



Macon Water Authority

2021 Consumer Confidence Report

MACON-BIBB, GEORGIA

The background of the report cover is a vibrant blue color filled with numerous water bubbles of various sizes. The bubbles are more densely packed in the lower half of the image, creating a sense of depth and movement. The overall aesthetic is clean and refreshing, consistent with the water utility theme.

The Cycle of Water Is All About Quality And Your Safety!

We Experienced No Violations of Drinking Water Quality Standards

Welcome to the 2021 MWA Water Quality Report – also referred to as a Consumer Confidence Report (CCR). This report instills our commitment to MWA Customers that your tap water is safe to drink. Annual Water Quality Reports like this one are required of every public water system, like the MWA. These Reports were established to offer insights on: “What is in Your Drinking Water and Why?”

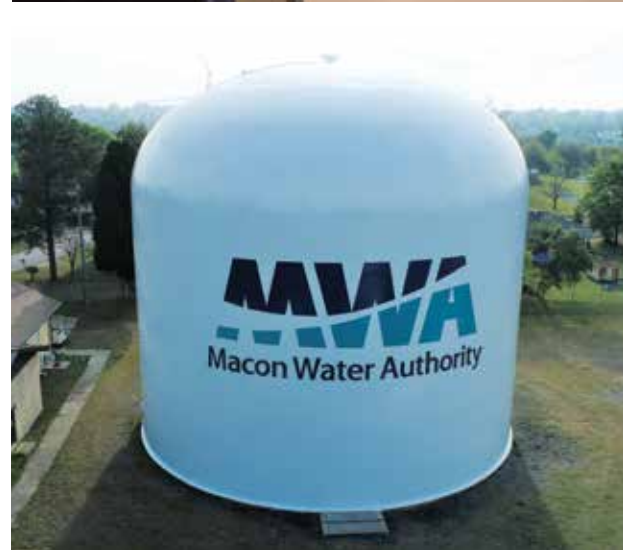
The following pages will provide you with empirical, scientific evidence that your drinking water meets or exceeds all regulatory standards for water quality and safety. In short, ours is the safest and highest quality drinking water possible. And it tastes good, too, according to the American Water Works Association (AWWA), who once judged ours as the Best Tasting Drinking Water in North America.

Comprehensive Water (Quality) Management

As you certainly know, this past year-plus has been one of the most challenging times in our history, as we’ve had to manage essential services such as Water and Sewer during a pandemic. And since the beginning of 2021, the MWA has added Stormwater Utility Services to our responsibilities as well. With this expanded role, we now offer a more Comprehensive Water Resource Management Program for our customers and community, as stewards of the entire “Cycle of Water.”

At the MWA, “Water is our business.” From the start of the Cycle of Water, when the stormwater rains fill our reservoir and river; to the heart of the Cycle, when raw water is treated during production, storage and distribution of finished drinking water to more than 55,000 customer accounts; to the end of the Cycle, when wastewater is collected and conveyed for treatment and recycling back into the river. The MWA now oversees this entire process.

Whether it’s Stormwater, Drinking Water, or Wastewater, “It’s All Water” to us. And the results of this 2021 MWA Water Quality Report reveal that not even a pandemic can deter the MWA’s 250 water professionals from our role as guardians of this precious natural resource.





1



Raw Water Storage:

Raw water for drinking water production is withdrawn from Javors Lucas Lake and/or the Ocmulgee River.

Javors Lucas Lake:

- Is **581 acres** in size, with
- **5.8 billion gallons** of raw water storage at full pool.

Ocmulgee River:

The MWA has a permit to withdraw between:

- **35 million gallons per day (MGD) to 110 MGD** from the Ocmulgee River.

The amount of water the MWA can withdraw from the Ocmulgee River depends on the flow and water level of the river, which supplements the MWA's raw water supply at Javors Lucas Lake.

Did you know?

The Ocmulgee River and Javors Lucas Lake are ideal sources of drinking water due to their neutral pH. Thus, the MWA's source water is non-corrosive, eliminating its potential to corrode pipes and leach potentially harmful metals, such as lead, into your drinking water.

