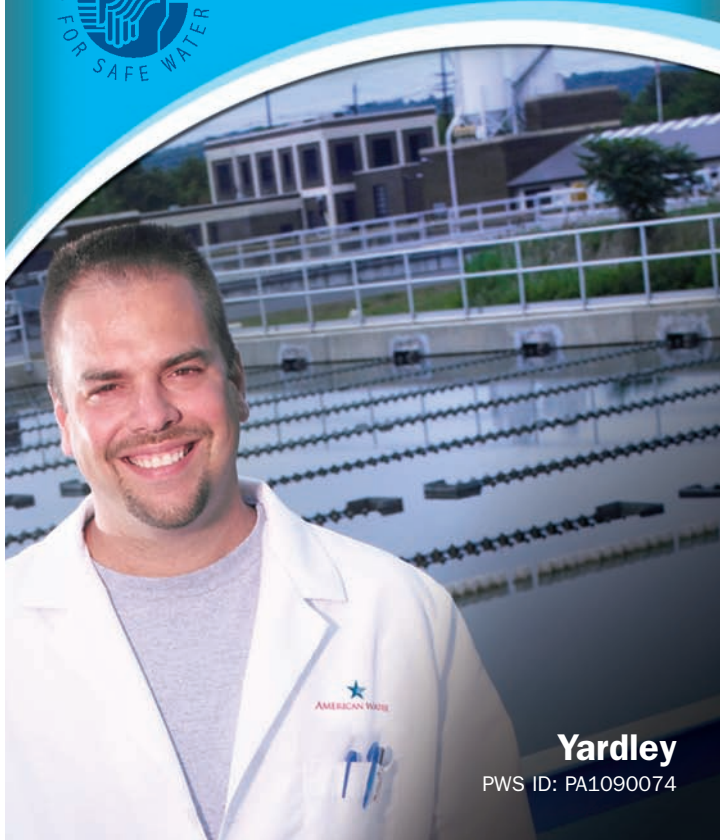


2008 Annual Water Quality Report



Yardley
PWS ID: PA1090074

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,

A handwritten signature in black ink, appearing to read "Kathy Pape".

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 1-800-565-7292.

Source Water Information

The Yardley system obtains raw water from the Delaware River and five groundwater wells. The Yardley treatment facility is capable of producing six million gallons of water per day (6 MGD). The combined output of the five wells can yield 2.3 MGD. Pennsylvania American Water's College Avenue pumping station receives water from three wells and employs an aeration tower to remove volatile organic compounds present at low levels in the untreated water. The Highland Drive well station utilizes the two remaining wells. The water supply is distributed for residential, commercial, and industrial use.

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and PAW completed an assessment for the drinking water sources for Pennsylvania American Water's Delaware River Intake in November 2002. It was found that contaminants can enter the water supply from a variety of sources such as storm water, agricultural activities within the watershed area, construction and abandoned industrial site runoff; acid mine drainage; discharge from septic systems and wastewater treatment plants; and railway tankers and oil pipelines.

A copy of the completed Source Water Assessment may be viewed by calling the local office of the Pennsylvania DEP at 484-250-5900. PAW encourages you to take an active part in protecting your water supply by participating in activities as they occur in your local 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. Yardley 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>

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. Historically hardness levels range from 62 ppm to 244 ppm, or 3.6 to 14.3 grains per gallon of water.

How much sodium is in your water?

The sodium level is in the range, 19 to 24 ppm.

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

Water in 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?

PAW does not add fluoride to your water.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Availability of Monitoring Data for Unregulated Contaminants for Yardley

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. If you are interested in learning more about this required testing, please contact our Water Quality Supervisor, Sandy Weiss, at 610-292-3591 or by mail at 300 W. Washington Street Norristown PA 19401. Monitoring conducted during 2008 did not detect the presence of any of the unregulated compounds.

Partnership for Safe Drinking Water Program

In 2008 the Yardley system participated in the Partnership for Safe Water program sponsored by the U.S. Environmental Protection Agency (EPA), Pennsylvania Department of Environmental Protection (DEP) and other water-related organizations. This voluntary national program assesses the performance of surface water filtration plants. The results of this evaluation are then used to improve operations, so that we continue to provide the highest quality water we can deliver at a reasonable cost.



