2023 Annual Water Quality Report

(Testing Performed January - December 2022)

WEAVER WATER SYSTEM

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We are pleased to present to you this year's Annual Water Quality Report. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. Weaver Water System is dedicated to maintaining a plentiful supply of excellent-quality water that is an asset to Weaver and to Calhoun County, while maintaining fair and equitable rates and policies. And we are committed to meeting the challenges of a rapidly changing water supply industry and the regulatory changes necessary to protect our water supply.

Water Sources	Three groundwater wells producing from the Conasauga aquifer	
	Interconnected with Anniston Water & Sewer Board for back-up	
Water Treatment	Chlorination for disinfection	
Storage Capacity	Two tanks with a total capacity of 850,000 gallons	
Distribution System	Approximately 60 miles of water mains	
Number of Customers	Approximately 2125	
Council Members	Jeff Clendenning, Mayor	Clint Burns, Council
	Nick Bowles, Mayor pro tem	Cathy Hamby, Council
	Tim McRae, Council	Terri Summerlin, Council
Council Meetings	Second and fourth Tuesdays of each month at 5:00 p.m. at City Hall	
Staff Members	Joey Conger, Director of Public Works	Jody Stephens, Office Mgr., Admin. Clerk
	Chasity Whetstone, City Clerk	Jessica Pontero, Water Clerk
	Tricia Noel, License Clerk	

Source Water Assessment

In compliance with the Alabama Department of Environmental Management (ADEM), Weaver Water System has developed 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. The ADEM-approved report is available in our office for review, or you may purchase a copy upon request for a nominal reproduction fee. In addition to the Source Water assessment, which is required by law, the Weaver Water System has gone above and beyond the standard requirement and has developed a Wellhead Protection Plan. This plan involves public education and outreach program among other things.

Questions?

If you have any questions about this report or concerning your water utility, please contact Joey Conger at the water office at 256-820-1121. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Tuesdays of each month at 5:00 p.m. at City Hall, 500 Anniston Street.

More information about contaminants to drinking water and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (1-800-426-4791).

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 radioactive material, and it 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 which limit the levels of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water.

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. People at risk should seek advice about drinking water from their health care providers.

Anniston Water and Sewer Board also monitors our 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/crypto.html* or from the Safe Drinking Water Hotline at 800-426-4791. This language does not indicate the presence of cryptosporidium in our drinking water.

Information about Lead

Lead in drinking water is rarely found in source water but is primarily from materials and components associated with service lines and home plumbing. Your water system 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. Use *only* water from the cold-water tap for drinking, cooking, and *especially for making baby formula*. Hot water is more likely to cause leaching of lead from plumbing materials. 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. These recommended actions are very important to the health of your family.

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.

Monitoring Schedule and Results

The Alabama Department of Environmental Management (ADEM) allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. 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.

Constituent Monitored	Date Monitored
Inorganic Contaminants	2022
Lead/Copper	2022
Microbiological Contaminants	current
Nitrates	2022
Radioactive Contaminants	2019
Synthetic Organic Contaminants (including pesticides and herbicides)	2022
Volatile Organic Contaminants	2022
Disinfection By-products	2022
PFAS Contaminants	2020

Our drinking water meets or exceeds federal and state standards. We have learned through our monitoring and testing that some constituents have been detected. Those detections are listed in the following table: however, we are pleased to announce that our system had no violations.

Detected Drinking Water Contaminants						
Contaminants	Violation Y/N	Level Detected	Unit Msmt	MCLG	MCL	Likely Source of Contamination
Alpha Emitters	NO	7.7	PCi/l	0	15	Erosion of natural deposits
Combined Radium	NO	3.1	PCi/l	0	5	Erosion of natural deposits
Barium	NO	0.03-0.09	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	NO	0.140 *	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Nitrate (as Nitrogen)	NO	1.0-1.2	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Secondary Contaminants						
Chloride	NO	5.4-7.3	ppm	n/a	250	Naturally occurring; industrial discharge; runoff
Hardness	NO	167-175	ppm	n/a	n/a	Naturally occurring; water treatment
pH	NO	7.0-7.1	S.U.	n/a	n/a	Naturally occurring in the environment; water treatment
Sodium	NO	3.2-3.7	ppm	n/a	n/a	Naturally occurring in the environment
Sulfate	NO	2.5-3.6	ppm	n/a	250	Naturally occurring in the environment: industrial discharge; runoff
Total Dissolved Solids	NO	192-194	ppm	n/a	500	Naturally occurring in the environment: industrial discharge; runoff

