Annual Drinking Water Quality Report

The Utilities Board of the Town of Cedar Bluff

January-December 2021

We're pleased to present to you this year's Annual Drinking 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 treated ground /surface water from Waterloo Springs.** We purchase water from Northeast Alabama Water, Sewer and Fire Protection District which receives its water from Waterloo Springs (combination ground/surface water) which supplies the Waterloo Spring Water Treatment Plant, the Tennessee River/Lake Guntersville (surface water), which is the source for the Monsanto Water Treatment Plant and the Tennessee River (Surface Water) which is the source for the Highpoint Water Treatment Plant The Northeast Alabama Water, Sewer and Fire Protection District purchases water from the following:

1) Municipal Utilities Board—Albertville, AL.	Source --Tennessee River -- Short Creek
2) Water Works and Sewer Board of the City of Centre.	Source --Weiss Lake
3) Cherokee County Water & Sewer Authority.	Sources --Bristow & Sanford Springs
4) Fort Payne Water Works Board.	Sources -- Allen Branch Reservoir, Big Willis Reservoir, and the Tennessee River
5) Water Works Board of Section and Dutton.	Source Tennessee River
6) Cave Spring, Georgia	Source –2 underground springs
7) DeKalb-Jackson WSD	Source- Tennessee River

All the water treatment plants filter the water and chlorine is added to the water as disinfectant and the required residual is maintained to protect your drinking water from any possible outside contaminants. The Utilities staff routinely completes a water storage facility inspection plan, and utilizes a Bacteriological Monitoring Plan and a Cross Connection Policy is in place to insure good safe drinking water for our customers. A Source Water Protection Plan has been completed for each of the water treatment plants and can be review at the Northeast Alabama Water, Sewer and Fire District office. It provides more information such as potential sources of contamination.

The Utilities Board of the Town of Cedar Bluff and Northeast Alabama Water, Sewer and Fire District 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 1st to December 31st, 2021. 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 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 (800-426-4791).

If you have any questions concerning this report or your utility, please call Jenni Burt at (256)779-6359. We want our valued customers to be informed about their water utility. If you want to learn more, please attend our regularly scheduled meetings held at 4:00 P.M. on the third Tuesday of each month at the Cedar Bluff Utilities Board office located at 4971 Alabama Hwy 68, Cedar Bluff, Alabama

The members of the Board of Directors are:

Cindy Early, Chairman — **James Martin, Vice Chairman**

Linda Pickelsimer, Treasurer — **Jack Bond, Member** — **Mattie Williams, Member**

PLAIN LANGUAGE DEFINITION

- *Not Required* **(NR)** – Laboratory analysis not required due to waiver granted by the Environmental Protection Agency for the State of Alabama.
- *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.
- *Millirems per year (mrem/yr)* - measure of radiation absorbed by the body.
- *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.
- *Variances & Exemptions (V&E)* - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- *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)* - (mandatory language) A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- *Maximum Contaminant Level* - (mandatory language) 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* - (mandatory language) 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.
- Maximum Residual Disinfectant Level Goal or 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.

- Maximum Residual Disinfectant Level or 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.

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 run-off, 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, storm water run-off, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also, come from gas stations, urban storm water run-off, and septic systems.
- *Radioactive contaminants*, which can be naturally occurring or be the result of oil and gas production and mining activities.

The tables below list all of the drinking water contaminants that were detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or ADEM requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Table of Primary Contaminants

At high levels some primary contaminants are known to pose a health risks to humans. This table provides a quick glance of any primary contaminant detections.

