

2008 Annual Water Quality Report



Blue Mountain
PWS ID: PA3480055

A Message from Kathy Pape, President

As a trusted leader in the industry, Pennsylvania American Water places a strong emphasis on sharing information with customers about the quality of the water service we provide.

One way we do this is by providing annual reports with the results of the tests that we perform on the water delivered to your home. Please review this Consumer Confidence Report (CCR), which outlines information that is applicable to your local water system for tests completed through December 2008. You'll find that we provide water that surpasses or meets all federal and state water quality regulations. In fact, we often address regulations well before they go into effect.

Just as important, Pennsylvania American Water makes the necessary investments to maintain and upgrade its facilities, so that we can deliver quality water directly to your tap 24 hours a day, seven days a week.

Our customers are our top priority, and we are committed to providing you with the highest quality drinking water and service possible now and in the years to come. In addition to this written report, you can view information about Pennsylvania American Water and your water system on our website at www.pennsylvaniaamwater.com. For more information or if you have any questions about this report, please contact Pennsylvania American Water's Customer Service Center at (800) 565-7292.

Sincerely,

Our Mark of Excellence

Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs more than 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15 million people in 32 states and Ontario, Canada.

We are once again proud to present our annual water quality report. This edition covers all testing completed from January through December 2008. 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.

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 need 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 800-565-7292

Source Water Information

Pennsylvania American Water maintains two surface water treatment facilities for the Blue Mountain Area. The Stony Garden Treatment Plant, a 3.2 MGD rated facility, is supplied by the Stony Garden Reservoir and several springs in Hamilton and Ross Townships. The Pen Argyl Treatment Plant, a 0.432 MGD rated facility, is supplied by the Pen Argyl Creek. In addition, the Dietz Well is available as a supplemental groundwater source. The water supply from both surface water treatment facilities and the supplemental groundwater source is distributed for residential, commercial, and industrial use.

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and Pennsylvania American Water Company completed a draft assessment of the drinking water sources for the Blue Mountain surface water and groundwater supplies in 2004. Although no man-made contaminants were detected, the water sources were considered most vulnerable to the following potential impacts: industrial parks, underground petroleum storage tanks, lawn care facilities and quarries. The final public meeting and report were completed in March of 2005.

A summary of the completed Source Water Assessment will be made available on the DEP website at www.dep.state.pa.us. Additional information can also be obtained by calling the local office of the DEP at (570) 826-2511. Pennsylvania American Water Company 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 Company 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 <http://www.epa.gov/safewater/lead>.

Does your water contain nitrates?

Pennsylvania American Water Company'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 4 ppm to 104 ppm, or approximately 0.2 to 6 grains per gallon of water.

How much sodium is in your water?

The sodium level ranges from 2 ppm to 8 ppm.

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

Water produced by the treatment facilities averages 7.2 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.

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 with the exception of a single event noted below. For your information, we have compiled a list in the table below showing what substances were detected in your drinking water during 2008. 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 treatment plants employ several types of treatment that serve as barriers to contaminants potentially found in the source water. These barriers include, among several processes, filtration and disinfection. Treatment technique requirements are in place for both of these processes. A computerized control system failed during the evening on September 16th, 2008 at the Stony Garden Plant causing the plant to shut down, resulting in a low water tank level at the plant. Proper disinfection relies on both the amount and time the disinfectant is present in the water. The reduced water level in the storage tanks limited the available contact time and the minimum disinfection level was not achieved for a brief period. Although filtration and all other treatment barriers remained in place, a boil water advisory was issued throughout the Blue Mountain System on September 17th, 2008 and was lifted on September 19th, 2008. Operational improvements including programming changes and redundant hardware were installed to prevent a future recurrence. Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses and parasites, which can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

How to Read This Table

In general, start with a **Substance** and read across the table. **Year Sampled** will be in 2008 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.

- **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 (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.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **90th Percentile:** The result or value in a range of results where 90% of all the results are equal to lower than that value.
- **%:** Percent.

