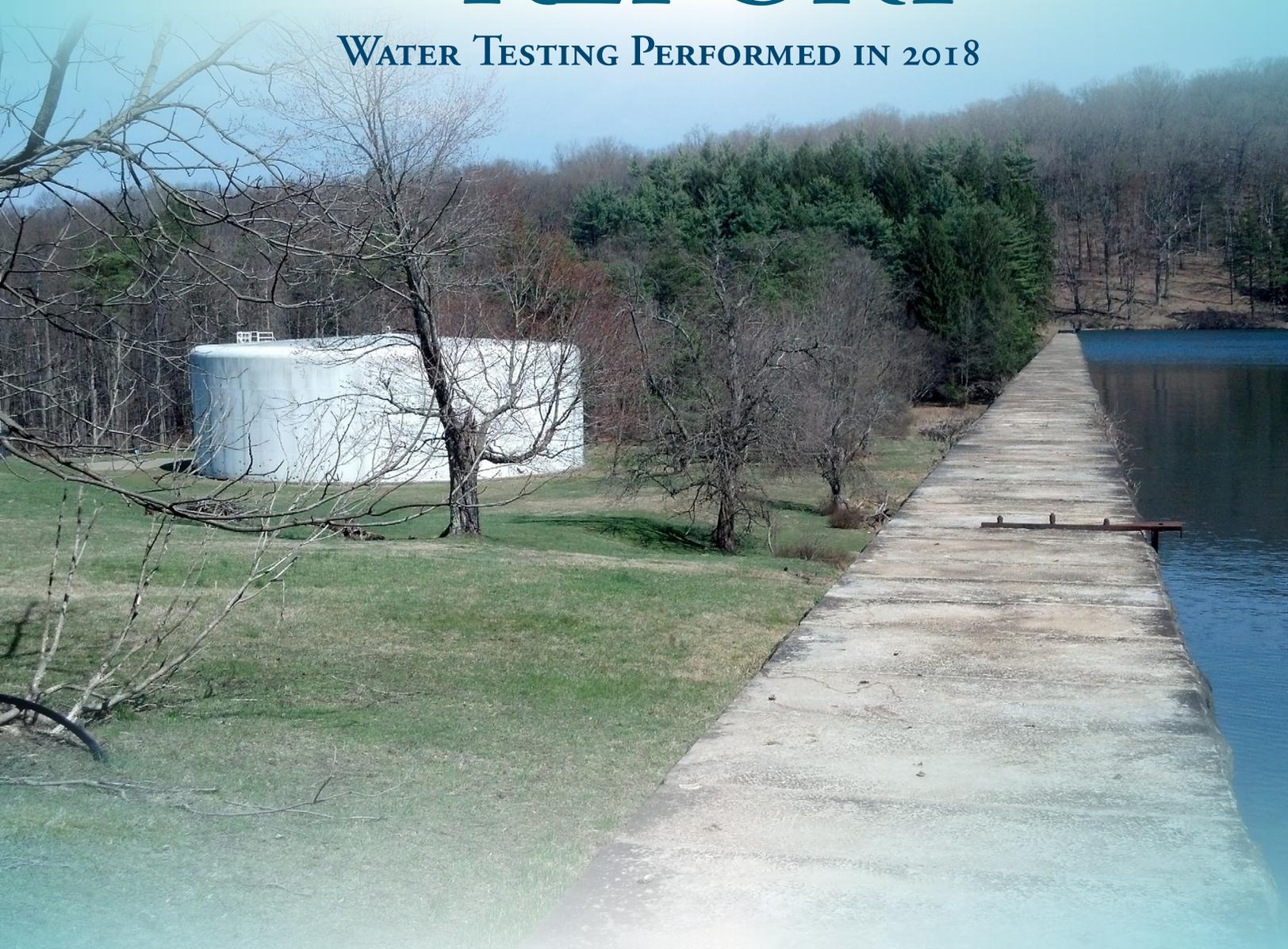


# ANNUAL WATER QUALITY REPORT

WATER TESTING PERFORMED IN 2018



*Presented By*  
**Highridge Water  
Authority**

## 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, 2018. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. During the 2018 reporting year, Highridge Water Authority (HWA) had no water quality or reporting violations. 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 while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.

## Source Water Assessment

The greatest potential threats to HWA water supply sources are:

1. Accidents and spills along the roadways within the assessment area;
2. Potential contamination due to discharge from a small residential wastewater plant;
3. Potential non-point source contamination associated with farming;
4. Activities using pesticides/herbicides, mining activities, logging activities, road de-icing, and aquatic wildlife; and
5. Leaks or spills from an underground fuel storage tank.

A copy of the assessment can be viewed at the HWA office, located at 17 Maple Avenue, Blairsville, Pennsylvania.

