ANNUAL DRINKING WATER QUALITY REPORT-2023

City of Cullman

PWSID NUMBER AL0001786

Delivered 4,018,558,600 gallons of water in 2023 to the City of Cullman

INTRODUCTION

We are pleased to present to you this year's Annual 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, protect our water resources, and to ensure the quality of your water. This report provides background information on your water system and presents water quality data for the year 2023.

CITY OF CULLMAN COUNCIL MEEETING AND MEMBERS

The City of Cullman Council meets the fourth Monday night, at 7:00pm

Woody Jacobs, Mayor Jenny Folsom, President #5

John W. Cook, President Pro Tempore, Brad Smith Place #1,

David Moss Jr. #3, Clint Hollingsworth #4

Customer Service Locations

Water and Wastewater Office, 1717 Eva Road, N.E., (256)775-7210, Chris Freeman, Superintendent
Water Treatment Plant, 1740 Third Street, S.E., (256)739-0266, Brian Styles, Manager
Wastewater Treatment Plant, 1437 Welti Road, (256)739-2410, Jake Calloway Superintendent

Who Provides My WATER?

The Water Treatment Plant is owned and operated by the Utilities Board of the City of Cullman. The Utilities Board has only one customer, The City of Cullman. The Water Treatment Plant has provided water for many years and is recognized as an industry leader. Over the years the Water Treatment Plant has received numerous awards for excellence in management, operations, and employee achievement. The Water Plant has received the optimized Plant Award for 12 out of 13 years. The plant award is given by ADEM. The Water Plant is attending Performance Based Training starting in 2011. The training is a 3-year long training session that ADEM provides to Surface Water Treatment Plants to help optimize the plant. The Cullman Water Plant has 11 Grade IV Certified Operators. Grade IV is the highest level of certification that ADEM recognizes.

WHERE DOES MY WATER COME FROM?

The Utilities Board owns and operates one treatment plant receiving water from Lake Catoma and Duck River. The treatment is a conventional surface treatment process with a total capacity of 24MGD. The city owns and operates the distributions network within the city. The Source Water Assessment has been completed and updated to current status. The assessment is available for your review. Please contact Brian Styles at The Cullman Water Treatment Plant at (256) 739-0266.

To provide a safe drinking water we use chlorine as our primary disinfectant, providing a minimum of 1.0 ppm entering thedistribution system.

10 TIPS TO CONSERVE WATER:

(1) Check your faucets inside and outside your home. Just a slow drip can waste 15 to 20 gallons of water a day.

(2) Check your toilets. Look for hidden leaks. A leaking toilet can waste up to 100 gallons of water a day. Think before your flush. Do not use your toilet for a trash can. Most toilets use 5 to 7 gallons of water each flush.

(3) Reduce your shower time. Most showers pour out between 5 and 10 gallons per minute.

(4) While brushing your teeth or shaving, do not leave the water running. It adds up quickly.

(5) Automatic dishwashers claim the most water in the kitchen - about 12 gallons per run. Make sure your dishwasher is fully loaded before you turn it on.

(6) Washing machines use 40 or more gallons a load whether it's full or just a pair of socks. Save up for a full load and make your water work efficiently.

(7) Reduce watering your lawn to 1 or 2 times a week. A garden hose can pour out 600 gallons or more in only a few hours.Remember to water in the early morning or late afternoon and make your water work for you.

(8) Think about the amount of water it will take to wash your vehicle. Don't let the water run. Shut it off between washing and rinsing.

(9) Locate your cutoff valves. Lots of water can be lost if you have a leak and have to search for your cutoff valve.

(10) If you see a leak, notify the water department immediately. We will check the leak and prioritize the problem.

WATER QUALITY DATA FOR 2023

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. Your Local Water officials vigilantly safeguard Cullman water supplies and once again we are proud to report that our system has not violated a maximum contaminant level or any other water quality standard. This section describes our water quality and what it means.

Cullman Utilities Board routinely monitors for constituents in your drinking water according to Federal and State laws. The following tables show the results of our monitoring for the period of January 1st to December 31st, 2023, or from the most recent sampling prior to 2012 (ADEM does not require us to monitor for all constituents every year). Although we are only required to report those constituents that were detected, we are including a list of all the tests that we ran to give you an idea of the extensive testing that is done to ensure that your water is safe. The shaded rows indicate constituents that were detected, although they are all below the regulatory levels. Please note that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

The lab data are presented in eight tables, grouped according to EPA requirements. In these tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

***Not Required (NR)* – laboratory analysis not required.**

***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.**

***Million Fibers per Liter (MFL)* - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.**

***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.**

***Action Level (AL)* - the concentration of a contaminant, which if exceeded, triggers treatment or other requirements that a water system must follow.**

Variances & Exemptions: Variances and Exemptions - The Department or EPA permission not to meet an MCL or a treatment technique under certain conditions

***Treatment Technique (TT)* - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.**

***Maximum Contaminant Level* - 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* - 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.**

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is a very detailed study

of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions

HOW DO I READ THIS CHART?

