

WASTEWATER TREATMENT...

# Safely Reclaiming Wastewater



ACC PUBLIC UTILITIES DEPARTMENT  
WATER RECLAMATION FACILITIES:

cedar creek  
middle oconee  
north oconee



# we've come a long way

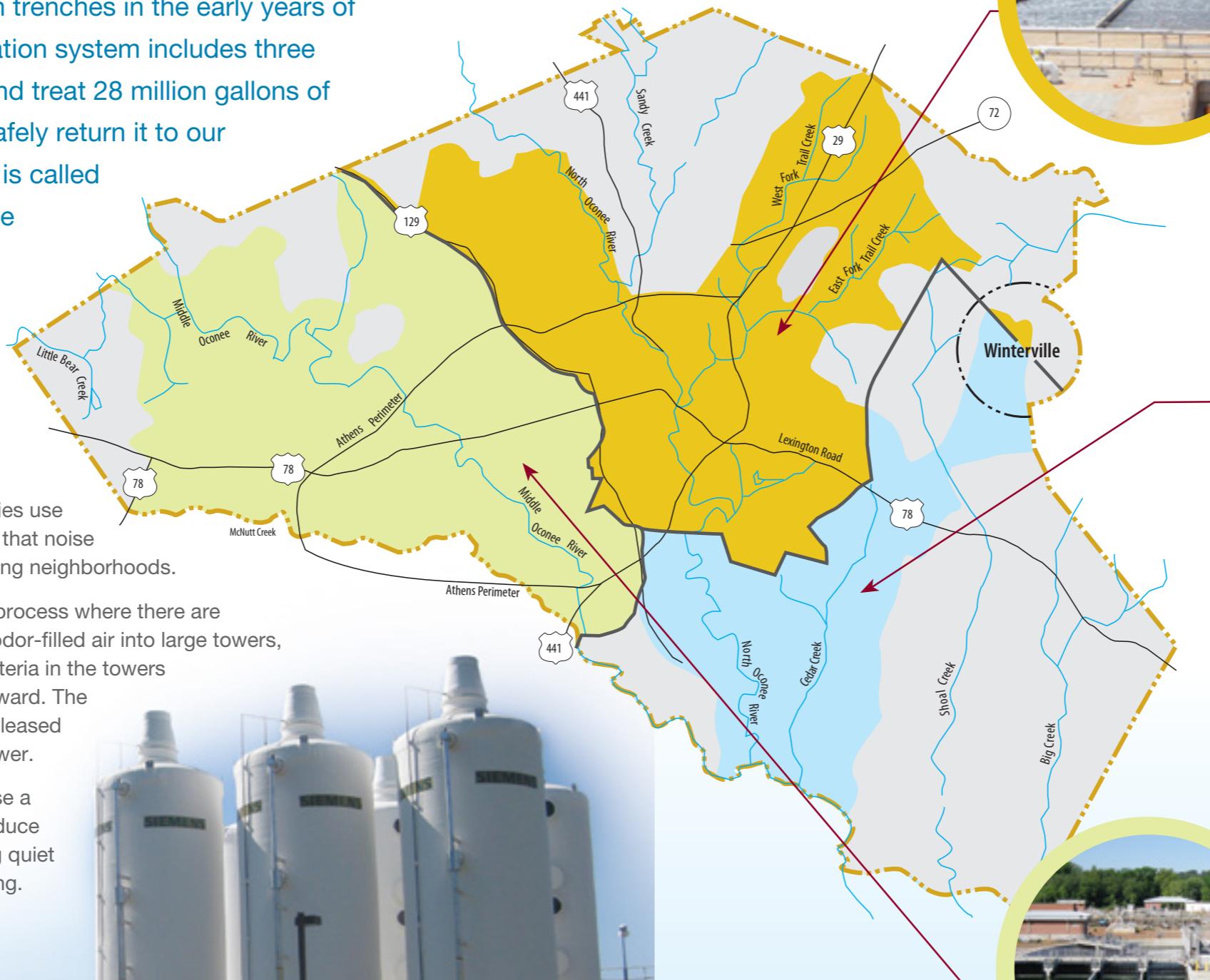
from wastewater flowing in trenches in the early years of Athens. Our water reclamation system includes three facilities that can collect and treat 28 million gallons of wastewater per day and safely return it to our environment. The process is called water reclamation, because “reclaiming” something means to bring it back to its usable condition.

