

2024 Consumer Confidence Report



Macon Water Authority

MACON-BIBB COUNTY, GEORGIA

Water Quality Data for

January 1 – December 31, 2023

Each year, the Macon Water Authority (MWA) publishes a Consumer Confidence Report (CCR), which is also referred to as a Water Quality Report, to inform customers of what is in their tap water and why. This Report contains laboratory data collected from Jan. 1– Dec. 31, 2023, and the results indicate that MWA customers can rest assured their tap water is safe to drink.

If there's anything you can take away from this year's CCR, it's this:

1. MWA produces the cleanest and safest tap water possible, according to strict state/federal regulatory standards.
2. MWA experienced no violations of drinking water quality standards, as reflected in the laboratory data collected and tests conducted during the 2023 calendar year (see Water Quality Data on page 3). Of the nearly 10 billion gallons of water produced by the MWA during 2023, not one gallon was out of compliance!
3. MWA was awarded by the Georgia Section of the American Water Works Association (GAWWA) for producing the Best Tasting Drinking Water in Georgia during 2023 — at the same time we were collecting this water quality data to make sure you're drinking the safest possible tap water, too.

Not only is MWA tap water safe to drink, but it tastes great, too!

What is in my drinking water and why?

The MWA has the best water quality possible!



To ensure the tap water of the MWA is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the levels of certain substances, or potential contaminants, which are present in water produced by a public water system such as ours. The detailed data of these substances (potential contaminants) detected in MWA drinking water during the 2023 calendar year make up the "Water Quality Data" (table on page 3) of this report.

Our tap water is tested more vigorously than bottled water!

All drinking water, including bottled water, may contain at least small amounts of some potential contaminants. However, the presence of those substances, although minor, does not necessarily indicate a risk to public health. Tap water undergoes many more tests for water quality than bottled water, especially at a public water utility such as the MWA. While bottled water is regulated by the U.S. Food & Drug Administration, our drinking water is more strictly regulated by the highest standards for water quality, as determined by U.S. EPA and Georgia EPD (Department of Natural Resources, Environmental Protection Division).

Potential Contaminants tested by the MWA

Potential contaminants that may be present in source water *before* it is treated at the MWA Frank C. Amerson, Jr. Water Treatment Facility include:

Microbiological Contaminants, such as viruses and bacteria that may come from septic tanks/systems, agricultural livestock, wildlife, or wastewater treatment plants.

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and Herbicides, which may come from agricultural sources or because of farming, urban storm water runoff, or residential uses.

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, in addition to coming from gas stations, urban storm water runoff, and septic tanks/systems.

Radioactive Contaminants, which can be naturally occurring, or be the result of oil and gas production or mining activity.



What's naturally present in water and what's added during treatment?

The items included in the "Water Quality Data" (table on page 3) are tested in our award-winning water quality laboratory and confirmed by state regulators, according to industry standards.

Some of these items tested – such as Nitrate, Total Organic Carbon, Total Coliform, and Turbidity – are naturally present in water at some point during treatment, though they are not harmful at the detected levels.

Chlorine, Chlorine Dioxide, and Fluoride are added during the disinfection phase of the water treatment process and have known health benefits.

Other items regularly tested by the MWA – including Chlorite, Haloacetic Acids (HAA), and Total Trihalomethanes (TTHM) – are by-products of the treatment process, though they too are not harmful at detected levels.

Finally, Lead and Copper may be present in tap water because of a customer's plumbing. The MWA is required to test for Lead and Copper at individual residential homes every three years, according to federal regulatory requirements, to protect the public's drinking water from harmful lead and copper levels. The most recent MWA tests for Lead and Copper took place in September of 2023.

How to read the report: Important Terms and Definitions

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements a water system must follow. For lead and copper, the reading is the 90th percentile value from the most recent sampling.

≥: greater than or equal to.

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 Contaminant Level (MCL): The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for the control of microbial contaminants.

Maximum Residual Disinfectant 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 contamination.

N/A: Not Applicable.

Nephelometric Turbidity Units (NTUs): Used in measuring turbidity. Turbidity is a measure of the cloudiness of the water. The MWA monitors turbidity because it is a good indicator of the effectiveness of our filtration system.

Parts per Billion (ppb): A measurement concentration that is equivalent to micrograms per liter ($\mu\text{g/L}$).

Parts per Million (ppm): A measurement concentration that is equivalent to milligrams per liter (mg/L).

Percent (%) of Monthly Samples: The percent of samples taken during the month that tested positive for total coliforms. The MWA collects a minimum of 120 samples per month.

Removal Ratio RAA: The amount removed in the process expressed as a ratio. The MWA samples its raw water and treated water each month for total organic carbon and then calculates a removal ratio. To meet regulatory requirements, the MWA then determines the RAA, which is the Running Annual Average – on a quarterly basis – of the removal ratio.

Treatment Techniques (TT): A required process intended to reduce the level of a contaminant in drinking water.



