



# ***EASLEY COMBINED UTILITIES***

---

*A Community Tradition*

## **Water Quality Report for 2009**

### **Easley Combined Utilities 3910002 Water Meets All Standards**

The Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) have established strict standards for all water systems that produce water for drinking, as well as other purposes. These criteria are designed to protect consumers from bacteria and water-borne illnesses. To protect all its customers as well as all other users of its water, Easley Combined Utilities Water Treatment Plant Personnel and SCDHEC perform thousands of tests for these parameters. The results are detailed in this publication. Most of the tests are conducted by SCDHEC. The remaining analyses are performed by Easley Combined Utilities in our SCDHEC-certified laboratory, and at other private laboratories.

This 2009 Water Quality Report indicates that Easley Combined Utilities' Surface water treatment plant practices and procedures result in water that meets and exceeds the chemical specifications required for all users. But, most important, it is pure and safe to drink.

#### **Where does my water come from?**

Easley Combined Utilities raw water source is Saluda Lake that is located in Pickens County.

Additional finished water is purchased from the Greenville Water System when needed. The Greenville-supplied water comes from Lake Keowee and is used for emergencies, plant maintenance, and as a supplemental water supply. In 2009, none of Easley's water came from Greenville Water System.

#### **How is my water treated?**

Easley Combined Utilities Don L Moore Treatment Plant is a Surface Water Treatment Facility that produces finished treated water.

At the first point of treatment, chlorine is added to the raw water to kill harmful bacteria and other water-borne diseases. Alum and caustic are added for coagulation, a process that removes the turbidity, or cloudiness of the water. The water then passes through a settling basin that lets particles in the water settle to the bottom. After reaching the settling basin, the water moves through filters constructed of sand and anthracite, which remove most of the remaining turbidity, and help prevent contaminants from entering the distribution system. After filtering, the water enters a post-mixing chamber, in which chlorine is added for final disinfection and to provide protection against bacterial contamination and re-growth in the distribution system. Caustic soda is added to adjust the pH to a level of approximately 7.2. Also added in the post-mixing chamber is fluoride. The final stage of treatment is the addition of polyphosphate, which is added for corrosion control.

The treatment plant is rigidly maintained and monitored by South Carolina Certified, Environmental Systems Operators who are thoroughly trained to make routine chemical and physical tests for treatment control.

The water purchased from Greenville Water System is treated much the same way as Easley Combined Utilities treats its own water.

#### **Cryptosporidium**

Cryptosporidium is a microbial parasite found in surface waters throughout the United States. Although filtration removes these parasites, standard filtration methods cannot guarantee 100 percent removal. Monthly testing of the Greenville Water System found no cryptosporidium or giardia in its raw or treated finish water.

Current test methods do not enable the water system to determine if the organisms are inactive or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested for it to cause disease, and it may be spread by other means than drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA's Safe Drinking Water Hotline (800-426-4791)

## What if I have Questions?

If you need further information about the water quality or how it is treated, call Tate Davis of Easley Combined Utilities' Don L Moore Treatment Plant at (864) 246-5817. You can also visit our Home Page at [www.easleyutilities.com](http://www.easleyutilities.com) to view our water quality report.

## Information about the Tables and Data

The tables in this brochure list all drinking water contaminants that were detected during the 2009 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the tables contain data from testing performed during the period from January 1, 2009 to December 31, 2009. SCDHEC requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data though representative of the water quality may be more than one year old.

## Terms and Abbreviations

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant level goal):** MCLG: 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.

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.

**AL (Action Level):** The concentration of a contaminant, which triggers treatment or other requirements, which a water system must follow.

**Ppm (Parts per Million):** This is the same as milligrams per liter, or one penny out of \$10,000.

**ppb (Parts Per Billion):** This is the same as Micrograms per liter, or one penny out of \$10,000,000.

**NA (Not applicable):** Does not apply

**ND (Not Detected):** Not detected or below detection limits

**NTU (Nephelometric Turbidity Units):** Units of measure to indicate clarity

**pCi/L (Pico Curies per Liter):** Measure of Radioactivity in water

**SU (Standard Units):** A measure of Acidity

**MRDL (Maximum Residual Detection Level) Highest level of a disinfectant level that is allowed in finished drinking Water**

**MRDLG (Maximum Residual Detection Level Goal) Level of a disinfectant in drinking water below which there is no known or expected risk to health MRDLG allows for a margin of safety**

## The Environmental Protection Agency Requires That All Annual Water Quality Reports Contain the Following Statements:

All sources of drinking water are subject to contamination by substances that are nationally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 Environmental Protection Agency's hotline at (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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers or call the EPA Safe Drinking Water Hotline (800-426-4791). The Environmental Protection Agency's Safe Drinking Water Hotline (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 result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- \* Pesticides and herbicides that may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- \* Organic Chemical contaminants, including synthetic and volatile organics, 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.

