

# Annual Drinking Water Quality Report

Monitoring Performed January – December 2023

## Alexander City Water Department - PWSID 0001265

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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.

Water Sources:	Tallapoosa River (Lake Martin)
Customers:	Approximately 10,282
Storage Capacity:	12,150,000 gallons
Distribution System	Serving Greater Lake Martin Area; Alexander City, Dadeville, Jackson's Gap, Walnut Hill, New Site, Goodwater, Ray Community, Hackneyville, & Kellyton Water System

### Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), the Alexander City Water Department has completed a Source Water Assessment plan that will assist in protecting our water sources. This plan provides additional information such as potential sources of contamination. It includes a susceptibility analysis, which classifies potential contaminants as high, moderate, or non-susceptible (low) to contaminating the water source. All of the potential contaminants sited in our study area were ranked as low. The public notification has been completed and the plan has been approved by ADEM. A copy of the report is available in our office for review, or you may purchase a copy upon request for a nominal reproduction fee.

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.

### Questions?

Thank you for allowing us to continue providing your family with clean, quality water this year. If you have any questions about this report or concerning your water utility, please give us a call at 256-329-6700.

We want our valued customers to be informed about their water utility. The Alexander City Council has regularly scheduled meetings on the first and third Monday of each month at 5:30 p.m. in the Council Chambers of the Alexander City Hall.

<b>Council Members:</b>	Buffy Colvin, President	Eric Brown	Jimmy Keel
Curtis 'Woody' Baird, Mayor	Chris Brown	Scott Hardy	Bobby Tapley

### Monitoring Schedule

The Alexander City Water Department water sources are routinely monitored for contaminants, according to a schedule determined by Federal and State regulations.

Every water system has individually assigned monitoring requirements. ADEM allows monitoring 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 and the next monitoring requirement for the contaminant groups.

Constituent Monitored	Date Monitored / Next Monitoring
Inorganic Contaminants	Annually
Lead/Copper	2022 / 2025
Microbiological Contaminants	Monthly
Nitrates	Annually
Radioactive Contaminants	2022 / 2026
Synthetic Organic Contaminants (including pesticides and herbicides)	2022 / 2025
Volatile Organic Contaminants	Annually
Disinfection By-products	Quarterly

### 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

The Alexander City Water completed monitoring requirements for lead and copper in 2022. Thirty sites were sampled and one location exceeded the Action Limit for Lead. The site was resampled and the result met the compliance expectations.

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 2025.

Our monitoring results in 2022 were as follows:

2022 Results	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	0.80 ppb	ND - 42.5
Copper	AL = 1.3	0.139 ppm	0.0137- 0.216

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Alexander City Water Department 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](http://www.epa.gov/safewater/lead)

## 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](http://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).

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which 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 in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of 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.					
Contaminants	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources
<b>BACTERIOLOGICAL CONTAMINANTS</b>					
Total Coliform	<5% present/absent	NA	1 positive sample †	No	Naturally present in the environment
Total Organic Carbon (ppm)	TT	NA	0.935 - 1.49	No	Soil Runoff
Turbidity	TT	NA	1 - 2.11 £ (Tested Daily)	No	Soil Runoff
<b>INORGANIC CONTAMINANTS</b>					
Antimony (ppb)	6	6	0.0009	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic (ppb)	10	0	0.31 Φ	No	Erosion of natural deposits; runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	2	2	0.011	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	AL=1.3	1.3	0.0707	No	Corrosion of household plumbing systems; Erosion of natural deposits
Copper - action level at consumer taps (ppm)	AL=1.3	1.3	0.0137 - 0.216 (2022)	No	Corrosion of household plumbing systems; Erosion of natural deposits
Chromium (ppb)	100	100	0.39	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	4	4	0.404	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 - 42.5 ‡ (2022)	No	Corrosion of household plumbing systems; Erosion of natural deposits
<b>DISINFECTANTS &amp; DISINFECTION BYPRODUCTS »</b>					
Chlorite (ppm)	1	0.8	0.31 - 0.76	No	By-product of drinking water disinfection
Total Haloacetic Acids HAA (ppb)	60	NA	LRAA Range 14.8 - 25.7	No	By-product of drinking water disinfection
Total Trihalomethanes TTHM (ppb)	80	NA	LRAA Range 17.1 - 49.9	No	By-product of drinking water disinfection

† One positive **Total Coliform** and **E.coli** sample occurred on June 27, 2023. All follow up testing was negative. The presence of coliform bacteria in the sample was not a compliance violation. These are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

£ **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.

