

# 2008 Annual Water Quality Report



**Glen Alsace**  
PWS ID: PA3060088

## 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](http://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 nearly 7,000 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 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.

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

A copy of the Source Water Assessment is available 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.

## 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 188 ppm to 376.2 ppm, or 11 to 22 grains per gallon of water.

### How much sodium is in your water?

The systems average sodium is 8 to 45 ppm.

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

The pH levels range from 6.5 to 7.5. A pH of 7.0 is considered neutral, neither acidic nor basic.

### Is there fluoride 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. Glen Alsace 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 Water Quality at 610-670-7789 e120 and also search <http://www.epa.gov/safewater/lead>.

## Other Violations

The Glen Alsace system exceeded the Total Dissolved Solids, a secondary contaminate with a maximum sample reading 604 ppm the MCL is 500 ppm, in August 2008. The system is monitoring the wells for an additional 6 months to gather further data.

The system also did not collect and report the required annual samples for Volatile Organic Carbons (VOC's) in the effluent of a well for 2008. In February 2009 the monitoring of the (VOC's) were completed and reported to the DEP placing the system in compliance, all the results of the samples were below the MCL's for each contaminant. The company has implemented enhancements in its monitoring and reporting process to prevent and monitor any reoccurrence. For these violations you do not need to anything at this time.

The Reading Area Water Authority exceeded the manganese MCL of 0.05 ppm, a secondary contaminate with a maximum of sample reading 0.530 ppm in August 2008. You do not need to anything at this time. Although this is a secondary contaminate, and the levels in the Glen Alsace system did exceed the MCL, the Reading Area Water Authority District did have this violation due to high manganese in this source water violation must be reported to the customer. Reading Area Water Authority has collected samples in six different locations to ensure the system is meeting the MCL.

The Mt. Penn Water System received a Notice of Violation for exceeding the MCL for Total Coliform in June 2008. You do not need to anything at this time. The system must maintain above a 95% of non-positive samples on all collected bacteria samples per each month. The system has completed sampling in July 2008, and is back in compliance.

## 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. 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) <sup>1</sup>	2008	TT <sup>2</sup>	NA	0.18	Yes	Soil runoff
<sup>1</sup> 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. <sup>2</sup> 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) *	2008	Meet EPA Removal Requirements		0 to 35	39 to 65	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	MRDL	MRDLG	Highest Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Chloramine (as CL <sub>2</sub> ) (mg/L)	2008	4	4	3.12	0.65 to 3.12	Yes	Added as a disinfectant to the treatment process
Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Fluoride (ppm)	2008	2	2	1.45	0.85 to 1.45	Yes	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate (ppm) as Nitrogen	2008	10	10	4.24	ND to 4.24	Yes	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Regulated Substances (Water from the Mt. Penn Water Authority Treatment Facility)							
Substance (units)	Year Sampled	MCL	MCLG	Highest Amount Detected	Range Low-High	Compliance Achieved	Typical Source
Nitrate (ppm) as Nitrogen	2008	10	10	2.34	1.63 to 2.34	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
Chromium (ppb)	2007	100	100	20	20	Yes	Discharge from steel and pulp mills; erosion of natural deposits.
Selenium (ppb)	2007	50	50	3	ND to 3	Yes	Discharge from petroleum and metal refineries; erosion of natural deposits
Barium (ppm)	2007	2	2	0.06	ND to 0.06	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm) as Nitrogen	2008	10	10	5.25	0.70 to 5.25	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)	2008	1 positive sample during the month	Zero bacteria	0	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)	2008	15	0	60	2	1	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	2008	1.3	1.3	60	1.0	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	MRDL	MRDLG	Results	Range Low-High	Compliance Achieved	Typical Source
Total Chlorine Residual <sup>3</sup> (ppm)	2008	4	4	1.32	0.75 to 1.90	Yes	Added as a disinfectant to the treatment process
Substance (units)	Year Sampled	MCL	MCLG	Results	Range Low-High	Compliance Achieved	Typical Source
Haloacetic Acids <sup>3</sup> (HAA5) (ppb) <sup>4</sup>	2008	60	NA	6	ND to 32	Yes	By-product of drinking water chlorination
Total Trihalomethanes <sup>5</sup> (THM) (ppb) <sup>3</sup>	2008	80	NA	15	1 to 53	Yes	By-product of drinking water chlorination
<sup>3</sup> Range represents sampling at individual sample points. <sup>4</sup> Based on a yearly running average <sup>5</sup> Based on a yearly running average. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.							

## How to Read This Table

Starting with a **Substance**, read across. **Year Sampled** is usually in 2008 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.

## Substances Expected to be 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.

## 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](http://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](http://www.pawc.com)

### **Pennsylvania Department of Environmental Protection**

[www.dep.state.pa.us/](http://www.dep.state.pa.us/)

### **United States Environmental Protection Agency**

[www.epa.gov/safewater](http://www.epa.gov/safewater)

**Safe Drinking Water Hotline:** (800) 426-4791

### **Centers for Disease Control and Prevention**

[www.cdc.gov](http://www.cdc.gov)

### **American Water Works Association**

[www.awwa.org](http://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.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### **Availability of Monitoring Data for Unregulated Contaminants for Glen Alsace and Reading Area Water Authority**

Our water systems have 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 Water Quality at 610.670.7789 or American Water 4 Wellington Blvd, Reading PA, 19610.

Monitoring conducted during 2008 for the Glen Alsace system did not detect the presence of any of the unregulated compounds. Monitoring conducted during 2008 for the Reading Area Water Authority detected the presence of N-nitrosodimethylamine (NDMA) with range of 22 ppb to 87 ppb.

## 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.

## 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.



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