

UPPER OCONEE REGION

BACKGROUND

The Upper Oconee 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 Oconee, Ocmulgee, Ogeechee, Savannah, and Altamaha river basins and various groundwater aquifer systems. The Upper Oconee Region encompasses several major population centers including Athens, Milledgeville, and Dublin.

OVERVIEW OF UPPER OCONEE REGION

The Upper Oconee Region encompasses 13 counties in the central-northeast portion of Georgia. Over the next 40 years, the population of the region is projected to increase from approximately 617,000 to 1.025 million residents. The region's leading economic sectors include government, health care, services, manufacturing, retail and construction.

Following the retirement of Plant Branch thermoelectric facility, surface water withdrawals for the region decreased significantly and water use for the energy sector is less than 1 million gallons per day. In 2020, groundwater supplied 52% of water use and surface water supplied 48% of the region's total water demand. Municipal, agricultural, and industrial water uses were 48%, 28%, and 24% of total water demand, respectively.



UPPER OCONEE WATER PLANNING REGION

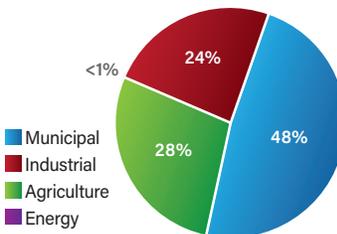


KEY WATER RESOURCE ISSUES ADDRESSED BY THE COUNCIL

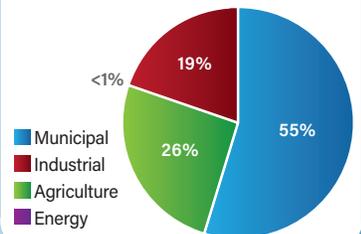
1. Efficient use of the water by all sectors, recognizing the diverse characteristics of the Upper Oconee.
2. Strategic wastewater management in fast growing counties (Barrow, Clarke, Greene, Jackson, Morgan, Oconee, and Walton Counties).
3. Potential limitations on future surface water supplies in existing impoundments.
4. Protecting the water quality of Lakes Oconee and Sinclair and the Oconee River by reducing both point and nonpoint source nutrient loads.
5. The natural capacity of the water bodies to process pollutants is exceeded in the middle (Morgan and Putnam Counties) and lower (Laurens County) portion of the basin due to zones of low dissolved oxygen.