It's easy! The column labeled MCL (mg/L) provides you with the maximum Contaminant Level as established by USEPA and or ADEM for each compound. The testing parameters are categorized as primary or secondary, with the required MCL. These are the standards all drinking water suppliers must meet.

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.

		2023			2023
CONTAMINANT	**MCL**	**AMOUNT DETECTED**	**CONTAMINANT**	**MCL**	**AMOUNT DETECTED**
Bacteriological			Endothall(ppb)	100	ND
Total Coliform Bacteria	< 5%	ND	Endrin(ppb)	2	ND
Turbidity	TT	0.15	Epichlorohydrin	TT	ND
Fecal Coliform & E. coli	0	ND	Ethylbenzene(ppb)	700	ND
Fecal Indicators (enterococci or coliphage)	None	ND	Ethylene dibromide(ppt)	50	ND
Radiological			Glyphosate(ppb)	700	ND
Beta/photon emitters (mrem/yr)	4	ND	Haloacetic Acids(ppb)	60	22
Alpha emitters (pci/l)	15	ND	Heptachlor(ppt)	400	ND
Combined radium (pci/l)	5	0.246	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)	2	0.028	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	2.5	Tetrachloroethylene(ppb)	5	ND
Chlorine Dioxide(ppb)	0.80	0.065	Toluene(ppm)	1	ND
Chlorite(ppm)	1	0.65	TOC	TT	1.73
Chromium (ppb)	100	ND	TTHM(ppb)	80	17
Copper (ppm) (2022)	AL=1.3	0.011	Toxaphene(ppb)	3	ND
Cyanide (ppb)	200	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Fluoride (ppm)	4	0.48	1,2,4-Trichlorobenzene(ppb)	70	ND

Lead (ppb) (2022)	AL=15	ND	1,1,1-Trichloroethane(ppb)	200	ND
Mercury (ppb)	2	ND	1,1,2-Trichloroethane(ppb)	5	ND
Nitrate (ppm)	10	1.0	Trichloroethylene(ppb)	5	ND
Nitrite (ppm)	1	ND	Vinyl Chloride(ppb)	2	ND
Total Nitrate & Nitrite	10	1.0	Xylenes(ppm)	10	ND
Selenium(ppb)	50	ND			
Thallium(ppb)	2	ND			
Organic Chemicals					
Acrylamide	TT	ND			
Alachlor(ppb)	2	ND			
Atrazine(ppb)	**3**	ND			
Benzene(ppb)	**5**	ND			
Benzo(a)pyrene[PHAs](ppt)	200	ND			
Carbofuran(ppb)	40	ND			
Carbon Tetrachloride(ppb)	5	ND			
Chlordane(ppb)	2	ND			
Chlorobenzene(ppb)	100	ND			
2,4-D	70	ND			
Dalapon(ppb)	200	ND			
Dibromochloropropane(ppt)	200	ND			
0-Dichlorobenzene(ppb)	600	ND			
p-Dichlorobenzene(ppb)	75	ND			
1,2-Dichloroethane(ppb)	5	ND			
1,1-Dichlorethylene(ppb)	7	ND			
Cis-1,2-Dichloroethylene(ppb)	70	ND			
trans-1,2-Dichloroethylene(ppb)	100	ND			
Dichloromethane(ppb)	5	ND			
1,2-dichloropropane(ppb)	5	ND			
Di-(2-ethylhexyl)adipate(ppb)	400	ND			
Di(2-ethylhexyl)phthlates(ppb)	6	ND			
Dinoseb(ppb)	7	ND			
Dioxin[2,3,7,8-TCDD](ppq)	30	ND			
Diquat(ppb)	20	ND			

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Please note the sampling frequency of each of these constituents varies, and the range represents the low and high concentrations detected during the sampling events.

