

2020 Drinking Water Quality Report
Monitoring Performed January - December 2020

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.

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

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), **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. 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 at **Alexander City Water Department** 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 call the Adams Water Treatment Plant at 256-409-2035.

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 at Alexander City Hall.

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

Abbreviations and Definitions -

Action Level (AL): The concentration of a contaminant that triggers treatment or other requirements which 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 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 (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 a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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 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 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.

Variances & Exemptions: ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Monitoring Schedule

Alexander City Water Department routinely monitors for contaminants in your drinking water according to a schedule determined by Federal and State regulations. ADEM allows monitoring of 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.

Constituent Monitored	Date Monitored
Inorganic Contaminants	2020
Lead/Copper	2022
Microbiological Contaminants	Monthly
Nitrates	2020
Radioactive Contaminants	2012
Synthetic Organic Contaminants (including pesticides and herbicides)	2017
Volatile Organic Contaminants	2020
Disinfection By-products	Quarterly

Variances and Exemptions

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 were not required

Lead and Copper Monitoring

Alexander City Water Department completed monitoring requirements for lead and copper in 2019. Thirty sites were sampled without exceeding the Action Limit for either 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 2022.

Our monitoring results in 2019 were as follows:

	MCL	90 th Percentile Sample	Range of Levels
Lead	AL = 15	0.86 ppb	ND - 4.5
Copper	AL = 1.3	0.145 ppm	0.0172 - 0.253

Lead in drinking water is primarily from materials and components associated with service lines and home plumbing.

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 <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>.

This report contains results from the most recent monitoring of primary, secondary, and unregulated contaminants. The monitoring was performed in accordance with the sampling requirements established by the EPA (Environmental Protection Agency) and ADEM. **Alexander City Water Department** is pleased to report that our drinking water meets or exceeds federal and state drinking water 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.

Microbiological Contaminants	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources
Total Coliform	NA	TT	5 positive samples †	No	Naturally present in the environment

† There were Five positive coliform samples in 2020. Three in October and Two in December. All follow up testing was Absent (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.

Inorganic Contaminants	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources
Total Organic Carbon (ppm)	TT	NA	1.08 - 3.58	No	Soil Runoff
Barium (ppm)	2	2	0.0127	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Copper (ppm)	AL = 1.3	1.3	0.0172 - 0.253	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.0400	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppb)	AL = 15	0	ND - 4.5	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] NO3 (ppm)	10	10	0.0699	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Disinfectants & Disinfection By-Products	MCL, TT, or MRDL (What's Allowed?)	MCLG (What's the Goal?)	Range Low - High (MD)	Violation	Major Sources

(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)

Haloacetic Acids (HAA5) (ppb)	60	0	LRAA Range 11.3 - 25.4	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	80	0	LRAA Range 17.4 - 62.7	No	By-product of drinking water disinfection

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
Calcium (ppm)	NA	8.73	Carbon Dioxide (ppm)	NA	17.6
Chloride (ppm)	250	7.01	Hardness (ppm)	NA	32.6
Manganese (ppm)	0.05	0.0048	Magnesium (ppm)	NA	1.52
Nickel (ppb)	NA	0.64	pH (standard units)	6.5 - 8.5	6.8
Sodium (ppm)	NA	6.3	Conductivity (umhos)	NA	116
Sulfate (ppm)	250	16.5	Total Dissolved Solids TDS (ppm)	500	114
Zinc (ppm)	5	0.0035			

Unregulated Contaminants	Range	
	Low	High (MD)
Bromodichloromethane (ppb)	2.77	9.12
Chloroform (ppb)	9.12	68.1
Dibromochloromethane (ppb)	0.41	1.91

Unregulated Contaminant Monitoring Rule 4 (UCMR 4)

Under the directive of the 1996 Safe Drinking Water Act (SDWA), every five years the EPA issues a new list of unregulated contaminants to be monitored by some public water systems (PWSs). The monitoring results may provide a basis for future regulatory actions to protect public health. The Fourth Unregulated Contaminant Monitoring Rule (UCMR4) required PWSs serving more than 10,000 people to monitor for 30 unregulated contaminants during January 2018 through December 2020, with each PWS assigned a monitoring period. Under UCMR 4, public water systems conducted sampling for 10 cyanotoxins and 20 additional contaminants as listed below.

