

# CONSUMER CONFIDENCE REPORT

## Annual Drinking Water Quality Report

### Public Water System

#### CITY OF ABBEVILLE, S.C.

#### June 2, 2010

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is the Wilson Creek Branch of Lake Richard Russell.

Our Water Treatment Plant is located in the city limits of Abbeville at 406 Vienna Street. Our plant is a conventional surface water treatment facility which is presently rated to produce 4.5 million gallons per day with a maximum production capacity of 9.0 million gallons per day. Our current production level is around 3.2 million gallons per day at peak.

We encourage the citizens of Abbeville to plan a visit to the Treatment Plant to see how the water you are supplied is treated. Please feel free to contact Eric Moats at 864.366.2427 to arrange a tour of the facility.

**We are pleased to report that our drinking water is safe and meets federal and state requirements.**

If you have any questions about this report or concerning your water utility, please contact Eric A. Moats at 864.366.2427. We want our valued customers to be informed about their water utility. If you have any problems or concerns please contact the City Manager at 864.459.2109 or attend a City Council Meeting which is held on the 2nd Tuesday of every month at 7:00 pm in the Council Chambers of the Opera House at 100 Court Square, Abbeville, S.C.

The City of Abbeville Water Treatment Plant routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2009. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

#### TEST RESULTS

The following table contains the test results for the monitoring period of January 1, 2009 through December 31, 2009.

TEST RESULTS							
Contaminant	Year Sampled	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
1. Total Coliform Bacteria	2009	N	0	#/100 mls	0	0	presence of coliform bacteria in 5% of monthly samples Naturally present in the environment
2. Fecal coliform and <i>E. coli</i>	2009	N	0	#/100 mls	0	0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive Human and animal fecal waste
<b>Inorganic Contaminants</b>							
3. Copper	2007	N	90 <sup>th</sup> % = 0.092 0 > AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
4. Fluoride	2009	N	0.96	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
5. Lead	2007	N	90 <sup>th</sup> % = 1.3 0 > AL	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
6. Nitrate (as Nitrogen)	2009	N	0.48	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Organic Contaminants</b>							
7. TTHM ** [Total trihalomethanes]	2009	N	62 RAA (Range = 46.56 - 74.65)	ppb	0	80	By-product of drinking water chlorination
8. HAA ** [Haloacetic Acids]	2009	N	51 RAA (Range = 25.9 - 77.5)	ppb	0	60	By-product of drinking water chlorination
9. TOC Removal	2009	N	1.14 Low Quarterly RAA	ppm	>35% reduct.		Removal of Total Organic Carbon between source water and filtered water

\* Lowest monthly percentage for samples meeting Turbidity Limits is 100%  
\*\* TTHM and HAA results are reported as a running annual average (RAA) for 4 quarters.  
\*\*\* See definitions on previous page for clarifications of results.  
\*\*\*\* MCL refers to "Maximum Contaminant Level"

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Turbidity							
Measurement	Year	Violation Y/N	Level	Unit	MCLG	MCL	Source
11. Highest single measurement	2009	N	0.28	NTU	>0.50 NTU	0.50 NTU	Soil runoff
12. Lowest monthly % meeting limit	2009	N	100%	NTU	0.30 NTU	0.30	Soil runoff

Synthetic Organic Contaminants including Pesticides and Herbicides							
Contaminant	Year	Violation Y/N	Level	Unit	MCLG	MCL	Source
13. 2,4-D	2005	N	Non detect to 3	ppb	70	70	Runoff from herbicide used on crops

Distribution System							
Contaminant	Year	Violation Y/N	Level	Unit	MCLG	MCL	Source
14. Free Chlorine	2009	N	1.89 maximum Range= 0.20 - 1.89	ppm	0	<0.2	Addition of chlorine for disinfection of water lines

## DEFINITIONS

In the following table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

**Non-Detects (ND)** - laboratory analysis indicates that the constituent is not present.

**Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) or Micrograms per liter** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Parts per trillion (ppt) or Nanograms per liter (nanograms/l)** - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

**Parts per quadrillion (ppq) or Picograms per liter (picograms/l)** - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

**Picocuries per liter (pCi/L)** - picocuries per liter is a measure of the radioactivity in water.

**Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU)** - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Action Level** - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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.

**Maximum Contaminant Level Goal** - The "Goal"(MCLG) is 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.

## What do these Test Results mean?

As you can see by the table, our system had no violations. We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels. The drinking water has been tested for many other constituents that are not listed in the above table. In each case the constituent has not been found or is below the limit of detection. Only those constituents that have been detected are listed in the table.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

## The Relationship of the Test Results and General Population Vulnerability to Contaminants

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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

## Our Water Treatment Plant

In our continuing efforts to maintain a safe and dependable water supply many Water Plant modifications are currently underway. We are currently in the process of upgrading our filters with new media, an air scour backwash system, and all new stainless steel underdrains. We are adding a new chemical feed system flash mix chamber. We have completed the installation of a new one megawatt diesel powered emergency generator so that your water supply should be continuous even if a catastrophic power outage occurs. We are updating the reservoir intake structure and SCADA control systems. Also, a new filter backwash line is being installed to allow for instantaneous backwashing if needed.

## Source Water Assessment Plan

Our Source Water Assessment Plan (SWAP) is available for review at internet site [www.scdhec.gov/water/html/screwtr.html](http://www.scdhec.gov/water/html/screwtr.html). If you have no internet access available to you, please contact Eric A. Moats at 1-(864)-366-2427 to review this document.

## Our Water Lines

The City of Abbeville Public Water System continues to extend its reach into the county by the addition of new water mains. We currently supply water to the citizens of Abbeville as well as Calhoun Falls, Due West and parts of McCormick County as needed. The City of Abbeville stands ready to help meet the demand for water in the county and recently began providing wholesale water service through the Donalds-Due West Water Authority to citizens in the Grey Rock community. We pledge to continue to be aggressive toward the expansion of our water supply service area as funds are available.

## The Future

Abbeville customers are very fortunate to be provided with such a high quality and quantity of water that originates from Lake Russell. The City of Abbeville is completing upgrades to our water treatment plant by rehabilitating all of the filters, updating the chemical feed systems and adding an emergency standby generator to allow processing to continue in the event of power failure. These upgrades are necessary to comply with ever tightening Enhanced Surface Water Treatment Rules and to continue to provide our customers with reliable, high quality water. Future projects include infrastructure improvements at our Raw Water pumping station, Raw water main line upgrades and replacement of finished water delivery lines where necessary. We have also developed a new web site <http://www.abbevilleutilities.com/>, where customers can view their accounts, make payments, apply for service and view notices online. Also, by signing up, they can be electronically notified of any water advisories or emergency situations.

**Thank you for being our customer!**

A copy of this report can be obtained at the Abbeville Public Utilities Billing Office located at 306 Cambridge Street, Abbeville, S.C. 29620. Office hours are M-F, 8:30am - 5:00pm.