is information on contaminants that were found in the Lebanon drinking water in 2022

Lebanon Water Department							
Regulated Contaminant (units)	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Disinfectants							
Chlorine, Total (ppm)	MRDL=4	MRDLG=4	.91	.66-.91	No	2022	Water additive to control Microbes
Residual Disinfectants							
Trihalomethanes, Total (ppb)	na	80	49.1	35.8-49.1	No	2022	By-product of drinking water chlorination.
Haloacetic Acids (ppb)	na	60	16.5	5.7-16.5	No	2022	By-product of drinking water chlorination.

Lead and Copper							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Sample Year	Typical source of Contaminants	
Lead (ppb)	15	NA	.88	No	2022	Corrosion of household plumbing.	
	0 out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3	NA	0.0255	No	2022	Corrosion of household plumbing.	

<i>Unregulated Contaminates</i>					
Lebanon Water Department					
Bromodichloromethane	12.67	8.7-13.6	na	2022	By-product of drinking water chlorination.
Bromoform	3.93	.50-9.0	na	2022	By-product of drinking water chlorination.
Chloroform	20.95	3.2-23.4	70	2022	By-product of drinking water chlorination.
Dibromochloromethane	11.3	6.4-15.7	60	2022	By-product of drinking water chlorination.
Dibromoacetic acid	10.1	3.0-10.1	na	2022	By-product of drinking water chlorination.
Dichloroacetic acid	2.15	1.1-2.9	na	2022	By-product of drinking water chlorination.
Trichloroacetic acid	4.4	ND-4.4	20	2022	By-product of drinking water chlorination.

Greater Cincinnati Water Works, Miller Treatment Plant Water						
<i>Regulated Contaminants</i>						
Substance	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Sample Year
Fluoride (ppm)	4	4	0.87	.65-.98	No	2022
Nitrate (ppm)	10	10	.94	.64-.94	No	2022
Turbidity (NTU)	na	*1	*.11	.03-.11	No	2022
Total Organic Carbon	na	TT1	1.68	1.60-3.49	No	2022
Barium	2	2	.04	na	No	2022

*1, TT1 < 1 NTU Maximum and TT2 < 0.3 NTU in 95% of samples.

*2, 100% <0.3 NTU

TT1, The value reported under "Highest Level Detected" for Total Organic Carbon (TOC) is the lowest ratio between percentages of TOC actually removed to the percentage of TOC required to be removed. A value 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.

Unregulated Contaminants

Substance	Units	MCLG	Average Level Detected	Range of Detection	Violation	Sample Year
Sulfate	ppm	na	59	43-74	na	2022

Greater Cincinnati Water Works, Bolton Treatment Plant Water

Regulated Contaminants

Substance	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Sample Year
Fluoride (ppm)	4	4	0.86	0.74-.97	No	2022
Nitrate (ppm)	10	10	1.79	Nd-1.79	No	2022
Barium (ppm)	2	2	0.014	na	No	2022

Sodium

GCWW tested for sodium in treated water as it leaves the treatment plants and has found 30 mg/l (milligrams per liter) in the Miller plant water and 28 mg/l in the Bolton plant water. There are approximately 4 cups in a liter.

Turbidity

GCWW is required to report on the turbidity as an indication of the effectiveness of their 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 daily samples and shall not exceed 1 NTU any time. As reported in the tables above, GCWW's highest recorded turbidity result for 2022 was 0.11 NTU (Miller Water) and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

Lead Education 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 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>.

Cryptosporidium Information

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of source water and/or finished water indicate the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing a life threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to avoid infection.

Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

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 not found in 9 samples tested during 2022. 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 including sedimentation, filtration, and disinfection.

Public Notice

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.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Lebanon City Council which convenes at Town hall on the second and fourth Tuesday of each month. For more information about your drinking water contact Darren Owens at 513-228-3701.

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.
- 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 ($\mu\text{g/L}$) 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.
- NA NOT APPLICABLE