10 Cyanotoxins
Anatoxin-A
Cylindrospermopsin
Microcystin-LA
Microcystin-LF
Microcystin-LR
Microcystin-LY
Microcystin-RR
Microcystin-YR
Nodularin
Total Microcystins

20 Other Unregulated Contaminants	
Germanium	1-butanol
Manganese	2-methoxyethanol
Alpha-hexachlorocyclohexane	2-propen-1-ol
Chlorpyrifos	Butylated hydroxyanisole
Dimethipin	O-toluidine
Ethoprop	Quinoline
Oxyfluorfen	Total organic carbon (TOC)
Profenofos	Bromide
Tebuconazole	HAA5 ¹
Total permethrin (cis- & trans-)	HAA6 ²
Tribufos	HAA9 ³

¹ HAA5	² HAA6Br	³ HAA9
dibromoacetic	bromochloroacetic	bromochloroacetic
dichloroacetic	bromodichloroacetic	bromodichloroacetic
monobromoacetic	dibromoacetic	chlorodibromoacetic
monochloroacetic	dibromochloroacetic	Dibromoacetic
trichloroacetic	monobromoacetic	Dichloroacetic
	tribromoacetic	monobromoacetic
		monochloroacetic
		Tribromoacetic
		Trichloroacetic

Assigned monitoring periods for **Alexander City Water Department** were August, September, October, and November 2020 for cyanotoxins and June 2018, September 2018, December 2018, and March 2019 for the additional contaminants.

None of the cyanotoxins were detected during the 2020 monitoring period.

The following table shows the monitoring results on the Unregulated Contaminants detected at some level during the 2018 & 2019 monitoring period.

Detected Unregulated Contaminant Monitoring Rule 4 (UCMR4) Contaminants		
Contaminants	Level Detected	Likely Source
Manganese (ppb)	1.3	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient
Bromide (ppb)	8.9†	Precursor to disinfection byproduct formation
Total organic carbon (ppb)	1770	Soil runoff
HAA5 (ppb)	26.5 - 28.9	Disinfection byproduct
HAA6Br (ppb)	4.38 - 4.77	Disinfection byproduct
HAA9 (ppb)	31.2 - 33.4	Disinfection byproduct
Bromochloroacetic acid (ppb)	2.81 - 3.05	Disinfection byproduct (HAA6Br, HAA9)
Bromodichloroacetic acid (ppb)	1.17 - 1.34	Disinfection byproduct (HAA6Br, HAA9)
Chlorodibromoacetic acid (ppb)	0.4 - 0.45	Disinfection byproduct (HAA9)
Dichloroacetic Acid (ppb)	6.61 - 24.8	Disinfection byproduct (HAA5)
Trichloroacetic Acid (ppb)	2.8 - 8.17	Disinfection byproduct (HAA5)

† Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

General Information

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. MCL's, 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, 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 runoff, and septic systems.
- Radioactive contaminants, which 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 health care providers.

This water system also tests 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).

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference - try one today and soon it will become second nature.

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Use a water-efficient showerhead. They're inexpensive, easy to install, and can save you up to 750 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Water plants only when necessary.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace. To check your toilet for a leak, place a few drops of food coloring in the tank and wait. If it seeps into the toilet bowl without flushing, you have a leak. Fixing it or replacing it with a new, more efficient model can save up to 1,000 gallons a month.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Visit www.epa.gov/watersense for more information.

