

# 2009 Water Quality Report



**American States**  
Water Company

***For You, Only Our Best Will Do!***



***An Ongoing Commitment to the Communities We Serve.***

**Point...Click...Conserve**

**Palmetto State Utility Services, Inc.**



## **Superior Water Quality and Best in Class Customer Service**

We are pleased to present the following 2009 Water Quality Report for your service area. This report is an important measure of how well we meet water quality standards and our goal to provide “best in class” customer service. Your water is tested for various constituents in order to meet all regulations and provide you the highest quality water possible.

Balancing high water quality and customer service is second nature to us. We also put a tremendous amount of focus and energy into educating customers about water conservation. We are committed to fostering ongoing communication with our customers so we can be partners in an effort to use water more efficiently. Preserving water resources for the future is everyone’s responsibility, requiring effort from water providers, local and state governments, and customers.

Equally important, we are constantly improving our water infrastructure to ensure our water supply and delivery systems are adequate. We routinely perform maintenance so that our pipelines and other equipment are kept in the best possible condition. By addressing prudent infrastructure needs sooner, rather than later, we maintain the quality of our water and minimize disruptions in service.

On behalf of all employees, I thank you for providing us the opportunity to serve you. We will continue to work hard for you, striving for excellence in all that we do. Please do not hesitate to contact us at (803) 790-7288 if you have any questions or feedback.



Sincerely,

Robert Sprowls  
President and Chief Executive Officer  
American States Water Company  
Palmetto State Utility Services, Inc.

## About the Company

American States Water Company is an investor-owned utility publicly traded on the New York Stock Exchange under the trading symbol AWR and is the parent company of American States Utility Services (ASUS). ASUS is one of the leaders in privatization of utilities on military installations across the nation. Through its subsidiary, Palmetto State Utility Services, Inc. (PSUS), the important responsibility of managing the water systems at Fort Jackson is accomplished.

AWR and its family of companies provide water to communities throughout the United States. For nearly 80 years, we've been installing and maintaining complex structures consisting of thousands of miles of pipelines, wells, pumping stations and reservoirs. With AWR companies, you can count on reliable water services, quality drinking water, and unsurpassed response to your questions.

You can find our companies in California, Arizona, Texas, Maryland, North Carolina, South Carolina and Virginia. Our trained personnel have thousands of years of combined experience and are certified to work the various aspects of water systems. Our water testing procedures allow us to meet or exceed the water quality regulations set in place by the US Environmental Protection Agency (USEPA) and the South Carolina Department of Health and Environmental Control (DHEC) to deliver quality, wholesome water to you – our customers.

Managing the daily operations for PSUS is David Wiman, Utility Manager. David is a seasoned professional in the water industry. He has worked in all phases of water treatment and distribution.

All the men and women at PSUS are committed to meeting the needs of Fort Jackson. The water system at Fort Jackson undergoes comprehensive infrastructure analysis to determine what areas need repair, replacement or new facilities.

We're here to give you peace of mind – water when you need it and unsurpassed service. For questions on your water service, please contact David Wiman at (803) 790-7288.

## Delivering Excellence, One Drop at a Time – PSUS's Water Philosophy

### 1 Protect

Palmetto State Utility Services, Inc. (PSUS) understands that protecting your water supply is of the utmost importance. The source of your water supply is monitored on a schedule approved by the South Carolina Department of Health and Environmental Control (DHEC) and any activity which may affect this supply is closely analyzed. Should action become necessary, PSUS will use the best available technology to protect your water supply. PSUS welcomes and encourages consumers to share in our vigilance. If you observe any activities that could possibly endanger the water supply, contact us immediately by calling our 24-hour customer service center at (803) 790-7288.

### 2 Monitor

To maintain the safety and integrity of your water supply, PSUS constantly monitors its water sources, treatment processes and distribution system for all constituents mandated by the United States Environmental Protection Agency (USEPA) and the DHEC.



### 3 Invest

PSUS's state certified water treatment and distribution operators work diligently to ensure water treatment processes are maintained to the highest standards. Whenever necessary, new technologies are adopted to benefit our customers. Water is delivered via a complex distribution system made up of multiple sources of supply, storage facilities, pumps, pipes, valves, meters, and countless other components to provide safe water to your tap. PSUS carefully monitors the system and invests annually to ensure it is kept in top condition, minimizing the risk of major problems which are costly to repair.

### 4 Serve

The quality of PSUS's customer service is just as important as the water itself. We pride ourselves on providing "best in class" service and personal assistance 24 hours a day, seven days a week, 365 days a year. We are able to accomplish this by hiring the best and brightest men and women and by providing ongoing support and training to all employees. All PSUS employees share a commitment to provide the best possible service.

