2017 WATER QUALITY REPORT

Mid Monroe
Public Water Supply ID# PA2450119

Este informe contiene información importante acerca de su agua potable. Haga que tradúzca 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

QUALITY. ONE MORE WAY WE KEEP LIFE FLOWING.

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

Four groundwater wells located within the Country Club of the Poconos community supply the entire Mid Monroe service area which includes portions of Route 209 and Birch Acres. The water from each well is pumped to one of two treatment facilities (also located within Country Club of the Poconos) that combined have a permitted capacity of approximately 0.420 million gallons of water per day (MGD). The water supply is distributed for both residential and commercial use.

A fifth groundwater well located within Birch Acres is reserved and utilized as needed to supply water to only the Birch Acres community. The water from this well is pumped to an adjacent treatment facility also located within the Birch Acres community. This treatment facility has a permitted capacity of approximately 0.070 million gallons of water per day (MGD).

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and Pennsylvania American Water (PAW) have completed an assessment of the drinking water sources for the Mid Monroe system. Although no man-made contaminants were detected, the water sources were considered most vulnerable to the following potential impacts: runoff from non-point sources such as residential developments and agricultural lands, major roadways, and underground storage tank sites.

Additional information can also be obtained by calling the local Swiftwater office of the PA DEP at (570) 895-4040. Pennsylvania American Water 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

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

Water produced by the treatment facilities averaged 7.4 pH units naturally or without chemical adjustment. The pH at all locations ranged from 7.0 to 7.8 pH units throughout the year. A pH of 7.0 is considered neutral, neither acidic nor basic.

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 primarily 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 may deposit scale on pipes. The hardness levels measured in the water leaving the treatment facilities averaged approximately 161 ppm, or 9 grains per gallon of water. The water is classified as hard.

How much sodium is in your water?
The sodium level measured in the water leaving the treatment facilities averaged approximately 35 ppm with the individual locations ranging from 33 to 38 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.

Is there fluoride in your water?
Pennsylvania American Water does not add fluoride to your water supply. The naturally occurring fluoride levels are typically at or below 0.1 ppm.

How to Contact Us

Additional copies of this report can be printed directly from this site at www.amwater.com/ccr/midmonroe.pdf. Additional information can be gathered by calling our Customer Service Department at 1-800-565-7292 or by viewing the following information 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, the U.S. Environmental Protection Agency (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

Starting with a **Substance**, read across. **Year Sampled** is usually in 2017 or prior depending on the frequency required by the regulations. **MCL** shows the highest level of substance (contaminant) allowed. **MCLG** is the goal level for that substance (goal may be set lower than what is allowed). **Highest Amount Detected** represents the measured amount (less is better). **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.

Entry Point (EP): A point at which finished water representative of each source enters the distribution system.

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.

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

%: 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.

Additional monitoring was also conducted in 2017 such as Synthetic Organic Compounds (SOCs), Volatile Organic Compounds (VOCs), and Nitrite. There were no detections of any of these substances as all results were non-detect.

Sample Data Reporting Deadline Not Met for Disinfectant Residuals (rTCR)

We are required to monitor your drinking water and report all results to the PA Department of Environmental Protection (DEP) on a regular basis and in a timely manner. In 2017, Disinfectant Residual results from individual locations within the distribution system sampled in April 2017 were required to be reported to PA DEP by May 10, 2017. The data was not reported by May 10th in error however resulting in a monitoring/reporting violation. The data was reported to PA DEP on May 23, 2017 following notification of the reporting error. All results were in compliance with drinking water standards. Additional tracking measures were implemented to make sure all samples are collected and reported to the DEP within required timeframes. Failure to meet this sample collection and data reporting time requirement is not an emergency but as our customers you have a right to know it occurred.

Water Quality Results

Disinfectant Residuals (Measured on the Water Leaving the Treatment Facilities)

Treatment Facility (Entry Point)	Substance (units)	Year Sampled	Approved Minimum Disinfectant Residual	Lowest Level Detected	Range of Detections	Below Required Minimum for More Than 4 Hours[1]	Compliance Achieved	Typical Source
Wells 1&2 Combined Treatment Station (EP102)	Entry Point Chlorine Residual (ppm)	2017	0.40	0.07	0.07 – 2.00	No	Yes	Water additive used to control microbes
Wells 3&5 Combined Treatment Station (EP105)	Entry Point Chlorine Residual (ppm)	2017	0.40	0.07	0.07 – 2.00	No	Yes	Water additive used to control microbes
Birch Acres Well 2 Treatment Station (EP112)	Entry Point Chlorine Residual (ppm)	2017	1.25	1.70	SS	No	Yes	Water additive used to control microbes

[1] All chlorine readings were above the Groundwater Rule requirement of not less than the approved minimum disinfectant residual level for more than four hours.

Regulated Substances (Measured on the Water Leaving the Treatment Facilities)

Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Fluoride (ppm)	2015	2	2	0.1	ND – 0.1	Yes	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	2017	10	10	0.5	0.04 – 0.5	Yes	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits

Disinfectant Residuals (Measured on the Water in the Distribution System)

Substance (units)	Year Sampled	MCL	MRDL	Results	Range Low - High	Compliance Achieved	Typical Source
Free Chlorine Residual (ppm)[2]	2017	NA	4	1.10	0.76 – 1.10	Yes	Added as a disinfectant in the treatment process

[2] MRDL (maximum residual disinfectant level) applies. Routine samples were collected and analyzed on a monthly basis at three locations within the distribution system. An average was then obtained from all cumulative sampling results for each month. The Results column lists the highest monthly average calculated and reported for 2017. The Range column represents the range of monthly average results reported for compliance during the entire year.

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

Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples Taken	90th Percentile	Number of Samples Above Action Level	Compliance Achieved	Typical Source
Lead (ppb)[3]	2016	15	0	10	2	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)[3]	2016	1.3	1.3	10	0.4	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

[3] 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. All sample results were below the established AL's for both Lead and Copper.

Regulated Substances (Measured in the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Results[4]	Range[4] Low - High	Compliance Achieved	Typical Source
Haloacetic Acids (HAA5) (ppb)[4]	2017	60	NA	17	15 – 17	Yes	By-product of drinking water chlorination
Total Trihalomethanes (TTHM) (ppb)[4]	2017	80	NA	71	28 – 71	Yes	By-product of drinking water chlorination

[4] A set of samples (TTHM and HAA5) was collected from each of two distribution system locations during the third quarter of 2017 with the Results column representing the highest amount detected from the two locations sampled. The Range represents the results at individual sample locations. Compliance is based on the results for each substance at each location.