



2017 WATER QUALITY REPORT



Berry Hollow

Public Water Supply ID# PA3480053

Este informe contiene información importante acerca de su agua potable. Haga que traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you if needed.)

A Message from the Pennsylvania American Water President

Dear Valued Customer:

On behalf of all Pennsylvania American Water employees, I am pleased to report very good news about the quality of your drinking water. This annual Water Quality Report provides the results of local water testing between January and December 2017, and as you will see, we continue to supply your community with water that meets or surpasses all regulatory standards.

Water service from Pennsylvania American Water is an exceptional value. To deliver quality water to your tap, we employ a great deal of science, expertise, technology and infrastructure to bring water from the source, treat it and ensure it is clean and safe. In addition, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure reliable water service is always there when you need it.

Delivering high-quality water service also requires significant investment to replace and upgrade aging pipe, equipment and facilities. **In 2017 alone, we invested nearly \$300 million in system improvements across the Commonwealth.**

Water is essential for public health, fire protection, economic development and our overall quality of life. Every Pennsylvania American Water employee takes this responsibility very seriously and works hard to keep water flowing not only today but for the next generation. Please take the time to read this report and learn more about the source and quality of your drinking water.



Sincerely,

Jeffrey L. McIntyre
President, Pennsylvania American Water



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WE CARE ABOUT WATER. IT'S WHAT WE DO.®

Our Mark of Excellence

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,900 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 46 states and Ontario, Canada. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit amwater.com and follow American Water on [Twitter](#), [Facebook](#) and [LinkedIn](#).

Pennsylvania American Water, a subsidiary of American Water, is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 2.4 million people.

We are once again proud to present our annual water quality report. This edition covers all testing completed from January through December 2017. Over the years, we have dedicated ourselves to producing drinking water that meets or surpasses all state and federal drinking water standards. We continually strive to adopt new and better methods of delivering the best quality drinking water to you. As regulations and drinking water standards become more stringent, it is our commitment to you to ensure compliance with these standards in an expeditious and cost-effective manner, while maintaining our objective of providing quality drinking water at an affordable price. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

For more information about this report, or for any questions relating to your drinking water, please feel free to call our Customer Service Department at 1-800-565-7292.

Source Water Information

One active groundwater well supplies the Berry Hollow community. The water from the well is pumped to an adjacent treatment facility. The treatment facility has a permitted capacity of approximately 0.03 million gallons of water per day (MGD). The water supply is distributed for residential use.

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) completed an assessment of the drinking water sources for the Berry Hollow groundwater supplies in May 2005. Although no man-made contaminants were detected, the water sources were considered most vulnerable to the following potential impacts: agricultural use of pesticides and fertilizers.

A summary of the completed Source Water Assessment will be made available on the DEP website at www.dep.state.pa.us. Copies of the completed Source Water Assessment as well as additional information may be obtained by calling the local office of the DEP at (570) 826-2511.

In October 2015 a draft Source Water Protection Plan was completed by an engineering group in conjunction with PAW through DEP's Small System Source Water Protection Program. The draft plan is currently being finalized prior to implementation. PAW encourages you to take an active part in protecting your water supply by participating in local watershed activities as they occur in your area.

Other Water Quality Parameters of Interest

Is there lead in your water?

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. Pennsylvania American Water 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 or at:

[U.S. Environmental Protection Agency Web Page on Lead](#)



Does your water contain nitrates?

PAW's normal range of nitrate levels is well below the MCL of 10 ppm. Nitrates enter the water supply from fertilizers used on farms and natural erosion of deposits in the watershed.

Levels above 10 ppm are a health risk for infants under six months of age and can cause blue baby syndrome. Check with your physician if you have questions.

How hard is your water?

Hardness is a measure of the concentration of two minerals naturally present in water – calcium and magnesium. High hardness levels cause soap not to foam as easily as it would at lower levels and tends to form scale in household plumbing. Hardness levels averaged approximately 182 ppm or 10.6 grains per gallon and ranged from 168 ppm to 208 ppm, or 9.8 to 12.2 grains per gallon of water. The water is classified as very hard.

How much sodium is in your water?

The sodium level in a single sample was 39.5 ppm. Although the amount of sodium in drinking water is insignificant compared to the sodium normally consumed in the average diet, it does become a concern to people on low sodium diets recommending less than 20 ppm intake from drinking water. High levels of salt intake may be associated with hypertension in some individuals. To reduce the risks of adverse health effects due to sodium, consult a physician or registered dietitian to plan a healthy diet that reduces the sodium content in your total food intake.

What is the pH (acidity) range of your water?

Water produced by the treatment facility averaged 7.9 pH units and ranged from 7.6 to 8.1 pH units. A pH of 7.0 is considered neutral, neither acidic nor basic.

Is there fluoride in your water?

Pennsylvania American Water Company does not add fluoride to your water supply. The naturally occurring fluoride levels are typically below 0.5 ppm.

How to Contact Us

Additional copies of this report can be printed directly from this site www.amwater.com/ccr/berryhollow.pdf. Questions can be presented to our Customer Service Department at 1-800-565-7292. Added information can be gathered by viewing the following links on the Internet:

[Pennsylvania American Water Web Page](#)

[Pa. Department of Environmental Protection Web Page](#)

[United States Environmental Protection Agency Web Page](#)

Safe Drinking Water Hotline: (800) 426-4791

[Center for Disease Control and Prevention Web Page](#)

[American Water Works Association Web Page](#)

Substances Expected to be in Drinking Water

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit 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. Pennsylvania American Water's treatment processes are designed to reduce any such substances to levels well below any health concern and the processes are controlled to provide maximum protection against microbial and viral pathogens which could be naturally present in surface and groundwater. 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 can be obtained by calling the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

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 may 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.