* Figure shown is 90th percentile and # of sites above Action Level = 0

Per- and polyfluoroalkyl substances (PFAS) are man-made chemicals that were used in manufacturing and in other industrial and consumer applications. The EPA has not established primary drinking water regulations for PFAS substances. Below is a list of PFAS contaminants our system monitored in 2022 and the results.

PFAS Contaminants					
Contaminant	Unit Msmt	Level Detected	Contaminant	Unit Msmt	Level Detected
11Cl-PF3OUdS (11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid)	ppb	ND	Perfluoroheptanoic acid	ppb	ND
9Cl-PF3ONS (9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid)	ppb	ND	Perfluorohexanesulfonic acid	ppb	ND-0.011
ADONA (4,8-dioxa-3H-perfluorononanoic acid)	ppb	ND	Perfluorononanoic acid	ppb	ND
HFPO-DA (Hexafluoropropylene oxide dimer acidA)	ppb	ND	Perfluorooctanesulfonic acid	ppb	ND-0.013
NEtFOSAA (N-ethylperfluorooctanesulfonamidoacetic acid)	ppb	ND	Perfluorooctanoic acid	ppb	ND-0.0043
NMeFOSAA (N-methylperfluorooctanesulfonamidoacetic acid0	ppb	ND	Perfluorotetradecanoic acid	ppb	ND
Perfluorobutanesulfonic acid	ppb	ND-0.0029	Perfluorotridecanoic acid	ppb	ND
Perfluorodecanoic acid	ppb	ND	Perfluoroundecanoic acid	ppb	ND
Perfluorohexanoic acid	ppb	ND-0.0020	Total PFAS	ppb	ND-0.028
Perfluorododecanoic acid	ppb	ND			

PFAS Detected in our Drinking Water

On June 15, 2022, the Environmental Protection Agency (EPA) issued new lifetime health advisories for PFAS contaminants. Limited testing in the City of Weaver has revealed water samples with trace levels of PFAS compounds that individually range from below detection limits to 27- 28 parts per trillion. For perspective, one part per trillion is equal to one drop in 500,000 barrels of water. Alabama Department of Environmental Management (ADEM) has recommended the following information be provided to our consumers regarding PFAS.

What are PFAS?

PFAS are a group of man-made chemicals that have been in use since the 1940s. PFAS are (or have been) found in a wide variety of consumer products and as an ingredient in firefighting foam. PFAS manufacturing and processing facilities, airports, and military installations are some of the contributors of PFAS releases into the air, soil, and water. Because of their widespread use, most people have been exposed to PFAS, and there is evidence that exposure to certain PFAS may lead to adverse health effects.

What is being done?

The City of Weaver will be implementing routine monitoring for these compounds and sharing these results with you as they become available. We will also be examining available options to address PFAS in the drinking water supply and will keep you informed.

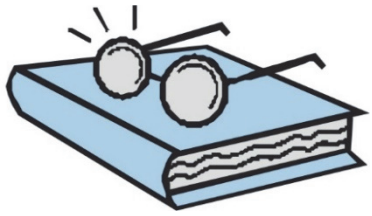
What should I do?

- Review the EPA's "Meaningful and Achievable Steps You Can Take to Reduce Your Risk" at https://www.epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk.
- Consider actions that may reduce your exposure, including installing a home water filter, if possible, while steps are being taken to further understand levels of concern and potentially regulate PFAS at the national level.
- Note: Boiling, freezing, or letting water stand does NOT reduce PFAS levels.

