

Presented By
Catoosa Utility District Authority



ANNUAL
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2016

We've Come a Long Way

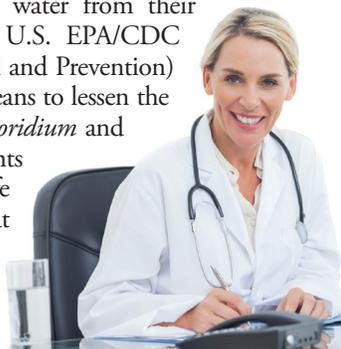
Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation, and public health. Also, the Georgia Environmental Protection Division has a Web site (epd.georgia.gov) that provides complete and current information on water issues in Georgia, including valuable information about our watershed.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those with cancer undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater 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 stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Where Does My Water Come From?

The Catoosa Utility District Authority (CUDA) provides water to its customers from Yates Spring. Our customers are very fortunate to have a clean and pure supply of drinking water. Our water supply is a groundwater source, which means it is not exposed to air and is not subject to direct pollution and contamination like a river or reservoir. In fact, because groundwater is the safest and highest-quality water available to meet the public demand of water intended for human consumption, we are able to provide you with water directly from the source.

Throughout the distribution system, we add only, as required, chlorine at 1.5 ppm and fluoride at about 0.85ppm. Chlorine is added as a precaution against any bacteria that may be present, and fluoride is added to help our teeth be strong. Demand for good, clean water is high: On average, we provide approximately 5 to 6.5 million gallons of water a day to our customers.

A natural spring like Yates Spring could be vulnerable to underground contaminants and changes that may occur underground. The CUDA is well aware of the importance of high-quality drinking water and the risks associated with our drinking water source. Consequently, the CUDA takes every precaution to protect our water from being contaminated.

On occasions such as extremely high demand, drought, or emergencies, CUDA purchases water from Tennessee American Water Company (TAWC) and Eastside Utility District (EUD). Both draw surface water from the Tennessee River. We assure you these companies meet or exceed the same strict quality regulations and requirements as we do. If you have any questions or concerns about their water, we have their water quality reports on file at the main office.

Testing for *Cryptosporidium*

Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of Tennessee American Water's source water indicated the presence of *Cryptosporidium* at 0.182 oocysts/L. If you have any questions about these results, please call Dorothy Rader, Water Quality & Environmental Compliance Supervisor for Tennessee American Water, or the Water Quality Lab at (423) 771-4749. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctors regarding appropriate precautions to take to avoid infection. For more information on *Cryptosporidium*, contact the Safe Drinking Water Hotline at (800) 426-4791.

Source Water Assessment

Catoosa Utility District Authority (CUDA) draws water from Yates Spring. Our goal is to ensure that our water is protected from contamination. CUDA has developed a source water assessment plan, which looks at different sources of pollution that could affect the Yates Spring. Some sources of pollution are electrical poles, transformers, storm water runoff, agricultural fields, and petroleum pipelines. The source water assessment document is available for viewing at the Catoosa Utility District's main office at 1058 Old Mill Road, Ringgold, Georgia. If you would like to view this document, please call our main office at (706) 937-4121 before you visit so that a member of our staff will be available to view the document with you and answer any questions you may have. Catoosa Utility District Authority takes all precautions to ensure that your source water remains free of pollution. Both TAWC and EUD have also developed a source water assessment plan.

QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call Matthew Shoemaker, Water Plant Manager and Laboratory Analyst, or Dennis Faulkenberry, Water Plant Operator and Laboratory Analyst, or Randy Thomason, Superintendent, at (706) 937-4121.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. We meet the second and fourth Tuesdays of each month, beginning at 9 a.m., at the Catoosa Utility District Authority Office at 1058 Old Mill Road, Ringgold, Georgia. Call the office at (706) 937-4121 for information.



Water Conservation

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we 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 www.epa.gov/lead.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State allows us to monitor for certain substances less often than once per year. In these cases, the most recent data are included, along with the year the sample was taken.

We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Rule (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Contact us for more information on this program.

REGULATED SUBSTANCES											
				Catoosa Utility District Authority		Eastside Utility District		Tennessee American Water			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2014	15	0	NA	NA	NA	NA	0.297	0.297–0.297	No	Erosion of natural deposits
Barium (ppm)	2016	2	2	0.074	0.074–0.074	NA	NA	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters ¹ (pCi/L)	2014	50	0	NA	NA	NA	NA	0.737	0.737–0.737	No	Decay of natural and man-made deposits
Chlorine (ppm)	2016	[4]	[4]	1.48	1.44–1.53	1.54	0.7–2.10	1.45	0.45–2.10	No	Water additive used to control microbes
Fluoride (ppm)	2016	4	4	0.75	0.73–0.78	0.73	0.66–0.79	0.78	0.74–0.84	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2016	60	NA	4.8	ND–9.6	24.35	1.0–47.10	36.7	10.6–38.4	No	By-product of drinking water disinfection
Nitrate (ppm)	2016	10	10	0.8	0.8–0.8	0.30	0.30–0.30	0.28	0.12–0.43	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	13.3	1.1–28.1	39.9	15.2–57.3	73 (LRAA MAX)	29.5–63.1	No	By-product of drinking water disinfection
Total Coliform Bacteria (Positive samples)	2016	TT	NA	0	NA	0	NA	0	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2016	TT	NA	NA	NA	1.15	0.598–1.55	1.20	0.84–1.20	No	Naturally present in the environment
Turbidity ² (NTU)	2016	TT	NA	0.18	0.05–0.18	0.19	0.03–0.19	0.77	0.04–0.77	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2016	TT	NA	NA	NA	100%	NA	99.9%	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

				Catoosa Utility District Authority		Eastside Utility District		Tennessee American Water			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2016	1.3	1.3	0.13	0/30	0.27 ³	0/30 ³	0.114	0/54	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2016	15	0	2.6	0/30	3.3 ³	1/30 ³	2	0/54	No	Corrosion of household plumbing systems; Erosion of natural deposits

UNREGULATED SUBSTANCES

		Eastside Utility District		Tennessee American Water		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2016	7.65	7.65–7.65	6.6	4.8–8.4	Erosion of natural deposits; used in water treatment

UNREGULATED CONTAMINANT MONITORING RULE - PART 3 (UCMR3)

		Catoosa Utility District Authority		Eastside Utility District		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Chlorate (ppb)	2015	2.35	ND–11.75	<20 ⁴	ND–<20 ⁴	Agricultural defoliant or desiccant
Chromium, Total (ppb)	2015	0.17	0.1–0.2	0.623 ⁴	0.278–1.3 ⁴	Naturally occurring element
Chromium, Hexavalent (ppb)	2015	0.2	0.19–0.22	0.0757 ⁴	0.077–0.15 ⁴	Naturally occurring element
Cobalt (ppb)	2016	NA	NA	<1	ND–<1	Naturally occurring element
Molybdenum (ppb)	2016	NA	NA	<1	ND–<1	Naturally occurring element
Strontium (ppb)	2015	22.32	20–28	29.112 ⁴	22–39.336 ⁴	Naturally occurring element
Vanadium (ppb)	2015	0.42	0.4–0.48	0.221 ⁴	ND–0.23 ⁴	Naturally occurring elemental metal

¹ The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

² Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality and the effectiveness of disinfectants.

³ Sampled in 2014.

⁴ Sampled in 2016.

Definitions

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

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as LRAAs.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

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