

2023
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2022



Warren County
Water District

WARRENWATER.COM

PWSID KY 1140487

WHERE DOES MY WATER COME FROM?

Warren County Water District purchases the water delivered to its customers from Bowling Green Municipal Utilities (BGMU). BGMU uses the Big Barren River, a surface water source, as its source of raw water. The Big Barren River flows out of Barren River Reservoir, a flood control lake designed to help prevent flooding in the populated areas west of Allen and Barren Counties. Drakes Creek joins Big Barren River approximately three miles above BGMU's raw water intake. Drakes Creek is fed by Trammel Creek and flows north out of Simpson County, Kentucky. These three surface water bodies are the sources of water that are treated by BGMU.

The Safe Drinking Water Act, amended in 1996, requires Community Public Water Systems to prepare a source water assessment report. This report includes a Source Water Assessment Plan (SWAP) that summarizes our susceptibility to contamination. An analysis indicates that BGMU's system susceptibility to contamination is generally moderate. Areas of concern include potential contaminant sources such as bridges, underground storage tanks, an inactive landfill, oil and gas wells, a KPDES permitted discharger, and agricultural chemical use in the areas near and surrounding the raw water intake.

The final source water assessment plan with complete information on BGMU's system susceptibility to potential sources of contamination is available for review at our office or the Barren River Area Development District Office located at 177 Graham Avenue in Bowling Green, Kentucky.

Our goal is to provide the best water and customer service to Warren County residents. Our customers

are our top priority and an important part of our everyday efforts. We continually look for ways to stay involved in our community and to develop ways to educate customers on water quality. Our website, warrenwater.com, provides customers access to water quality information and facts about their water utility. Also, general brochures, Consumer Confidence Reports (CCRs), and various other Warren Water publications are available for customer service and educational purposes.

WATER QUALITY

Delivering Quality and Commitment in Every Drop!

Warren Water continually performs numerous tests to ensure your drinking water is safe. Warren Water tests the purity of the water over 1,560,000 times a year to ensure the safety of your drinking water. In 2022, the water was tested for over 100 regulated contaminants, and met or exceeded all state and federal quality standards.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may pick up substances resulting from the presence of animals or from human activity. Contaminants

that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

SPECIAL HEALTH 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. Warren Water is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. The good news is that of all the lead testing performed by Warren Water, there has never been a single sample that exceeded EPA's action level. 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>.

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 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 800-426-4791.



2022 TEST RESULTS

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All samples tested in 2022 unless otherwise noted.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Regulated Contaminant Test Results

Substance	Compliance Achieved	Report Level	Range of Detection	MCL	MCLG	Tested by	Likely Source
Total Organic Carbon (ppm) ¹ (Measured as ppm, but reported as a percentage)	Yes	1.39 (lowest avg.)	1.00 to 2.93 (monthly ratios)	TT	N/A	BGMU	Naturally present in the environment
2,4D (ppb)	Yes	0.17	0.17	3	3	BGMU	Herbicide surface runoff
Atrazine (ppb)	Yes	0.26	0 to 0.26	3	3	BGMU	Herbicide surface runoff
Barium (ppm)	Yes	0.027	0.027	2	2	BGMU	Drilling wastes, metal refineries, erosion of natural deposits
Chlorine (ppm) (reported as highest average)	Yes	1.2	0.7 to 1.7	MRDL=4	MRDLG=4	WCWD	Water additive used to control microbes
Fluoride (ppm)	Yes	0.84	0.84	4	4	BGMU	Water additive which promotes strong teeth
Nitrate (ppm)	Yes	2	2	10	10	BGMU	Fertilizer runoff, leaching from septic tanks, erosion of natural deposits
Haloacetic Acids (ppb) (Reported as highest locational running average)	Yes	56	0 to 126	60	N/A	WCWD	By-product of drinking water chlorination
Total Trihalomethanes (ppb) (Reported as highest locational running average)	Yes	73	16 to 114	80	N/A	WCWD	By-product of drinking water chlorination
Household Plumbing Contaminants							
Copper (ppm) (Sites exceeding action level: 0)	Yes	0.017 (90th percentile)	0 to 0.069	AL=1.3	1.3	WCWD	Corrosion of household plumbing systems
Lead (ppb) (Sites exceeding action level: 1)	Yes	0 (90th percentile)	0 to 16	AL=15	0	WCWD	Corrosion of household plumbing systems
Other Constituents							
Turbidity (NTU) ²	Yes	0.093	-	TT	-	BGMU	Soil runoff

¹ Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

² No more than 1 NTU, less than 0.3 NTU in 95% of representative samples of filtered water monthly. Lowest monthly percentage was 100%.

