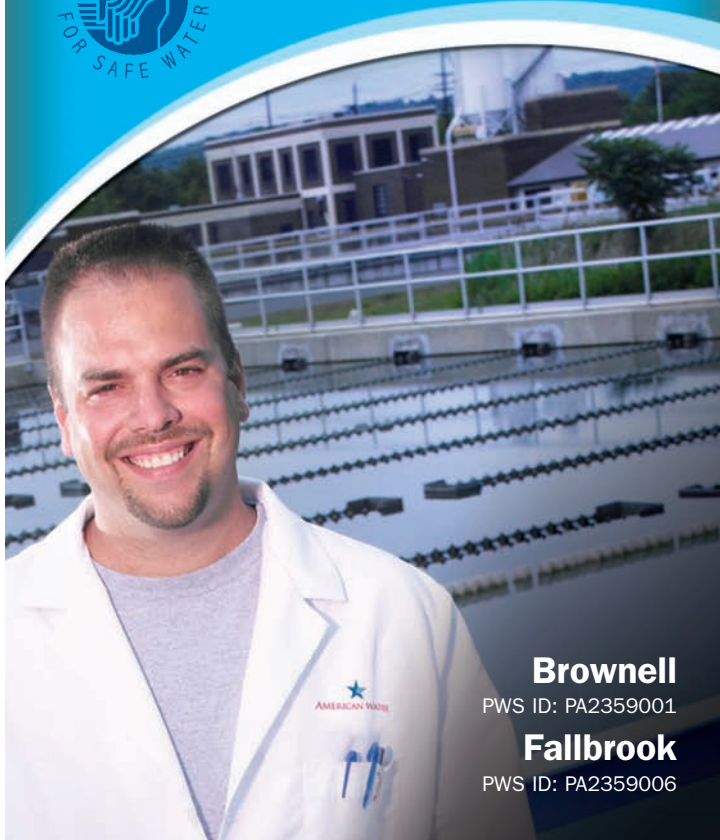


# 2008 Annual Water Quality Report



**Brownell**

PWS ID: PA2359001

**Fallbrook**

PWS ID: PA2359006

## 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,

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

Two main surface sources supply the Brownell and Fallbrook service areas. Pennsylvania American Water maintains a treatment facility on the Brownell Reservoir capable of processing a maximum of 4 million gallons of water per day (MGD), and another treatment facility on the Fallbrook Reservoir capable of processing a maximum of 1.6 million gallons of water per day (MGD). 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 of the drinking water sources for the Brownell and Fallbrook surface water supplies in 2002. Although no man-made contaminants were detected, the water sources were considered most vulnerable to the following potential impacts: roadways, past mining activities, junkyards, auto storage facilities, boating activities, and storm water runoff associated with farms and golf courses.

A summary of the completed Source Water Assessments will be made available by DEP and may be viewed on their website at [www.dep.state.pa.us](http://www.dep.state.pa.us) as they are finalized. Additional information can also be obtained by calling the local office of the DEP at (570) 826-2511. PAW encourages you to take an active part in protecting your water supply by participating in local watershed activities as they occur in your area.

## Important Information About Your Drinking Water

### Availability of Monitoring Data for Unregulated Contaminants for the Brownell System

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 Emery Yurko at 570-343-3564. Monitoring conducted during 2008 did not detect the presence of any of the unregulated compounds.

## 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 at <http://www.epa.gov/safewater/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 12 ppm to 58 ppm, or 0.7 to 3.4 grains per gallon of water.

### How much sodium is in your water?

The sodium level ranges from approximately 6 to 13 ppm.

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

Water in the distribution system averaged 7.2 to 7.3 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 supply.

## Partnership for Safe Drinking Water Program

In 2001 the Brownell and Fallbrook Systems were awarded the prestigious Director's Award under the Partnership for Safe Water program administered by the U.S. Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Protection (DEP), and other water-related organizations. The award honors water utilities for achieving operational excellence, by voluntarily optimizing their treatment facility operations and adopting more stringent performance goals than those required by federal and state drinking water standards. We are proud to report that we have maintained those standards throughout 2008.



