

# SAVANNAH-UPPER OGEECHEE REGION

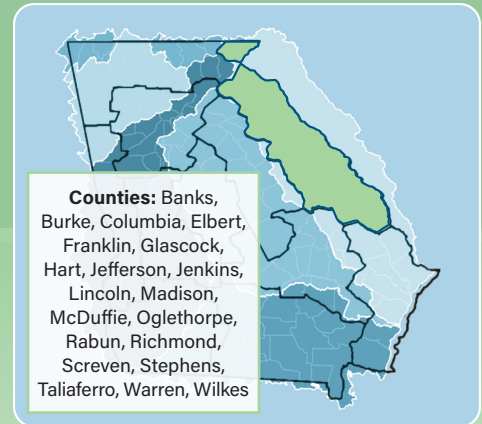
## BACKGROUND

The Savannah-Upper Ogeechee Regional Water Plan was initially completed in 2011 and subsequently updated in 2017 and 2023. The plan outlines near-term and long-term strategies to meet water needs through 2060. Major water resources include portions of the Savannah, Ogeechee, Oconee and Tennessee River basins.

## OVERVIEW OF SAVANNAH-UPPER OGEECHEE REGION

The Savannah-Upper Ogeechee Region encompasses 20 counties in the northeast portion of Georgia. Over the next 40 years, the population of the region is projected to increase from approximately 648,000 to 719,000 residents. While much of the region's water comes from surface water and regulated reservoirs, portions of the region rely significantly on groundwater aquifers.

In 2015, the Savannah-Upper Ogeechee Region withdrew approximately 303 million gallons per day (MGD) for water supply, with approximately 69 percent drawn from surface water. The region returned approximately 135 MGD of wastewater in 2015, with 51 percent from industrial and 49 percent from municipal sources.



## KEY WATER RESOURCE ISSUES ADDRESSED BY THE COUNCIL

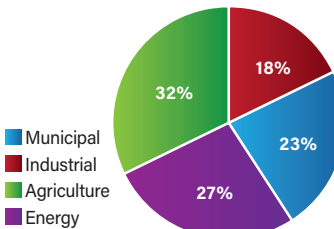
1. Low dissolved oxygen levels and other water quality concerns in the Savannah River and Harbor and the sharing of substantial load reductions between Georgia and South Carolina dischargers
2. Coordination with South Carolina on shared water resources in the Savannah Basin
3. Potential challenges in surface water availability in the Ogeechee Basin
4. Concerns about interbasin transfers of water out of the Savannah Basin
5. Long-term operating procedures at the USACE reservoirs and the use of adaptive management to maintain conservation pools at the highest possible levels
6. More efficient use of water in the region