For additional information about PFAS, including possible health outcomes, see these resources:

- For the Alabama Department of Environmental Management, visit *www.adem.alabama.gov*.
- For the Environmental Protection Agency on PFAS in drinking water, visit *https://www.epa.gov/pfas*.
- Even though we have very limited information, we will do our best to answer your questions and concerns at *PFASquestions@weaver-alabama.org.*

Definitions



Action Level- concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

Coliform Absent (ca)- laboratory analysis indicates that the contaminant is not present.

Disinfection byproducts (DBPs)- formed when disinfectants react with bromide and/or natural organic matter present in the source water. Disinfection byproducts for which regulations have been established include trihalomethanes (TTHM), haloacetic acids (HAA5), bromate, and chlorite.

Maximum Contaminant Level (MCL)- 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 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 (MRDL)- highest level of a disinfectant allowed in drinking water

Micrograms per liter (ug/L) – equivalent to parts per billion (ppb) since one liter of water is equal in weight to one billion micrograms.

Milligrams per liter (mg/L) – equivalent to parts per million

Millirems per year (mrem/yr)- a measure of radiation absorbed by the body.

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.

NR (Not Reported)- laboratory analysis, usually Secondary Contaminants, not reported by water system. EPA recommends that secondary standards be reported but does not require systems to comply.

Parts per billion (ppb) or Micrograms per liter (µg/l)- corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Parts per million (ppm) or Milligrams per liter (mg/l)- corresponds to one minute in two years or a single penny in $10,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l)- corresponds to one minute in 2,000,000,000 years, or a single penny in $10,000,000,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l)- corresponds to one minute in 2,000,000 years, or a single penny in $10,000,000,000.

Picocuries per liter (pCi/L)- a measure of the radioactivity in water.

Running Annual Average (RAA)- yearly average of all the DPB results at each specific sampling site in the distribution system. The RAA, along with a range, is reported in the Table of Detected Contaminants.

Standard Units (S.U.)- pH of water measures the water's balances of acids and bases and is affected by temperature and carbon dioxide gas. Water with less than 6.5 could be acidic, soft, and corrosive. A pH greater than 8.5 could indicate that the water is hard.

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

Variances & Exemptions (V&E)- State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

The following table is a list of *Primary Drinking Water Contaminants*, *Unregulated Contaminants,* and *Secondary Contaminants* for which our water system routinely monitors according to our regulatory schedule. These contaminants were *not* detected in your drinking water unless they are listed in the *Table of Detected Drinking Water Contaminants.*