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 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 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

Bacterial Test Results: Measured from Yardley Water Distribution System								
Substance (units)	Year Sampled	MCL	MCLG	Highest Percentage Detected	Compliance Achieved	Typical Source		
Total Coliforms (% of positive samples)	2008	No more than 5% of the monthly samples can be positive	Zero bacteria	0	Yes	Naturally present in the environment		
Turbidity: A Measure of the Clarity of the Water at Yardley Water Treatment Facility								
Plant	Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Compliance Achieved	Typical Source	
Yardley Plant	Turbidity (NTU) ¹	2008	TT	NA	0.48	Yes	Soil runoff	
¹ All turbidity readings were below the treatment technique (TT) requirement of 0.3 (or 0.5) NTU in 95% of all samples taken for compliance on a monthly basis.								
Total Organic Carbon Removal: Measured at the Yardley Water Treatment Facility								
Substance (units)	Year Sampled	TT	Range of Percent Removal Required	Range of Percent Removal Achieved	Compliance Achieved	Typical Source		
Total Organic Carbon (TOC) (% removal) *	2008	Meet EPA Removal Requirements	15 - 35	-1 - 41	Yes	Naturally decaying of vegetation		
*Adequate removal of TOC may be necessary to control the unwanted formation of chlorinated by-products. Naturally occurring organic matter present in the source water can react with the disinfectants used at the treatment facility to form these by-products								
Lead and Copper Results: Tap Water Test Results from Yardley Water Distribution system								
Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples	90th Percentile	Number of Samples that Exceeded AL	Compliance Achieved	Typical Source
Lead (ppb)	2007	15	0	31	4	0	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	2007	1.3	1.3	31	0.12	0	Yes	Corrosion of household plumbing systems; erosion of natural deposits
Regulated Substances: Measured on the Water Leaving Yardley Treatment Facilities or in the Distribution System								
Substance (units)	Year Sampled	MCL/MRDL	MCLG/MRDLG	Amount Detected	Range Low - High	Compliance Achieved	Typical Source	
Nitrate as Nitrogen (ppm)	2008	10	10	2.2	0.64 - 3.8	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage plant discharge; erosion of natural deposits	
Total Chlorine Residual in Distribution System (ppm) **	2008	4	4	1.43	0.93 - 1.43	Yes	Disinfectant applied in the treatment process	
Total Chlorine Residual at Water Plant (ppm) **	2008	4	4	0.44	0.44 - 2.33	Yes	Added as a disinfectant to the treatment process	
Total Trihalomethanes (TTHM) (ppb)	2008	80	NA	44	1 - 87.2*	Yes	By-product of drinking water chlorination	
Haloacetic Acids (HAA) (ppb)	2008	60	NA	32	ND - 53.7*	Yes	By-product of drinking water chlorination	
*Range represents sampling at individual sample points. **MRDL (maximum residual disinfectant level) applies.								
Non-Regulated Substances: Measured on the Water Leaving the Yardley Treatment Facility								
Substance (units)	Year Sampled	Highest Level Detected		Range Low - High		Typical Source		
Radon (pCi/L)	2007	2191		ND - 2191		Naturally occurring		

How to Read This Table

Starting with a **Substance**, read across. **Year Sampled** is usually in 2008 or the year prior. **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** shows the highest and lowest amounts measured. A **Yes** under **Compliance Achieved** means the amount of the substance met government requirements. **Typical Source** shows 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.
- **SS:** Single sample
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **%:** means percent.
- **>:** means greater than.

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 (FDA) 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 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 Safe Drinking Water Hotline at (800) 426-4791.

Cryptosporidium is a microbial pathogen found in surface water throughout the US. Although *Cryptosporidium* can be removed through commonly-used filtration methods, US EPA issued a new rule in January 2006 that requires systems with higher *Cryptosporidium* levels in their source water to provide additional treatment. In anticipation of this upcoming rule, the Norristown system sampled for *Cryptosporidium* in its raw water in 2005 and 2006. Sample results do not show a need to provide additional treatment.

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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic Contaminants, such as salts and metals, 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 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, may also come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants 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. Further information can be obtained by calling our Customer Service Department or by viewing information on the Internet sites below:

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

This report contains important information about your drinking water. If you do not understand it, please have someone translate it for you.

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

Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Chloramine Treatment

Chloramines are a Pennsylvania DEP and EPA approved alternative disinfectant to free chlorine for water disinfection. Chloramines minimize the formation of regulated disinfection by-products. Another benefit of chloramines is the improved taste of the water over free chlorine. The Yardley water system has successfully used chloramine treatment in its facility. Chloramines are used by many other water utilities nationally. Chloramines have the same effect as chlorine for typical water uses with the exception that chloramines must be removed from water which is used in kidney dialysis and fish tanks or aquariums. Treatments to remove chloramines are different than treatments for removing free chlorine. Please contact your physician or dialysis specialist if you have questions. Contact your pet store or veterinarian if you have questions regarding the water being used for fish and other aquatic life or pets.

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 during showering, washing dishes, and other household activities. Compared to radon entering your home through soil, radon entering the home from 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, have the air in your home tested. 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 DEP Radon Division Hotline at (800) 237-2366 or call EPA's Radon Hotline (800) SOS-RADON.