

# Annual Drinking Water Quality Report

## Monitoring Performed January – December 2021

### Marion County Rural Water Department, 100 East Burkhalter Avenue, Buena Vista, Georgia 31803

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.

Marion County's water comes from a Pure Aqua Water Shelter Upper Cretaceous Sand Aquifer. Our wells are approximately 383 feet deep and located at the Water Treatment Plant on Highway 41 South and approximately 385 feet at the Blueville Road Plant.

Thank you for allowing us to continue providing your family with clean, quality water this year. We want our valued customers to be informed about their water utility. Our office is open Monday - Friday 8:00 a.m. - 5:00 p.m. & our phone number is: 229-649-3490.

The Commissioners meet the 2nd Tuesday of each month at 4:00 p.m. in the conference room at 100 East Burkhalter Avenue. If you have questions about this report or concerning your water utility, please contact: Allen Fowler at 334 455 9680.

**Note: Water leaks can be reported to the Sheriff's Department at 229-649-3841.**

### General Information Regarding Drinking Water Contaminants

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. Drinking water, including bottled 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. 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).

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. 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. MCL's, defined in a List of Definitions in this report, are set at very stringent levels.

Contaminants could be found in drinking water that may cause taste, color, or odor problems. These types of problems are not necessarily causes for health concerns. For more information about these contaminants, please contact your water system.

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. Water systems also tests your source water for pathogens, such as Cryptosporidium and Giardia. These pathogens can enter the water from animal or human waste. Environmental Protection Agency (EPA) and the Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available online at [www.epa.gov/safewater](http://www.epa.gov/safewater).

### Monitoring Schedule

We routinely monitor for contaminants in your drinking water according to Federal and State laws. The Georgia Environmental Protection Division (EPD) allows monitoring of some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This table shows the most recent year of monitoring for these contaminant groups and the next date to be monitored.

Constituent Monitored	Date Monitored / Next Monitoring †
Inorganic Contaminants	2020 / 2024 - 2025
Lead/Copper	2021 / 2024
Microbiological Contaminants	Monthly
Nitrates	Annually
Radioactive Contaminants	2020 / 2024
Synthetic Organic Contaminants (including pesticides and herbicides)	2022 / 2025
Volatile Organic Contaminants	2022 / 2024
Disinfection By-products	Annually

The monitoring schedule for some of the contaminants listed above varies by location (water source) per the schedule set by the EPD.

### Monitoring Violation

Marion County Rural Water Department is required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. We failed to collect the routine Inorganic Chemical (IOC) samples for the 1/1/2017 - 12/31/2019 monitoring period and therefore cannot be sure of the quality of your drinking water during that time. We also incurred a public notification violation for failing to provide this information to our customers and return proof of notification to the EPD within the required time frame.

The monitoring schedule was not met during a change of staff. The samples were collected and analyzed; however, it was after the required period. Since this violation occurred we have monitored for the required contaminants properly and we now work more closely with our testing laboratory to ensure we do not have any additional monitoring issues. We also now have a system in place to ensure that required notification to the public and the EPD occur timely.

Notification of these violations were shared with each of our customers earlier this year; however, please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

For more information, please contact: Allen Fowler at 334 455 9680.

### Lead & Copper Monitoring

We completed monitoring requirements of 10 sites for lead and copper in 2021 without exceeding the Action Level limits for 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 2024. Our monitoring results in 2021 were as follows:

2021 Results	MCL	90th Percentile Sample	Range of Levels
Lead	AL = 15	0.73 ppb	ND - 2.2
Copper	AL = 1.3	0.177 ppm	0.0015 - 0.248

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

### OUR RESULTS

The table below 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 Environmental Protection Agency (EPA) and the EPD. Although many more contaminants were tested, this only shows those contaminants that were detected and unless otherwise noted, the results are for the calendar year of this report.