CONTAMINANT	MCL	AMOUNT DETECTED	CONTAMINANT	MCL	AMOUNT DETECTED
Bacteriological			Endothall(ppb)	100	ND
Total Coliform Bacteria	< 5%	ND	Endrin(ppb)	2	ND
Turbidity	TT	0.24	Epichlorohydrin	TT	ND
Fecal Coliform & E. coli	0	ND	Ethylbenzene(ppb)	700	ND
Fecal Indicators (enterococci or coiphage)	TT	ND	Ethylene dibromide(ppt)	50	ND
Radiological			Glyphosate(ppb)	700	ND
Alpha emitters (pci/l)(Northeast Alabama)	15	2.50	Haloacetic Acids(ppb)	60	9.7
Beta/photon emitters (mrem/yr) (Northeast Alabama)	4	ND	Heptachlor(ppt)	400	ND
Combined radium (pci/l) (Northeast Alabama)	5	1.05	Heptachlor epoxide(ppt)	200	ND
Uranium(pci/l)	30	ND	Hexachlorobenzene(ppb)	1	ND
Inorganic			Hexachlorocyclopentadiene(ppm)	50	ND
Antimony (ppb)	6	ND	Lindane(ppt)	200	ND
Arsenic (ppb)	10	ND	Methoxychlor(ppb)	40	ND
Asbestos (MFL)	7	ND	Oxamyl [Vydate](ppb)	200	ND
Barium (ppm)(Northeast Alabama)	2	0.03	Pentachlorophenol(ppb)	1	ND
Beryllium (ppb)	4	ND	Picloram(ppb)	500	ND
Bromate(ppb)	10	ND	PCBs(ppt)	500	ND
Cadmium (ppb)	5	ND	Simazine(ppb)	4	ND
Chloramines(ppm)	4	ND	Styrene(ppb)	100	ND
Chlorine(ppm)	4	2.20	Tetrachloroethylene(ppb)	5	ND
Chlorine(ppm)(Northeast Alabama)	4	1.55	Toluene(ppm)	1	ND
Chlorine dioxide(ppb)	800	ND	TOC (Northeast Alabama)	TT	0.80
Chlotite(ppm)	1	ND	TTHM(ppb)	80	8.95
Chromium (ppb)(Northeast Alabama)	100	ND	Toxaphene(ppb)	3	ND
Copper (ppm) (2019)	AL=1.3	0.047	2,4,5-TP (Silvex)(ppb)	50	ND
Cyanide (ppb)	200	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Fluoride (ppm)(Northeast Alabama)	4	0.41	1,1,1-Trichloroethane(ppb)	200	ND
Lead (ppb) (2019)	AL=15	ND	1,1,2-Trichloroethane(ppb)	5	ND
Mercury (ppb)	2	ND	Trichloroethylene(ppb)	5	ND
Nitrate (ppm)(Northeast Alabama)	10	1.60	Vinyl Chloride(ppb)	2	ND

Nitrite (ppm)	1	ND	Xylenes(ppm)	10	ND
Total Nitrate & Nitrite	10	0.80			
Selenium(ppb)	50	ND			
Thallium(ppb)	2	ND			
Organic Chemicals					
Acrylamide	TT	ND	p-Dichlorobenzene(ppb)	75	ND
Alachlor(ppb)	2	ND	1,2-Dichloroethane(ppb)	5	ND
Atrazine(ppb)	3	ND	1,1-Dichloroethylene(ppb)	7	ND
Benzene(ppbv)	5	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND
Benzo(a)pyrene[PHAs](ppt)	200	ND	trans-1,2-Dichloroethylene(ppb)	100	ND
Carbofuran(ppb)	40	ND	Dichloromethane(ppb)	5	ND
Carbon Tetrachloride(ppb)	5	ND	1,2-Dichloropropane(ppb)	5	ND
Chlordane(ppb)	2	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND
Chlorobenzene(ppb)	100	ND	Di(2-ethylhexyl)phthlates(ppb)	6	ND
2,4-D	70	ND	Dinoseb(ppb)	7	ND
Dalapon(ppb)	200	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND
Dibromochloropropane(ppt)	200	ND	Diquat(ppb)	20	ND
0-Dichlorobenzene(ppb)	600	ND			