Φ 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.

‡ One sample site in 2022 exceeded the Action Level (AL) for **Lead**. This site was resampled and the result was in compliance - below AL.

» There is convincing evidence that the addition of a **disinfectant** is necessary for the control of microbial contaminants.

**Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.**

Contaminant	MCL	Maximum Detected	Contaminant	MCL	Maximum Detected
Aluminum (ppm)	0.05 - 0.2	0.122	Nickel (ppb)	NA	0.00073
Calcium (ppm)	NA	9.9	pH (standard units)	6.5 - 8.5	7.1
Chloride (ppm)	250	4.63	Sodium (ppm)	NA	4.8
Conductivity (umhos)	NA	112	Sulfate (ppm)	250	20.8
Hardness (ppm)	NA	29.9	Total Dissolved Solids TDS (ppm)	500	65.0
Iron (ppm)	0.3	0.0119	Zinc (ppm)	5	0.002
Magnesium (ppm)	NA	1.25			

Unregulated Contaminants	Range Low - High (MD)
Bromodichloromethane (ppb)	2.8 - 10.3
Chloroform (ppb)	10.6 - 74.2
Dibromochloromethane (ppb)	ND - 1.5
Major Sources	Naturally occurring in the environment or as a result of industrial discharge or agricultural runoff; by product of chlorination

The Alexander City Water Department has chosen to provide our customers with a table of all contaminants (Primary, Secondary, and Unregulated) for which the EPA and ADEM require testing. These contaminants were not detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants* on page 3 of this report.

### Table of Primary Contaminants

BACTERIOLOGICAL CONTAMINANTS	
MCL & Unit of MSMT	
Total Coliform Bacteria	< 5% present/absent
Fecal Coliform & E. coli	0 present/absent
Turbidity	TT NTU
Cryptosporidium	TT Calculated organisms/liter
Total Organic Carbon (TOC)	TT

RADIOLOGICAL CONTAMINANTS	
MCL & Unit of MSMT	
Beta/ photon emitters	4 mrem/yr
Alpha emitters	15 pCi/l
Combined radium	5 pCi/l
Uranium	30 pCi/l

DISINFECTANTS & DISINFECTION BYPRODUCTS	
MCL & Unit of MSMT	
Bromate	10 ppb
Chloramines	4 ppm
Chlorine (as Cl <sub>2</sub> )	4 ppm
Chlorine Dioxide	800 ppb
Chlorite	1 ppm
HAA5 [Total haloacetic acids]	60 ppb
TTHM [Total trihalomethanes]	80 ppb

INORGANIC CONTAMINANTS							
MCL & Unit of MSMT							
Antimony	6 ppb	Beryllium	4 ppb	Cyanide	200 ppb	Nitrate	10 ppm
Arsenic	10 ppb	Cadmium	5 ppb	Fluoride	4 ppm	Nitrite	1 ppm
Asbestos	7 MFL	Chromium	100 ppb	Lead	AL=15 ppb	Selenium	0.05 ppm
Barium	2 ppm	Copper	AL=1.3 ppm	Mercury	2 ppb	Thallium	2 ppb