Secondary Contaminants

National Secondary Drinking Water Regulations (NSDWRs or secondary standards) are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

Explanation for reasons for variance/exemption
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.
The tables below list all of the drinking water contaminants that we 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 these tables 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 Detected Drinking Water Contaminants								
CONTAMINANT	**MCLG**	**MCL**	**Range**			**Amount Detected**		**Likely Source of Contamination**
Bacteriological Contaminants January - December 2023								
Turbidity (2022)	0	TT				0.15	NTU	Soil runoff
Radiological Contaminants January - December 2023								
Combined Radium 226 & 228 (2020)	0	5				0.246	pCi/L	Erosion of natural deposits
Inorganic Contaminants January - December 2023								
Barium	2.0	2.0	0.028	-	0.028	0.028	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	1.40	-	2.60	2.0	ppm	Water additive used to control microbes
Copper (2022)	1.3	AL=1.3	No. of Sites above action level 0			0.011	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (2022)	0	AL=15	No. of Sites above action level 0			ND	ppb	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as N)	10	10	1.0	-	1.0	1.0	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10	10	1.0	-	1.0	1.0	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Turbidity	N/A	TT		-		0.15	NTU	Soil runoff
Organic Contaminants January - December 2023								
Haloacetic Acids (HAA5)	N/A	60	13	-	40	22	ppb	By-product of drinking water chlorination
Total Organic Carbon (TOC)	N/A	TT	1.54	-	1.97	1.73	ppm	Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	12	-	21	17	ppb	By-product of drinking water chlorination
Secondary Contaminants January - December 2023								
Aluminum	N/A	0.2	0.0113	-	0.0113	0.0113	ppm	Erosion of natural deposits or as a result of treatment with water additives

Chloride	N/A	250	9.35	-	9.35	9.35	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Iron	N/A	0.3	ND	-	ND	ND	ppm	Erosion of natural deposits
Manganese	N/A	0.05	ND	-	ND	ND	ppm	Erosion of natural deposits
Odor	N/A	3	1	-	1	1	T.O.N.	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate	N/A	250	5.69	-	5.69	5.69	ppm	Naturally occurring in the environment
Total Dissolved Solids	N/A	500	89	-	89	89	ppm	Erosion of natural deposits
Zinc	N/A	5	0.00415	-	0.00415	0.00415	ppm	Erosion of natural deposits
Special Contaminants				**January - December 2023**				
Calcium	N/A	N/A	7.47	-	7.47	7.47	ppm	Erosion of natural deposits
Carbon Dioxide	N/A	N/A	1.5	-	6	1.8	ppm	Erosion of natural deposits
Magnesium	N/A	N/A	1.0	-	1.4	1.42	ppm	Erosion of natural deposits
pH	N/A	N/A	6.9	-	7.15	7.00	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium	N/A	N/A	5.23	-	5.23	5.23	ppm	Naturally occurring in the environment
Specific Conductance	N/A	<500	97	-	97	97	U ohms	Naturally occurring in the environment or as a result of treatment with water additives
Total Alkalinity	N/A	N/A	16	-	30	16	ppm	Erosion of natural deposits
Total Hardness (as CaCO3)	N/A	N/A	24.5	-	24.5	24.5	ppm	Naturally occurring in the environment or as a result of treatment with water additives
Unregulated Contaminants				**January - December 2023**				
Bromodichloromethane	N/A	N/A	2.5	-	3.8	2.9	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	10.0	-	17.0	14.0	ppb	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by-product of chlorination

Dibromochloromethane	N/A	N/A	ND	-	ND	ND	ppm	Naturally occurring in the environment
Per- and poly fluoroalkyl substances	N/A	N/A	ND	-	ND	ND	ppb	A manmade substance that resist both water and oil

Reporting Non-Compliance

The Cullman Utilities Board failed to complete all the required public notice methods for a Total Organic Carbon (TOC) monitoring noncompliance from August 2022 monitoring period and provide certification by September 5, 2023. The system provided the public notice to a local communications medium and submitted the certification form to address the public notice violation and returned to compliance on December 4, 2023. The monitoring noncompliance was initially noted in the 2022 CCR.

SHOULD YOU HAVE ANY QUESTIONS CONCERNING THIS NONCOMPLIANCE OR MONITORING REQUIREMENTS, PLEASE CONTACT: Brian Styles, Manager 256-739-0266 or Scott Gormley, Chief Operator 256-739-0266

THE CITY OF CULLMAN HAD ZERO COMPLIANCE ISSUES FOR THE 2023 YEAR.

What does this mean?
As you can see by the table, our system had no violations. 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 constituents have been detected.

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 activities.

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, or by visiting their website at http://www.epa.gov.

MCLs 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.

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 (Center of Disease Control) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline. All Drinking water, including bottled drinking water, may reasonably be expected to contain at least small amounts of some contaminants.

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. The City of Cullman Water Department 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.

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.

Please call our office if you have questions.