Table of Detected Drinking Water Contaminants

CONTAMINANT	MCLG	MCL	Range			Amount Detected		Likely Source of Contamination
Bacteriological Contaminants January - December 2021								
Turbidity	0	TT				0.24	NTU	Soil runoff
Radiological Contaminants January - December 2021								
Alpha emitters (Northeast Alabama) (2011)	0	1.5				2.50	pCi/L	Erosion of natural deposits
Beta particle and photon (Northeast Alabama)	0	4				ND	mrem/yr	Decay of natural and man-made deposits
Combined Radium 226 & 228 (Northeast Alabama)	0	.5				1.05	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2021								
Barium (Northeast Alabama)	2	2	.021	-	.040	.030	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	1.8	-	2.2	2.2	ppm	Water additive used to control microbes
Chlorine (Northeast Alabama)	MRDLG 4	MRDL 4	0.50	-	2.60	1.55	ppm	Water additive used to control microbes
Chlorine Dioxide	MRDLG 800	MRDL 800	ND	-	ND	ND	ppb	Water additive used to control microbes
Chromium (Northeast Alabama)	100	100	ND	-	.03	ND	ppb	Discharge from steel and pulp mills erosion of natural deposits
Copper (2019)	1.3	AL=1.3	No. of Sites above action level 0			0.047	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Fluoride (Northeast Alabama)	4	4	ND	-	0.82	0.41	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate (as N) (Northeast Alabama)	10	10	ND	-	1.80	0.90	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity (Northeast Alabama)	N/A	TT				1.50	NTU	Soil runoff
Organic Contaminants					**January - December 2021**			
Haloacetic Acids (HAA5)	N/A	60	8.3	-	11.0	9.7	ppb	By-product of drinking water chlorination
Total Organic Carbon (TOC) (Northeast Alabama)	N/A	TT	0	-	1.60	0.80	ppb	Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	7.9	-	10.0	8.95	ppb	By-product of drinking water chlorination
Secondary Contaminants					**January - December 2021**			
Aluminum (Northeast Alabama)	N/A	0.2	ND	-	0.10	0.05	ppm	Erosion of natural deposits or as a result of treatment with water additives
Chloride (Northeast Alabama)	N/A	250	2.5	-	18.3	10.4	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Sulfate (Northeast Alabama)	N/A	250	3.3	-	19.2	11.3	ppm	Naturally occurring in the environment
Total Dissolved Solids (Northeast Alabama)	N/A	500	77	-	146.0	111.5	ppm	Erosion of natural deposits
Special Contaminants					**January - December 2021**			
Calcium (Northeast Alabama)	N/A	N/A	16.5	-	34.4	25.5	ppm	Erosion of natural deposits
Carbon Dioxide (Northeast Alabama)	N/A	N/A	ND	-	3.40	1.7	ppm	Erosion of natural deposits
Magnesium (Northeast Alabama)	N/A	N/A	3.54	-	11.1	7.32	ppm	Erosion of natural deposits
pH (Northeast Alabama)	N/A	N/A	7.0	-	8.1	7.55	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium (Northeast Alabama)	N/A	N/A	0.62	-	9.7	5.16	ppm	Naturally occurring in the environment
Specific Conductance (Northeast Alabama)	N/A	<500	157	-	274	215.5	umhos	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate (Northeast Alabama)	N/A	N/A	3.3	-	19.2	11.3	ppm	Naturally occurring in the environment
Total Alkalinity (Northeast Alabama)	N/A	N/A	44.7	-	129	86.85	ppm	Erosion of natural deposits
Total Hardness (as CaCO3) (Northeast Alabama)	N/A	N/A	26.8	-	127.0	76.9	ppm	Naturally occurring in the environment or as a result of treatment with water additives

Unregulated Contaminants January - December 2021								
Bromodichloromethane	N/A	N/A	2.7	-	2.8	2.8	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chlorodibromomethane	N/A	N/A	ND	-	ND	ND	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination
Chloroform	N/A	N/A	5.3	-	7.4	6.4	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

