

# 2022 Water Quality Report

Glasgow Water Company - Water Testing Performed in 2021

PWS ID# KY0050929

## Water Quality Report

This report is designed to inform the public about the quality of water and services provided by the Glasgow Water Company (GWC). The GWC operates a State Certified Microbiology Laboratory staffed with Class IV Water Treatment Plant Operators and Lab Analysts. Our experienced and accredited personnel analyze tests on water samples 365 days a year to assure water safety and quality. These samples are taken from the treatment process as well as from various sites within the distribution system. We would like the public to be assured that we will continue to monitor, improve, and protect the water system and deliver a high quality product direct to the tap.

The GWC is a municipal water and wastewater utility that provides service to approximately 20,100 water connections, 7,200 sewer connections, and 5 regional water utilities (Allen County Water District, Caveland Environmental Authority, Edmonton Water Works, Fountain Run Water District, and Green River Valley Water District). The GWC is the 10th largest water producer in the State of Kentucky and has a service area that encompasses 444 square miles while maintaining 903 miles of water mains and 153 miles of sewer mains. On average, GWC operations treat over 3.1 billion gallons of water and 1.1 billion gallons of waste water annually.



Barren River Lake Water Treatment Plant, Lucas KY

## Water Treatment Plant Operations Receives 16<sup>th</sup> Consecutive AWOP Award

GWC's award winning performance earned U.S. Environmental Protection Agency (EPA) program recognition for achieving exceptional drinking water quality through optimized filtration plant performance. This is the 16th consecutive year the GWC has achieved the Area-Wide Optimization Program (AWOP) designation by surpassing state and federal water quality standards. In the Spring of 2022, the GWC also received the AWOP Disinfectants and Disinfection By-Product Award presented by the Kentucky Energy and Environment Cabinet, Division of Water. Naturally, our staff is critical to our success and our community is fortunate to have dedicated professionals working to ensure that water and wastewater services remain affordable and of extremely high quality. It is our people that make us an industry leader and an organization for which our customers and community can be proud. EPA Optimization Program website: <https://www.epa.gov/sdwa/optimization-program-drinking-water-systems>.



## Water Source Information

The GWC operates two water treatment plants, both treating surface water. They are the Barren River Lake Water Treatment Plant (source plant A) located in Lucas, and the Beaver Creek Water Treatment Plant (source plant B) located north of Glasgow. The Barren River Lake Water Treatment Plant's raw water source is Barren River Lake while the Beaver Creek Water Treatment Plant draws raw water from Beaver Creek.

A source water assessment has been completed. The Barren River Lake has one KPDES permitted discharger, an underground storage tank, agricultural chemical users and oil and gas wells that could be possible sources of contamination. The Beaver Creek Plant has two bridges, several oil and gas wells, one KPDES permitted discharger, an underground storage tank and agricultural chemical users upstream and in proximity of its intake. The final source water assessment with the system's susceptibility to potential sources of contamination is available for review at the Barren River Area Development District (BRADD) office located at 177 Graham Avenue, Bowling Green, Kentucky.

### Want to Receive Important Notifications?

**Boil Water Advisories, Outages, and Emergencies**



Visit [glasgowh2o.com](http://glasgowh2o.com) and click on Notifications tab to sign up to receive important notifications via text or email. If you do not have internet access or need assistance contact us at 270-651-3727.

**Spanish (Español)** - Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

## Regulated Contaminants in the Water Supply

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.

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.

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 1-800-426-4791.

Contaminants that may be present in source water include:

**Microbial Contaminants.** Examples include viruses and bacteria that may come from wildlife, agricultural livestock operations, septic systems, and waste water treatment plants.

**Inorganic Contaminants.** Examples include salts and metals, that can be naturally occurring or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticides and Herbicides.** These may come from a variety of sources such as agriculture, storm water runoff, and residential use.

**Organic Chemical Contaminants.** These include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, storm water runoff, and septic systems.

**Radioactive Contaminants.** These can be naturally occurring or be the result of oil and gas production and mining activities.

**Total Coliform.** Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

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

**Turbidity.** Turbidity has no health effects. Turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms (bacteria, viruses, and parasites).



## Secondary Contaminants

Secondary Contaminants do not have a direct impact on the health of consumers and are not required in this Water Quality Report. They are being included to provide additional information about the quality of your drinking water. The data displayed below represents the highest value from either source plant A or B.

