

Cherokee County

2016 Annual Water Quality Report

Presented by the

(January 1, 2016 thru December 31, 2016)

Cherokee County Water & Sewerage Authority

Georgia Water System I.D. Number:

(GA) - 0570002

Safe Drinking Water... Is Everyone's Business



Water Quality Surpasses All Standards

Cherokee County Water and Sewerage Authority is proud of the fine drinking water it provides. This annual water quality report shows the source of our water, lists the results of our tests, and contains much important information about water and health.

We are proud to report that the water provided by Cherokee County Water and Sewerage Authority meets or exceeds established water quality standards.

We encourage public interest and participation in our community's decisions affecting drinking water. Regular Board Meetings are held the last Monday of each month at 110 Railroad Street. Even numbered months at 4:00 pm. Odd numbered months at 9:00 am. Please call for the holiday schedule. The public is welcome.

Find out more about Cherokee County Water and Sewerage Authority on the Internet at www.ccwsa.com.

Health Information

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 Safe Drinking Water Hotline at (800) 426-4791.

See Our
Water Quality
Data Table
On next page.

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 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 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 byproducts 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.

(Continued on next page)

Georgia's Streams Need Your Help

Source water quality is affected by the activities of individuals living in the watershed. Two programs that work to maintain source water quality, and in which individuals can be involved, are *Georgia Adopt-A-Stream* and *Rivers Alive*. *Georgia Adopt-A-Stream* is a volunteer water-quality monitoring program that teaches individuals how to monitor local waterways chemically, physically, and biologically. *Rivers Alive* sponsors annual volunteer cleanup events where individuals work to physically remove trash that has found its way into the waterway. To learn more visit

<http://www.georgiaadoptastream.com> and <http://www.riversalive.com> or contact Lori Forrester, CCWSA Public Information Specialist, at 770-479-1813 Ext. 246.

Resources, <http://www.georgiaadoptastream.com/>

Water Source

Cherokee County Water and Sewerage Authority is supplied by surface water from the Etowah River and is treated at Etowah River Water Treatment Facility, 583 Coker's Chapel Road. The Cherokee County Water and Sewerage Authority also purchases treated water from Cobb County - Marietta Water Authority and City of Woodstock.

The Cherokee County Water and Sewerage Authority and the Atlanta Regional Commission have completed a source water assessment itemizing potential sources of surface water pollution to your drinking water supply. Your drinking water is supplied from the Etowah River. A Source Water Assessment is a study and report which provides the following information:

- Identifies the area of land that contributes the raw water used for drinking water;
- Identifies potential sources of contamination to drinking water supplies; and
- Provides an understanding of the drinking water supply's susceptibility to contamination.

The results of this assessment can be found on the Internet at <http://ccwsa.com/water/source-water-assessment/> or you can request information by mail from CCWSA

Attn: Lori Forrester • Public Information Specialist
P.O. Box 5000
Canton, GA. 30114

Two Hundred Ten (210) Potential Point Sources of Pollution were identified during the Source Water Assessment of the Etowah River Watershed. These, along with the non-point source pollution considerations were combined to determine an Overall Watershed Susceptibility Ranking for each watershed. The Metro Source Water Assessments Watersheds with greater than 20% impervious surface were ranked High, between 10% and 20% ranked Medium, and less than 10% ranked Low for potential non-source pollutants. The overall watershed susceptibility ranking for our Drinking Water Supply Watershed is Medium.

Why is the Etowah Important?

The Upper Etowah River Watershed courses through five North Georgia counties: Lumpkin, Dawson, Forsyth, Pickens, Cherokee. The streams and rivers in the Etowah watershed provide drinking water for residents and also support agriculture, industry and recreation. Responsible stewardship of this amazing resource is necessary to ensure its many values are protected FOREVER!

For more information, call Cherokee County Water and Sewerage Authority at (770) 479-1813, x246, Lori Forrester, CCWSA Public Information Specialist.

Water Quality Data for community water systems throughout the United States is available at www.waterdata.com.

Learn more about the Cherokee County Water and Sewerage Authority water system at www.ccwsa.com.

2016 Water Quality Report

An Explanation of the Water Quality Data Table

The table shows the results of our water quality analyses. **Every regulated contaminant that we detected in the water, even in the minutest traces, is listed here.** This table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

Definitions of MCL and MCLG are important.

- **Maximum Contaminant Level or MCL:** 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 or 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.
- **Maximum Residual Disinfectant Level (MRDL):** *The highest level of a disinfectant allowed in drinking water. 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 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 contaminants.*
- **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.