## being a good neighbor

All of our water reclamation facilities use advanced technologies to ensure that noise and odors do not affect surrounding neighborhoods.

At every point in the reclamation process where there are significant odors, fans move the odor-filled air into large towers, not out into the environment. Bacteria in the towers remove odor as the air moves upward. The “scrubbed” and odor-free air is released through vents at the top of the tower.

Our water reclamation facilities use a variety of effective methods to reduce noise during operations, including quiet motors, pumps, and soundproofing.



The **North Oconee Water Reclamation Facility**, the largest of our three facilities, serves a 46-square-mile area and includes the downtown business district, the University of Georgia campus, and all of the major industries. The plant is capable of treating 14 million gallons per day.



The **Cedar Creek Water Reclamation Facility** serves mostly residences in a 39-square-mile area with a population of 25,000 people. The plant is capable of treating 4 million gallons per day.

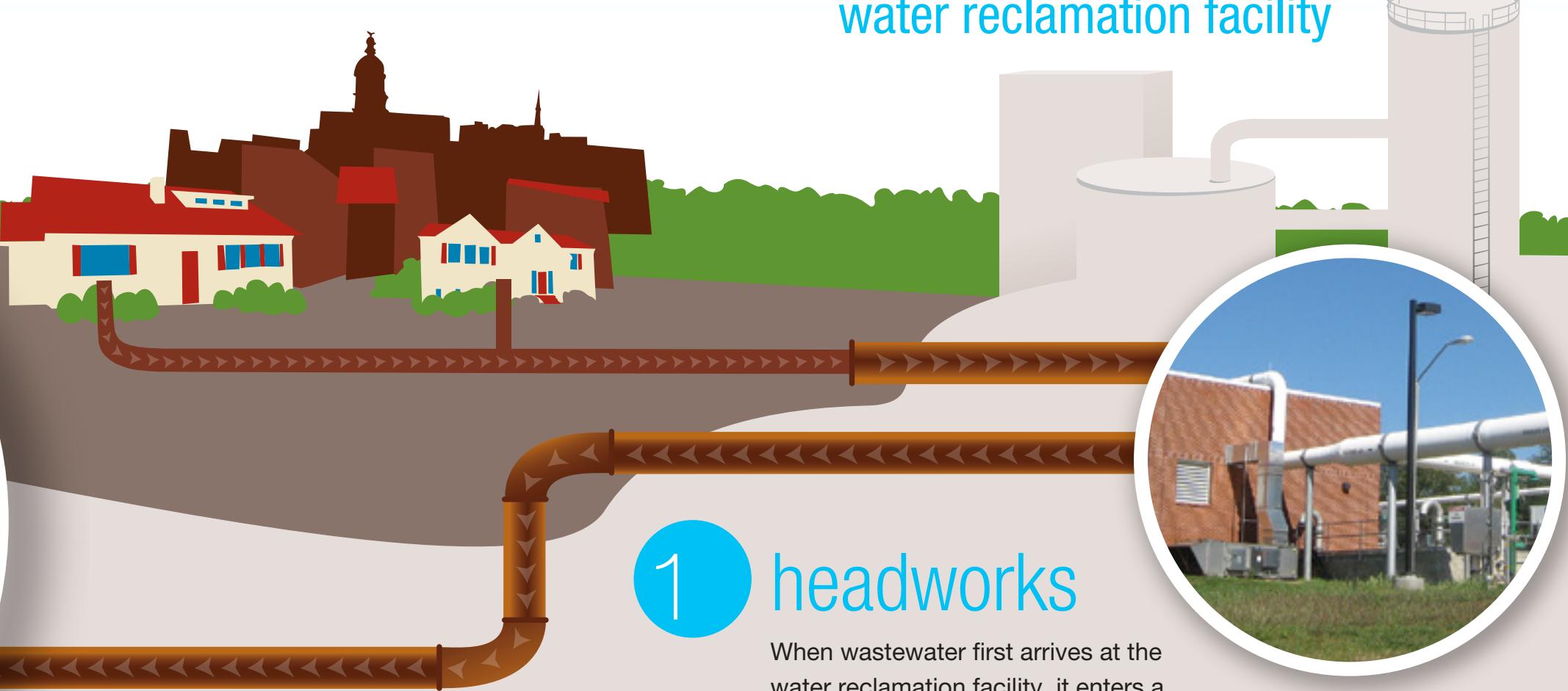


The **Middle Oconee Water Reclamation Facility** serves mostly residential and commercial development in a 36-square-mile area that has a population of approximately 40,000 people. The plant is capable of treating 10 million gallons per day.

# what happens to the water you use?

You turn on a faucet, take a shower, or flush a toilet – where does that used water go?

The wastewater flows through an underground network of sewer pipelines to pump stations, where it is pumped to one of our three water reclamation facilities. The wastewater then goes through a complex treatment process to “reclaim,” or bring it back to its usable condition. The reclaimed water is safely returned to our rivers.



## 1 headworks

When wastewater first arrives at the water reclamation facility, it enters a receiving station called the headworks. Two screens capture any large materials, including paper and plastic trash. Then the water is pumped through a grit system to remove small particles, such as sand and clay.

## 2 aeration basin

The filtered wastewater goes into an aeration basin for 16 to 20 hours, where oxygen is mixed into the water to make microscopic organisms grow. Through a biological process, these microorganisms remove more pollutants.



