

Annual Drinking Water Quality Report

Monitoring Performed January – December 2022

Randolph County Water Authority

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We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report). The purpose of this report is to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We want you to understand the efforts made to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. The water we distribute comes from various sources:

Cleburne County Water Authority	A large percentage of the water distributed by the Randolph County Water Authority is water purchased from the Cleburne County Water Authority. The connection is via Highway 431 North near the Cleburne/Randolph County Line. Cleburne County buys water from Anniston, whose source is Coldwater Spring, Heflin Alabama, and Carroll County, Georgia.
Wedowee Water, Sewer & Gas Board	Water is also purchased from the Water, Sewer & Gas Board of the Town of Wedowee. This surface water is drawn from the nearby Little Tallapoosa River and is acquired through connections with the Wedowee system at New Hope (County Road 56) and Rock Stand (County Road 61).
Heard County Water Authority	The Heard County Treatment Facilities are located in Heard County Georgia. The water is withdrawn from the surface water of Centralhatchee Creek. The water is then treated at the Heard County Waterworks and distributed throughout their system. Randolph County Water Authority receives this water via a connection located along Alabama Highway 22 near the Georgia/Alabama state line.
The Utilities Board of Roanoke	During emergency situations, we purchase water from the Roanoke Water System, which draws surface water from Jones Creek and Crystal Lake, at two connections along Alabama Highway 22 (one on each side of the Town of Roanoke).

Additionally, we sell water to the following systems: Clay County Water Authority; East Alabama Water, Sewer & Fire Protection District; Town of Wadley; Water & Sewer Board of The Town of Ranburne; Wedowee Water Sewer & Gas Board; and the Town of Woodland.

We work around the clock to provide top-quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. Thank you for allowing us to continue providing your family with clean, quality water this year.

We want our valued customers to be informed about their water utility. A copy of this report can be picked up at the Utilities Office between the hours of 8 am - 4:30 pm Monday - Friday. Our Board normally meets on the second Thursday of each month at 10 am. If you have any questions about this report, concerning your water utility, or would like to know about the next Board meeting - please contact Mark Prestridge at 256-357-9005.

Monitoring Schedule

We routinely monitor for contaminants in your drinking water according to Federal and State laws. ADEM allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. The following table shows the most recent year of monitoring for these contaminant groups - (Date Monitored / Next Monitoring)

Constituent Monitored	Date Monitored / Next Monitoring
Lead/Copper	2020 / 2023
Microbiological Contaminants	Monthly
Disinfection By-products	Annually

Variations and Exemptions

ADEM or the EPA can give permission not to meet an MCL or a treatment technique under certain conditions.

Based on a study conducted by ADEM with the approval of the EPA, a statewide waiver for the monitoring of asbestos and dioxin was issued. Thus, monitoring for these contaminants was not required.

Lead & Copper Monitoring

We completed monitoring requirements for lead and copper in 2020. Twenty sites were sampled without exceeding the Action Level limits for lead or copper. The system will continue to monitor for lead and copper every three years. The next monitoring period for the system will be the period of June – September 2023.

Our monitoring results in 2020 were as follows:

2020 Results	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	0.77 ppb	ND - 5.0
Copper	AL = 1.3	0.0667 ppm	0.0057 - 0.262

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Randolph County Water Authority is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. These recommended actions are very important to the health of your family:

- Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.
- 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.

Lead levels in your drinking water are likely to be higher if:

- Your home or water system has lead pipes, or
- Your home has faucets or fittings made of brass which contains some lead, or
- Your home has copper pipes with lead solder and you have naturally soft water, and
- Water often sits in the pipes for several hours

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/safewater/lead

Our Results

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of contaminants in water provided by public water systems. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful to our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection for public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels.

The table below contains detected results from the most recent monitoring of primary, secondary, and unregulated contaminants. Unless otherwise noted, the data presented in this table is from the calendar year of this report. We are pleased to report that our drinking water meets or exceeds Federal and State requirements.