Radon

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the United States. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering your home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call the State DEP Radon Division Hotline at 800-237-2366 or call EPA's Radon Hotline (800) SOS-RADON.

Water Quality Results

Turbidity – A Measure of the Clarity of the Water at the Treatment Facility								
Plant	Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Lowest % of Measurements Meeting TT ^{1,2}	Compliance Achieved	Typical Source
Stony Garden	Turbidity (NTU) ¹	2008	TT	NA	0.26	100	Yes	Soil runoff
Pen Argyl	Turbidity (NTU) ²	2008	TT	NA	0.30	100	Yes	Soil runoff
¹ All turbidity readings were below the Treatment Technique requirements for Stony Garden Plant of not greater than 1 NTU for any single measurement and less than or equal to 0.3 NTU in 95% of all samples taken for compliance on a monthly basis. Treatment Technique requirements for turbidity are based on the type of treatment used at the treatment facility; Stony Garden Plant is classified as "Conventional" as of July 2008. Turbidity serves as an indicator of the effectiveness of the filtration process. ² All turbidity readings were below the Treatment Technique requirements for Pen Argyl Plant of not greater than 2 NTU for any single measurement and less than or equal to 1.0 NTU in 95% of all samples taken for compliance on a monthly basis. Treatment Technique requirements for turbidity are based on the type of treatment used at the treatment facility; Pen Argyl Plant is classified as "DE" (diatomaceous earth). Turbidity serves as an indicator of the effectiveness of the filtration process.								
Total Organic Carbon (TOC) – A Measure of the Removal of TOC at the Treatment Facility								
Plant	Substance (units)	Year Sampled	MCL	MCLG	Lowest Single Removal Efficiency	Compliance Achieved	Typical Source	
Stony Garden	TOC Removal Efficiency (%) ³	2008	TT	NA	12	NA ⁴	Naturally present in the environment	
³ Treatment technique requirements for TOC removal became effective at the Stony Garden Plant in July 2008 following reclassification of the facility from "Other" to "Conventional" by DEP. Compliance is based on several criteria and is calculated on a quarterly running annual average of an assigned value based on the compliance criteria. While alternative compliance criteria were applicable from July through December 2008 due to low source water TOC, the average removal efficiency during this period was 41% which meets the minimum requirement of 25% that would apply without the alternative criteria. ⁴ Since monitoring became required as of July 2008 only 6 months of data is available which is insufficient to calculate compliance based on the quarterly running annual average as of December 31st, 2008. Sufficient data will not be available until June 30th, 2009.								
Chlorine – Water Additive Used to Control Microbes (Measured on the Water Leaving the Treatment Facility)								
Plant	Substance (units)	Year Sampled	MCL	MCLG	Lowest Amount Detected	Range Low - High	Compliance Achieved	Typical Source
Stony Garden	Entry Point Chlorine Residual (ppm) ^{5,6}	2008	TT	NA	0.68	0.68 - 2.5	Yes	Added as a disinfectant to the treatment process
Pen Argyl	Entry Point Chlorine Residual (ppm) ⁵	2008	TT	NA	1.0	1.0 - 1.8	Yes	Added as a disinfectant to the treatment process
⁵ All chlorine readings were above the Treatment Technique requirement of not less than 0.2 ppm for more than four hours. ⁶ In addition to the minimum entry point chlorine residual, surface water treatment plants must also maintain a minimum disinfection level based in part on both disinfectant concentration and contact time prior to the first customer. The lowest entry point chlorine residual detected occurred on September 17th, 2008 during the event discussed in the Water Quality Statement section of this report. While the chlorine residual indicated meets the treatment technique requirement for entry point chlorine residual, the combination of the chlorine residual and contact time did not achieve the minimum disinfection level for a limited period of time on that date. Please see the Water Quality Statement section of this report for more information.								
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	
Barium (ppm)	2004	2	2	0.023	ND - 0.023	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Fluoride (ppm)	2004	2	2	0.76	ND - 0.76	Yes	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate (ppm)	2008	10	10	0.38	0.02 - 0.38	Yes	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	