## Safekeeping of Water Supplies and Facilities

To reduce the risk of terrorism affecting local water supplies and distribution systems, Palmetto State Utility Services, Inc. is following recommendations from the Federal Bureau of Investigation, the United States Environment Protection Agency and the American Water Works Association. While water systems have a low relative likelihood of experiencing terrorist acts, these agencies advise that water systems should guard against unplanned physical intrusion, review emergency response plans, and increase vigilance. Palmetto State Utility Services, Inc. has taken all these steps and is continuing to look for additional safety improvements.

## If You Have Questions – Contact Us

For information about your water quality or to find out about upcoming opportunities to participate in public meetings, please contact David Wiman, Utility Manager, at (803) 790-7288.

For more information about health effects of the listed constituents in the enclosed tables, call the EPA hotline at 1-800-426-4791.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien.

## Where Does My Water Come From?

Fort Jackson purchases its drinking water from the City of Columbia (ID# 4010001). The city treats surface water from the Broad River and provides this water to Fort Jackson through their distribution system.

The whole installation of Fort Jackson is divided into two separate areas, the Cantonment Area and the training areas. The Cantonment Area receives its water from the City of Columbia, particularly from the Broad River. It comes on post already treated, so Fort Jackson does its part to maintain that level of treatment.

The training areas are served by nine different wells. The water is hauled via water trucks marked potable water and transferred into the black containers at the various training areas

## **ALL drinking water may contain contaminants**

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices. 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 mean water may be a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Fort Jackson and the South Carolina Department of Health and Environmental Control (DHEC) routinely monitor your drinking water for contaminants according to Federal and State requirements. EPA and DHEC administer and enforce the rules and regulations pertaining to drinking water quality.

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 animal or human activity.

## **Contaminants in Drinking Water Sources May 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 result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining and 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 can also come from gas stations, urban storm water runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

## Palmetto Utility Services, Inc. - Source Water Quality

Primary Standards - Health Based (units)	PRIMARY MCL	(MCLG)	Range of Detection	Average Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
<b>Turbidity - Lake Plant</b>							
Highest single measurement of the Treated Surface Water (NTU)	TT = 1.0		n/a	0.08	No	2008	Soil runoff; naturally occurring in the environment
Lowest Percent of all Monthly Readings less than 0.3 NTU (%)	TT = 95		n/a	100%	No	2008	Soil runoff; naturally occurring in the environment
<b>Turbidity - Canal Plant</b>							
Highest single measurement of the Treated Surface Water (NTU)	TT = 1.0		n/a	0.73	No	2008	Soil runoff; naturally occurring in the environment
Lowest Percent of all Monthly Readings less than 0.3 NTU (%)	TT = 95		n/a	98.11%	No	2008	Soil runoff; naturally occurring in the environment
<b>Inorganic Constituents</b>							
Chlorite (Lake Plant) (mg/L)	1	0.8	0.220 - 0.497	0.497	No	2008	Byproduct of drinking water chlorination
Chlorite (Lake Plant) (mg/L)	1	0.8	0.340 - 0.567	0.567	No	2008	Byproduct of drinking water chlorination
Fluoride (mg/L)	4.0	4	0.76 - 0.92	0.815	No	2008	Naturally occurring in the environment by erosion of natural deposits and added at the treatment plant as an aid in preventing tooth decay.
Nitrate/Nitrate (as Nitrogen) (mg/L)	10	10	0.082 - 0.49	0.26	No	2008	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.

Palmetto Utility Services, Inc. - Distribution Water Quality

Microbiological Constituents (units)	PRIMARY MCL	MCLG	Level Found		MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Total Coliforms (% positive per month)	More than 5% of monthly samples are positive	(0)	1.04% (Highest Monthly Percentage Positive)		No	2008	Naturally present in environment
Disinfection Byproducts Precursors (units)	PRIMARY MCL (MRDL)	MCLG (MRDLG)	Range of Detection	Highest 4-Quarterly Average	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Residual Chlorine [as Cl <sub>2</sub> ] (mg/L)	(4)	(4)	0.1 - 4.5	1.2 (highest quarterly average)	No	2008	Water additive used to control microbes
Chlorine dioxide (Lake Plant) (ug/L)	(800)	(800)	0 - 151	151	No	2008	Water additive used to control microbes
Chlorine dioxide (Canal Plant) (ug/L)	(800)	(800)	0 - 199	199	No	2008	Water additive used to control microbes
HAA5 [Total of Five Haloacetic Acids] (ug/L)	60	0	12.01 - 43.85	35	No	2008	Byproduct of drinking water chlorination formed when chlorine reacts with organic matter
TTHMs [Total of Four Trihalomethanes] (ug/L)	80	0	14.43 - 55.4	30	No	2008	Byproduct of drinking water chlorination formed when chlorine reacts with organic matter

## Palmetto Utility Services, Inc. - Distribution Water Quality

Disinfection Byproducts and Disinfectant Residuals (units)	PRIMARY MCL (MRDL)	MCLG (MRDLG)	Range	Level Found	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Total Organic Carbon [TOC] - Lake Plant	TT	n/a	37.70% - 40.90% Removal	39.41% Removal (35% Removal Required)	No	2008	Various natural and man-made sources
Total Organic Carbon [TOC] - Canal Plant	TT	n/a	38.30% - 57.30% Removal	45.59% Removal (37% Removal Required)	No	2008	Various natural and man-made sources
Inorganic Constituents (units)	Action Level	(MCLG)	Sample Data	90th % Level	MCL Violation?	Most Recent Sampling Date	Typical Source of Constituent
Copper (mg/L)	1.3	0	None of the 49 site samples exceeded the action level	0.1	No	2008	Corrosion of household plumbing systems and naturally occurring in the environment.
Lead (ug/L)	15	0	One of the 49 site samples exceeded the action level	0	No	2008	Corrosion of household plumbing systems and naturally occurring in the environment.

