

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 nearly 6,900 dedicated professionals who provide drinking water, wastewater and other related services to approximately 16.2 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 2007. 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

The source of supply for the Glen Alsace service area includes 11 wells and two interconnects. Pennsylvania American Water purchases water from the Mount Penn Borough Municipal Authority and from the Reading Area Water Authority. Reading Area Water Authority's water supply is Lake Ontelaunee, the water flows into the lake from Maiden Creek, Saucony Creek and Bailey Creek. Mount Penn Borough Municipal Authority's source of water is wells. The combined water supply is distributed for residential, commercial, and industrial use.

Protecting Your Water Source

The Pennsylvania Department of Environmental Protection (DEP) and PAW is working on an assessment for the drinking water sources for the Glen Alsace system. The Source Water Assessment is being reviewed by DEP and will be published shortly in 2007.

A copy of the Source Water Assessment will be available when completed and can be viewed by calling the local office of the Pennsylvania DEP at (717-772-4048). PAW encourages you to take an active part in protecting your water supply by participating in activities as they occur in your local area.



2007 annual water quality report

Glen Alsace
PWS ID: PA33060088

RWE
Group



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 2007. 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

Turbidity – A Measure of the Clarity of the Water at the Reading Area Water Authority Treatment Facility							
Plant	Substance (units)	Year Sampled	MCL	MCLG	Highest Single Measurement	Compliance Achieved	Typical Source
Reading Area Water Authority	Turbidity (NTU) ¹	2007	TT ²	NA	0.23	YES	Soil runoff
¹ PAW purchases water from Reading Area Water Authority, all turbidity readings were below the treatment technique requirement of 0.3 NTU in 100% of all samples taken for compliance on a monthly basis.							
² TT = 1 NTU for a single measurement.							
Total Organic Carbon Removal Measured at the Reading Area Water Authority 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) *	2007	Meet EPA removal requirements	0 – 35	42 – 64	YES	Naturally decaying 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.							
Regulated Substances (Water at the Reading Area Water Authority Treatment Facility)							
Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Chloramine (as Cl ₂) (mg/l)	2007	4	4	3.21	1.07 – 3.21	YES	Added as a disinfectant to the treatment process
Fluoride (ppm)	2007	2	2	1.30	0.88 – 1.30	YES	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm) as Nitrogen	2007	10	10	3.25	1.46 – 3.25	YES	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Regulated Substances (Measured on the Water Leaving the Treatment Facilities)							
Substance (units)	Month/Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Selenium (ppb)	2007	50	50	3	ND – 3	YES	Discharge from petroleum and metal refineries; Erosion of natural deposits
Arsenic (ppb)	2007	10	10	5	0.00 – 5	YES	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2007	2	2	ND	ND	YES	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
1,1 Dichloromethylene (ppb)	2007	7	7	1	ND – 1	YES	Discharge from metal degreasing sites and other factories
1,1,1-Trichloroethylene (ppb)	2007	200	200	11	ND – 11	YES	Discharge from metal degreasing sites and other factories
Trichloroethylene (ppb)	2007	5	0	1.3	ND – 1.3	YES	Discharge from metal degreasing sites and other factories
Trichloroethylene (ppb)	2007	5	5	ND	ND	YES	Discharge from metal degreasing sites and other factories
Combined Uranium (pCi/L)	2007	5	0	ND	ND	YES	Erosion of natural deposits
Combined Radium (pCi/L)d	2007	15	0	ND	ND	YES	Erosion of natural deposits
Alpha Emitters (pCi/L)d	2007	15	0	ND	ND	YES	Erosion of natural deposits
Nitrate (ppm) as Nitrogen	2007	10	10	5.63	0.71 – 5.63	YES	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Bacterial Results Measured in the Glen Alsace Distribution System							
Substance (units)	Year Sampled	MCL	MCLG	Highest Number of Positive Samples	Compliance Achieved	Typical Source	
Total Coliforms (number of positive samples)	2007	1 positive sample during the month	Zero bacteria	1	YES	Naturally present in the environment	
Tap Water Samples: Lead and Copper Results Measured in the Glen Alsace Distribution System							
Substance (units)	Year Sampled	Action Level	MCLG	Number of Samples	90th Percentile	Number of Samples Above Action Level	Typical Source
Lead (ppb)	2007	15	15	30	3	1	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	2007	1.3	1.3	30	0.782	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Other Compounds (Measured in the Distribution System)							
Substance (units)	Year Sampled	MCL	MCLG/MRDL	Results	Range Low-High	Compliance Achieved	Typical Source
Total Chlorine Residual ³ (ppm) ⁴	2007	4	NA	1.72	0.10 – 1.72	YES	Added as disinfectant to the treatment process
Haloacetic Acids ³ (HAA5) (ppb) ⁵	2007	60	NA	7	ND – 38	YES	By-product of drinking water chlorination
Total Trihalomethanes ³ (ppb) ⁶	2007	80	NA	14	0 – 42	YES	By-product of drinking water chlorination
Non-Regulated Substances (Measured on the Water Leaving the Treatment Facilities)							
Substance (units)	Year Sampled	Highest Level Detected	Range Low-High	Typical Source			
Radon (pCi/L)	2005	190	160 – 190	Naturally occurring in the environment			