Table of Detected Contaminants					
Primary Standards - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.					
Contaminant & Unit of MSMT	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources
INORGANIC CONTAMINANTS					
Copper - action level at consumer taps (ppm)	AL=1.3	1.3	0.0057 - 0.262 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb)	AL=15	0	ND - 5.0 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
DISINFECTANTS & DISINFECTION BYPRODUCTS »					
Total Haloacetic Acids HAA (ppb)	60	NA	5.3 - 43.9	No	By-product of drinking water chlorination
Total Trihalomethanes TTHM (ppb)	80	NA	10.2 - 57.7	No	By-product of drinking water disinfection

» There is convincing evidence that additional of a **disinfectant** is necessary for control of microbial contaminants

Unregulated Contaminants	Randolph County Water Authority Range Low - High (MD)	Major Sources
Bromodichloromethane (ppb)	2.7 - 9.3	Naturally occurring in the environment or discharge or agricultural runoff; by-product of the chlorination
Chloroform (ppb)	6.1 - 45.8	
Dibromochloromethane (ppb)	1.4 - 2.6	

Abbreviations & Definitions

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

Lowest Running Annual Average (LRAA): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Maximum Contaminant Level (MCL): The highest level of 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 (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 Detected (MD)

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants in drinking water.

Maximum Residual Disinfection 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.

Not Applicable (NA)

Nephelometric Turbidity Unit (NTU): A measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Not Detected (ND): Laboratory analysis indicates that the constituent is not present above the detection limits of lab equipment.

pCi/L (picocuries per liter): a measure of Radioactivity

ppb (parts per billion): micrograms per liter (µg/L)

ppm (parts per million): milligrams per liter (mg/L)

Threshold Odor Number (T.O.N.): The greatest dilution of a sample with odor-free water that still yields a just detectable odor.

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

As previously stated, the water we distribute comes from various sources. Listed on the next two pages are the Detected Contaminants reported by those sources for the previous calendar year (unless specific year is noted)

Table of Detected Contaminants								
Primary Standards - Mandatory standards set by the Safe Drinking Water Act used to protect public health. These apply to all public water systems.								
Contaminants	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Cleburne County Range Low - High (MD)	Heard County Range Low - High (MD)	Roanoke Utilities Range Low - High (MD)	Wedowee Utilities Range Low - High (MD)	Violation	Major Sources
BACTERIOLOGICAL CONTAMINANTS								
Cryptosporidium (Calculated organisms/liter) †	TT	0	NA	NA	NA	ND - 1 (2019)	No	Human and animal fecal waste
Giardia lamblia	TT	0	NA	NA	NA	ND - 18 (2019)	No	Human and animal fecal waste
Total Organic Carbon (ppm)	TT	NA	0.51 - 1.4	0.94 - 1.5	NA	0.977 - 2.25	No	Naturally present in the environment
Turbidity (NTU) £	TT	NA	0.09 - 0.14	.04 - .29	0.13	0.01 - 0.28 (Tested Daily)	No	Soil Runoff
RADIOLOGICAL CONTAMINANTS								
Alpha emitters (pCi/L)	15	0	-0.25+/-1.63 (2021)	NA	NA	ND	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	0.19+/0.45 (2021)	NA	NA	ND	No	Erosion of natural deposits
INORGANIC CONTAMINANTS								
Arsenic (ppb) ‡	0.010	0	0.55	ND	ND	0.28	No	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.0158	ND	0.0111	0.0109	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	100	100	ND - 2.15	ND	0.00031	0.29		Discharge from steel and pulp mills; Erosion of natural deposits
Copper - action level at consumer taps (ppm)	AL=1.3	1.3	0.05 (2019)	0.2 (90th)	0.005 (2019)	0.0262 - 0.282 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.55 - 0.66	.28 - 1.04	ND	0.501	No	Water additive which promotes strong teeth; erosion of natural deposits; Discharge from fertilizer and aluminum factories
Lead - action level at consumer taps (ppb)	AL=15	0	ND (2019)	1.3 (90th)	ND (2019)	0.34 - 2.7 (2020)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] NO3 (ppm)	10	10	ND - 0.12	ND	0.00044	ND	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Thallium (ppb)	0.002	0.0005	ND	ND	0.00017	ND	No	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
DISINFECTANTS & DISINFECTION BYPRODUCTS »								
Chlorine (ppm)	4	4	1.72	0.56 - 2.18	ND	1.72	No	Water additive used to control microbes
Total Haloacetic Acids HAA (ppb)	60	NA	9.7	0.26 - 0.85	25.9	LRAA Range 22.1 - 36.3	Yes	By-product of drinking water disinfection
Total Trihalomethanes TTHM (ppb)	80	NA	16.5	.026 - 0.78	34.0	LRAA Range 22.5 - 71.3	No	By-product of drinking water disinfection

† **Cryptosporidium** is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Additional information regarding Cryptosporidium can be found on page 2 of this report.