2024 Consumer Confidence Report Water Quality Data

Water Quality Data from Jan. 1– Dec. 31, 2023

Did we meet the standard?	Substances	Typical Sources in Drinking Water	Units	MCL	MCLG	Highest Amount	Range
Inorganic							
	Chlorine	Water additive used to control microbes.	ppm	MRDL= 4	MRDL= 4	1.7	1.0 - 1.7
	Chlorine Dioxide	Water additive used to control microbes.	ppm	MRDL= 0.80	MRDL= 0.80	0.72	0.02 - 0.72
	Fluoride	Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.	ppm	4	4	0.89	0.46 - 0.89
	Nitrate	Runoff from fertilizer use; leaching from septic tank sewage; erosion of natural deposits.	ppm	10	10	0.31	N/A
Organic							
	Total Organic Carbon	Naturally present in the environment.	Removal ratio RAA	TT = ≥ 1	N/A	1.16	1.13 - 1.16
Disinfection By-Products							
	Chlorite	By-product of drinking water disinfection.	ppm	1	0.8	0.51	0.02 - 0.51
	Haloacetic Acids (HAAs)	By-product of drinking water disinfection.	ppb	60	N/A	21	10.6 - 132.6
	Total Trihalomethanes (TTHMs)	By-product of drinking water disinfection.	ppb	80	N/A	44	21.6 - 67.9
Microbiological							
	Total Coliform	Naturally present in the environment.	% of monthly samples	5% of monthly samples	0	0.8	0 - 0.8
	Turbidity	Soil runoff.	>95% of monthly samples taken	0.3	N/A	0.31 99.9% are <0.3	0.02 - 0.31
Copper and Lead Sampled at Customer Taps in September of 2023							
	Copper	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	ppm	AL = 1.3	1.3	Met required 90th percentile on all samples	
	Lead	Internal corrosion of household plumbing systems; erosion of natural deposits.	ppb	AL = 15	0	Met required 90th percentile on all samples	

Required Consumer Confidence Report (CCR) Statement Addressing Lead in Drinking Water

"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. MWA 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>."

In 2023, the MWA completed its Lead and Copper testing that's required to be conducted every three years. All samples met the 90th percentile as required by the U.S. Environmental Protection Agency.

An overview of the MWA Drinking Water System

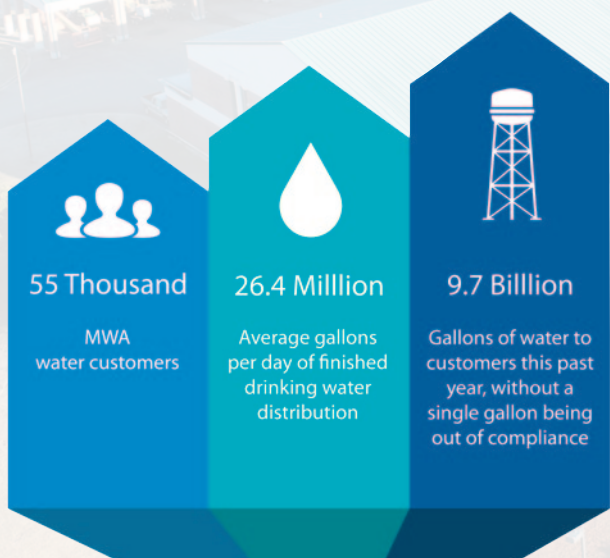
Raw Water Storage:

Javors Lucas Lake is our 581-acre reservoir, with 5.8 billion gallons of raw water storage at full pool.

In addition, we are permitted to withdraw between 35 to 110 million gallons per day (MGD) from the Ocmulgee River, depending on water levels and river flow.

Water Treatment:

Our regulated production capacity at the Frank C. Amerson, Jr. Water Treatment Plant is 60 MGD of finished drinking water. In addition, the Amerson Plant has infrastructure already in place to expand to a capacity of 90 MGD in the future, if/when necessary.



Water Distribution:

- 4 clear wells at the Amerson Water Treatment Plant = 20 million gallons.
- 10 elevated tanks + 10 ground storage tanks = 19.9 million gallons.
- 24 tanks in all that total 39.9 million gallons of finished drinking water storage.
- 1,413 miles of water lines (all sizes/types) and 9 pumping stations.

This past year, the MWA provided an average of 26.4 million gallons per day (MGD) of finished drinking water to more than 55,000 MWA water customers. During 2023, the MWA produced and distributed approximately 9.7 billion gallons of water to customers throughout its system, without a single gallon being out of compliance.

Further evidence of MWA Water Quality – Industry Awards

The following industry awards and accolades received by the MWA this past year provide additional evidence of our drinking water quality.

- The Best Tasting Drinking Water in Georgia, as judged by the Georgia Section of the American Water Works Association (GAWWA) in the spring of 2023.
- The MWA received the GAWP Water Distribution System Platinum Award for achieving a grade of 95% or higher on the annual evaluation of its water system for at least five consecutive years.
- The MWA received the GAWP Collection System Platinum Award for achieving a grade of 95% or higher on the annual evaluation of its sewer system for at least five consecutive years.
- The Frank C. Amerson, Jr. Water Treatment Plant won the Georgia Association of Water Professionals (GAWP) Platinum Award for 100% permit compliance for the 11th consecutive year.
- The MWA Lower Poplar Water Reclamation Facility received a GAWP Gold Award for 100% permit compliance this past year.
- Cedric Jenkins, MWA Sewer Conveyance Department Linear Planner, won the GAWP District 5 Collection System Top Operator Award.
- Mickie Sanders, MWA Training & Development Officer, was inducted into the GAWP Golden Manhole Society, which recognizes individuals who have made a significant contribution to collection system operations.

For more information concerning this 2024 MWA Consumer Confidence Report and the water quality data included, please contact A.J. Hopkins, MWA Manager of Laboratory & Environmental Compliance, at AHopkins@maconwater.org.

For more information on opportunities for how to get involved in MWA public education and outreach – to help protect our water quality – please contact Rachad Hollis, MWA Communications Specialist, at rhollis@maconwater.org.