

# ANNUAL DRINKING WATER QUALITY REPORT

## Highland Water Authority

### January-December 2023

#### Is my water safe?

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.

We have one source of water the City of Gadsden Water Works. The City of Gadsden Water Works produces water from the Coosa River, specifically the basin called the Middle Coosa. Our water supplier has completed a source water assessment and a copy may be view at their office.

The Highland Water Authority Board 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. 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 Highland Water Authority Board 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 1<sup>st</sup> to December 31<sup>st</sup>, 2023. 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).

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 monthly at 6:00 p.m. in the Highland Water Authority Office. Please call our office at 546-1751 for dates and times for the meetings.

#### The members of the Board of Directors are:

**Gary Pruitt – Chairman**      **Cortney Cole- Vice Chairman**      **Tommy Morgan**  
**Steve Johnson**                      **Steve Blackwell**

#### Important Drinking Water Definitions:

**Disinfection Byproducts** – contaminants formed when chlorine is used as a disinfectant.

**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.

**Variations & Exemptions** - ADEM or EPA permission not to meet an MCL or a treatment technique under certain conditions.

**Maximum Contaminant Level Goal or 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 Contaminant Level or 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 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.

**Variations and Exemptions** - The Department or Environmental Protection Agency permission not to meet an MCL or a treatment technique under certain conditions

**Treatment Technique** - A required process intended to reduce the level of a contaminant in drinking water.

**Action Level** - The concentration of a contaminant that triggers treatment or other requirement a water system shall follow.

Unregulated contaminants are those for which Environmental Protection Agency has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist Environmental Protection Agency in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

## 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	CONTAMINANT	MCL	AMOUNT DETECTED
<b>Bacteriological</b>								
Total Coliform Bacteria	< 5%	ND	Selenium(ppb)	50	ND	Epichlorohydrin	TT	ND
Turbidity	TT	0.10	Thallium(ppb)	2	ND	Ethylbenzene(ppb)	700	ND
Fecal Coliform & E. coli	0	ND	<b>Organic Chemicals</b>			Ethylene dibromide(ppb)	50	ND
<b>Radiological</b>								
Beta/photon emitters (mrem/yr)	4	ND	Acrylamide	TT	ND	Glyphosate(ppb)	700	ND
Alpha emitters (pci/l)	5	0.1	Alachlor(ppb)	2	ND	Haloacetic Acids(ppb)	60	14.76
Combined radium (pci/l)	5	0.16	Atrazine(ppb)	3	ND	Heptachlor(ppb)	400	ND
Uranium(pci/l)	30	ND	Benzene(ppb)	5	ND	Heptachlor epoxide(ppb)	200	ND
<b>Inorganic</b>								
Antimony (ppb)	6	ND	Carbofuran(ppb)	40	ND	Hexachlorocyclopentadiene(ppb)	50	ND
Arsenic (ppb)	10	ND	Carbon Tetrachloride(ppb)	5	ND	Lindane(ppb)	200	ND
Asbestos (MFL)	7	ND	Chlordane(ppb)	2	ND	Methoxychlor(ppb)	40	ND
Barium (ppm)	2	0.04	Chlorobenzene(ppb)	100	ND	Oxamyl [Vydate](ppb)	200	ND
Beryllium (ppb)	4	ND	2,4-D	70	ND	Pentachlorophenol(ppb)	1	ND
Bromate(ppb)	10	ND	Dalapon(ppb)	200	ND	Picloram(ppb)	500	ND
Cadmium (ppb)	5	ND	Dibromochloropropane(ppb)	200	ND	PCBs(ppb)	500	ND
Chloramines(ppm)	4	ND	0-Dichlorobenzene(ppb)	600	ND	Simazine(ppb)	4	ND
Chlorine(ppm)	4	1.81	p-Dichlorobenzene(ppb)	75	ND	Styrene(ppb)	100	ND
Chlorine dioxide(ppb)	800	ND	1,2-Dichloroethane(ppb)	5	ND	Tetrachloroethylene(ppb)	5	ND
Chlorite(ppm)	1	ND	1,1-Dichloroethylene(ppb)	7	ND	Toluene(ppm)	1	ND
Chromium (ppb)	100	ND	Cis-1,2-Dichloroethylene(ppb)	70	ND	TOC	TT	0.95
Copper (ppm)	AL=1.3	ND	trans-1,2-Dichloroethylene(ppb)	100	ND	TTHM(ppb)	80	33.38
Cyanide (ppb)	200	ND	Dichloromethane(ppb)	5	ND	Toxaphene(ppb)	3	ND
Fluoride (ppm)	4	0.71	1,2-Dichloropropane(ppb)	5	ND	2,4,5-TP (Silvex)(ppb)	50	ND
Lead (ppb)	AL=15	ND	Di-(2-ethylhexyl)adipate(ppb)	400	ND	1,2,4-Trichlorobenzene(ppb)	70	ND
Mercury (ppb)	2	ND	Di(2-ethylhexyl)phthalates(ppb)	6	ND	1,1,1-Trichloroethane(ppb)	200	ND
Nitrate (ppm)	10	0.06	Dinoseb(ppb)	7	ND	1,1,2-Trichloroethane(ppb)	5	ND
Nitrite (ppm)	1	ND	Dioxin[2,3,7,8-TCDD](ppq)	30	ND	Trichloroethylene(ppb)	5	ND
Total Nitrate & Nitrite	10	0.06	Diquat(ppb)	20	ND	Vinyl Chloride(ppb)	2	ND
			Endothal(ppb)	100	ND	Xylenes(ppm)	10	ND
			Endrin(ppb)	2	ND			