£ **Turbidity** is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

‡ While your drinking water meets EPA's standard for **Arsenic**, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

» There is convincing evidence that additional of a **Disinfectant** is necessary for control of microbial contaminants

Violations

Heard County - Testing results from 4th quarter sampling show that our system exceeds the standard or maximum contaminant level (MCL), for Haloacetic acids (HAA5s). The standard for HAA5s is .06 ppm averaged at an individual monitoring location over the year. During the 4th quarter, our HAA5 level at site #502 was .062 ppm. HAA5s are a group of chemicals formed along with other disinfection byproducts when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and many have an increased risk of getting cancer.

We are working to minimize the formation of HAA5s while ensuring an adequate level of disinfection to protect customers from exposure to bacteria.

Roanoke Utilities - failed to take three (3) Chlorine Dioxide (CLO2) Samples for the Month of September, 2022.

Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.				
Maximum Detected				
Contaminant	MCL	Cleburne County	Roanoke Utilities	Wedowee Utilities
Aluminum (ppm)	0.05 to 0.2	NA	ND	ND
Chloride (ppm)	15	NA	0.00453	ND
Copper (ppm)	1	0.0075	0.0079	0.00055
Iron (ppm)	0.3	NA	0.0111	ND
Manganese (ppm)	0.05	ND	0.002	0.0062
Odor (TON)	3	NA	ND	ND
Sulfate (ppm)	250	NA	ND	3.33
Total Dissolved Solids TDS (ppm)	500	NA	53.6	53.6
Zinc (ppm)	5	NA	0.0227	0.0016
Alkalinity, Total as CA, Co3 (ppm)	NA	NA	ND	ND
Calcium (ppm)	NA	NA	ND	7.54
Carbon Dioxide (ppm)	NA	NA	0.0176	17.6
Conductivity (umhos)	NA	ND	ND	79.3
Hardness (ppm)	NA	ND	32.0	22.0
Magnesium (ppm)	NA	ND	1.49	1.65
Nickel (ppb)	NA	ND	ND	0.38
pH (standard units)	6.5 - 8.5	NA	7.0	7.2
Sodium (ppm)	NA	ND	2.9	5.1

Unregulated Contaminants	Wedowee Utilities Range Low - High (MD)	Major Sources
Bromodichloromethane (ppb)	1.5 - 15.6	Naturally occurring in the environment or discharge or agricultural runoff; by-product of the chlorination
Chloroform (ppb)	6.0 - 97.6	
Dibromochloromethane (ppb)	ND - 2.1	

Additional Unregulated Contaminants - Wedowee	Max Detected
Perfluorobutanesulfonic acid - PFBS (ppb)	0.0000023
Perfluorooctanesulfonic acid - PFOS - (ppb)	0.0000024

☞ Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have properties useful in the manufacture of nonstick cookware, stain-resistant carpet and textiles, firefighting foams, food wrappers, and many more industrial and consumer applications. These chemicals, which have been produced in the United States since the early 1940s, are very persistent in the environment.

General Information Regarding Drinking Water Contaminants

All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. MCLs, defined in a List of Definitions in this report, 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 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban stormwater run-off, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides may come from a variety of sources such as agriculture, stormwater run-off, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (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 healthcare providers.

Water systems also test your source water for pathogens, such as *Cryptosporidium* and *Giardia*. These pathogens can enter the water from animal or human waste. All test results were well within state and federal standards. For people who may be immuno-compromised, a guidance document developed jointly by the Environmental Protection Agency and the Center for Disease Control is available online at www.epa.gov/safewater or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of *cryptosporidium* in our drinking water. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).