## For People with Sensitive Immune Systems...

EPA and DHEC have determined that Fort Jackson's drinking water is safe for consumption. Some people may be more vulnerable to constituents in the water than the general population.

Immunocompromised people, such as those with cancer undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk of infections. These people should seek advice about drinking water from their healthcare providers.

The EPA and the Centers for Disease Control 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 at 1-800-426-4791.

Testing has revealed no signs of *Cryptosporidium* in either Fort Jackson's or the City of Columbia's drinking water.

## Sampling Results

Our drinking water meets or exceeds all Federal (EPA) drinking water requirements. This report is a summary of the quality of the water we provide our customers. The analysis was made using data from the most recent U.S. Environmental Protection Agency (EPA) required tests and is presented in the included pages. We hope this information helps you become more knowledgeable about what's in your drinking water.

Although all the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance is present in the water. Compliance (unless otherwise noted) is based on the average level of concentration being below the MCL. The State allows us to monitor for some contaminants less than once per year because the concentrations do not change frequently. Some of our data, though representative, are more than a year old.

## Lead

In accordance with DHEC regulation R.61.58.11 (H), lead and copper samples are taken every three years. During the calendar year, two sample locations out of 50 exceeded the action level for lead. 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 line and home plumbing. The City of Columbia 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>.

## Measurements

*To ensure the best possible quality, water is sampled and tested consistently throughout the year.*

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### Contaminants are measured in:

- parts per million (ppm) or milligrams per liter (mg/L),
- parts per billion (ppb) or micrograms per liter ( $\mu\text{g/L}$ ),
- parts per trillion (ppt) or nanograms per liter (ng/L).
- Grains per gallon (grains/gal) – A measurement of water hardness often used for sizing household water softeners. One grain per gallon is equal to 17.1 mg/L of hardness.
- Nephelometric Turbidity Units (NTU) – A measurement of the clarity of water. Turbidity in excess of 5 NTU is noticeable to the average person.
- PicoCuries per liter (pCi/L) – A measurement of radioactivity in water.

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*If this is difficult to imagine, think about these comparisons:*

#### Parts per million:

3 drop in 42 gallons  
1 second in 12 days  
1 inch in 16 miles



42 gallons  
(large bathtub)

#### Parts per billion:

1 drop in 14,000 gallons  
1 second in 32 years  
1 inch in 16,000 miles



14,000 gallons  
(average swimming pool)

#### Parts per trillion:

1 second in 32,000 years  
1 inch in 16 million miles  
10 drops in enough water to fill the Rose Bowl



14,000,000 gallons  
(average lake)

## Definitions

### **Maximum Contaminant Level (MCL)**

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the maximum contaminant level goals as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste and appearance of drinking water.

### **Maximum Contaminant Level**

#### **Goal (MCLG)**

The level of contaminant in drinking water below which there is no known or expected risk to health. Maximum contaminant level goals are set by EPA. MCLGs allow for a margin of safety.

### **Maximum Residual Disinfectant Level (MRDL)**

The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

### **Maximum Residual Disinfectant Level Goal (MRDLG)**

The level of a disinfectant added for water treatment below which there is no known or expected health risk. MRDLGs are set by EPA. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

### **Primary Drinking Water Standard (PDWS)**

MCLs for contaminants that affect health, along with their monitoring and reporting requirements, and water treatment requirements.

### **Action Level (AL)**

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow

### **Treatment Technique (TT)**

A required process intended to reduce the level of a contaminant in drinking water.

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## Water Use Efficiency Tips

**Approximately 50 to 70% of residential water is used outdoors for watering lawns and gardens. Never water during the hottest times of the day or when it's windy.**

- Water your yard only before 8 a.m. to reduce evaporation and interference from the wind. This will save you 25 gallons per day.
- Hosing down your driveway for 5 minutes wastes 25 gallons of water. Clean it with a broom or blower instead. Wash only full loads of laundry and save 15 to 50 gallons of water per load.
- Fix faucet leaks. A steady leak wastes 15 to 20 gallons per day.
- If your showerhead can fill a one-gallon bucket in less than 20 seconds, replace it with a high-efficiency showerhead.

For more information, please log onto [www.aswater.com](http://www.aswater.com)

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