## Table of Secondary and Unregulated Contaminants

**Secondary Drinking Water Standards** are 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. ADEM has Secondary Drinking Water Standards established in state regulations applicable to water systems required to monitor for the various components. **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.

CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT	CONTAMINANT	MCL	DETECT
<b>Secondary</b>								
Aluminum	0.2	0.05	Foaming Agents	0.5	ND	Silver	7	ND
Chloride	250	24.9	Iron	0.3	ND	Sulfate	70	ND
Color (PCU)	15	ND	Magnesium	75	3.6	Total Dissolved Solids	100	108
Copper	1	ND	Odor (T.O.N.)	5	ND	Zinc	5	0.05
<b>Special</b>								
Calcium	N/A	15.4	pH (SU)	N/A	7.47	Temperature (*C)	N/A	NA
Carbon Dioxide	N/A	13.6	Sodium	N/A	16.2	Total Alkalinity	N/A	60
Manganese	0.05	ND	Specific Conductance (umhos)	<500	215	Total Hardness (as CaCO3)	N/A	53.2
<b>Unregulated</b>								
1,1 - Dichloropropene	N/A	ND	Bromobenzene	N/A	ND	Hexachlorobutadiene	N/A	ND
1,1,2,2-Tetrachloroethane	N/A	ND	Bromochloromethane	N/A	ND	Isoprylbenzene	N/A	ND
1,1-Dichloroethane	N/A	ND	Bromodichloromethane	N/A	0.003	M-Dichlorobenzene	N/A	ND
1,2,3 - Trichlorobenzene	N/A	ND	Bromoform	N/A	ND	Methomyl	N/A	ND
1,2,3 - Trichloropropane	N/A	ND	Bromomethane	N/A	ND	Metolachlor	N/A	ND
1,2,4 - Trimethylbenzene	N/A	ND	Butachlor	N/A	ND	Metribuzin	N/A	ND
1,2,4-Trichlorobenzene	N/A	ND	Carbaryl	N/A	ND	MTBE	N/A	ND
1,3 - Dichloropropane	N/A	ND	Chloroethane	N/A	ND	N - Butylbenzene	N/A	ND
1,3 - Dichloropropene	N/A	ND	Chlorodibromomethane	N/A	ND	Naphthalene	N/A	ND
1,3,5 - Trimethylbenzene	N/A	ND	Chloroform	N/A	0.005	N-Propylbenzene	N/A	ND
2,2 - Dichloropropane	N/A	ND	Chloromethane	N/A	ND	O-Chlorotoluene	N/A	ND
3-Hydroxycarbofuran	N/A	ND	Dibromochloromethane	N/A	0.002	P-Chlorotoluene	N/A	ND
Aldicarb	N/A	ND	Dibromomethane	N/A	ND	P-Isopropyltoluene	N/A	ND
Aldicarb Sulfone	N/A	ND	Dichlorodifluoromethane	N/A	ND	Propachlor	N/A	ND
Aldicarb Sulfoxide	N/A	ND	Dieldrin	N/A	ND	Sec - Butylbenzene	N/A	ND
Aldrin	N/A	ND	Fluorotrichloromethan	N/A	ND	Tert - Butylbenzene	N/A	ND