ORGANIC CONTAMINANTS							
MCL & Unit of MSMT							
1,1,1-Trichloroethane	200 ppb	Dalapon	200 ppb	Hexachlorocyclopentadiene	50 ppb		
1,1,2-Trichloroethane	5 ppb	Di (2-ethylhexyl)adipate	400 ppb	Lindane	200 ppt		
1,1-Dichloroethylene	7 ppb	Di (2-ethylhexyl)phthalate	6 ppb	Methoxychlor	40 ppb		
1,2,4-Trichlorobenzene	0.07 ppm	Dibromochloropropane	200 ppt	o-Dichlorobenzene	600 ppb		
1,2-Dichloroethane	5 ppb	Dichloromethane	5 ppb	Oxamyl [Vydate]	200 ppb		
1,2-Dichloropropane	5 ppb	Dinoseb	7 ppb	p-Dichlorobenzene	75 ppb		
2,4,5-TP(Silvex)	50 ppb	Dioxin [2,3,7,8-TCDD]	30 ppq	Pentachlorophenol	1 ppb		
2,4-D	70 ppb	Diquat	20 ppb	Picloram	500 ppb		
Acrylamide	TT TT	Endothall	100 ppb	Polychlorinated biphenyls	0.5 ppb		
Alachlor	2 ppb	Endrin	2 ppb	Simazine	4 ppb		
Benzene	5 ppb	Epichlorohydrin	TT TT	Styrene	100 ppb		
Benzo(a)pyrene [PAHs]	200 ppt	Ethylbenzene	700 ppb	Tetrachloroethylene	5 ppb		
Carbofuran	40 ppb	Ethylene dibromide	50 ppt	Toluene	1 ppm		
Carbon tetrachloride	5 ppb	Glyphosate	700 ppb	Toxaphene	3 ppb		
Chlordane	2 ppb	Heptachlor	400 ppt	trans-1,2-Dichloroethylene	100 ppb		
Chlorobenzene	100 ppb	Heptachlor epoxide	200 ppt	Trichloroethylene	5 ppb		
cis-1,2-Dichloroethylene	70 ppb	Hexachlorobenzene	1 ppb	Vinyl Chloride	2 ppb		
				Xylenes	10 ppm		

### Table of Secondary and Unregulated Contaminants

SECONDARY & ADDITIONAL CONTAMINANTS	
Aluminum (ppm)	Alkalinity, Total (as CA, Co3) (ppm)
Chloride (ppm)	Calcium, as Ca (ppm)
Color (color units)	Carbon Dioxide (ppm)
Copper (ppm)	Conductivity (µmhos/cm)
Corrosivity	Hardness (ppm)
Fluoride (ppm)	Manganese (ppm)
Foaming agents MBAS (ppm)	Nickel (ppm)
Iron (ppm)	Sodium (ppm)
Magnesium (ppm)	Temperature (*C)
Odor (threshold odor number)	
pH (std units)	
Silver (ppm)	
Sulfate (ppm)	
Total Dissolved Solids (ppm)	
Zinc (ppm)	

UNREGULATED CONTAMINANTS		
1,1 - Dichloropropene	Bromobenzene	Isopropylbenzene
1,1,1,2-Tetrachloroethane	Bromochloromethane	M-Dichlorobenzene
1,1,2,2-Tetrachloroethane	Bromodichloromethane	Methomyl
1,1-Dichloroethane	Bromoform	Metolachlor
1,2,3 - Trichlorobenzene	Bromomethane	Metribuzin
1,2,3 - Trichloropropane	Butachlor	MTBE
1,2,4 - Trimethylbenzene	Carbaryl	N - Butylbenzene
1,3 - Dichloropropane	Chloroethane	Naphthalene
1,3 - Dichloropropene	Chloroform	N-Propylbenzene
1,3,5 - Trimethylbenzene	Chloromethane	O-Chlorotoluene
2,2 - Dichloropropane	Dibromochloromethane	P-Chlorotoluene
3-Hydroxycarbofuran	Dibromomethane	P-Isopropyltoluene
Aldicarb	Dicamba	Propachlor
Aldicarb Sulfone	Dichlorodifluoromethane	Sec - Butylbenzene
Aldicarb Sulfoxide	Dieldrin	Tert - Butylbenzene
Aldrin	Hexachlorobutadiene	Trichlorofluoromethane

### 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.