Secondary Contaminant	Maximum Allowable Level	Report Level
Copper	1.0 ppm	0 ppm
Iron	0.3 ppm	0 ppm
Zinc	5 ppm	0 ppm
Total Dissolved Solids	500 ppm	191 ppm
EPA Guidance Level		Report Level
Sodium	20 ppm	3.9 ppm
Maximum Allowable Level		Report Level
pH	6.5 to 8.5	7.5

## Fluoride Regulation (added for dental health)

Kentucky statute (902 KAR 115:010) requires water treatment plants to dose fluoride within a range between 0.6 to 1.2 ppm. GWC's goal is to maintain a 0.7 ppm residual at all times to ensure compliance with Kentucky regulations while keeping an operating tolerance on the low range of the scale.

	Average	Range of Detection
Fluoride (added for dental health) (ppm)	0.7	0.60 to 0.82

## Water Hardness

Water hardness is the amount of dissolved minerals, largely calcium and magnesium, in the water. There is no MCL for water hardness. Water hardness is expressed as grains of hardness per gallon of water (gpg) or parts per million (ppm).

Total Hardness	Avg gpg	Avg ppm
Plant A	5.9	101
Plant B	10.9	186

### HOME PLUMBING AND LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. GWC 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 1-800-426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

If you have questions about lead in drinking water or wish to obtain information concerning lead, specifically related to the GWC water distribution system or our testing program, please call us at 270-651-3727.

## Regulated Contaminant Test Results

The data presented in this report is from the most recent testing performed 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. Some of the data in this table, though representative, may be more than one year old. **Source "A" is the Barren River Lake Water Treatment Plant and Source "B" is the Beaver Creek Water Treatment Plant.**

**Maximum Contaminant Levels (MCL's) are set at very stringent levels. 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.**

Contaminant [code] (units)	Allowable Levels		Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Contamination	
Turbidity (NTU) TT * Representative Samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples		A B	0.23 0.071	100 100	<b>NO</b>	Soil runoff	
Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Barium [1010] (ppm)	2	2	A B	0.023 0.026	0.023 to 0.023 0.026 to 0.026	Feb-21	<b>NO</b>	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	A B	0.60 0.58	0.60 to 0.60 0.58 to 0.58	Feb-21	<b>NO</b>	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	A B	1.86 2.27	1.86 to 1.86 2.27 to 2.27	Feb-21	<b>NO</b>	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
<b>Disinfectants/Disinfection Byproducts and Precursors</b>								
Total Organic Carbon (ppm) (report level = lowest avg. range of monthly ratios)	TT*	N/A	A B	1.73 2.19	1.43 to 2.14 1.48 to 2.92	2021	<b>NO</b>	Naturally present in environment
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average of the monthly ratios must be 1.00 or greater for compliance.								
Chlorine (ppm)	MRDL = 4	MRDLG = 4		1.31 (highest average)	0.21 to 2.20	2021	<b>NO</b>	Water additive used to control microbes
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A		34 (high site average)	8 to 51 (range of individual sites)	2021	<b>NO</b>	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [Total trihalomethanes]	80	N/A		42 (high site average)	10 to 58 (range of individual sites)	2021	<b>NO</b>	Byproduct of drinking water disinfection
<b>Household Plumbing Contaminants</b>								
Copper [1022] (ppm) Sites exceeding action level 0	AL = 1.3	1.3		0.073 (90th percentile)	0.0033 to 0.197	Jul-19	<b>NO</b>	Corrosion of household plumbing systems
Lead [1030] (ppb) Sites exceeding action level 0	AL = 15	0		0 (90th percentile)	0 to 2	Jul-19	<b>NO</b>	Corrosion of household plumbing systems
<b>Synthetic Organic Contaminants including Pesticides and Herbicides</b>								
Atrazine [2050] (ppb)	3	3	B	1.125	BDL to 2.25	2021	<b>NO</b>	Runoff from herbicide used on row crops

Additional copies of this Water Quality Report are available at our main office located at 301 West Main Street or by visiting our website at [www.glasgowh2o.com](http://www.glasgowh2o.com). If you have any questions about the information contained within this report, please contact Joe Watson, General Manager, or Tim Smiley, CCR Contact, at 270-651-3727. The Glasgow Water and Sewer Commission's regular monthly meetings are held on the second Thursday of each month at 3:00 P.M. CST at the Glasgow Water Company office located at 301 West Main Street.