To insure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Inadequate Treated water may contain disease organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

## How can I get involved?

The commissioners, of ECU are elected and oversee the water treatment and distribution system. The commission meets on the second Monday of each month. These meetings begin at 7:15 p.m. are conducted at the main office at 110 Peachtree Street.

**Primary Drinking Water Standards**  
All data from 2009 unless otherwise indicated

**DON L. MOORE WATER TREATMENT PLANT (ECU)**

<b>Primary Standards</b>							
<b>Inorganics</b>							
Parameter and Typical Source	Units	MCLG	MCL	Level Detected	Range	Violation	Sample Sites Exceeding Action Level
Flouride-Erosion of natural deposits; Water additives for strong teeth; discharge from fertilizer factories	mg/l	4	4	0.72	N/A	No	0
Nitrate-Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	mg/l	10	10	0.18	NA	No	0
Copper-Corrosion of household plumbing, Erosion of natural deposits; Leaching from wood preservatives. Samples from distribution system in 2007.	mg/l		AL=1.3	90th Percentile=0.020 based on 30 samples	N/A	No	0
Lead-Corrosion of household plumbing systems; Erosion of natural deposits. Samples from distribution system in 2007.	ppb		AL=15	90 <sup>th</sup> Percentile=2.3 based on 30 samples	NA	No	0

<b>Organics</b>						
	Units	Range	Level Detected	Violation	MCL	MCLG
TTHMs(Total Trihalomethanes)-Byproduct of drinking water chlorination	ppb	17-64	RAA 38	No	80	N/A
Haloacetic Acids, Biproducts of drinking water chlorination	ppb	31-59	RAA 43	No	60	N/A

<b>Total Organic Carbon</b>						
Typical Source	MCL	MCLG	% Removal	Range	Sample Date	Violation
Naturally present in the environment	TT	N/A	45.7	0.6-1.1 MG/L	Samples taken Monthly	No

<b>Microbiological</b>							
	Units	MCL	MCLG	Level Found	Range	Date	Violation
Turbidity @ Don L Moore Water Treatment Plant finished Water (Measured every four Hours)	NTU	TT=0.3 NTU	0	Highest 0.04 NTU	N/A	1/1/2009	No
Turbidity- Lowest Monthly Percentage	NTU	TT=Percentage of samples <0.3 NTU	0	100% of all samples taken in 2009 were below MCL	N/A	2009	No

## ECU Water System Data - Continued

Disinfectant				
	Range	Running Annual Average (RAA)	MRDL	MRDLG
Free Chlorine	1.53-2.83	2.3	4	4

Other Parameters			
Parameter	Units	MCL	System Average
PH	SU	N/A	7.1
Alkalinity	Mg/l	N/A	12
Phosphate	Mg/l	N/A	0.9
Hardness	Mg/l	N/A	4

Greenville Water System's Information						
Parameter and Typical Source	Units	MCLG	MCL	Level Detected	Range	Violation
Fluoride	Mg/l	4	4	0.85	NA	No
Nitrate/Nitrite	Mg/l	10	10	0.04	NA	No

No samples taken from Easley Combined Utilities distribution system in 2009 tested positive for fecal coliform.

We have Been Monitored for the **Unregulated Contaminant Monitoring Regulation 2 (UCMR 2)** in 2009. No Detections were noted. If you would like to receive the list of contaminants monitored please contact Tate Davis 864-246-5817

### Information about the Tables and Data

The tables in this brochure list all drinking water contaminants that were detected during the 2009 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the tables contain data from testing performed during the period from January 1, 2009 to December 31, 2009 SCDHEC requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data though representative of the water quality may be more than one year old.

### SUMMARY

Our source water assessment plan is available for your review at [www.scdhec.gov/water/html/srcwtr.html](http://www.scdhec.gov/water/html/srcwtr.html) If you do not have internet access, please contact Tate Davis for arrangements to review this document at 864-246-5817.