Of the 452 million gallons of water sold to HWA customers, 761,206 gallons was purchased from BMA. For a copy of BMA's Source Water Assessment Report, contact BMA directly at (724) 459-5020.

## 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>.

## Testing for *Cryptosporidium*

*Cryptosporidium* is a microbial parasite found in surface water throughout the U.S. The constant monitoring practices of HWA detected two raw water samples indicating the presence of *Cryptosporidium*. This parasite is found in water, soil, or food that has been contaminated with the feces of humans or animals infected with *Cryptosporidium*. Filtration removes it from public drinking water.

*Cryptosporidium* is most commonly spread by swallowing water in swimming pools, lakes, rivers, and streams. Touching your mouth with hands contaminated by animals, diapers, toys, or bathroom fixtures of an infected person can likewise spread the parasite. *Cryptosporidium* must be ingested; it is not spread through contact with blood. Above all, practice good hygiene.

Most healthy individuals can overcome the disease within several weeks without treatment. Symptoms of infection are nausea, diarrhea, and abdominal cramps. Immunocompromised people, however, are advised to consult their doctor once symptoms are experienced. For additional information, visit [www.cdc.gov](http://www.cdc.gov).



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA and DEP prescribe regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration and DEP 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.

## Community Participation

HWA encourages its customers to participate in our meetings, held on the third Tuesday of each month at 6:30 p.m. in the James F. Conway conference room at 17 Maple Avenue in Blairsville.

## 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. It's a very soft metal and was never used to make large water mains. Although lead was used for centuries because of its resistance to pinhole leaks, it wasn't until the 20th century that the risks of lead plumbing became widely known. The U.S. Environmental Protection Agency (U.S. EPA) banned new lead service lines in the 1950s and has gradually eliminated lead in solder and household plumbing fixtures. Although HWA is responsible for providing high-quality drinking water, we cannot control the variety of materials used in household plumbing components. We will, however,

require that you replace lead service lines. HWA has required new water lines to be made of PVC (plastic) for more than two decades.

If 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. Lead exposure is measured in parts per billion. Water companies cannot exceed 15 parts per billion (ppb). Analogies for 1 ppb would be one sheet of toilet paper in a roll of paper stretching from New York to London, one pinch of salt in 10 tons of potato chips, or 1 second in nearly 32 years. When drinking water is monitored according to federal and state regulations, the risk of human exposure to lead in water is negligible. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call George E. Sulkosky, Executive Director, at (724) 459-8033.



## Water Sources

The HWA system is currently supplied by a series of mountain reservoirs with a combined total raw water storage capacity of approximately 400 million gallons. These reservoirs, amid western Pennsylvania's Laurel Mountains, are located on Tubmill Creek, south of New Florence, and Big Springs Run and Little Sugar Run, outside the borough of Seward.

### Additional Sources of Water

HWA purchases small volumes daily from Blairsville Municipal Authority (BMA). BMA's source is located east of the village of Hillside on Chestnut Ridge in Derry Township.



## Did You Know?

1. The main infrastructure and major water lines of the HWA system were originally built by the Pennsylvania Railroad to supply steam engines with water as far as Josephine in Burrell Township, Indiana County, and Latrobe in Westmoreland County dating back to 1910.
2. The HWA system has over 250 miles of water lines and serves a population of over 12,000 in three counties.
3. Since 1994, HWA has invested \$33 million in infrastructure improvements. Two filtration plants, eight pump stations, 12 water tanks, and approximately 100 miles of new water lines have been added to the system.
4. HWA offers automatic and online bill payment services.
5. Customers can sign up to be notified immediately of a water emergency affecting their family.
6. Lead in drinking water is primarily from materials and components associated with customers' service lines and household plumbing.
7. The filtration of drinking water and the addition of chlorine are the most significant public health advancements in human history.



Learn about signing up for water service, where to purchase plumbing supplies, water conservation tips, protecting your water lines from severe winter weather, and much more at [highridgewater.org](http://highridgewater.org).

## Cross-Connection Control Program

“No person may introduce contaminants into a public water supply through any service connection to a public water system.”  
(PA Code, Title 25, Chapter 109.709)

Over the past year, HWA has worked to enforce this law under the direction of the Pennsylvania Department of Environmental Protection.

Cross-connections occur where a drinking water line connects to equipment in a customer's private plumbing that may be of questionable quality. Boilers, commercial air conditioning systems, fire sprinkler systems, irrigation systems, mortuary rooms, soda fountain machines, ice machines, and dental offices are just some examples of facility hazards that, if not corrected, could contaminate the drinking water within the facility's plumbing and potentially the public water system. Such an event would occur when the water main's pressure drops due to a main line leak, water system flushing, or when fire hydrants are utilized. This drop in pressure causes contaminants to be sucked from the facility's equipment and into the drinking water line.