The source of drinking water (both tap water and bottled water) includes 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 can 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and 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.

How to Read This Table

In general, start with a Substance and read across the table. **Year Sampled** will be in 2017 or earlier depending on the frequency required by the regulations. **MCL** shows the highest level of each substance (contaminant) allowed. **MCLG** is the goal level for that substance (the goal may be set lower than what is allowed). **Highest Amount Detected** represents the highest measured amount (less is better). In some cases compliance is based on calculated values or values other than the **Highest Amount Detected**. In these instances the **Results** are shown with notations that explain the regulatory requirements. **Range** tells the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** tells where the substance usually originates.

Non-regulated substances are measured, but maximum allowed contaminant levels have not been established by the government. These contaminants are shown for your information.

Definitions of Terms Used in This Report

AL (Action Level): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must 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 a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of 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 contamination.

mrem/year: millirems per year (a measure of radiation absorbed by the body)

NA: Not applicable

ND: Not detected

pCi/L (picocuries per liter): Measurement of the natural rate of disintegration of radioactive contaminants in water (also beta particles).

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

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

SS: Single sample

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

%: means percent.

90th Percentile: The highest concentration of lead or copper in tap water that is exceeded by 10 percent of the sites sampled during a monitoring period. This value is compared to the lead and copper action level (AL) to determine whether an AL has been exceeded.



Water Quality Statement

We are pleased to report that during calendar year 2017, the water delivered to your home or business complied with all state and federal drinking water requirements. For your information, we have compiled a list in the table below showing what substances were detected in your drinking water during 2017. The Pennsylvania DEP allows us to monitor for some contaminants less than once per year because the concentration of the contaminants does not change frequently. Some of our data, though representative, are more than one year old. Although all of the substances listed below are under the Maximum Contaminant Levels (MCL) set by the U.S. Environmental Protection Agency and the Pennsylvania DEP, we feel it is important that you know exactly what was detected and how much of each substance was present in the water.

Water Quality Results

Groundwater Disinfectant Residual - Measured on the Water Leaving the Treatment Facility

Substance (units)	Entry Point	Year Sampled	Approved Minimum Disinfectant Residual	Range Of Results	Below Required Minimum Residual More Than 4 Hours	Compliance Achieved	Typical Source
Chlorine Residual (ppm) ¹	Well 1	2017	0.40	0.29 – 2.20	No	Yes	Water additive used to control microbes

¹All chlorine readings were above the treatment technique requirement of not less than 0.40 ppm for more than four hours. A single reading below the minimum residual was recorded on 02/28/2017. The next lowest residual recorded for the year was 0.57 ppm.

Regulated Substances - Measured on the Water Leaving the Treatment Facility

Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low – High	Compliance Achieved?	Typical Source
Antimony (ppb)	2015	6	6	0.6	SS	Yes	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic (ppb)	2015	10	0	2	SS	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Beta Particles (pCi/L) ^{2,3,4}	2013	50	0	4.6	SS	Yes	Decay of natural and man-made deposits
Nitrate (ppm)	2017	10	10	0.17	SS	Yes	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Combined Radium (pCi/L) ⁵	2016	5	0	1.26	SS	Yes	Decay of natural and man-made deposits

² Includes the most recent results available for sampling conducted within the past five years.

³ The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

⁴ Because the beta particle results were below 50 pCi/L, no testing for individual beta particle constituents was required.

⁵ Combined Radium is measured as Radium 226 and Radium 228 separately and the results then combined; Radium 226 was measured at 1.26 pCi/L and Radium 228 was ND.



Disinfectant Residual - Measured on the Water in the Distribution System

Substance (units)	Year Sampled	MRDL	MRDGL	Highest Result	Range Low - High	Compliance Achieved?	Typical Source
Free Chlorine Residual (ppm) ⁶	2017	4	4	1.36	1.10 – 1.76	Yes	Added as a disinfectant in the treatment process

⁶MRDL (maximum residual disinfectant level) applies and is based on a Running Annual Average calculated quarterly. A routine sample is collected monthly with the monthly results then used to calculate a Running Annual Average each quarter. The Highest Result represents the highest running annual average calculated quarterly for compliance during the entire year. This occurred during the fourth quarter of the year; the calculations used to determine compliance through the year include values from 2016. The Range represents the range of individual monthly results reported for compliance during the entire year.

Bacterial Results - Measured in the Distribution System

Substance	Year Sampled	MCL ⁷	MCLG	Highest Number of Positive Samples per Month	Compliance Achieved?	Typical Source
Total Coliform Bacteria	2017	TT	NA	0	Yes	Naturally present in the environment

⁷ TT (treatment technique) became effective on April 1st, 2016 and is based on several criteria depending on the presence of coliform bacteria or E. coli in a series of samples. Depending on the type of bacteria and the samples affected, different types of assessment and corrective actions are required. No coliform or E. coli bacteria were detected in any sampling during 2017.

Disinfection Byproducts Rule 1 Compounds (Measured in the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Result	Range Low - High	Compliance Achieved?	Typical Source
Total Trihalomethanes (TTHM) (ppb) ⁸	2016	80	NA	0.5	SS	Yes	By-product of drinking water chlorination

⁸ MCL (maximum contaminant level) applies and is based the results of a single sample set collected within the distribution system every three years.

Tap Water Samples: Lead and Copper Results – Measured in the Distribution System

Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples Taken	90 th Percentile	Number of Samples Above Action Level	Compliance Achieved?	Typical Source
Lead (ppb) ⁹	2016	15	0	5	<1	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm) ⁹	2016	1.3	1.3	5	0.122	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

⁹ AL (action level) applies and is based on the 90th percentile value of all samples collected for compliance within the distribution system; 90% of all samples must be equal to or lower than the AL. Lead was not detected in any samples.