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
BACTERIOLOGICAL CONTAMINANTS					
Total Coliform	<5% present/absent	0	2 positive samples †	No	Naturally present in the environment
RADIOLOGICAL CONTAMINANTS					
Alpha emitters (pCi/L)	15	0	0.48 - 3.43 (2020)	No	Erosion of natural deposits
Radium - 228 (pCi/L)	5	0	1.42 - 3.66 (2020)	No	Erosion of natural deposits
INORGANIC CONTAMINANTS					
Barium (ppm)	2	2	0.0051 - 0.007 (2020)	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper - action level at consumer taps (ppm)	AL=15	0	0.0015 - 0.248	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	0.29 - 0.7 (2020)	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 - 2.2	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate [measured as Nitrogen] NO3 (ppm)	10	10	0.0747 - 0.773	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
DISINFECTANTS & DISINFECTION BYPRODUCTS >					
Chlorine, as Cl2 (ppm)	4	4	1 - 2	No	Water additive used to control microbes

**Total Coliform** Positive samples occurred in March and October 2021. The presence of coliform bacteria in the sample was not a compliance violation. These are naturally present in the environment and used as an indicator that other, potentially harmful, bacteria may be present.

There is convincing evidence that additional of a Disinfectant is necessary for control of microbial contaminants.

Secondary Standards - Non Mandatory standards established as a guideline to assure good aesthetic qualities such as taste, color, and odor.			
All contaminants listed below were detected during 2020 sampling.			
Contaminant	MCL	Maximum Detected	Major Sources
Aluminum (ppm)	0.05 to 0.2	0.195	Erosion of natural deposits or as a result of treatment with water additives
Iron (ppm)	0.3	0.303	Naturally occurring in the environment; Erosion of natural deposits; Leaching from pipes
Magnesium (ppm)	NA	0.456	Erosion of natural deposits
pH (std units)	6.5 - 8.5	6.6	Naturally occurring in the environment or as a result of treatment with water additives
Sulfate (ppm)	250	8.23	Naturally occurring in the environment or as a result of industrial discharge or as a result of agricultural runoff
Total Dissolved Solids (ppm)	500	86	Naturally occurring in the environment or as a result of industrial discharge or as a result of agricultural runoff
Zinc (ppm)	5	0.0059	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills
Alkalinity, Total (as Ca, Co3) (ppm)	NA	46.7	Naturally occurring in the environment
Calcium, as Ca (ppm)	NA	1.92	Erosion of natural deposits
Carbon Dioxide (ppm)	NA	41.1	Erosion of natural deposits
Conductivity (µmhos/cm)	NA	1240	Naturally occurring in the environment or as a result of treatment with water additives
Hardness (ppm)	NA	6.12	Naturally occurring in the environment or as a result of treatment with water additives
Manganese (ppm)	0.05	0.0076	Erosion of natural deposits; Leaching from pipes
Nickel (ppm)	NA	2	Result of discharge by power plants, metal factories and waste incinerators or as a result of agricultural runoff
Sodium (ppm)	NA	24.9	Naturally occurring in the environment