The most common hazards on a homeowner's property are outside water taps. Garden hoses submerged in swimming pools and slop sinks, attached to a sprayer for weed killing, or left lying on the ground may be contaminated by fertilizers or garden chemicals. Improperly installed valves in your toilet could also be a hazard.

Dual check valves are used as backflow preventers in most residences, whereas testable double-check and reduced pressure zone assemblies are required for commercial enterprises. Installation of all preventers shall be at the expense of the water consumer. Testable devices must be certified annually, with results sent to HWA.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791 or HWA at (888) 557-4343.

## 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.

We participated in the fourth stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on both raw and filtered water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Please note that 2016 lead and copper data was determined to be invalid due to an error made by the laboratory responsible for the analysis so additional sampling was conducted in 2018.

REGULATED SUBSTANCES									
				Highridge Water Authority		Blairsville Municipal Authority			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Barium (ppm)	2018	2	2	0.0342	0.0334–0.0342	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Benzo(a)pyrene [PAH] (ppt)	2018	200	0	ND	NA	NA	NA	No	Leaching from linings of water storage tanks and distribution lines
Chlorine [Distribution] (ppm)	2018	[4]	[4]	0.852	0.53–0.852	1.21	0.37–1.21	No	Water additive used to control microbes
Chlorine [Entry Point] (ppm)	2018	MinRDL: SW = 0.2/ GW = 0.4	NA	0.7 <sup>1</sup>	0.7–1.5	0.4	0.4–1.55	No	Water additive used to control microbes
Cryptosporidium (oocysts/L)	2018	TT	0	0.30	0.195–0.30	NA	NA	No	Naturally present in the environment
Fluoride (ppm)	2018	2	2	NA	NA	0.7	0.7–0.7	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2018	60	NA	41.395	19–56.9	13.0125	ND–20.9	No	By-product of drinking water disinfection
Nitrate (ppm)	2018	10	10	0.29	0.26–0.29	0.14	0.14–0.14	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2018	80	NA	37.7175	7.54–55.2	35.5625	21.5–57.7	No	By-product of drinking water disinfection
Total Organic Carbon <sup>2</sup> (ppm)	2018	TT	NA	1.	0.6–1.3	0.9	0.5–1.1	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2018	TT	NA	0.14	0.04–0.14	NA	NA	No	Soil runoff
Tap water samples were collected for lead and copper analyses from sample sites throughout the community									
				Highridge Water Authority		Blairsville Municipal Authority			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2018	1.3	1.3	0.079	0/30	0.032 <sup>4</sup>	0/22 <sup>4</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2018	15	0	ND	0/30	2 <sup>4</sup>	0/22 <sup>4</sup>	No	Corrosion of household plumbing systems; Erosion of natural deposits

## UNREGULATED SUBSTANCES

		Highridge Water Authority		Blairsville Municipal Authority		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bromodichloromethane</b> (ppm)	2018	0.00371	0.00116–0.0049	0.004915	0.00393–0.00643	By-product of drinking water disinfection
<b>Chlorodibromomethane</b> (ppm)	2018	NA	NA	0.000965	0.000603–0.00106	By-product of drinking water disinfection
<b>Chloroform</b> (ppm)	2018	0.030185	0.00638–0.0463	0.0298125	0.017–0.0502	By-product of drinking water disinfection
<b>Nickel</b> (ppm)	2018	0.00086	0.00081–0.00086	NA	NA	Naturally present in the environment

## UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4)

		Highridge Water Authority		Blairsville Municipal Authority		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Dibromoacetic Acid</b> (ppm)	2018	0.00024	ND–0.0019	NA	NA	Erosion of natural deposits
<b>Dichloroacetic Acid</b> (ppm)	2018	NA	NA	0.00834	0.00313–0.0114	By-product of drinking water disinfection
<b>Monochloroacetic Acid</b> (ppm)	2018	NA	NA	0.00103	ND–0.00309	By-product of drinking water disinfection
<b>Trichloroacetic Acid</b> (ppm)	2018	NA	NA	0.00728	0.00613–0.00838	By-product of drinking water disinfection

<sup>1</sup> Lowest level that was detected.

<sup>2</sup> The amount detected for TOC is the lowest ratio of 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> Turbidity is a measure of the cloudiness of the water. We monitor turbidity to check the effectiveness of our filtration system.

<sup>4</sup> Sampled in 2016.

## 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.

**GW:** Groundwater source.

**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.

**MinRDL (Minimum Residual Disinfectant Level):** The minimum level of residual disinfectant required at the entry point to the distribution system.

**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).

**ppt (parts per trillion):** One part substance per trillion parts water (or nanograms per liter).

**SW:** Surface water source.

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