2



Water Treatment:

Raw water from Javors Lucas Lake and/or the Ocmulgee River is treated at the Frank C. Amerson, Jr. Water Treatment Plant to the highest standards for drinking water production.

Frank C. Amerson, Jr. Water Treatment Plant:

The Amerson Water Plant has a regulated production capacity of:

- **60 million gallons per day (MGD)** of finished drinking water, with a design to expand to **90 MGD** of capacity in the future, if deemed necessary.

Did you know?

Since its opening in the Summer of 2000, the Amerson Plant has been selected six times as the Best Operated, "Plant of the Year" in the state by the Georgia Association of Water Professionals (GAWP), which is remarkable considering facilities are not eligible to win this award in consecutive years.

3



Water Distribution:

Finished Drinking Water produced at the Amerson Water Treatment Plant is stored throughout the MWA system in 23 tanks, holding 36.9 million gallons, distributed through 1,664 miles of pipe.

The MWA Water System includes drinking water storage of:

- **4 clear wells** at the Amerson Water Treatment Plant that total **20 million gallons.**
- **9 elevated tanks + 10 ground storage tanks** that total **16.9 million gallons.**
- **23 tanks** in all that total **36.9 million gallons** of finished drinking water storage.

In addition, MWA drinking water distribution includes:

- **1,664 miles** of water lines and **8 pumping stations.**

This past year, an average of **25.81 MGD of finished drinking water** was provided for approximately **55,000 water customer accounts** throughout the MWA system.

Did you know?

The Authority uses advanced Supervisory Control and Data Acquisition (SCADA) technology to monitor and control drinking water distribution 24 hours a day, seven days a week.

What's in my drinking water and why?



The MWA has the highest water quality possible!

In order to ensure that the MWA's tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain potential contaminants in water produced by a public water system such as ours. The detailed data of the potential contaminants detected in the MWA's drinking water during the 2020 calendar year are included in the "Water Quality Data" (table on page 5) of this report.

Tap water is more regulated 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. The U.S. Environmental Protection Agency (EPA) regulates the MWA's tap water, while the U.S. Food & Drug Administration (FDA) regulates bottled water. Tap water undergoes more tests for water quality than bottled water, especially at a public water utility such as the MWA. We also test for water quality nearly 10 times more than the required minimum standards.

Potential contaminants tested by the MWA

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

Microbiological contaminants, such as viruses and bacteria that may come from septic tanks/systems, agricultural livestock, wildlife, and 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 as a result 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 5) of this report are tested in the MWA's 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 treatment process and have known health benefits.

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

Finally, Carbon and Lead are not added during the treatment process but may be present in tap water because of a customer's plumbing. Carbon and Lead are sampled at the tap and tested every three years, according to regulatory requirements, to show they are not harmful at levels detected by the MWA.



How To Read The Report: Important Terms and Definitions

- 💧 **Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that 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 (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 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 the measurement of 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 (µg/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 125 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 Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

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. The Macon 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 at 1-800-426-4791, or online at <http://www.epa.gov/safewater/lead>.”

.....

In September of 2020, the MWA completed its Lead and Copper testing, which is required to be conducted every three years. All samples met the 95th percentile, as required by the U.S. Environmental Protection Agency.