Non-Compliance Microbiological (LT2ESWTR)								
CONTAMINANT	**MCLG**	**MCL**	**Range**			**Amount Detected**		**Likely Source of Contamination**
Bacteriological						**Unit**		
Cryptosporidium	0	TT	0	-	0.90		Organisms/ Liter	Wildlife and/or human waste
* Monsanto WTP			0	-	0.49	0.49		
* Waterloo Spring WTP			0	-	0.90	0.90		
* Highpoint WTP			0	-	0	0		
Giardia	0	TT	0	-	2.1		Organisms/ Liter	Wildlife and/or human waste
Monsanto WTP			0	-	0.3	0.1		
Highpoint WTP			0	-	0.1	0.1		
Waterloo Spring WTP			0	-	2.1	2.1		
Total Coliform	0	TT	0	-	>2420		#/100 ml	Wildlife and/or human waste
Monsanto WTP			133	-	>2420	>2420		
Highpoint WTP			0	-	>2420	>2420		
Waterloo Spring WTP			63	-	>2420	>2420		

Non-Compliance Microbiological (LT2ESWTR)								
CONTAMINANT	**MCLG**	**MCL**	**Range**			**Amount Detected**		**Likely Source of Contamination**
Bacteriological						**Unit**		
E. coli	0	TT	0	-	691		#/100 ml	Wildlife and/or human waste
Monsanto WTP			0	-	691	691		
Highpoint WTP			0	-	73	73		
Waterloo Spring WTP			2	-	579	579		

Unregulated Contaminant Monitoring Rule 4 (UCMR4) Contaminants – 2019 and 2020				
UCMR4 Contaminants	**Level Detected or Range**	**Unit Measurement**	**Violation Y/N**	**Likely Source Of Contamination**
Manganese	**ND – 8.0**	**ppb**	**NO**	Erosion of natural deposits; leaching from pipes
Total organic carbon (TOC)	**ND – 1.8**	**ppb**	**NO**	Soil runoff
Bromide	**17.0 - 28.2**	**ppb**	**NO**	Naturally occurring in the environment or from discharge or runoff
HAA5	**16.0 - 35.6**	**ppb**	**NO**	By-product of drinking water chlorination

HAA6Br	**2.4 – 10.6**	**ppb**	**NO**	By-product of drinking water chlorination
HAA9	**18.4 – 45.2**	**ppb**	**NO**	By-product of drinking water chlorination

GENERAL INFORMATION

*Cryptosporidium monitoring/testing was performed on the RAW WATER at each water source for each respective water treatment plant (i.e. MS & WS) at a frequency of once per month for twenty-four (24) consecutive months (May, 2006 thru April, 2008).

** Cryptosporidium monitoring/testing is currently being conducted at Highpoint WTP Raw Water source at a frequency of once per month for twenty-four (24) consecutive months (February, 2011 thru January, 2013).

Cryptosporidium is a significant concern in drinking water because it contaminates surface waters used as drinking water sources, it is resistant to chlorine and other disinfectants, and it has caused waterborne disease outbreaks. Consuming water with Cryptosporidium, a contaminant in drinking water sources, can cause gastrointestinal illness, which may be severe in people with weakened immune systems (e.g. infants and the elderly) and sometimes fatal in people with severely compromised immune systems (e.g. cancer and AIDS patients).
The purpose of the LT2 rule is to reduce disease incidence associated with Cryptosporidium and other pathogenic microorganisms in your drinking water. The rule applies to ALL public water systems that use surface water or ground water that is under the direct influence of surface water. Cryptosporidium was detected in the ***RAW WATER ONLY!*** and ***NOT*** in the ***Finished Drinking Water***.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, 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.

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.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

As you can see by the tables, our system had no violations of allowable limits of contaminants in drinking water. 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 contaminants have been detected. The EPA has determined that your water IS SAFE at these levels.

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 radioactive material, and it can pick up substances resulting from the presence of animals or from human activity.

Some people may be more vulnerable to contaminants in drinking water than the general population. People who are immuno-compromised such as cancer patients undergoing chemotherapy, organ transplant recipients, HIV/AIDS positive or other immune system disorders, some elderly, and infants can be particularly at risk from infections. People at risk 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).

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. Cedar Bluff 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 the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

We at The Utilities Board of the Town of Cedar Bluff 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.