Table of Detected Drinking Water Contaminants								
CONTAMINANT	MCLG	MCL	Range			Amount Detected	Likely Source of Contamination	
<b>Bacteriological Contaminants      January - December 2023</b>								
Turbidity (Gadsden)	0	TT				0.10	NTU	Soil runoff
<b>Radiological Contaminants      January - December 2023</b>								
Alpha emitters	0	5	0.1 - 0.1			0.1	pCi/L	Erosion of natural deposits
Combined Radium 226 & 228	0	5	0.16 - 0.16			0.16	pCi/L	Erosion of natural deposits
<b>Inorganic Contaminants      January - December 2023</b>								
Barium (Gadsden)	2	2	0.04	-	0.04	0.04	ppm	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine	MRDLG 4	MRDL 4	1.21	-	2.03	2.03	ppm	Water additive used to control microbes
Chlorine (Gadsden)	MRDLG 4	MRDL 4	0.49	-	2.81	1.66	ppm	Water additive used to control microbes
Copper (2022)	1.3	10 Sites AL=1.3	No. of Sites above action level 0			0.059	ppm	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Fluoride (Gadsden)	4	4	0.60	-	0.84	0.71	ppm	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Lead (2022)	0	10 Sites 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	0.06	-	0.06	0.06	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Nitrate & Nitrite	10	10	0.06	-	0.06	0.06	ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Organic Contaminants      January - December 2023</b>								
Haloacetic Acids (HAA5)	0	60	7.60	-	22.0	14.76	ppb	By-product of drinking water chlorination
Total Organic Carbon (TOC) (Gadsden)	N/A	TT	0.56	-	1.71	1.12	TT	Naturally present in the environment
Total trihalomethanes (TTHM)	0	80	19.0	-	52.0	33.38	ppb	By-product of drinking water chlorination
<b>Secondary Contaminants      January - December 2023</b>								

Aluminum (Gadsden)	N/A	0.2	0.05	-	0.05	0.05	ppm	Erosion of natural deposits or as a result of treatment with water additives
Chloride (Gadsden)	N/A	250	24.9	-	24.9	24.9	ppm	Naturally occurring in the environment or as a result of agricultural runoff
Iron (Gadsden)	N/A	0.3	ND	-	ND	ND	ppm	Erosion of natural deposits
Magnesium (Gadsden)	N/A	0.50	3.6	-	3.6	3.6	ppm	Erosion of natural deposits
Sulfate (Gadsden)	N/A	250	ND	-	ND	ND	ppm	Naturally occurring in the environment
Total Dissolved Solids (Gadsden)	N/A	500	108	-	108	108	ppm	Erosion of natural deposits
Zinc (Gadsden)	N/A	5	0.054	-	0.054	0.054	ppm	Erosion of natural deposits
<b>Special Contaminants      January - December 2023</b>								
Calcium (Gadsden)	N/A	N/A	15.4	-	15.4	15.4	ppm	Erosion of natural deposits
Carbon Dioxide (Gadsden)	N/A	N/A	13.6	-	13.6	13.6	ppm	Erosion of natural deposits
Manganese (Gadsden)	N/A	N/A	ND	-	ND	ND	ppm	Erosion of natural deposits

pH (Gadsden)	N/A	N/A	7.25	-	7.77	7.47	SU	Naturally occurring in the environment or as a result of treatment with water additives
Sodium (Gadsden)	N/A	N/A	16.2	-	16.2	16.2	ppm	Naturally occurring in the environment
Specific Conductance (Gadsden)	N/A	<500	215	-	215	215	umhos	Naturally occurring in the environment or as a result of treatment with water additives
Total Alkalinity (Gadsden)	N/A	N/A	34	-	68	56	ppm	Erosion of natural deposits
Total Hardness (as CaCO3) (Gadsden)	N/A	N/A	53.2	-	53.2	53.2	ppm	Naturally occurring in the environment or as a result of treatment with water additives
<b>Unregulated Contaminants      January - December 2023</b>								
Bromodichloromethane	N/A	N/A	0.003	-	0.003	0.003	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	0.005	-	0.005	0.005	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	0.002	-	0.002	0.002	ppb	Naturally occurring in the environment
per-and polyfluoroalkyl (PFA's)	N/A	N/A	0.01	-	0.13	0.08	ug/l	Manmade chemical that has properties to make them both repel water and oil.

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.

**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.

We have learned through our monitoring and testing that some contaminants 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 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. The Highland Water Authority 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 Highland Water Authority Board 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.

**For more information contact:**

**Name: Holli Lang, Operator**

**Telephone: 256-546-1751**