Cross Connection Control Survey

The purpose of this survey is to determine whether a cross-connection may exist at your home or business. A cross connection is an unprotected or improper connection to a public water distribution system that may cause contamination or pollution to enter the system. We are responsible for enforcing cross-connection control regulations and insuring that no contaminants can, under any flow conditions, enter the distribution system. If you have any of the devices listed below please contact us so that we can discuss the issue, and if needed, survey your connection and assist you in isolating it if that is necessary.

- Boiler/ Radiant heater (water heaters not included)
- Underground lawn sprinkler system
- Pool or hot tub (whirlpool tubs not included)
- Additional source(s) of water on the property
- Decorative pond
- Watering trough

Source Water Protection Tips

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides - they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- If you have your own septic system, properly maintain your system to reduce leaching to water sources or consider connecting to a public water system.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use EPA's Adopt Your Watershed to locate groups in your community, or visit the Watershed Information Network's How to Start a Watershed Team.
- Organize a storm drain stenciling project with your local government or water supplier. Stencil a message next to the street drain reminding people "Dump No Waste - Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

The **Alexander City Water Department** has chosen to provide our customers with a table of all contaminants (Primary, Secondary, and Unregulated) for which the Environmental Protection Agency and the Alabama Department of Environmental Management require testing. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants*.

Table of Primary Contaminants

Bacteriological Contaminants MCL and Unit of MSMT		Radiological Contaminants MCL and Unit of MSMT		Disinfectants & Disinfection Byproducts MCL and Unit of MSMT			
Total Coliform Bacteria	<5% present /absent	Beta/Photon emitters	4 mrem/yr	Bromate	10 ppb	Chlorite	1 ppm
Fecal Coliform & E. coli	0 present /absent	Alpha emitters	15 pCi/l	Chloramines	4 ppm	HAA5 [Total haloacetic acids]	60 ppb
Turbidity	TT NTU	Combined radium	5 pCi/l	Chlorine	4 ppm	TTHM [Total trihalomethanes]	80 ppb
Cryptosporidium	TT Calculated organisms/liter	Uranium	30 pCi/l	Chlorine Dioxide	800 ppb		

Inorganic Chemicals

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		

Organic Contaminants MCL and Unit of MSMT

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

Table of Secondary and Unregulated Contaminants

Secondary and Additional Contaminants		Unregulated Contaminants				
Aluminum	Sulfate	1,1 - Dichloropropene	2,2 - Dichloropropane	Bromomethane	Dieldrin	Naphthalene
Chloride	Total Dissolved Solids	1,1,1,2-Tetrachloroethane	3-Hydroxycarbofuran	Butachlor	Hexachlorobutadiene	N-Propylbenzene
Color	Zinc	1,1,2,2-Tetrachloroethane	Aldicarb	Carbaryl	Isopropylbenzene	O-Chlorotoluene
Copper	Alkalinity, Total (as CA, Co.)	1,1-Dichloroethane	Aldicarb Sulfone	Chloroethane	M-Dichlorobenzene	P-Chlorotoluene
Corrosivity	Calcium, as Ca	1,2,3 - Trichlorobenzene	Aldicarb Sulfoxide	Chloroform	Methomyl	P-Isopropyltoluene
Fluoride	Carbon Dioxide	1,2,3 - Trichloropropane	Aldrin	Chloromethane	MTBE	Propachlor
Foaming agents (MBAS)	Hardness	1,2,4 - Trimethylbenzene	Bromobenzene	Dibromochloromethane	Metolachlor	Sec - Butylbenzene
Iron	Magnesium	1,3 - Dichloropropene	Bromochloromethane	Dibromomethane	Metribuzin	Tert - Butylbenzene
Manganese	Nickel	1,3 - Dichloropropene	Bromodichloromethane	Dicamba	N - Butylbenzene	Trichlorofluoromethane
Odor	Sodium	1,3,5 - Trimethylbenzene	Bromoform	Dichlorodifluoromethane		
pH	Conductivity (umhos)					
Silver	Temperature (*C)					