

# Currents



Tasting Water



News and Developments for Customers of the Macon Water Authority

## MWA addressing water loss to enhance system efficiency

The Macon Water Authority (MWA) is improving its water system efficiency by conducting a water audit, which will provide the utility with a better understanding of its water loss within the system and strategies for how to improve operations.

The Authority has hired industry experts from Cavanaugh and Associates to direct the project, which began in August and will conclude this fall. The water loss study and system review will be implemented in three phases.

Phase one involves the collection of data on the system to establish benchmarks according to industry standards.

The overall system data collection includes the recording of: (1) the system's footprint and water authority boundaries, (2)



**Above: The MWA is collecting data during the first phase of a water audit and study of how to reduce water loss and improve system efficiency.**

**Right: Real water losses within the MWA system occur during instances such as tank overflows, when tanks are accidentally filled beyond capacity.**  
*Photos by Lisa Vaughn.*

the total miles of mains, pipe materials, and size range of pipes, (3) the total number of service connections that are active and inactive, (4) the average operating water pres-

sure, including pressure zones, booster stations, and pressure reducing valves, and (5) the storage capacity of MWA resources and facilities.

In addition, the MWA



water audit will analyze the Authority's own sources of water supply, while cross categorizing consumers as those billed and unbilled as well as metered and unmetered.

Phase two of the audit will entail the development of a water efficiency program, with goals for water loss reduction. A water

loss profile identifies apparent water losses, such as those that might be occurring because of unauthorized consumption, meter testing and replacement, and errors in data handling and adjustments. Likewise, real water losses occur in places or on occasions such as tank overflows, leaks within water lines, or faulty valves.

Finally, phase three will focus on sustainability, as the Authority will organize a water loss control team to train and develop practices to reduce water loss throughout the MWA system in the future.

Customers can refer to the Authority's Web site at [www.maconwater.org](http://www.maconwater.org) for periodic updates on the water audit and system efficiency program that is underway.

## MWA adopts FY 2012 budget

The Macon Water Authority (MWA) Board of Directors, upon the recommendation of the Finance Committee, has adopted the Fiscal Year (FY) 2012 Budget for the Authority and its Macon Soils subsidiary. The budget adoption process went smoothly, says MWA Executive Director Tony Rojas, as the financial position of the Authority is strong even amidst difficult economic times.

In its 2012 Budget, the Authority anticipates a 5.4 percent increase in operating revenues next year, as a result of water and sewer sales and other operating income. Total operating revenues in 2012 are expected to eclipse \$44 million.

As for expenses, the Authority continues to operate with fiscally responsible practices and policies, says Rojas, evident in the utility's total operating expenses increas-



**Jocelyn Hunt oversees the operations at the MWA Frank C. Amerson, Jr. Water Treatment Plant. According to the FY 2012 Budget, the Authority anticipates a 5 percent increase in water sales.** *Photo by Lisa Vaughn.*

ing only 3.8 percent next year, primarily due to the increased costs for doing business, such as operating and maintenance equipment and expenses for water treatment and distribution, as well as sewer

conveyance.

In addition to adopting the Budget for the MWA for FY 2012, the Board also approved next year's budget for Macon Soils – its subsidiary for biosolids handling,

recycling, and disposal. Macon Soils has projected annual revenues for next year at more than \$821,000, against operating expenses of approximately \$681,000, for a net income of nearly \$140,000 expected in 2012.

Finally, with \$99.7 million of outstanding debt from six bond issues dating back to 2005 and three GEFA loans, the Authority will continue to maintain a healthy and enviable debt service/coverage ratio of 2.05 to 1 on its bond issues and 1.88 to 1 on its overall long-term debt, says Rojas. According to industry standards and regulatory oversight of the municipal bond market, a water utility's debt service ratio should be a minimum of 1.25 to 1, to reflect a sound financial and cash position, adds Rojas, noting that the MWA more than exceeds those minimum standards for fiscal responsibility.