Marion County 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 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 Cl2)	4 ppm		
Chlorine Dioxide	800 ppb		
Chlorite	1 ppm		
HAAS [Total haloacetic acids]	60 ppb		
THHM [Total trihalomethanes]	80 ppb		
INORGANIC CONTAMINANTS			
MCL & Unit of MSMT			
Antimony	6 ppb	Beryllium	4 ppb
Arsenic	10 ppb	Cadmium	5 ppb
Asbestos	7 MFL	Chromium	100 ppb
Barium	2 ppm	Copper	AL-1.3 ppm
		Cyanide	200 ppb
		Fluoride	4 ppm
		Lead	AL-15 ppb
		Mercury	2 ppb
		Nitrate	10 ppm
		Nitrite	1 ppm
		Selenium	0.05 ppm
		Thallium	2 ppb
ORGANIC CONTAMINANTS			
MCL & Unit of MSMT			
1,1,1-Trichloroethane	200 ppb	Dalapon	200 ppb
1,1,2-Trichloroethane	5 ppb	Di (2-ethylhexyl)adipate	400 ppb
1,1-Dichloroethylene	7 ppb	Di (2-ethylhexyl)phthalate	6 ppb
1,2,4-Trichlorobenzene	0.07 ppm	Dibromochloropropane	200 ppt
1,2-Dichloroethane	5 ppb	Dichloromethane	5 ppb
1,2-Dichloropropane	5 ppb	Dinoseb	7 ppb
2,4-D	50 ppb	Dioxin [2,3,7,8-TCDD]	30 ppb
2,4,5-T(Silvex)	70 ppb	Diquat	20 ppb
Acrylamide	TT TT	Endothal	100 ppb
Alachlor	2 ppb	Endrin	2 ppb
Benzene	5 ppb	Epichlorohydrin	TT TT
Benzo(a)pyrene [PAHs]	200 ppt	Ethylbenzene	700 ppb
Carbofuran	40 ppb	Ethylene dibromide	50 ppt
Carbon tetrachloride	5 ppb	Glyphosate	700 ppb
Chlordane	2 ppb	Heptachlor	400 ppt
Chlorobenzene	100 ppb	Heptachlor epoxide	200 ppt
cis-1,2-Dichloroethylene	70 ppb	Hexachlorobenzene	1 ppb
		Hexachlorocyclopentadiene	50 ppb
		Lindane	200 ppt
		Methoxychlor	40 ppb
		o-Dichlorobenzene	600 ppb
		Oxamyl [Vydate]	200 ppb
		p-Dichlorobenzene	75 ppb
		Pentachlorophenol	1 ppb
		Picloram	500 ppb
		Polychlorinated biphenyls	0.5 ppb
		Simazine	4 ppb
		Styrene	100 ppb
		Tetrachloroethylene	5 ppb
		Toluene	1 ppm
		Toxaphene	3 ppb
		trans-1,2-Dichloroethylene	100 ppb
		Trichloroethylene	5 ppb
		Vinyl Chloride	2 ppb
		Xylenes	10 ppm

Table of Secondary and Unregulated Contaminants

SECONDARY & ADDITIONAL CONTAMINANTS		UNREGULATED CONTAMINANTS	
Aluminum (ppm)	Alkalinity, Total (as Ca, Co3) (ppm)	1,1 - Dichloropropene	Bromobenzene
Chloride (ppm)	Calcium, as Ca (ppm)	1,1,1,2-Tetrachloroethane	Bromochloromethane
Color (color units)	Carbon Dioxide (ppm)	1,1,2,2-Tetrachloroethane	Bromodichloromethane
Copper (ppm)	Conductivity (µmhos/cm)	1,1-Dichloroethane	Bromoforn
Corrosivity	Hardness (ppm)	1,2,3-Trichlorobenzene	Bromomethane
Fluoride (ppm)	Manganese (ppm)	1,2,3-Trichloropropane	Butachlor
Foaming agents MBAS (ppm)	Nickel (ppm)	1,2,4-Trimethylbenzene	Carbaryl
Iron (ppm)	Sodium (ppm)	1,3-Dichloropropane	Chloroethane
Magnesium (ppm)	Temperature (°C)	1,3-Dichloropropene	Chloroform
Odor (threshold odor number)		1,3,5-Trimethylbenzene	Chloromethane
pH (std units)		2,2-Dichloropropane	Dibromochloromethane
Silver (ppm)		3-Hydroxycarbofuran	Dibromomethane
Sulfate (ppm)		Aldicarb	Dicamba
Total Dissolved Solids (ppm)		Aldicarb Sulfone	Dichlorodifluoromethane
Zinc (ppm)		Aldicarb Sulfoxide	Diieldrin
		Aldrin	Hexachlorobutadiene
			Isopropylbenzene
			M-Dichlorobenzene
			Methomyl
			Metolachlor
			Metribuzin
			MTBE
			N-Butylbenzene
			Naphthalene
			N-Propylbenzene
			O-Chlorotoluene
			P-Chlorotoluene
			P-Isopropyltoluene
			Propachlor
			Sec-Butylbenzene
			Tert-Butylbenzene
			Trichlorofluoromethane

### Abbreviations & Definitions

- Action Level (AL):** The concentration of a contaminant that triggers treatment or other requirements which a water system must follow.
- 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)**
- Nephelemetric 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.
- Variations & Exemptions:** State or EPA permission not to meet an MCL or a treatment technique under certain conditions.