

# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019

*Presented By*



## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation and community education.

Thank you, for allowing us the opportunity to serve you and your family. Please remember that we are always available should you ever have any questions or concerns about your water. After all, well-informed customers are our best allies.



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 Sweeneysburg 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.

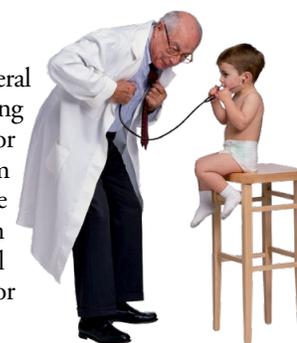
## Where Does My Water Come From?

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 Sweeneysburg Water Treatment Plant was constructed in 1993 to draw from this underground water supply. This pool holds about 1 to 1.5 billion or more 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%) of our watershed. To learn more about our watershed on the Internet, go to U.S. EPA's Surf Your Watershed at [www.epa.gov/surf](http://www.epa.gov/surf).

## 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>.



## 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 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## 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 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 may also come from gas stations, urban storm-water 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.

## Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council, bottled water is not necessarily cleaner or safer than most tap water. In fact, about 25 percent of bottled water is actually just bottled tap water (40 percent according to government estimates).

The Food and Drug Administration is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that is packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to \$1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you would pay for bottled water.

For a detailed discussion on the NRDC study results, check out their website at <https://goo.gl/Jxb6xG>.

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Louis Wooten, Superintendent, at (304) 255-5121, ext. 113.



## 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.

**TABLE OF TEST RESULTS - REGULATED CONTAMINANTS – BECKLEY WATER COMPANY (GLADE CREEK AND SWEENEYSBURG)**

CONTAMINANT	VIOLATION Y/N	LEVEL DETECTED (RANGE)	UNIT OF MEASURE	MCLG [MRDLG]	MCL [MRDL]	LIKELY SOURCE OF CONTAMINATION
<b>MICROBIOLOGICAL CONTAMINANTS</b>						
<b>Turbidity<sup>1</sup></b>	N		NTU	NA	TT	Soil runoff
<i>Glade Creek</i>		0.10 (0.03–0.10)				
<i>Sweeneysburg</i>		0.21 (0.03–0.21)				
<b>Turbidity</b> (Lowest monthly percent of samples meeting limit)	N		NA	NA	TT = 95% of samples meet the limit	Soil runoff
<i>Glade Creek and Sweeneysburg</i>		100% of monthly samples <0.03				
<b>Total organic carbon<sup>2</sup></b>	N		ppm	NA	TT	Naturally present in the environment
<i>Glade Creek</i>		1.5 (0.8–2.2)				
<i>Sweeneysburg</i>		1.5 (0.8–2.2)				
<b>INORGANIC CONTAMINANTS</b>						
<b>Barium</b>	N		ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<i>Glade Creek</i>		0.0228				
<i>Sweeneysburg</i>		0.0512				
<b>Copper<sup>3</sup></b>	N	0.461	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits
<b>Fluoride</b>	N		ppm	4	4	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
<i>Glade Creek</i>		0.75 (0.60–0.80)				
<i>Sweeneysburg</i>		0.77 (0.60–0.81)				
<b>Lead<sup>3</sup></b>	N	1.7	ppb	0	AL=15	Lead services lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits
<b>Nitrate</b>	N		ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<i>Glade Creek</i>		0.30				
<i>Sweeneysburg</i>		0.02				
<b>Nitrite</b>	N		ppm	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<i>Glade Creek</i>		ND				
<i>Sweeneysburg</i>		0.25				

VOLATILE ORGANIC CONTAMINANTS						
<b>Chlorine</b>	N		ppm	[4]	[4]	Water additive used to control microbes
<i>Glade Creek</i>		2.51				
<i>Sweeneysburg</i>		2.19				
		Annual avg. Range				
<i>Glade Creek</i>		0.40–2.90				
<i>Sweeneysburg</i>		1.41–2.30				
<b>Haloacetic acids (HAAs) Stage 2</b>	N	30.7	ppb	NA	60	Byproduct of drinking water disinfection
		Annual avg. Range: 14.4–52.0				
<b>Total Trihalomethanes (TTHMs) Stage 2</b>	N	26.3	ppb	NA	80	Byproduct of drinking water chlorination
		Annual avg. Range: 12.4–54.3				

SECONDARY SUBSTANCES									
				Glade Creek		Sweeneysburg			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Sulfate</b> (ppm)	2019	250	NA	5.44	NA	101	NA	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES						
		Glade Creek		Sweeneysburg <sup>4</sup>		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Nickel</b> (ppb)	2019	ND	NA	0.0038	NA	Nickel is a natural element of the earth's crust; therefore, small amounts are found in food, water, soil, and air
Sodium (ppm)	2019	15.2	NA	93.4	NA	Erosion of natural deposits

<sup>1</sup>Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>2</sup>The value reported under Amount Detected for TOC is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value less than 1 indicates a violation of the TOC removal requirements.

<sup>3</sup>Copper and lead samples were collected from 60 area residences on 7-1/8-3-2017. Only the 90th percentile is reported. One of the lead samples exceeded the AL. When one of the lead samples exceeded the AL, we provided the offending home with information regarding the health effects and the remediation procedures for excess lead in their plumbing system.

<sup>4</sup>Sodium is an unregulated contaminant. Sweeneysburg's sodium level exceeds the guidance level MCL. 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. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

**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).

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

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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