STANDARD LIST OF PRIMARY DRINKING WATER CONTAMINANTS					
Contaminant	**MCL**	**Unit of Msmt**	**Contaminant**	**MCL**	**Unit of Msmt**
Bacteriological Contaminants			trans-1,2-Dichloroethylene	100	ppb
Total Coliform Bacteria	<5%	present/absent	Dichloromethane	5	ppb
Fecal Coliform and E. coli	0	present/absent	1,2-Dichloropropane	5	ppb
Turbidity	TT	NTU	Di (2-ethylhexyl)adipate	400	ppb
Cryptosporidium	TT	Calc.organisms/l	Di (2-ethylhexyl)phthalate	6	ppb
Radiological Contaminants			Dinoseb	7	ppb
Beta/photon emitters	4	mrem/yr	Dioxin [2,3,7,8-TCDD]	30	ppq
Alpha emitters	15	pCi/l	Diquat	20	ppb
Combined radium	5	pCi/l	Endothall	100	ppb
Uranium	30	pCi/l	Endrin	2	ppb
Inorganic Chemicals			Epichlorohydrin	TT	TT
Antimony	6	ppb	Ethylbenzene	700	ppb
Arsenic	10	ppb	Ethylene dibromide	50	ppt
Asbestos	7	MFL	Glyphosate	700	ppb
Barium	2	ppm	Heptachlor	400	ppt
Beryllium	4	ppb	Heptachlor epoxide	200	ppt
Cadmium	5	ppb	Hexachlorobenzene	1	ppb
Chromium	100	ppb	Hexachlorocyclopentadiene	50	ppb
Copper	AL=1.3	ppm	Lindane	200	ppt
Cyanide	200	ppb	Methoxychlor	40	ppb
Fluoride	4	ppm	Oxamyl [Vydate]	200	ppb
Lead	AL=15	ppb	Polychlorinated biphenyls	0.5	ppb
Mercury	2	ppb	Pentachlorophenol	1	ppb
Nitrate	10	ppm	Picloram	500	ppb
Nitrite	1	ppm	Simazine	4	ppb
Selenium	.05	ppm	Styrene	100	ppb
Thallium	.002	ppm	Tetrachloroethylene	5	ppb
Organic Contaminants			Toluene	1	ppm
2,4-D	70	ppb	Toxaphene	3	ppb
Acrylamide	TT	TT	2,4,5-TP(Silvex)	50	ppb
Alachlor	2	ppb	1,2,4-Trichlorobenzene	.07	ppm
Benzene	5	ppb	1,1,1-Trichloroethane	200	ppb
Benzo(a)pyrene [PAHs]	200	ppt	1,1,2-Trichloroethane	5	ppb
Carbofuran	40	ppb	Trichloroethylene	5	ppb
Carbon tetrachloride	5	ppb	Vinyl Chloride	2	ppb
Chlordane	2	ppb	Xylenes	10	ppm
Chlorobenzene	100	ppb	**Disinfectants & Byproducts**		
Dalapon	200	ppb	Chlorine	4	ppm
Dibromochloropropane	200	ppt	Chlorine Dioxide	800	ppb
1,2-Dichlorobenzene	1000	ppb	Chloramines	4	ppm
1,4-Dichlorobenzene (para)	75	ppb	Bromate	10	ppb
o-Dichlorobenzene	600	ppb	Chlorite	1	ppm
1,2-Dichloroethane	5	ppb	HAA5 [Total haloacetic acids]	60	ppb
1,1-Dichloroethylene	7	ppb	TTHM [Total trihalomethanes]	80	ppb
cis-1,2-Dichloroethylene	70	ppb	Total organic carbon	TT	ppm

LIST OF SECONDARY CONTAMINANTS			
Alkalinity, Total (as CA, Co_3)	Copper	Manganese	Specific Conductance
Aluminum	Corrosivity	Odor	Sulfate
Calcium, as Ca	Foaming agents (MBAS)	Nickel	Total Dissolved Solids
Carbon Dioxide	Hardness	pH	Zinc
Chloride	Iron	Silver	
Color	Magnesium	Sodium	

LIST OF UNREGULATED CONTAMINANTS			
Aldicarb	Chloroethane	Hexachlorobutadiene	Propachlor
Aldicarb Sulfone	Chloroform	3-Hydroxycarbofuran	N-Propylbenzene
Aldicarb Sulfoxide	Chloromethane	Isoprpylbenzene	Propachlor
Aldrin	O-Chlorotoluene	p-Isopropyltoluene	1,1,1,2-Tetrachloroethane
Bromoacetic Acid	P-Chlorotoluene	M-Dichlorobenzene	1,1,2,2-Tetrachloroethane
Bromobenzene	Dibromochloromethane	Methomyl	Tetrachloroethene
Bromochloromethane	Dibromomethane	Methomyl	Trichloroacetic Acid
Bromodichloromethane	1,1-Dichloroethane	Methylene chloride	1,2,3-Trichlorobenzene
Bromoform	1,3-Dichloropropane	Methyl tert-butyl ether	Trichloroethene
Bromomethane	2,2-Dichloropropane	Metolachlor	Trichlorofluoromethane
Butachlor	1,1-Dichloropropene	Metribuzin	1,2,3-Trichloropropane
N-Butylbenzene	1,3-Dichloropropene	MTBE	1,2,4-Trimethylbenzene
Sec-Butylbenzene	Dicamba	Naphthalene	1,3,5-Trimethylbenzene
Tert - Butylbenzene	Dichlorodifluoromethane	1-Naphthol	
Carbaryl	Dieldrin	Paraquat	