

Georgia's 2017

# CLEAN WATER HEROES

## Macon Water Authority

### OCMULGEE RIVER

#### Innovative Sewer Pipe Renewal Protects Macon's Water Source and Recreational Hotspot

#### INTRODUCTION:

Water and sewer pipes are the blood vessels and veins of our communities. They carry drinking water to our taps and collect the wastewater that we flush down our toilets and drains. When they fail, we suffer. Our tap water can become contaminated, and sewage spills can ruin our neighborhoods, fouling the streams and rivers where we play. For water and sewer utilities around the state, it's a constant struggle to stop leaks, eliminate back ups and spills, and keep these vital systems flowing. In 2016, the Macon Water Authority (MWA) used innovative pipe repair methods to not only keep Macon's sewage flowing but also protect sensitive areas along the Ocmulgee River. In doing so, the Authority saved ratepayers millions of dollars, kept sewage from leaking into the river and prevented the disruption of popular recreational trails along the river.

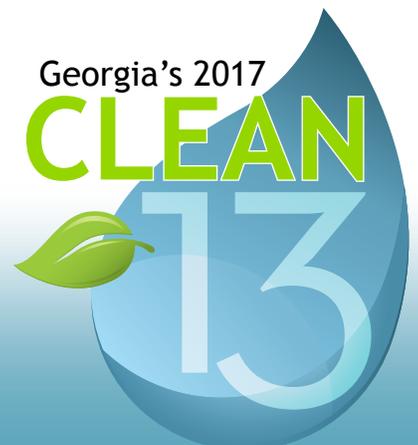
#### THE WATER BODY:

Formed by the Yellow, Alcovy and South Rivers that rise in metro Atlanta, the Ocmulgee begins its life at Lake Jackson, a man-made reservoir just north of Juliette formed by Lloyd Shoals Dam. From the dam it flows some 300 miles to its confluence with the Oconee River to form the Altamaha, Georgia's largest river. On its journey through middle Georgia, it supplies drinking water for more than 1.3 million people, including the people of Macon. The river is also home to an effort to restore a population of Robust Redhorse, a rare fish that was rediscovered in the Altamaha River basin in 1991. A mecca for paddlers, boaters and anglers, communities along the Ocmulgee are now working to create a 54-mile long water trail stretching from Macon to Hawkinsville.

#### THE CLEAN:

Beneath Macon and Bibb County course more than 1200 miles of Macon Water Authority sewer pipes. Over time, these mains become corroded, roots infiltrate them and grease and other debris builds up and clogs them. Ultimately, aging pipes need repairs or replacement.

Herein lies a quandary for MWA and Georgia's other sewer utilities: because sewer mains are usually gravity fed, the largest lines tend to be placed along low-lying areas adjacent to streams and rivers.





When they fail, the sewage has a short trip to the places where we fish and swim. And, replacing them brings its own set of problems—namely digging them up and disturbing sensitive land along our streams and rivers.

Faced in 2016 with replacing more than two miles of large corroded and failing sewer mains along the Ocmulgee River and the city's riverside recreational trail, MWA chose an option that kept the pipes in the ground and minimized disturbing soil and plants along the river: cured-in-place pipe.

Resin impregnated tubes were inserted into existing sewer mains and cured using hot water. The result: a water-tight seal impregnated into the existing sewer mains that stops leaks and allows the sewage to move more rapidly to the Authority's wastewater treatment facility.

What's more, the work was completed without digging and disturbing the river or the 11-mile long Ocmulgee River Heritage Trail that parallels both the river and the sewer mains. Run off from construction activities and utility work that spills dirt and sediment into our rivers during rain events is among the top pollution problems for Georgia's rivers.

Since 2004, MWA has invested more than \$35 million rehabilitating aging sewer mains using the cured-in-place pipes.

"We take the view at the Water Authority that we're about doing the right thing," said Tony Rojas, the Authority's Executive Director. "When you're working along the river you take into account other considerations besides just monetary factors. If we have a choice we're going to do the least disruptive construction method because we have an obligation to the river itself."

Aside from getting their drinking water from the river, Macon has, in recent years, begun recognizing the importance of the river as a recreational amenity. This re-orientation to the river has made keeping the river clean and the river corridor inviting all the more important for the Authority.



Amerson River Park, completed in 2015 on the site of the city's former water treatment facility and named for MWA's former chairman, Frank Amerson, now offers up canoe, kayak and tube float trips. In a town of with a population of about 150,000, the park now hosts more than 300,000 visitors annually.

*Top: Macon Water Authority's innovative pipe restoration program eliminated the need to dig up pipes along the Ocmulgee River and Macon's Ocmulgee River Heritage Trail. Center: "Cured in place" pipe is inserted into sewer mains along the Ocmulgee River. Since 2004, the Macon Water Authority has invested more than \$35 million in rehabilitating aging sewer mains through this process. Once in place the resin-impregnated liners are permanently affixed to the original sewer mains using hot water. Left: Workers prepare material for insertion into 48-inch sewer mains along the Ocmulgee River. The "cured-in-place" pipe repairs leaking pipes without the need to dig up and replace old pipes.*



#### For More Information Contact:

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