

DATA FROM  
Jan. 1 - Dec 31,  
2007

# 2007 CCR



Annual Water Quality Report for Customers of the Macon Water Authority

## Macon Water Authority attempts to attain “consumer confidence”

The Macon Water Authority (MWA) is pleased to present the results of our annual Consumer Confidence Report (CCR), also referred to as a water quality report, which provides definitive, empirical evidence that you are enjoying some of the cleanest, safest, and best-tasting drinking water possible.

This report is intended to educate MWA customers about what is in their water and why, so you can make practical, knowledgeable decisions about your drinking water consumption.

MWA customers should be confident knowing that their drinking water has had no violations in detected levels of inorganic contaminants, organic substances, micro-biological contaminants, disinfectants, or disinfectant by-products. This report encapsulates a year's worth of data,

collected between Jan. 1, 2007 – Dec. 31, 2007, concerning the quality of water consumed by MWA customers.

Copies of this CCR are also available at the MWA headquarters at 790 Second Street in downtown Macon, as well as on our Web site at [www.maconwater.org](http://www.maconwater.org).

### **MWA Drinking Water System** *Our Raw Water Source(s)*

The raw water used for drinking water production and distribution at the MWA is obtained from two primary sources – the Ocmulgee River and Javors J. Lucas Lake.

Lucas Lake is a 625-acre reservoir that holds an estimated 6.5 billion gallons of raw water at full pool.

In addition, the Authority can utilize its intake on the Ocmulgee River to obtain a supplemental or alternative source for raw water in

the event of an emergency or for operating flexibility.

### *Our Water Production Plant*

The Frank C. Amerson, Jr. Water Treatment Plant produces all of the finished drinking water for MWA customers. Since opening in the summer of 2000, the Amerson Plant has been selected as the “Plant of the Year” in the state of Georgia on three occasions, including this past year. Its production capacity is 60 million gallons per day (MGD), with the capability to expand to 90 MGD in the future, if necessary.

### *Our Water Storage and Distribution*

The MWA drinking water distribution system includes four clearwells located at the Amerson Plant, as well as seven elevated and 10 ground storage tanks.

Collectively, these 21 tanks throughout the system can store up to 35 million gallons of finished drinking water.

In addition, the MWA distribution system features approximately 1,600 miles of water lines and seven pumping stations, which carry 27 million gallons of finished drinking water, on average each day, to approximately 54,000 customers.

The Authority also uses advanced technology in its SCADA system to monitor and control drinking water distribution 24 hours a day, seven days per week.

Questions concerning any of the details of this Consumer Confidence Report, or the MWA Source Water Assessment Plan, should be directed to Gary McCoy, MWA director of water treatment, at 478-464-5653.

## *What's in my drinking water and why?*

### **MWA has the highest water quality**

In order to ensure that MWA tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations that limit the amount of certain contaminants in water provided in any public water system.

The detailed data of the contaminants detected in MWA drinking water during the 2007 calendar year are included in the table titled “Water Quality Data 2007” on the back of this report.

### **Notice to Immuno-Compromised People**

Some people may be more vulnerable to contaminants in drinking water than others – 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. They can be particularly at risk from infections and should seek advice about drinking water from their health care providers. Related concerns or questions can be addressed via the Safe Drinking Water Hotline at 1-800-426-4791.

### **Contaminants tested by the MWA**

Contaminants that may be present in source water BEFORE it is treated at the MWA's Frank C. Amerson, Jr. Water Treatment Facility include:

Microbial 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 sources such as agriculture, urban storm water runoff, and 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 naturally occur or be the result of oil and gas production or mining activity.

## *2007 a banner year for the award winning Macon Water Authority*

This past year was a banner year for the Macon Water Authority (MWA). The Georgia Association of Water Professionals (GAWP) honored the MWA with no less than eight industry awards, more than it has received in any single year in recent memory.

The Authority's Frank C. Amerson, Jr. Water Treatment Plant once again was selected by GAWP as the state's Plant of the Year. The Amerson Plant, which opened in 2000 with a production capacity of 60 MGD, was the best of its kind in Georgia in 2002 and 2005, as well.

In addition, the drinking water produced at the Amerson Plant was rated as the best tasting

in Middle Georgia by GAWP. Helping to produce this best tasting water is plant operator Jarad Zellner, who was selected by GAWP as the “Top Op” among all water treatment plant operators in the state's District 5. Zellner was joined by Larry Reynolds, an operator at the Lower Poplar Street Water Reclamation Facility, as the District 5 “Top Op” among all wastewater treatment plant operators.

The GAWP Gold Award, which was received by both the Amerson and Lower Poplar Street plants, represents one full year of 100% permit compliance at a facility, with no permit violations. Even more difficult to attain, the GAWP Platinum Award is given to facilities

with at least five consecutive years of 100% operating permit compliance. The MWA's Rocky Creek Water Reclamation Facility took home the Platinum Award yet again, boasting a clean record of nine straight years without a permit violation.