## 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, is 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

Turbidity - A Measure of the Clarity of the Water at the Treatment Facilities									
Substance (units)	Year Sampled	MCLG	MCL	Highest Single Measurement or Lowest Monthly % of Samples $\leq$ 0.3 NTU		Compliance Achieved	Typical Source		
Turbidity (NTU) <sup>1</sup>	2008	NA	TT = 1 NTU for a single measurement	0.07 (Fallbrook)		Yes	Soil runoff		
				0.07 (Brownell)					
		NA	TT = at least 95% of monthly samples $\leq$ 0.3 NTU	100% (Fallbrook)		Yes	Soil runoff		
				100% (Brownell)					
<sup>1</sup> All turbidity readings were below the treatment technique requirement of 0.3 NTU in 95% of all samples taken for compliance on a monthly basis.									
Chlorine - Water Additive used to Control Microbes on the Water Leaving the Treatment Facilities									
Substance (units)	Year Sampled	MRDL/ MRDLG	MCL	Lowest Amount Detected	Range Low - High	Compliance Achieved	Typical Source		
Entry Point Chlorine (ppm) <sup>2</sup>	2008	NA	TT	1.4 (Fallbrook)	1.4 to 2.2 (Fallbrook)	Yes	Water additive used to control microbes		
				1.5 (Brownell)	1.5 to 2.1 (Brownell)				
<sup>2</sup> All chlorine readings were above the treatment technique requirement of not less than 0.2 ppm for more than 4 hours on water being supplied to the distribution system.									
Chlorine - Water Additive used to Control Microbes on the Water in the Distribution System									
Substance (units)	Year Sampled	MRDLG	MRDL	Highest Amount Detected	Range Low - High	Compliance Achieved	Typical Source		
Distribution Chlorine (ppm) <sup>3</sup>	2008	4	4	1.2 (Fallbrook)	0.3 to 1.2 (Fallbrook)	Yes	Water additive used to control microbes		
				1.7 (Brownell)	1.2 to 1.7 (Brownell)				
<sup>3</sup> Range represents the calculated monthly averages of the results for the routine individual samples.									
Total Organic Carbon (TOC) - A Measure of the Removal of TOC at the Fallbrook Treatment Facility									
Plant	Substance (units)	Year Sampled	MCL	MCLG	Range of Removal Required (%)	Range of Removal Achieved (%)	Number of Quarters Out of Compliance	Compliance Achieved	Typical Source
Fallbrook	TOC Removal Efficiency (%)	2008	TT	NA	$\geq$ 35	49 to 58	0	Yes	Naturally present in the environment
Regulated Substances (Measured on the Water Leaving the Treatment Facilities)									
Substance (units)	Year Sampled	MCLG	MCL	Highest Amount Detected	Range Low - High	Compliance Achieved	Typical Source		
Barium (ppm)	2004	2	2	0.021 (Fallbrook)	SS	Yes	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits		
				0.012 (Brownell)					
Nitrate (ppm)	2008	10	10	0.04 (Fallbrook)	SS	Yes	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits		
Bacterial Results (from the Distribution Systems)									
Substance (units)	Year Sampled	MCLG	MCL	Highest Number of Positive Samples	Compliance Achieved	Typical Source			
Total Coliforms (number of positive samples)	2008	Zero bacteria	1 positive sample during the month	0 (Fallbrook)	Yes	Naturally present in the environment			
				0 (Brownell)					
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)	2007	15	0	20 (Fallbrook)	1 (Fallbrook)	0 (Fallbrook)	Yes	Corrosion of household plumbing systems; erosion of natural deposits	
				30 (Brownell)	4.4 (Brownell)	1 (Brownell)			
Copper (ppm)	2007	1.3	1.3	20 (Fallbrook)	0.26 (Fallbrook)	0 (Fallbrook)	Yes	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	
				30 (Brownell)	0.15 (Brownell)	0 (Brownell)			
Regulated Compounds (Measured in the Distribution Systems)									
Substance (units)	Year Sampled	MCLG	MCL	Results	Range Low-High	Compliance Achieved	Typical Source		
Total Trihalomethanes (TTHM) (ppb) <sup>4</sup>	2008	NA	80	36 (Fallbrook)	SS (Fallbrook)	Yes	By-product of drinking water chlorination		
				29 (Brownell)	19 to 35 (Brownell)				
Haloacetic Acids (HAA5) (ppb) <sup>4</sup>	2008	NA	60	14 (Fallbrook)	SS (Fallbrook)	Yes	By-product of drinking water chlorination		
				23 (Brownell)	15 to 27 (Brownell)				
<sup>4</sup> Range represents sampling at distribution system maximum residence time location.									

## How to Read This Table

Start with a **Substance** and read across. **Year Sampled** is usually in 2008 or years 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 (lower 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** tells where the substance usually originates.

Various non-regulated substances are measured; however, maximum contaminant levels have not been established by the government. These contaminants are shown for your information only.

## 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.
- **<:** means less than.
- **≤:** means less than or equal to.
- **≥:** means greater than or equal to.

## 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.

### 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 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](http://www.pennsylvaniaamwater.com). Additional 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](http://www.pennsylvaniaamwater.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)

## Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although Cryptosporidium can be removed through commonly used filtration methods, the 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 Brownell Plant monitored for Cryptosporidium in its source water in 2006 and 2007. The Fallbrook Plant began monitoring for Cryptosporidium in 2007 and continued through 2008. 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.



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.