

From the Desk of Tony Rojas, executive director, Macon Water Authority



Since the Macon Water Authority (MWA) was founded, it has been our mission to produce and deliver to our customers the cleanest, safest drinking water humanly possible. But how do you, the consumer, know that your drinking water is truly safe? That's the purpose of this Water Quality Report, but we also call it our Consumer Confidence Report because we want to gain your confidence in our drinking water production and distribution system. There is no better evidence of the excellence of our drinking water than the results of scientific lab analy-

sis presented in the "Water Quality Data" table on page 3 of this report. We are able to enjoy high water quality standards, which meet or exceed regulatory guidelines, for several reasons. First, we work very hard to protect our natural resources through responsible environmental stewardship. For example, late last year, we completed our Source Water Assessment Plan, which identified potential contaminants to our raw water supply. We will now work to assure these potential contaminants stay out of our water system. We draw water from the Ocmulgee River and pump it to our Javors Lucas Reservoir for drinking water production. So, water quality begins with

protecting our watershed, including these raw water resources. In addition, water quality is reflected in the performance of our treatment plant. Two years ago, the Georgia Water & Pollution Control Association selected our Frank C. Amerson, Jr. Water Treatment Facility as the best operated plant of its kind in the state. Finally, we have an excellent staff of water production managers and operators who are highly trained and certified to direct the quality of the Authority's drinking water production and distribution efforts. If you have any questions concerning this report, or any other aspect of the Authority's facilities or operations, please feel free to contact us at 478-464-5620.

Further Evidence of Excellence

GW&PCA Platinum Award -

100% Permit Compliance, 5 Consecutive Years
Rocky Creek Water Reclamation Facility

GW&PCA Gold Award - 100% Permit Compliance for 2003

Frank C. Amerson Water Treatment Plant
Lower Poplar Street Water Reclamation Facility

2004 GW&PCA Top Operators

Jocelyn Hunt, District 5 Water System
James Tarpley, District 5 Wastewater System

AWWA Meritorious Service Award

Gary McCoy, Water Production Manager



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2003 WATER QUALITY REPORT



JULY 1, 2004

BUILDING CONSUMER CONFIDENCE IN THE MACON WATER AUTHORITY

2003

MWA Water Quality Report

The board of directors and employees of the Macon Water Authority (MWA) are pleased to present the annual Water Quality or Consumer Confidence Report (CCR), which includes an in-depth analysis of your drinking water to assure you that you are drinking the cleanest, safest water possible.

Our Source Water

The Macon Water Authority currently supplies finished drinking water to over 50,000 customers, including residential and industrial accounts. To do so, the MWA has constructed a distribution system that spans over 1,500 miles of water lines. In addition, the Frank C. Amerson Jr. Water Treatment Plant (WTP), which came on line July 10, 2000, produces all of the finished drinking water for MWA customers.

The Amerson WTP features a state-of-the-art design and capacity to produce 60 million gallons of drinking water per day (MGD), with a production flow featuring advanced flocculation, sedimentation and filtration. The plant design will also allow us to expand our production capacity to 90 MGD, if necessary in the future.

With the Ocmulgee River serving as our primary source for



raw water, our river intake structure pumps water directly out of the Lower Ocmulgee River Basin. The raw water from the Ocmulgee is pumped to the MWA's Javors Lucas Reservoir, located adjacent to the Amerson Water Treatment Plant. From the reservoir, the raw water enters the Amerson Plant for drinking water production.

Source Water Assessment Plan (SWAP)

The Macon Water Authority and the Middle Georgia Regional Development Center developed a Source Water Assessment Plan (SWAP) late last year. This plan helped identify potential contamination to the watersheds of the Ocmulgee River Basin and Javors Lucas Reservoir, which

provides the raw water used in our drinking water production process.

The SWAP identified potential pollutants within a 20-mile radius of the plant intake and the reservoir, so these potential threats can be taken into account in our continued, future planning to protect our water resources. The MWA is now working on a plan to mitigate the possibility of these pollutants entering our system.