## 3 clarifiers

Following aeration, the water flows into large clarifying tanks. The microorganisms settle to the bottom, creating a solid material called biosolids. At the top of each tank, the clear water overflows into another chamber for disinfection.

## 4 disinfection

The clear water moves through an ultra-violet light system that disinfects any remaining bacteria. Now, all of the harmful pollutants are gone and it is “reclaimed” water.



The **biosolids** are collected in holding tanks called digesters and then some of the water is removed. The dewatered biosolids are trucked to the compost facility at the Athens-Clarke County Municipal Solid Waste Landfill, where they are mixed with shredded yard waste to produce compost.

Want to know more about ACC compost?  
Visit: [www.athensclarkecounty.com](http://www.athensclarkecounty.com)

## 5 oxygenation

Oxygen is added to the reclaimed water to help keep the rivers healthy. Fish and other aquatic life need oxygen to thrive.



## being good to our rivers

By returning high quality reclaimed water to rivers, we help replenish our local waterways and keep them healthy. Using ultra-violet (UV) light for disinfection is highly effective, is chemical-free, and leaves nothing from the process in the water that could be harmful to humans or aquatic life.

## 6 returned...

The reclaimed water is released into the North Oconee, Middle Oconee, and Oconee rivers.



# did you know... .

Over 56 highly trained maintenance mechanics, lab technicians, operators, and administrative staff keep our water reclamation systems running smoothly.



Our lab technicians perform over 3500 tests every month to ensure that the reclaimed water meets all federal and state standards.

We don't lock the doors and go home for holidays. Certified wastewater operators are on site 24 hours per day, 365 days a year.

Fats, oils, and greases (FOG) cause over half the sewer back-ups and overflows in our community and stress our facilities. NEVER put FOG down a drain. Middle Oconee and North Oconee Water Reclamation Facilities have grease collection sites for residential FOG recycling.



Public Utilities

water. wastewater. conservation.

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