## Water Quality Data

In the Water Quality Data Table, you may find terms or abbreviations that are unfamiliar. To help you better understand the results, the following definitions are provided. Some or all of these definitions may be found in this report:

**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.

**TT = Treatment Technique** - A required process intended to reduce the level of a contaminant in drinking water.

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

**Turbidity** = A measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

**NTU = Nephelometric Turbidity Unit** - Measures cloudiness of water.

**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 contaminants.

**BDL = Below Detection Levels** - Laboratory analysis indicates that the contaminant is not present.

**ND = Not Detected** - Indicates that the substance was not found by laboratory analysis.

**Range of Detection** = This is the lowest and highest levels of detection.

**N/A = Not Applicable** - Does not apply.

**ppm = Parts per million** - Milligrams per liter, (mg/L) - Corresponds to one penny in \$10,000.

**ppb = Parts per billion** - Micrograms per liter, ( $\mu\text{g/L}$ ) - Corresponds to one penny in \$10,000,000.

**TOC = Total Organic Carbon** - Measure of the total amount of organic matter in water.

### NOTICE: IMPORTANT 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 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. Another Source for information on water quality is the Kentucky Division of Water's website: [www.water.ky.gov/dw/](http://www.water.ky.gov/dw/)



## Accomplishments

2006-2021 USEPA Area Wide Optimization Program (AWOP) recognition – Kentucky Energy and Environment Cabinet (KYEEC).

2020, 2018, & 2012 Kentucky's Best Tasting Water Award – Kentucky Rural Water Association.

2020 & 2021 AWOP Disinfectants and Disinfection By-Product recognition – KYEEC.

2019 & 2018 Microbial AWOP Champion Award – KYEEC.

2019 AWOP Longevity Award – KYEEC.

2019 Best of the Best Tap Water Taste Test – American Water Works Association (AWWA), Kentucky/Tennessee Section.

2018 Excellence in Energy Leadership Award – KYEEC.

2018 Environmental Project of the Year – American Public Works Association of Kentucky.

2018 Engineering Excellence Grand Award – American Council of Engineering Companies of Kentucky (ACEC).

2017 Wastewater Treatment Plant of the Year – Kentucky Water and Wastewater Operator's Association (KWWOA).

2016 Governor's Safety and Health Award – Kentucky Labor Cabinet.

2015 Water Treatment Plant of the Year – KWWOA.

2014 Wooden Bucket Award – Kentucky Rural Water Association.

## Customer Service

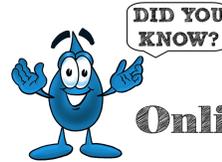
### Regular Business Hours:

Monday - Friday, 8:00 a.m. - 4:30 p.m.

### Service, Billing, Emergencies:

(270) 651-3727

## Bill Payment Options



**Online Bill Pay**  
[www.glasgowh2o.com](http://www.glasgowh2o.com)

### By Phone:

(270) 651-3727

### In Person, Drive Thru or Drop Box (After hours):

GWC Office, 301 West Main Street, Glasgow, KY 42141

### By Mail:

P.O. Box 819, Glasgow, KY 42142-0819

### Local Banks (Payment Drop Off):

- BB&T •Edmonton State Bank •German American Bank
- Limestone Bank •Monticello Bank •Peoples Bank
- South Central Bank •US Bank

### ACH (Automatic Bank Draft):

Payment is automatically deducted from your checking or savings account on your due date.

## OUR MISSION:

To provide the highest quality water and wastewater services at the lowest possible cost, while continuing our commitment to meet the needs of today's customers as well as future generations.



### Board of Commissioners:

Jerry Botts, Chairman

Buddy Underwood, Vice Chairman

Woodford Gardner, JR., Secretary-Treasurer

Harold Armstrong, Mayor-Member

Mama Kirkpatrick, Council Representative

### Management Team:

Joe Watson, General Manager

Patrick Young, Collection System Operations Manager

Jeffrey Reed, Finance/Customer Service Manager

Bryan Crabtree, Maintenance Superintendent

Lance Crimmins, Safety and Risk Manager

Billy Carver, Water System Operations Manager

Tim Smiley, WTP Superintendent

Jacob Billingsley, WWTP Superintendent

### Water Treatment Plant Quality Team:

Tim Smiley, WTP Superintendent

Cody Richardson, Quality Control Manager/Chief Operator

Lee Hammer, Chief Operator

Wesley Wilson, Microbiology Lab Director/IV Operator