The data presented in this report is from the most recent testing done in accordance with regulations.

Key To Table: AL=Action Level; MCL=Maximum Contaminant Level; MCLG=Maximum Contaminant Level Goal; NTU=Nephelometric Turbidity Units; ppm=parts per million, or milligrams per liter (mg/l): one part per million is equivalent to one gallon for every million gallons. ppb=parts per billion: or micro grams per Liter (ug/L) one part per billion is equivalent to one gallon for every billion gallons. TT=Treatment Technique; N/A=not applicable. % positive: We pull at least 130 bacteria samples per month. No more than 5% can be positive for any given month.

Water Quality Data Table								
Contaminant	Date Tested	Unit	MCL / MRDL	MCLG	Average / Results	Range	Major Sources	Violation
Inorganic Contaminants								
Copper (1)	2015	ppb	AL=1300	0	83	0 -120 50 samples	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	NO
Fluoride (2)	2016	ppm	4	4	.71	0.68-0.73	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.	NO
Lead (3)	2015	ppb	AL=15	0	2.5	0 - 8.1 50 samples	Corrosion of household plumbing systems	NO
Nitrate/Nitrite (4)	2016	ppm	10	10	0.34	N/A	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	NO
Chlorine	2016	ppm	4	N/A	1.7	0.2- 1.7	Drinking water additive used for disinfection.	NO
Organic Contaminants								
TOC [Total Organic Carbons]	2016	ppm	TT	N/A	1.8	0-1.8	Naturally present in the environment.	NO
Turbidity (5)	2016	NTU	TT=1	0	0.1 -100%	0.03-0.10	Soil runoff.	NO
Volatile Organic								
TTHMs [Total Trihalomethanes]	2016	ppb	80	0	51.0	12.3-59.7	By-product of drinking water disinfection.	NO
HAAs [Haloacetic Acids]	2016	ppb	60	0	27.4	13.5-35.0	By-product of drinking water disinfection.	NO

Water Quality Data Table Footnotes: (1) No sites exceeded the Action Level (AL) Next round due in 2018. (2) Fluoride is added to the drinking water to help in the prevention of dental cavities (caries) in children. (3) Of the 50 sites tested, none exceeded the Action Level (AL) Next round due in 2018. (4) Nitrate and Nitrite are measured together. (5) Turbidity is the measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of monthly samples must be below 0.30 NTU. During the reporting year, 100% of all samples taken to measure turbidity met water Quality standards.

Compliance with other Drinking Water Regulations
Although we ran many tests, only the listed substances were found. They are all below the MCL required

Health Information... (Continued from first page)

F. 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. Cherokee County Water and Sewerage Authority 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 EPA's website: <http://www.epa.gov/your-drinking-water/basic-information-about-lead-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. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline (800) 426-4791**.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform Rule, April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes *E. coli* bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level (MCL) violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the Public Water System (PWS). The regulated status of *E. coli* did not change under the RTCR, and the MCL for *E. coli* remains the same, but requires a Level 2 assessment to provide a more thorough investigation of the cause.

Jan 1, 2016 – Mar 31, 2016

Microbiological Contaminants						
Contaminant	MCL	MCLG	Highest level detected (%)	Sample Dates	Violation	Typical source
Total coliform bacteria	<5% positive samples during a monthly sampling period	0	<u>0 % Positive</u>	Jan1, 2016 – Mar 31, 2016	NO	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially - harmful, bacteria may be present.
<i>Escherichia coli</i> (<i>E. coli</i>) bacteria		0	<u>0 % Positive</u>	Jan1, 2016 – Mar 31, 2016	NO	<i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes

Apr 1, 2016- Dec 31, 2016

Microbiological Contaminants							
Contaminant	MCL	MCLG	Level 1 Assessment Trigger ²	Level Detected	Sample Dates	Violation	Likely Source
Total Coliform	TT	TT	Exceeds 5.0% TC+ samples in a month	<u>0 % Total Coliform Positive (TC+)</u>	Apr 1, 2016 – Dec 31, 2016	No	Naturally present in the environment
<i>E. coli</i>	One Positive Sample ¹	0	n/a	<u>0 positive</u>	Apr 1, 2016 – Dec 31, 2016	NO	Human or animal fecal waste

¹ A PWS will receive an *E. coli* MCL violation when there is any combination of an EC+ sample result with a routine/repeat TC+ or EC+ sample result

² A level 1 assessment is not a violation unless it is not completed.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present.

E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes.