GEORGIA WATER SYSTEM I.D. NUMBER: (GA) - 0570002

ANNUAL REPORT 2022

PRESENTED BY CHEROKEE COUNTY WATER AND SEWERAGE AUTHORITY (CCWSA): JANUARY 1, 2022 THROUGH DECEMBER 31, 2022

Cherokee's Safe and Sustainable Water Begins Here!

Summary:

CCWSA IS PROUD OF THE HIGH QUALITY DRINKING WATER IT PROVIDES. THIS ANNUAL REPORT SHOWS THE SOURCE OF OUR WATER, LISTS THE RESULTS OF OUR TESTS AND CONTAINS INFORMATION ABOUT WATER AND HEALTH.

CCWSA draws surface water from the Etowah River and treats it at the Etowah River Water Treatment Facility, 583 Coker's Chapel Road in Ball Ground. We supplied over 7 billon gallons in 2022. The Etowah River flows from its headwaters in Lumpkin County through Dawson County into the northeastern portion of Cherokee. Tributaries such as Amicalola Creek, Cochran Creek, Yellow Creek and many more flow into the Etowah River. After leaving Cherokee County, the Etowah continues West and South joining other river systems and continuing into Mobile Bay, Alabama. Our drought contingency reservoir, the Hollis Q. Lathem Reservoir, located on Yellow Creek, supplements water withdrawal of the drinking water plant in times of drought.

The Etowah River Water Treatment facility has been in operation since 1986. This facility has the capacity to treat up to 38 MGD (million gallons per day) of drinking water. In 2022, an average of 19.189 MGD of drinking water was treated. We provide clean reliable drinking water to more than 225,000 people daily. We pump water to water storage tanks (water towers) all over Cherokee County, as well as into the distribution system. The tanks store water to ensure continuous supply during high demand periods. This typically occurs in the morning (6-9 am) and the evening (5-8 pm). The tanks refill during low demand periods, usually during nighttime hours. From the tanks the water flows to a meter directly outside your home, typically close to the road. Once the water has gone through the meter you have purchased it.

For more information, call CCWSA at 770-479-1813 Ext. 1176, Lori Forrester, CCWSA Public Information Specialist. Water Quality Data for community water systems throughout the United States is available at www.waterdata.com

Health Information

Drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate 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 (800) 426-4791

The sources of drinking water (both tap water and bottled water) include rivers, lakes, 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 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 residential uses.

*Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

*If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in the drinking water is primarily from materials and components associated with service lines and home plumbing.

The Environmental Protection Agency (EPA) and Food and Drug Administration (FDA) are both responsible for safety of drinking water. EPA regulates public drinking water (tap water), while FDA regulates bottled drinking water.

An Explanation of the Water Quality Data Table (on next page)

The table shows the results of our water quality analyses. Every regulated contaminant that we detected in the water is listed here.. The 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.

Glossary of Terms

Maximum Contaminant Level or MCL: The highest level of contaminant that is allowed in drinking water. MCL's 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 a 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 disinfectant allowed in the drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants,

Action Level (AL): The concentration of 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 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 MINUTE IN 2 YEARS OR ONE PENNY IN 10 THOUSAND DOLLARS;
PPB = PARTS PER BILLION; ONE MINUTE IN 2,00 YEARS OR ONE PENNY IN 10 MILLION DOLLARS, OR MICROGRAMS PER LITER (UG/L)
TT = TREATMENT TECHNIQUE - A REQUIRED PROCESS INTENDED TO REDUCE THE LEVEL IN DRINKING WATER. N/A =NOT APPLICABLE

Inorganic Contaminants

Contaminant	Year	Units	MCL/ MRDL	Goal (MCLG)	Amount Detected	Range Detected	Major Sources	Violation
Copper 1	2021	ppb	AL= 1300	0	170	7.7-330	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives	NO
Fluoride 2	2022	ppm	4	4	0.66	0.61-0.72	Erosion of natural deposits; Water additives which promote strong teeth; Discharge from fertilizer and aluminum factories	NO
Lead 3	2021	ppb	AL = 15	0	2.7	0-150	Corrosion of household plumbing systems	NO
Nitrate/Nitrite 4	2022	ppm	10	10	0.34	NA	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits	NO
Chlorine	2022	ppm	4	N/A	1.1	0.2-1.6	Drinking water additive used for disinfection	NO

Organic Contaminants

Total Organic Carbon	2022	ppm	TT	N/A	0.77	0.56-1.2	Naturally present in the environment	NO
Turbidity 5	2022	NTU	TT=1	0	0.06	0.04-0.14	Soil runoff	NO

