



# ANNUAL WATER QUALITY REPORT

Reporting Year 2021

*Presented By*



## Our Mission Continues

Once again, we are proud to present our annual water quality report covering the period between January 1 and December 31, 2021. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at all hours—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach, education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your neighbors.

As part of our commitment to look to the future and improve our communication with you, the customer, we implemented a call notification system in 2021. The system allows greater communication with our customers by providing quicker outreach for notifications and advisories to those that may be affected. If you are interested in signing up for our notification system, please visit [beckleywater.com/contact](http://beckleywater.com/contact) or call (304) 255-5121 to ensure we have your updated information on file.



Matthew W. Stanley  
President, CEO and  
Chairman of the Board  
Beckley Water Company

## Source Water Assessment

The West Virginia Bureau for Public Health (WV BPH) performed a source water assessment of our drinking water sources. The purpose of the assessment was to determine the susceptibility of potential contamination and assign a susceptibility ranking of lower, medium, or higher to each of the sources. The intake that supplies drinking water to the Glade Creek Treatment Plant has a higher susceptibility to contamination due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. The groundwater supply that provides drinking water to the Sweenysburg plant also has a higher susceptibility to contamination due to the sensitive nature of the aquifer in which the drinking water well is located and the existing potential contaminant sources identified. This does not mean that these water sources will become contaminated, only that conditions are such that they could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The Source Water Assessment Report, which includes more detailed information, is available by calling Beckley Water Company or WV BPH at (304) 558-2981.

## Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) 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 or <http://water.epa.gov/drink/hotline>.



## Where Does My Water Come From?

Beckley Water Company customers are fortunate because we enjoy an abundant water supply from two sources. The Glade Creek Water Treatment Plant draws surface water from the Glade Creek Reservoir, which holds about 1.3 billion gallons of water. Customers in the area south of Piney Creek receive water solely from the Glade Creek Water Treatment Plant. Our second water source is groundwater from an entrapped subterranean pool located about 275 feet below the surface. The Sweenysburg Water Treatment Plant was constructed in 1993 to draw from this underground water supply. This pool holds about 1 to 1.5 billion gallons and is constantly being replenished from various underground sources. Combined, our treatment facilities provide roughly 3.5 billion gallons of clean drinking water every year.

Our water supply is part of the Lower New Watershed, which covers an area of roughly 692 square miles around Beckley. Forested lands cover most (98 percent) of our watershed. To learn more about our watershed online, go to U.S. EPA's Surf Your Watershed at [www.epa.gov/surf](http://www.epa.gov/surf).



**QUESTIONS?** For more information about this report, or for any questions relating to your drinking water, please call Louis Wooten, Superintendent, or Jonathan Stanley, Assistant Superintendent, at (304) 255-5121, ext. 113. You can also visit our webpage to view the previous three years of our Annual Water Quality Reports at [beckleywater.com/consumer-confidence-report/](http://beckleywater.com/consumer-confidence-report/).

## Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 two 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Count on Us

Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

## Naturally Occurring Bacteria

The simple fact is bacteria and other microorganisms inhabit our world. They can be found all around us: in our food, on our skin, in our bodies, and in the air, soil, and water. Some are harmful to us, and some are not. Coliform bacteria are common in the environment and generally not harmful themselves. The presence of this bacterial form in drinking water is a concern because it indicates that the water may be contaminated with other organisms that can cause disease. Throughout the year, we tested many water samples for coliform bacteria. In that time, none of the samples came back positive for the bacteria.

Federal regulations require that public water that tests positive for coliform bacteria must be further analyzed for fecal coliform bacteria. Fecal coliforms are present only in human and animal waste. Because these bacteria can cause illness, it is unacceptable for fecal coliform to be present in water at any concentration. Our tests indicate no fecal coliform is present in our water.

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Glade Creek		Sweeneysburg		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
<b>Arsenic</b> (ppb)	2021	10	0	0.452	ND–0.452	0.438	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
<b>Barium</b> (ppm)	2021	2	2	0.0262	NA	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Chlorine</b> (ppm)	2021	[4]	[4]	2.13	0.5–2.3	2.03	1.26–2.20	No	Water additive used to control microbes
<b>Chromium</b> (ppb)	2021	100	100	0.718	NA	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
<b>Cyanide</b> (ppb)	2021	200	200	22.2	NA	NA	NA	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
<b>Fluoride</b> (ppm)	2021	4	4	0.73	0.61–0.78	0.78	0.61–0.80	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Haloacetic Acids [HAAs]–Stage 2</b> (ppb) <sup>1</sup>	2021	60	NA	35.35	18.9–51.7	35.35	18.9–51.7	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2021	10	10	0.275	NA	ND	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]–Stage 2</b> (ppb) <sup>1</sup>	2021	80	NA	32.13	7.8–45.3	32.13	7.8–45.3	No	By-product of drinking water disinfection
<b>Total Organic Carbon</b> <sup>2</sup> (ppm)	2021	TT	NA	1.4	1.1–1.7	1.4	1.1–1.7	No	Naturally present in the environment
<b>Turbidity</b> (NTU)	2021	TT	NA	0.09	0.03–0.09	0.24	0.05–0.24	No	Soil runoff
<b>Turbidity</b> (Lowest monthly percent of samples meeting limit)	2021	TT = 95% of samples meet the limit	NA	100	NA	100	NA	No	Soil runoff

### Radiological Contaminants

SUBSTANCE (UNIT OF MEASURE)	COLLECTION DATE	MCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Radium-228</b> (pCi/L)	9/16/2019	5	0	0.551	0.37–0.551	No	Erosion of natural deposits
<b>Gross Alpha</b> (pCi/L) <sup>3</sup>	9/16/2019	15	0	0.15	0.065–0.15	No	Erosion of natural deposits

### Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
<b>Copper</b> (ppm)	2020	1.3	1.3	0.342	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Lead</b> (ppb)	2020	15	0	2.120	0/30	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

## UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Glade Creek		Sweeneysburg		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Sodium (ppm) <sup>4</sup>	2021	18.7	NA	154	NA	Erosion of natural deposits

<sup>1</sup> Amount detected is LRAA.

<sup>2</sup> The value reported under Amount Detected for 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 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

<sup>3</sup> Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as Alpha Radiation.

<sup>4</sup> Sodium is an unregulated contaminant. If you have a concern over sodium, please contact your primary health care provider.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

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

**LRAA (Locational Running Annual Average):** The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection By-products Rule.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

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

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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