FORECASTED REGIONAL WATER DEMANDS

2020 WATER DEMAND
TOTAL = 146 MGD



2060 WATER DEMAND
TOTAL = 191 MGD



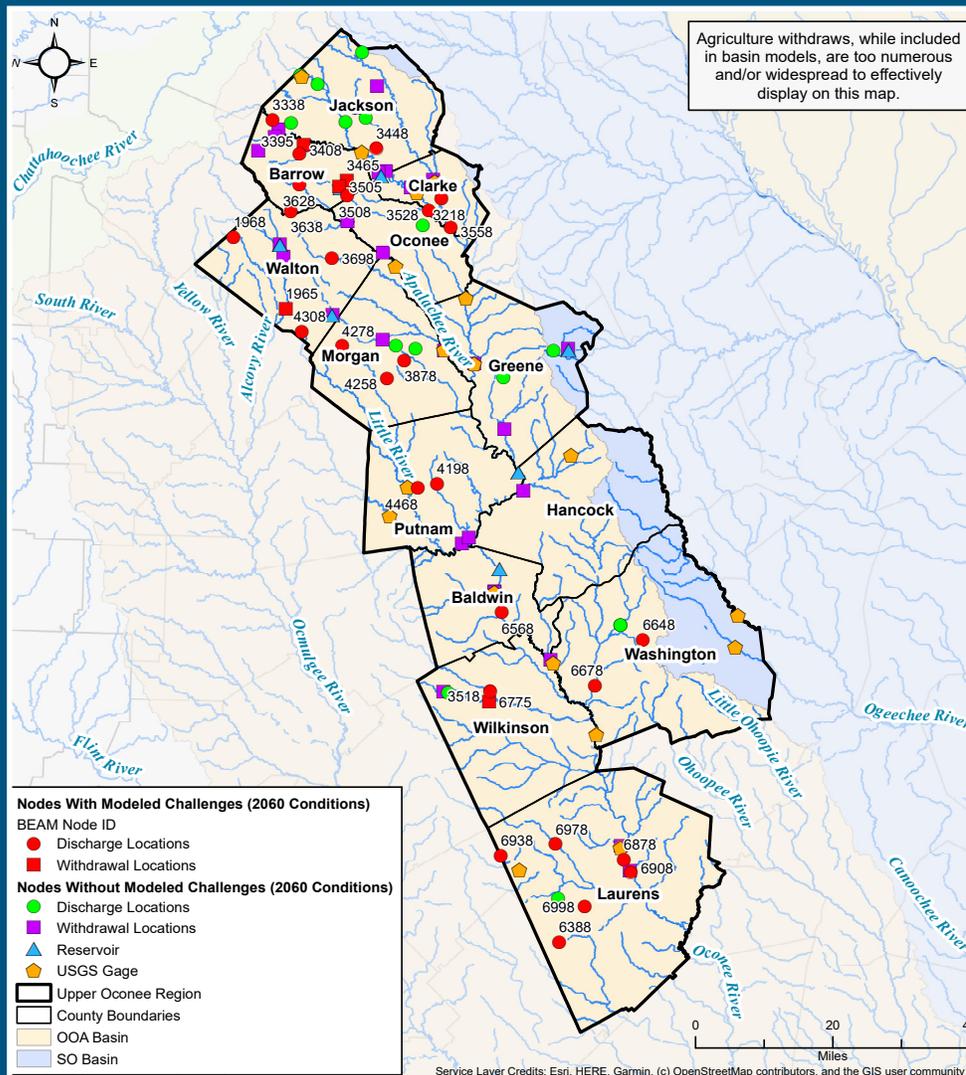
SUMMARY OF 2023 RESOURCE ASSESSMENT RESULTS

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: Water quality problems are predicted to occur in Lakes Oconee and Sinclair due to excess nutrients resulting from a combination of point and nonpoint source pollutant loads from anticipated wastewater discharges and land use changes.

SURFACE WATER AVAILABILITY: Over the next 40 years, the modeling analysis indicates potential challenges in meeting demand for water supply at withdrawal facilities in three counties: Barrow, Walton, and Wilkinson. Potential challenges in meeting demand for assimilation of treated wastewater are indicated at direct discharge facilities in ten counties. The map below shows locations where surface water availability was analyzed; symbols in red indicate facilities where modeling results show potential challenges.

POTENTIAL 2060 SURFACE WATER CHALLENGES IN THE UPPER OCONEE REGION



UPPER OCONEE MANAGEMENT PRACTICES

The Upper Oconee Plan describes 25 management practices targeted toward current and future needs. Actions for surface and groundwater are grouped and listed by the water use sectors that will implement them. The Plan also includes practices for resources shared with other regions. Representative practices are summarized here.

WATER CONSERVATION: To address potential challenges in meeting future water needs, the Upper Oconee Plan encourages conservation pricing and development of water conservation goals.

WATER SUPPLY: Practices include expansion of existing reservoirs and development of new sources.

WASTEWATER & WATER QUALITY: The Upper Oconee Plan calls for implementation of centralized sewer in developing areas where density warrants and development of local wastewater master plans to evaluate wastewater treatment and disposal options to meet future demands. Comprehensive land use planning and local government participation in construction erosion and sediment control are also encouraged.

RECOMMENDATIONS TO STATE: Focus on incentives, collaboration and cooperation with state and local planning agencies, and support for plan implementers; fund water planning; focus funding and assistance on areas with shortfalls; continue monitoring to help conserve Georgia's natural, historic, and cultural resources.