## SAVANNAH-UPPER OGEECHEE WATER PLANNING REGION

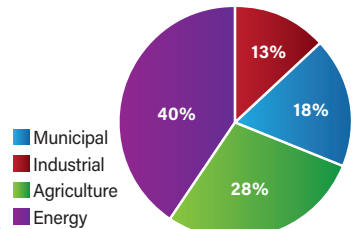


## FORECASTED REGIONAL WATER DEMANDS

**2020 WATER DEMAND**  
TOTAL = 404 MGD



**2060 WATER DEMAND**  
TOTAL = 537 MGD



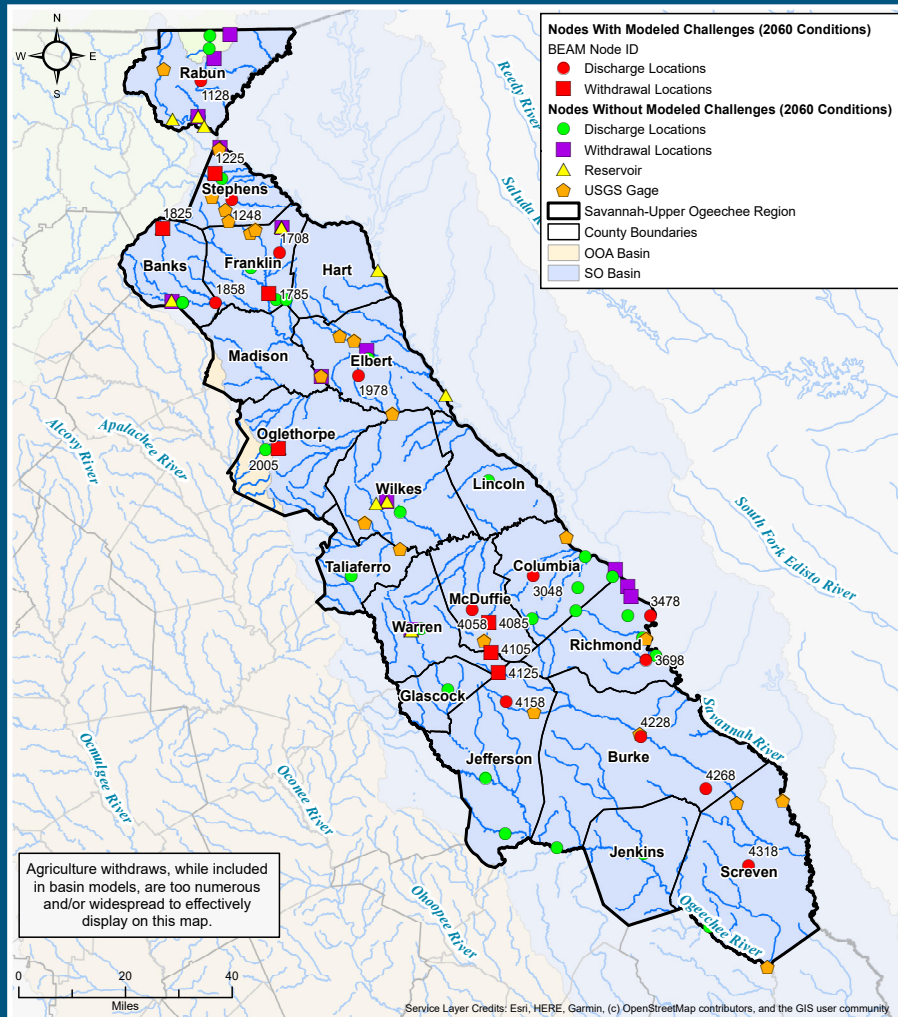
## SUMMARY OF 2023 RESOURCE ASSESSMENT RESULTS

**GROUNDWATER:** At the regional level, there will be adequate supplies to meet the region's future groundwater supply needs over the planning horizon.

**SURFACE WATER QUALITY:** Assimilative capacity assessments predicted that some stream segments, including the Savannah Harbor, will have limited capacity to accept future wastewater discharges. Addressing non-point sources of pollution and existing water quality impairments will be a part of addressing the region's future needs.

**SURFACE WATER AVAILABILITY:** Over the next 40 years, the modeling analysis indicates that the water supply and instream flow needs in the region are not met hydrologically at 7 withdrawal locations and 13 discharge locations. Potential surface water challenges exist at these locations. A map of the surface water availability model node locations with and without surface water quantity modeled challenges is provided below.

### POTENTIAL 2060 SURFACE WATER CHALLENGES IN THE SAVANNAH-UPPER OGEECHEE REGION



### SAVANNAH-UPPER OGEECHEE MANAGEMENT PRACTICES

To help address the region's water resources issues and comply with the Georgia Water Stewardship Act (SB 370) and EPD's rules for drought management and water supply efficiency, the Savannah-Uppper Ogeechee Plan recommends close to 15 priority water management practices. Representative practices are summarized here.

**WATER CONSERVATION:** To prevent potential shortages in meeting instream flow needs, the Savannah-Uppper Ogeechee Plan calls for more aggressive water conservation practices and development of drought management practices for the agricultural users/permittees in the Upper Ogeechee River Basin. The plan also recommends instream flow studies and additional streamflow monitoring in the Ogeechee River Basin.

**WASTEWATER & WATER QUALITY:** Priority practices include development of local water and wastewater plans to identify local infrastructure needs and address watershed-related issues. The Council further supports State implementation of the 5R plan for NPDES permitting to restore water quality in the Savannah River Basin and Harbor.

**RECOMMENDATIONS TO STATE:** The plan recommends that EPD continue to update and refine its water resources database and use this data in subsequent updates to the resource assessments. This information will help guide more localized planning and decision making, as well as strengthen the appropriate and scientifically sound application of management practices.

**INTERSTATE WATER PLANNING:** The ongoing discussion between the states of Georgia and South Carolina is a defining issue of the Savannah River Basin. Future interim studies within the greater UASACE Comprehensive Study will be considered to emphasize the need for maintaining maximum storage in the reservoirs when possible, in light of the economic benefits the lakes bring to the region. The USACE Comprehensive Study was a cost share project with Georgia EPD, SCDHEC and The Nature Conservancy. With respect to water sharing, the Council has incorporated a preliminary assessment of South Carolina's projected water use into its planning efforts.