A Rivers Alive Event

**Come join us on Saturday, Oct. 22, from 8:30 a.m. to 11:30 a.m. for the seventh annual Ocmulgee Alive! More information is available at [www.maconwater.org](http://www.maconwater.org). Help protect our water resources by keeping them clean!**

# SECOND FRONT

## Despite drought and climate change, MWA drinking water supply and sources secure

With a severe drought and some of the hottest days and months on record in Georgia this past spring and summer, one would think the Macon Water Authority (MWA) struggled to maintain adequate reservoir storage and drinking water supply. However, that was the furthest from the truth, says MWA Executive Director Tony Rojas.

“We had one of the hottest months on record in May, with rainfall averages well below what we had last year, yet our reservoir continued to provide for drinking water production, storage and distribution that were virtually unaffected,” says Rojas. “Some have wondered how that could be, but proper planning and investments in upgrades have kept us out of danger in terms of our water supply. And we’re not done yet.”

Rojas is referring to continued efforts by the Authority to increase its operational efficiency, citing the current water audit that has industry advisors assisting the MWA staff in collecting data on water loss and developing strategies to save water within the system, independent of wise water use by MWA customers.

Rainfall has been scarce thus far this year, with June’s rainfall total nearly 3 inches less than June of 2010, and May’s rainfall almost 4 inches below the amount from May of last year. However, MWA drinking water production and distribution continued without interruption or incident. While Javors Lucas Lake has reached its lowest level (365.44 feet) since December of 2007, there are still



**Left: Despite an extended drought and record high temperatures this summer, Javors Lucas Lake still provided a water supply that enabled the Amerson Water Plant to meet peak demand.**



**Right: One of the factors contributing to the Authority’s ability to better manage during drought conditions is the installation of variable frequency drive pumps at the river intake and Javors Lucas Lake for more efficient raw water withdrawal. Photos by Mark Strozier.**

over 4 billion gallons of raw water stored in this reservoir. The Authority now awaits the rainy winter months that should naturally recharge the water levels in Javors Lucas Lake in time for the peak demands of next year’s spring and summer months.

One of the largest investments from the Authority’s current Capital Improvement Plan is the \$10 million earmarked for constructing a new, auxiliary intake on the Ocmulgee River for withdrawing raw water for treatment in the Frank C. Amerson, Jr. Water Treatment Facility. This new intake will be installed at a lower elevation next to the existing river intake, which is also slated for upgrades as part of this project.

A related capital project having a positive impact on the health of Javors Lucas Lake’s

water levels is the investment the Authority made to install variable frequency drive pumps at the river intake. Thanks to these more technologically advanced pumps, the Authority can withdrawal water more efficiently, regardless of water levels in the Ocmulgee River.

**Public fishing at Javors Lucas Lake for 2011 ends Oct. 31. Check out [www.maconwater.org](http://www.maconwater.org) for more info.**

## MWA pump station receiving an upgrade to increase capacity, efficiency

The Macon Water Authority (MWA) is installing a new pumping station and force main upgrade at its existing Allen Road I pump station site, located just northeast of the entrance to the Sofkee Industrial Park on Highway 247. The current construction project – titled the “Allen Road II Lift Station and Force Main” – will provide a much needed pumping capacity upgrade/expansion for this area and will relieve the pressure on the current Allen Road I station.

The current rehab and construction project con-

sists of the addition of two 150 horsepower pumps, a new electrical building, and a new pipeline to transport sewage to the Rocky Creek Water Reclamation Facility. The new pump station (Allen Road II) will share the wastewater conveyance load with the existing station (Allen Road I), will provide full redundancy in the event of a shutdown of the older pump station, and will increase the available pumping capacity at the Allen Road site two fold.

The Allen Road project also involves construction of a new sewage pipeline

– a 24” diameter force main – which is especially challenging because it must be installed across a wetland that is nearly a mile wide, with three creek or stream crossings, including Rocky Creek. In an effort to minimize the environmental impact of the project, the MWA is utilizing a trenchless technology called “horizontal directional drilling.” This innovation allows the contractor to drill the pipeline beneath the earth’s surface, as much as 60-feet deep along the way, starting on one edge of the wetland and coming out of the



**The MWA “Allen Road II Lift Station and Force Main” project involves the installation of a 24-inch force main underneath a wetland that is nearly a mile wide, without disturbing that natural resource during construction.**

ground 4,300 feet away on the other side of the wetland. In doing so, the MWA expects no construction disturbance on

the wetland and streams in the path of the force main installation, between its entrance and exit points.

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