Terms to know when reading the water test results:

AL (ACTION LEVEL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system shall 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 disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

MRDLG (MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL)

The highest 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.

NTU (NEPHELOMETRIC TURBIDITY UNIT)

A measure of the clarity of water. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

N/A (NOT APPLICABLE)

Does not apply.

PPM (PARTS PER MILLION)

One part per million corresponds to one minute in two years, or a single penny in \$10,000.

PPB (PARTS PER BILLION)

One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.

TT (TREATMENT TECHNIQUE)

A required process intended to reduce the level of a contaminant in drinking water.

Excellence in Resourcefulness Awards



Warren County Water District, Simpson County Water District, and Butler County Water System received top honor at the seventh annual Excellence in Resourcefulness Awards in Marco Island, Florida presented by Frost & Sullivan. The award recognizes utilities and municipalities using innovative products and services to minimize electric, gas, and water waste.

Serving a combined 40,800 residential, agricultural, commercial and industrial customers throughout 2,110 miles of distribution main - Warren, Simpson and Butler Water were recognized for their collaboration to reduce water loss and improve connectivity throughout their service areas.

"Our team was proud to accept this award. The team began the implementation of modernizing water

meter reads in all three water districts four years ago with Itron," stated Jacob Cuarta, General Manager. "Automated Meter Reading (AMR) and leak detection technology enabled employees to read meters remotely, safely, and accurately via wireless signals. Advanced acoustical leak sensors were strategically placed to assist in identifying leaks in main lines and services before potential major interruptions."

Since October 2018, the leak sensors have saved the water districts over 76 million gallons of water and over 20.6 million gallons for customers. The deployment of both AMR and AMI systems will continue to reduce meter reading costs, increase billing accuracy, enhance customer service and reduce water loss for Warren, Simpson and Butler Water.

"Warren, Simpson and Butler Water installed a combined 13,600 Itron acoustic leak sensors that are seamlessly integrated with the AMR and AMI system," Cuarta added. "Since the commencement of this project, we have detected 371 leaks (equivalent to 76 million gallons of water) and have been able to notify 916 customers about leakage problems at the customer end. Savings from non-revenue water can be used for financing further infrastructure development that will serve the community as a whole."

As part of the selection process, Frost & Sullivan conducted in-depth research and interviews and evaluated utilities against industry best practices and the decision criteria, including societal impact and business impact for each category. Indicators for societal impact included improving customer awareness and participation, enabling behavioral change to reduce waste through customer engagement and technology-driven programs, and yielding impressive waste reduction results that benefit the overall served community. Indicators for business impact included drafting a clear vision to address excessive waste through technology implementation, achieving operational effectiveness as a result of a successful strategy for sustainability, and strengthening a utility's brand image as a leader for sustainability.

ADDITIONAL INFORMATION ON WATER QUALITY

Warren County Water District:
270-842-0052 warrenwater.com

Kentucky Rural Water Association:
270-843-2291 krwa.org

Kentucky Division of Water:
502-564-3410 water.ky.gov

U.S. EPA Safe Drinking Water Hotline:
800-426-4791 epa.gov/safewater/hfacts.html

GET INVOLVED

We welcome your comments and the opportunity to serve you. Warren Water Board Meetings are open to the public and are held at 11:30 am the fourth Wednesday of every month at the Warren Water office located at 523 US 31 W Bypass, Bowling Green, KY. Please call us at 270-842-0052.

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ATTENCION

Este informe contiene información muy importante sobre la calidad de su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.



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