Finally, the MWA took home the GAWP Collection System of the Year Award for the second time in 2007. Managing the best sewer collection system in the state also impacts water quality, because with proper sewer collection and conveyance comes protection of raw water resources, where the MWA obtains its source for producing clean, safe drinking water – as reflected in this Consumer Confidence Report.

# Water Quality Data 2007

| SUBSTANCES  | UNITS                | MCL      | MCLG      | HIGHEST AMOUNT  | RANGE       | VIOLATION | TYPICAL SOURCES IN DRINKING WATER   |
|---|----------------------|----------|-----------|---|-------------|-----------|---|
| <i>INORGANIC</i>  |                      |          |           |   |             |           |   |
| Chlorine  | ppm                  | MRDL=4   | MRDLG=4   | 1.6   | 0.76 – 1.6  | No        | Water additive used to control microbes.  |
| Chlorine Dioxide  | ppb                  | MRDL=800 | MRDLG=800 | 760   | 100 – 760   | No        | Water additive used to control microbes.  |
| Fluoride  | ppm                  | 4        | 4         | 1.20  | 0.63 – 1.20 | No        | Water additive that promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories. |
| Nitrate   | ppm                  | 10       | 10        | 0.47  | n/a         | No        | Runoff from fertilizer use; leaching from septic tank sewage; erosion of natural deposits.                                |
| <i>ORGANIC</i>  |                      |          |           |   |             |           |   |
| Total Organic Carbon  | Removal Ratio RAA    | TT = > 1 | n/a       | 1.16  | 1.01 – 1.16 | No        | Naturally present in the environment.   |
| <i>DISINFECTION BY-PRODUCTS</i>   |                      |          |           |   |             |           |   |
| Chlorite  | ppm                  | 1        | 0.8       | 0.72  | 0.01 – 0.72 | No        | By-product of drinking water disinfection.  |
| Haloacetic Acids (HAAs)   | ppb                  | 60       | n/a       | 24  | 9 – 24      | No        | By-product of drinking water disinfection.  |
| Total Trihalomethanes (TTHMs)   | ppb                  | 80       | n/a       | 54  | 16 – 54     | No        | By-product of drinking water disinfection.  |
| <i>MICROBIOLOGICAL</i>  |                      |          |           |   |             |           |   |
| Total Coliform  | % of monthly samples | 5        | 0         | 2   | 0 – 2       | No        | Naturally present in the environment.   |
| Turbidity   | NTU                  | TT       | n/a       | 0.16  | 0.03 – 0.16 |           | Soil runoff.  |
| <i>COPPER AND LEAD SAMPLED AT CUSTOMER TAPS IN 2005 – NEXT SAMPLING IN 2008</i> |                      |          |           |   |             |           |   |
| Copper  | ppm                  | AL = 1.3 | 1.3       | The 90th percentile = 0.23<br>There were no samples above 1.3 |             | No        | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.          |
| Lead  | ppb                  | AL = 15  | 0         | The 90th percentile = 2.6<br>There were no samples above 15   |             | No        | Internal corrosion of household plumbing systems; erosion of natural deposits.  |

*This table lists drinking water substances detected at the source, MWA's treatment plant, or MWA's distribution system, in 2007, except for copper and lead, which were sampled at customer taps in 2005. These samples, per EPD regulations, will be taken again in 2008.*

## HOW TO READ THE REPORT

**Action Level (AL):** The concentration of a contaminant which, 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.

**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 addition of a disinfectant is necessary for 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. 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 (Mcg/L).

**parts per million (ppm):** A measurement concentration that is equivalent to milligrams per liter (mg/L).

**% of monthly samples:** The percent of samples taken during a month that had the substance present. For total coliforms, MWA took a minimum of 120 samples per month in 2007.

**Removal Ratio RAA:** The amount removed in the process expressed as a ratio. MWA samples monthly the raw water and treated water for total organic carbon, and a removal ratio is then calculated. To meet the requirements, MWA then calculates on a quarterly basis the RAA, which is the running annual average of the removal ratio.

**Treatment Technique:** 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 comes 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, or at <http://www.epa.gov/safewater/lead>."

## BOARD OF DIRECTORS AND LEADERSHIP

Frank C. Amerson, Jr.  
Chairman, County-wide  
478.745.3003

Javors J. Lucas  
Vice Chairman, District 2  
478.742.2722

Dorothy 'Dot' Black  
District 1  
478.742.3503

Steve Rickman  
District 3  
478.743.0056

Frank Patterson  
District 4  
478.808.2020

Bert Bivins, III  
Bibb County  
Representative  
478.738.9466

Ed DeFore  
City of Macon  
Representative  
478.474.0754

Tony Rojas  
Executive Director  
478.464.5622



790 Second Street  
P.O. Box 108  
Macon, Ga., 31202-0108

478.464.5620 (M-F)  
478.464.5656  
(After Hours)  
478.750.2007 (Fax)