Volatile Organic

Total Trihalomethanes	2022	ppb	80	0	45.9	15.8-71.7	Byproduct of drinking water disinfectant	NO
Haloacetic Acids	2022	ppb	60	0	28.4	14.2-42.0	Byproduct of drinking water disinfectant	NO

Microbiological

Contaminants	Sample dates	MCL	MCLG	Level 1 Asssessment Trigger 6	Level detected	Likely source	Violation
Total Coliform	1/1/2022-12/31/2022	TT	TT	Exceeds 5.0% TC+ samples in a month	0 Positive samples	Naturally present in the environment	NO
E.coli	1/1/2022-12/31/2022	0	0	N/A	0 Positive samples	Human or animal waste	NO

Table Footnotes
1 - Of the 50 sites tested, none were above the action limit of 1300 ppb. No violation occurs if 90% of the sample is below 1300 ppb. Tested every 3 years - next round in 2024.
2 - Fluoride is added to the drinking water to help the prevention of dental cavities (caries) in children
3- Of the 50 sites tested , one was above the action limit of 15 ppb (sample 150 ppb), Site retested at two different locations resulting with results of 0 ppb and 1.9 ppb.
4 - Nitrate and Nitrite measured together
5 - Turbidity is a measure of 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.
6- A PWS (Public Water System) 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. 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 waste.

WATER QUALITY LAB

CCWSA water laboratory staff serve the community by continuously testing within the serve area, making sure that the tap water within our distribution system is safe to drink once it leaves the plant. EPA prescribes regulations that limit the amount of certain contaminants in the water provided by public water systems through the Safe Drinking Water Act. In order to do this, staff collects from a master list of 390 samples throughout the water distribution system. The number of samples is determined by GA EPD based on the population. Each month, 130 samples are collected and tested for chlorine residual and total coliform bacteria.

Flushing of lines occurs to maintain water quality. It reduces Total Trihalomethanes and Haloacetic Acids, which are disinfection byproducts, plus helps maintain chlorine residuals. Flushing is done in more rural areas with less overall usage. In order to protect local waterways, the flushing water is de-chlorinated.

Water Plant Tours

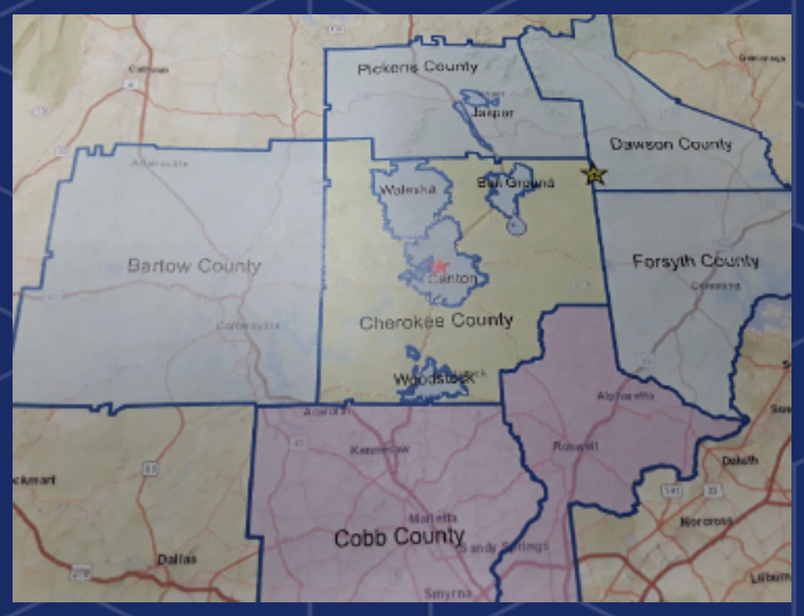
Are you interested in seeing where your water comes from and how it is treated before it comes out of your faucet? CCWSA offers water plant tours to the public year round. Tours last 1-2 hours and are available to individuals and small groups.

Contact Clint Blackwell at clint@ccwsa.com or 770-479-2911

LEAD AND COPPER IN DRINKING WATER

Lead does not come from the treatment facilities and water mains. It may come from lead service lines running between the water main in the street to the home and plumbing inside the home. We do not have any lead service lines in our system. CCWSA is responsible for providing high quality drinking water, but cannot control the variety of materials used in household plumbing components. CCWSA collects samples as required by the Georgia Environmental Protection Division, in accordance with federal rules. Since lead and copper enter drinking water primarily through plumbing materials used in individual homes the US Environmental Protection Agency requires systems to monitor drinking water at customer taps. If lead concentrations exceed an action level of 15 ppb or if copper concentrations exceed an action level of 1300 ppb in more than 10% of costumer taps sampled, the system must undertake a number of additional actions to control corrosion. Additionally, CCWSA treats our drinking water with an orthophosphate to control corrosion within the water distribution system. The phosphate provides a layer of protection on the walls of the distribution pipes that decreases the potential corrosion of metals into the drinking water. CCWSA monitors corrosion within the water system through a corrosion coupon monitoring program. The program consists of mild steel strips that are placed throughout the distribution system and analyzed on a quarterly basis to determine the corrosion rate. Orthophosphate levels, along with pH and alkalinity of CCWSA's drinking water, is tested multiple times daily at our water production plant to maintain high water quality in the distribution system. If water has been sitting in lines 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. 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

