2016 Annual Water Quality Report

Frackville
PWS ID: PA 3540032

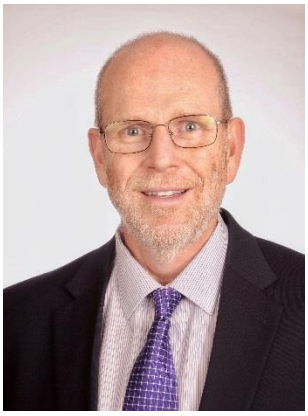
PENNSYLVANIA AMERICAN WATER

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo 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 share some very good news about the quality of your drinking water. This annual Water Quality Report is based on testing results between January and December 2016, and as you read it, you will see that we continue to supply water that meets or surpasses all regulatory drinking water standards.

Water service from Pennsylvania American Water is an exceptional value when you consider the science, expertise, equipment and technology involved in bringing water from the source, treating it, and then delivering clean, safe water to your tap. What's more, our plant operators, water quality experts, engineers and maintenance crews work around the clock to make sure that quality water is always there when you need it.

Delivering reliable, high-quality water service also requires significant investment to replace and upgrade aging infrastructure. **In 2016 alone, we invested approximately $309 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 quality water flowing not only today but well into the future. Please take the time to carefully review this report about the source and quality of your drinking water. We hope you agree that your water service is worth every penny.

Sincerely,

Jeffrey L. McIntyre
President, Pennsylvania American Water

AT ABOUT A PENNY PER GALLON WATER IS A GREAT VALUE™

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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 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

Pennsylvania American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 2.3 million people. 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

We are once again proud to present our annual water quality report. This edition covers all testing completed from January through December 2016. 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 change, it is our commitment to you to incorporate these changes system-wide in an expeditious and cost-effective manner, while maintaining our objective of providing quality drinking water at an affordable price.

Source Water Information

Two well fields supply water to Pennsylvania American Water's Frackville service area; the Center Street wells and the Nice Street well. The company maintains treatment stations at both locations. Air stripping towers are used to remove volatile organic chemicals that may be present in the raw water. In addition, chemical treatment facilities are used to disinfect the water and reduce the water corrosiveness. The water supply is distributed for residential, commercial and industrial use.

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and Pennsylvania American Water completed an assessment for the drinking water sources for the Frackville System in 2004. The water sources are considered most vulnerable to auto repair and gas service stations, underground petroleum storage tanks, and transportation corridors.

A copy of the completed Source Water Assessment may be obtained by following the link below or by calling the Pennsylvania DEP at (570) 826-2511. Pennsylvania American Water encourages you to take an active part in protecting your water supply by participating in activities as they occur in your local area.

Frackville Source Water Assessment Program

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 by following the link below.

U.S. Environmental Protection Agency Web Page on Lead

Does your water contain nitrates?

PAW's normal range of nitrate levels is below the MCL of 10 ppm. Nitrate enters 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. Hardness levels range from 40 ppm to 108 ppm, or 3 to 6 grains per gallon of water.

How much sodium is in your water?

The sodium level ranged from approximately 16 to 27 ppm.

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

Water entering the distribution system averages 7.4 pH units. A pH of 7.0 is considered neutral, neither acidic nor basic.

Is there fluoride in your water?

Pennsylvania American Water does not add fluoride to your water supply.

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 also 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 EPA'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 (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 Contact Us

Additional copies of this report can be printed directly from this site (www.amwater.com/ccr/frackville.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

U.S. Environmental Protection Agency Web Page

Center for Disease Control and Prevention Web Page

American Water Works Association Web Page

Safe Drinking Water Hotline: (800) 426-4791

How to Read This Table

Starting with a **Substance**, read across. **Year Sampled** is usually in 2016 or year prior. **MCL** shows the highest level of each substance (contaminant) allowed. **MCLG** is the goal level for that substance (goal may be set lower than what is allowed). **Maximum Level 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.

Unregulated 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.

• **EP**: Entry point

• **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.

• **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 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

• **NTU (Nephelometric Turbidity Units)**: Measurement of the clarity, or turbidity, of the water.

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

• **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 levels (AL) to determine whether an AL has been exceeded.

Water Quality Statement

We are pleased to report that during the past year, 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 2016. 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

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

Substance (units)	Year Sampled	MCL	MCLG	Maximum Level Detected	Range Low - High	Compliance Achieved	Typical Source
Nitrate (ppm)	2016	10	10	5.1	1.0 – 5.1	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

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

Substance (units)	Year Sampled	Minimum Disinfectant Residual Level Required	Entry Point Location	Lowest Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Chlorine (ppm)	2016	0.4	Center Street Wells	0.60	0.6 - 1.7	Yes	Water additive used to control microbes
Chlorine (ppm)	2016	0.4	Nice Street Well	0.52	0.5 – 1.6	Yes	Water additive used to control microbes

Bacterial Test Results (Measured in the Distribution System)

Substance	Year Sampled	MCL	MCLG	Highest Number of Positive Samples per Month	Compliance Achieved	Typical Source
Total Coliform Bacteria	2016	1 positive monthly sample	Zero bacteria	0	Yes	Naturally present in the environment

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)	2016	15	0	20	0	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2016	1.3	1.3	20	0.08	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Regulated Compounds (Measured in the Distribution System)

Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low - High	Compliance Achieved	Typical Source
Total Trihalomethanes (ppb)	2016	NA	80	19	2 – 37	Yes	By-product of drinking water chlorination
Haloacetic Acids (HAA5) (ppb)	2016	NA	60	5	2 – 8	Yes	By-product of drinking water chlorination

Disinfectant Residual (Measured in the Distribution System)

Substance (units)	Year Sampled	MRDL	MRDLG	Highest Result	Range Low - High	Compliance Achieved	Typical Source
Chlorine (ppm) [1]	2016	4	4	1.2	0.9 - 1.2	Yes	Water additive used to control microbes

[1] MRDL (maximum residual disinfectant level) applies. Routine individual samples were collected monthly with the results from all locations averaged each month.

Unregulated Substances (Measured on the Water Leaving the Treatment Plant)

Substance (units)	Year Sampled	Average Result	Range Low - High	Comment
Chromium 6 or Hexavalent Chromium (ppb)	2011	0.15	ND - 0.19	Chromium 6 is not currently regulated as an individual contaminant. PAW voluntarily performed monitoring based on recommendations from the Environmental Protection Agency.

There's a lot more to your water bill than just water.

When you turn on the tap, it's easy to see what your water bill buys. What's not as easy to see is what it takes to bring that water to your home. The miles of pipeline hidden below the ground. The facilities that draw water from the source. The plant where it's treated and tested. The scientists, engineers, and maintenance crews working around the clock to make sure that water is always there when you need it. Your water payments are helping to build a better tomorrow by supporting needed improvements that will keep water flowing for all of us—today and well into the future. All for about a penny a gallon.

AT ABOUT A PENNY PER GALLON WATER IS A GREAT VALUE™

WE CARE ABOUT WATER. IT'S WHAT WE DO.
FIND OUT WHY YOU SHOULD, TOO, at amwater.com.

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