³ Range represents sampling at individual sample points.

⁴ MRDL (maximum residual disinfectant level) applies.

Starting with a **Substance**, read across. **Year Sampled** is usually in 2007 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). **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.
- **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):** Routine samples were collected monthly with the results from all locations averaged each month. The monthly averages were then used to calculate a running annual average computed each quarter. The result represents the highest running annual average computed quarterly for the year. The range represents the range of monthly average results reported for compliance during the entire year.
- **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.

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 Radon Division Hotline at 800-237-2366 or call EPA's Radon Hotline (800) SOS-RADON.

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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by call the U.S. Environmental Protection Agency's Safe Drinking Water Hotline (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 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.

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.

Unregulated Contaminant Monitoring Rule (UCMR)

Unregulated contaminants are those for which the U.S. Environmental Protection Agency has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining

Other Water Quality Parameters of Interest

Is there lead in your water?

Although we regularly test lead levels in your drinking water, it is possible that lead and/or copper levels at your home are higher because of materials used in your plumbing. If you are concerned about elevated levels, run your faucet for 30 seconds to 2 minutes before using your water; use cold water for cooking, drinking, or making baby formula; use low lead containing faucets; and when replacing or working on pipes, use lead-free solder. Lead-based solders are illegal in Pennsylvania. PAW remains in full compliance with all of the requirements dealing with lead in drinking water.

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. The average hardness levels range from 38 ppm to 264 ppm, or 2.2 to 15.4 grains per gallon of water.

How much sodium is in your water?

The systems average sodium is 7 to 45 ppm.

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

The pH levels range from 6.5 to 7.8. 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 supply. Reading Water Authority and Mt. Penn Water Authority do add fluoride to the water supply to maintain a level near 1 ppm.

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.pawc.com. Additional information can be gathered by calling our Customer Service Department or by viewing the following information on the Internet:

Pennsylvania American Water
www.pawc.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 Protection
www.cdc.gov

American Water Works Association
www.awwa.org

Share this report

Landlords, businesses, schools, hospitals and other groups are encouraged to share this important water quality information with water users at their location who are not billed customers of Pennsylvania American Water and therefore do not receive this report directly.



Printed on recycled paper. Each ton of recycled paper saves 7,000 gallons of water.

President's Message to Customers

Dear Pennsylvania American Water Customer,

You are our top priority. And delivering reliable, high-quality water to you all day, every day is our mission. We deliver – at about a penny per gallon.

Each year, Pennsylvania American Water publishes reports on the quality of your drinking water. We are pleased to report that investment in our water treatment plants and equipment as well as the expertise and dedication of our employees, allows us to deliver drinking water that meets state and federal drinking water requirements. In addition to ensuring we are following current standards, we work closely with federal agencies to anticipate future water quality treatment requirements and regulations.

Your community is our community. We work with local and state governments to make sure your water service needs are being met. From upgrading existing systems to developing new ones, from pitching in at local events to sponsoring school programs, we are your neighbors and take your water quality personally.

We encourage you to review this report either in this printed form or on our website at PAWC.com look under the Newsroom tab. If you ever have any questions, please reach out to our customer service representatives at 1-800-565-7292. After all, you are our first priority.

Thank you for being a Pennsylvania American Water customer.

Sincerely,

Kathy Pape