Source Water Assessment



Freese and Nichols, Inc. was contracted by CCWSA in 2017 to complete a source water assessment itemizing potential sources of surface water pollution to our water resources. Your drinking water is supplied from the Etowah River. A Source Water Assessment is a study and report that provides the following information:

* Identifies the area of land that contributes the raw water used for drinking water

* Identifies potential sources of contamination to the drinking water supply.

*Provides an understanding of the drinking water supply's susceptibility to contamination.

The results of this assessment can be found on our website
- https://ccwsa.com/source-water-assessment/

Board Meetings

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

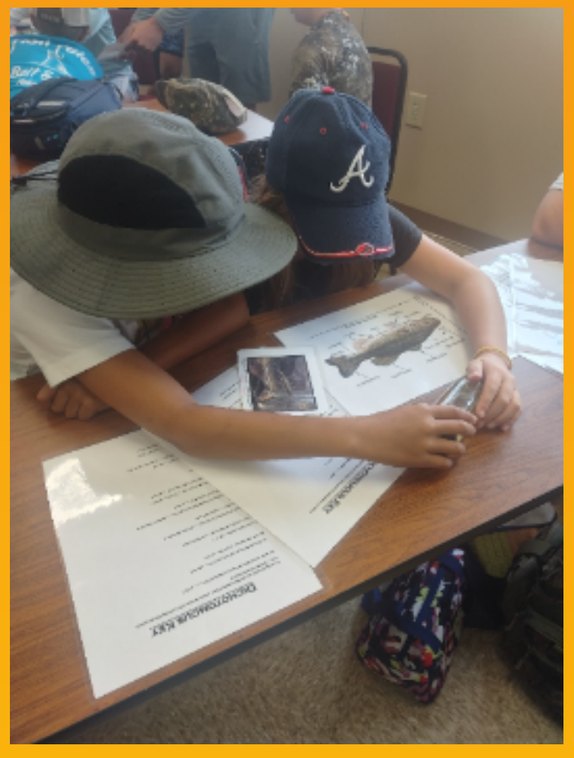
The Reservoir encompasses 334 acres with about 15 miles of shoreline and is surrounded by a 150-foot buffer. The lake is located in Cherokee and Dawson Counties; the entrance address is 5436 Cowart Road in Dawsonville, GA 30534. Visit our website - https://ccwsa.com/reservoir/ for hours, rules and map.

Georgia Association of Water Professionals Awards

***Etowah Water Treatment Plant Platinum Award for complete and consistent Safe Drinking Water Act permit compliance.**
***Education Program of Excellence in Water, Innovative Media and Direct Media Award.**
***Jennifer Arp, Environmental Affairs Assistant Manager, received the Alva T. Storey Award.**

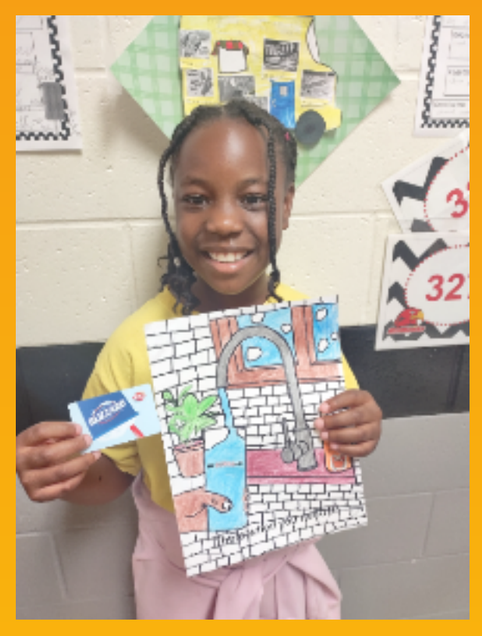
Education and Outreach

* Student Contests
* Georgia Model Water Tower Competition
* Facility Tours
* Classroom presentations
* Career Day
* Science and Engineering Fair



CPRA Fish Camp at Hollis Q. Lathem Reservoir

Touch-A-Truck/Career Day Event - Creekland MS



Drinking Water Week coloring contest 3rd grade winner Ira Mosley.

Model Water Tower Competition winners

Stormdrain Marking Event with City of Holly Springs

Imagine a Day Without Water essay contest winner Winston Kang