2021 Consumer Confidence Report: Water Quality Data

Substances	Units	MCL	MCLG	Highest Amount	Range	Violation	Typical Sources in Drinking Water
Inorganic							
Chlorine	ppm	MRDL= 4	MRDLG= 4	1.7	1.0 – 1.7	No	Water additive used to control microbes.
Chlorine Dioxide	ppm	MRDL= 0.80	MRDLG= 0.80	0.55	0.01 – 0.55	No	Water additive used to control microbes.
Fluoride	ppm	4	4	1.01	0.27 – 1.01	No	Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories.
Nitrate	ppm	10	10	0.33	n/a	No	Runoff from fertilizer use; leaching from septic tank sewage; erosion of natural deposits.
Organic							
Total Organic Carbon	Removal ratio RAA	TT = ≥ 1	n/a	1.65	1.00 – 1.65	No	Naturally present in the environment.
Disinfection By-Products							
Chlorite	ppm	1	0.8	0.77	0.01 - 0.77	No	By-product of drinking water disinfection.
Haloacetic Acids (HAAs)	ppb	60	n/a	0.024	0.016-0.024	No	By-product of drinking water disinfection.
Total Trihalomethanes (TTHMs)	ppb	80	n/a	0.061	0.029-0.061	No	By-product of drinking water disinfection.
Microbiological							
Total Coliform	% of monthly samples	5	0	1	0 - 1	No	Naturally present in the environment.
Turbidity	NTU	TT	n/a	0.22	0.03 – 0.22	No	Soil runoff.
Copper and Lead Sampled at Customer Taps in 2020							
Copper	ppm	AL = 1.3	1.3	The 90 th percentile = 0.16. There were no samples above.		No	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	ppb	AL = 15	0	The 90 th percentile = 1.7. There were no samples above.		No	Internal corrosion of household plumbing systems; erosion of natural deposits.

Water Source ID: GA0210001

Table definitions on previous page

MWA Public Outreach

Partnerships During the Pandemic

MWA Public Outreach is an invitation for you to partner with us in the protection of water quality, while educating others on how they can assist in this mission as well.

One of the best examples of the effectiveness of public outreach for the good of water quality is our Healthy Schools Water Initiative.

To make sure Macon-Bibb County students had access to clean, safe drinking water during the pandemic, the MWA donated over 24,000 portable, reusable water bottles to the Bibb County School District. As a result, students could stay hydrated by refilling their MWA water bottles at the touchless bottle filling stations that have been installed throughout the school system.

How You Can Help Us Protect Water Quality

While the MWA provides the cleanest, safest, and highest quality drinking water possible, there are some simple things you can do to help us protect our water quality:

Help us in the fight against FOG

You can help prevent sewer spills and overflows caused by fats, oils, and grease (FOG). Please do not put these substances down the kitchen sink; instead, let grease cool and pour it into a container to throw away, and scrape dishes clean before washing. We have free, reusable grease can covers at our headquarters for you to help us in the fight against FOG!

Wait, Don't Flush That

The use of wet wipes is on the rise during the pandemic, but please do not flush wipes or other non-dispersible items. They do not break down in our sewer system, causing sewer line clogs, spills and overflows, not to mention damage to our wastewater treatment processes. Remember, the toilet is not a trash can!

Join the Macon Water Alliance, Inc.

Most of our public outreach efforts are organized and administered by the Macon Water Alliance, the non-profit 501-(c)-3 subsidiary of the MWA that oversees partnerships with other community organizations, such as:

- Macon-Bibb County Department of Family and Children Services
- Rebuilding Macon, Inc.
- Altamaha River Keepers
- NewTown Macon
- Habitat for Humanity

Also, you may want to join us for any number of public outreach and educational events held throughout the year. Mark your calendars for our annual events and industry celebrations, such as:

- **Fix A Leak Week** – Held annually in March, this industry event raises awareness of the need for MWA customers to save money and water by finding and fixing household leaks.
- **Drinking Water Week** – Recognized by the Water Industry during the first week in May each year, this event raises awareness of the critical role public drinking water plays in our daily lives.
- **Water Professionals Appreciation Day** – This statewide event is held on the first Monday of Drinking Water Week to honor the essential water professionals working in our industry.
- **Kids Fishing Derby** – Hosted at our Javors Lucas Lake annually in March, this event provides families an opportunity to enjoy the great outdoors together, while recognizing the importance of protecting natural resources.
- **Ocmulgee Alive! River Clean-Up** – Typically held during the month of October, Ocmulgee Alive! is one of the largest river cleanups in Georgia that's affiliated with the statewide Rivers Alive campaign.





Macon Water Authority
790 2nd Street | Macon-Bibb, GA
(478) 464-5600
MaconWater.org



Questions Or Concerns About This Water Quality Report

If you have questions about this year's MWA Water Quality Report, the MWA Source Water Assessment Plan, or opportunities for public involvement, please contact Gary McCoy, MWA Director of Water Treatment, at 478-464-5653 or gmccoy@maconwater.org.