

# Johns Creek Environmental Campus

**Application:** MBR wastewater treatment for water reuse

**Capacity:** 15 MGD (56,780 m<sup>3</sup>/d)

**Location:** Fulton County, Georgia, United States

**To be Commissioned:** 2009



## Challenge

In May 2004, a GE ZeeWeed\* MBR (membrane bioreactor) was selected for the Johns Creek Environmental Campus (JCEC). This new facility will not only house a water reuse plant, but also feature an educational center to promote the environmental and economic benefits of water reuse in Georgia.

GE's Water & Process Technologies has pioneered membrane-based water reclamation in Georgia, starting in 2002 with the Cauley Creek Reclamation Facility—the state's first ultrafiltration MBR plant.

Since then, an expansion has doubled Cauley Creek's capacity to 5 MGD (18,930 m<sup>3</sup>/d) average daily flow. The robust ZeeWeed immersed membrane fibers are ideal for difficult-to-treat wastewater.

The reinforced hollow fibers provide a physical barrier to biomass, bacteria and viruses, retaining them in the process tank, while allowing a high quality effluent to pass through the membrane pores. The high quality effluent produced by the ZeeWeed MBR will be reused for irrigation of parks, golf courses and other properties throughout the community, or safely discharged into the Chattahoochee River.

The small footprint and modular design of the ZeeWeed MBR means that the entire aerobic treatment process and ancillary equipment will be completely contained within the building. With the wastewater treatment plant being in close proximity to a residential area, this would eliminate any possible noise or odor concerns.

Typical Treated Water Results	
BOD	< 2 mg/L
TSS	< 2 mg/L
Turbidity	< 0.1 NTU

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**ecomagination**<sup>SM</sup>



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