Alpha Emitters (pCi/L)	2002 - 2003	15	0	0.70	0.23 - 0.70	Yes	Erosion of natural deposits	
Combined Radium (pCi/L)	2002 - 2003	5	0	0.46	0.06 - 0.46	Yes	Erosion of natural deposits	
Uranium (ppb) ⁷	2002 - 2003	30	0	2.2	2.2	Yes	Erosion of natural deposits	
⁷ The result represents a substituted value applied to a single sample from each treatment facility; analysis for uranium was not performed. This substituted value is a standardized value based on the level of alpha emitters detected as specified in the Radiological Rule.								
Bacterial Results (from the Distribution System)								
Substance (units)	Year Sampled	MCL	MCLG	Highest Number of Positive Samples	Compliance Achieved	Typical Source		
Total Coliforms (number of positive samples)	2008	1 positive sample during the month	Zero bacteria	Zero bacteria detected	Yes	Naturally present in the environment		
Tap Water Samples: Lead and Copper Results								
Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples	90th Percentile	Number of Samples Above Action Level	Compliance Achieved	Typical Source
Lead (ppb) ⁸	2007	15	0	30	3	0	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm) ⁸	2007	1.3	1.3	30	0.219	0	Yes	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
⁸ 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 for both Lead and Copper.								
Other Compounds (Measured in the Distribution System)								
Substance (units)	Year Sampled	MCL/ MRDL	MCLG/ MRDLG	Results	Range Low - High	Compliance Achieved	Typical Source	
Total Trihalomethanes (TTHM) (ppb) ⁹	2008	80	NA	27.6	16.1 - 79.1	Yes	By-product of drinking water chlorination	
Haloacetic Acids (HAA5) (ppb) ⁹	2008	60	NA	32.0	10.3 - 70.8	Yes	By-product of drinking water chlorination	
Distribution Chlorine Residual (ppm) ¹⁰	2008	4	4	1.30	0.98 - 1.81	Yes	Added as a disinfectant to the treatment process	
⁹ MCL (maximum contaminant level) applies and is based on a Running Annual Average calculated quarterly. Sample sets were collected each quarter and the levels detected at each location within the sets averaged. These quarterly averages were then used to calculate a Running Annual Average. The Result represents the highest Running Annual Average calculated quarterly for compliance during the entire year. For both TTHM and HAA5 this occurred during the fourth quarter of the year; the calculations used to determine compliance include values from 2007. The Range represents the results at individual sample locations from all four quarters during 2008. ¹⁰ MRDL (maximum residual disinfectant level) applies and is based on a Running Annual Average calculated quarterly. Routine samples were collected monthly with the results from all locations averaged each month. The monthly average results were then used to calculate a Running Annual Average each quarter. The Result represents the highest running annual average calculated quarterly for compliance during the entire year. This occurred during the third quarter of the year; the calculations used to determine compliance include values from 2007. The range represents the range of monthly average results reported for compliance during 2008.								
Non-Regulated Substances (Measured on the Water Leaving the Treatment Facilities)								
Substance (units)	Year Sampled	Highest Amount Detected			Range Low - High	Typical Source		
Radon (pCi/L)	2005	940			760 - 940	Naturally occurring		

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. 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. 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 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 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 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.

How to Contact Us

Additional copies of this report can be obtained by calling our Customer Service Department at 800-565-7292. Electronic copies of this document can be obtained by logging on to our website www.pennsylvaniaamwater.com. Additional information can be gathered by calling our Customer Service Department or by viewing information on the Internet:

Pennsylvania American Water
www.pennsylvaniaamwater.com

Pennsylvania Department of Environmental Protection
www.dep.state.pa.us

United States Environmental Protection Agency
www.epa.gov/safewater

Safe Drinking Water Hotline: (800) 426-4791

Centers for Disease Control and Prevention
www.cdc.gov

American Water Works Association
www.awwa.org



800 W. Hershey Park Drive
Hershey, PA 17033

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.