Raw water (natural) resources

The natural resources for drinking water – both tap water and bottled water – include rivers, lakes, streams, ponds, reservoirs, springs and wells.

Surface water is the source of raw water for the Macon Water Authority's water system. The origin of surface water comes from precipitation and ground water.

As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and collects substances originating from the presence of animals or from human activity. The presence of these substances in our drinking water production process is the focus of this Water Quality Report.

What's in my drinking water and why?

MWA has highest water quality

In order to ensure that MWA tap water is of the highest quality and safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided by any public water system. The detailed data of the contaminants detected in MWA drinking water during the 2003 calendar year are included in the "Water Quality Data" table on page 3 of this report.

Notice to Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than others. 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 citizens and infants – can be particularly at risk from infections.

These people should seek advice about drinking water from their health care providers, while calling the Safe Drinking Water Hotline at 1-800-426-4791.

Contaminants tested by MWA

Contaminants that may be present in source water BEFORE it's treated at the MWA's Amerson/Town Creek Water Treatment Facility include the following:

- ☐ **Microbial contaminants** – such as viruses and bacteria that may come from septic tanks/systems, agricultural livestock operations, wildlife, as well as wastewater treatment plants.
- ☐ **Inorganic contaminants** – such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- ☐ **Pesticides and herbicides** – may come from a variety of sources, such as agriculture, urban storm water runoff and residential uses.
- ☐ **Organic chemical contaminants** – including synthetic and volatile organic chemicals, may come from 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** – can occur naturally or be the result of oil and gas production or mining activity.

How to read the report

AL Action Level

MCLG Maximum Contaminant Level Goal is the ideal goal below which there is no known or expected health risk.

MCL Maximum Contaminant Level is the highest amount of substance allowed in drinking water.

N/A Not Applicable

NTU Nephelometric Turbidity Unit is the standard measuring unit for turbidity.

ppm Parts per million means 1 part per 1,000,000 (same as a milligram per liter).

ppb Parts per billion means 1 part per 1,000,000,000 (same as microgram per liter).

TT Treatment technique means a required treatment process intended to reduce the level of contamination that is necessary for drinking water.

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

MRDLG Maximum Residual Disinfectant Level Goal is the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbiological contaminants.

Water Quality Data

Regulated substances

	Units	MCLG	MCL	Detected amount	Range Low - High	Violation (yes/no)	Typical source of contaminants
Fluoride	ppm	4	4	1.5	0.07 - 1.5	no	Natural deposit, water additive
Nitrate	ppm	10	10	.03	N/A	no	Erosion of natural deposits, runoff from fertilizer use
Turbidity	NTU	N/A	TT = 1.0 TT = % of samples <3 NTU	.29 100%	N/A	no	Soil runoff
Total Trihalomethanes	ppb	N/A	80	38	14-57	no	By-product of water chlorination
Total Coliform	%	0	5%	4.1	N/A	no	Naturally present in the environment
Total Organic Carbon	ppm	N/A	TT	2.7	1.5-2.7	no	Naturally present in the environment
Total Haloacetic Acids	ppb	N/A	60	16	10-20.8	no	By-product of water chlorination

Disinfectants & Disinfection By-Products

	Units	MRDLG	MRDL	Detected amount	Range Low - High	Violation (yes/no)	Typical source of contaminants
Chlorine	ppm	4	4	1.9	1 - 1.9	no	Water additive used to control microbes
Chlorite	ppm	0.8	1	0.01	0 - 0.01	no	By-product of drinking water chlorination
Chlorine Dioxide	ppb	80	80	.57	.19-57	no	Water additive used to control microbes

Regulated substances

	Units	MCLG	MCL	Detected amount	# of sample sites	# of sites above AL	Violation (yes/no)	Typical source of contaminants
Copper	ppm	1.3	AL=1.3	.36	50	0	no	Corrosion of household plumbing systems
Lead	ppb	0	AL=15	3.4	50	0	no	Corrosion of household plumbing systems