

# SUWANNEE-SATILLA REGION

## BACKGROUND

The Suwannee-Satilla Regional Water Plan was initially completed in 2011 and subsequently updated in 2017. The plan outlines near-term and long-term strategies to meet water needs through 2050. Major water resources include the Suwannee, Satilla, and St. Marys rivers, some of their tributaries and the Floridan aquifer system. The Suwannee-Satilla Region encompasses several major population centers including Douglas, Tifton, Waycross and Valdosta.

## OVERVIEW OF SUWANNEE-SATILLA REGION

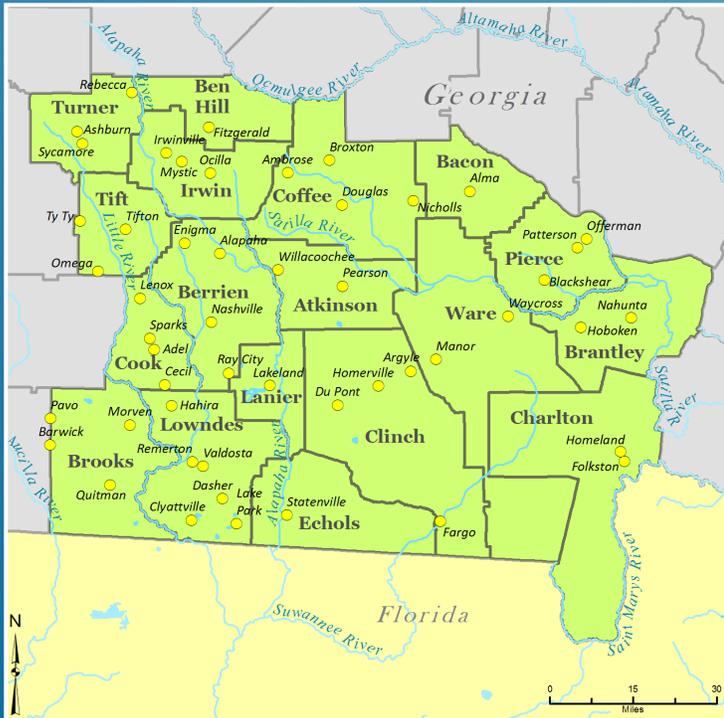
The Suwannee-Satilla Region encompasses 18 counties in the south central portion of Georgia. Over the next 35 years, the population of the region is projected to increase from approximately 416,000 to 499,000 residents. Key economic drivers in the region include agriculture, forestry, professional and business services, education, healthcare, manufacturing, public administration, and construction. Recreation and fishing are also important to the area.

Groundwater, mainly from the Floridan aquifer, is needed to meet about 82% of the future water needs of the Region, with agriculture, municipal, domestic, and industry uses being the dominant demand sectors. Surface water is needed to meet about 18% of these needs, with agriculture as the dominant demand sector.



## KEY WATER RESOURCE ISSUES ADDRESSED BY THE COUNCIL

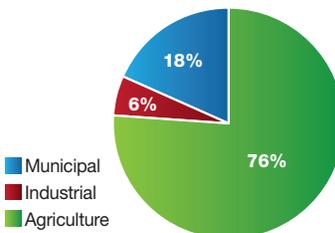
1. Periodic gaps in modeled surface water availability in the Suwannee and Satilla river basins
2. Sufficient surface water quantity and quality to accommodate future municipal and industrial wastewater needs
3. Low dissolved oxygen reaches in the Suwannee, Satilla and Saint Mary's river basins and other water quality issues
4. Development of groundwater and surface water resources to meet future needs
5. Protection of recreational and environmental resources in the region



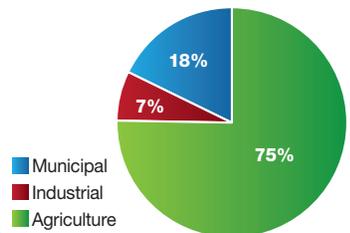
## SUWANNEE-SATILLA WATER PLANNING REGION

### FORECASTED REGIONAL WATER DEMANDS

**2015 WATER DEMAND**  
TOTAL = 276 MGD



**2050 WATER DEMAND**  
TOTAL = 319 MGD



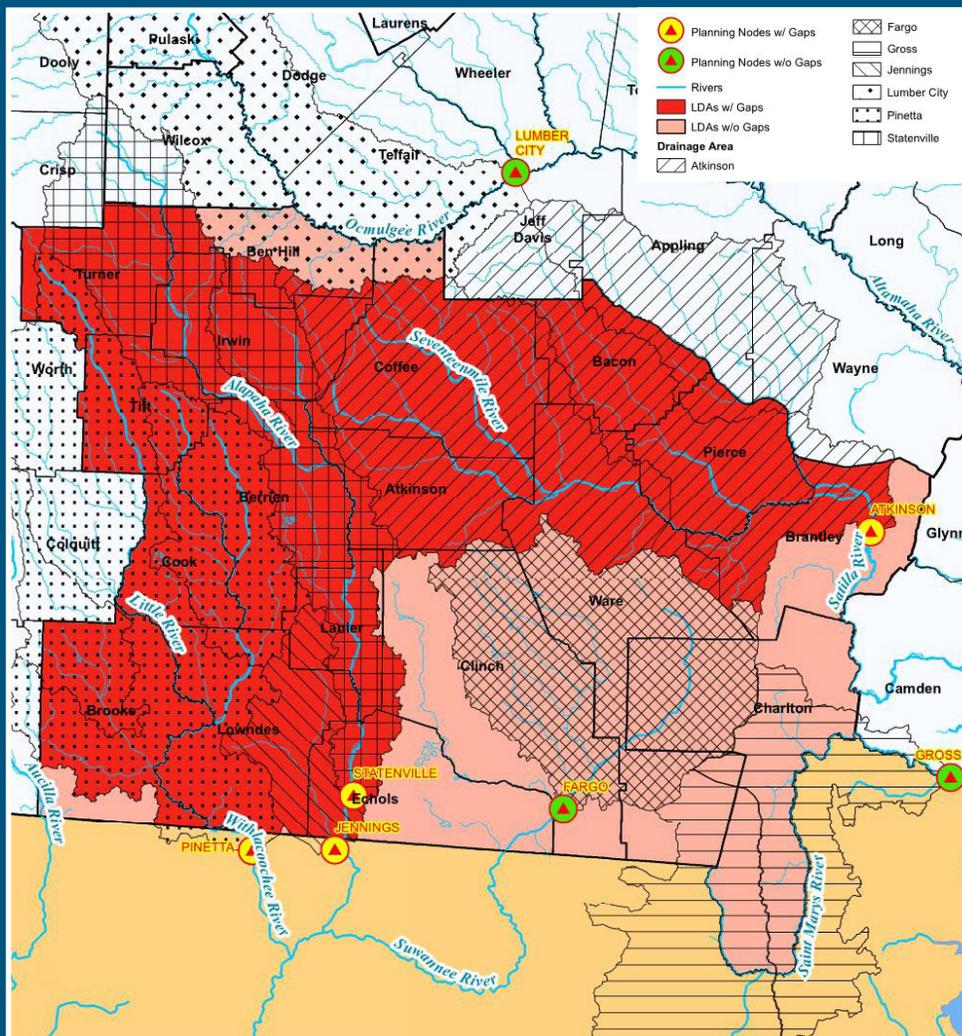
## SUMMARY OF 2017 RESOURCE ASSESSMENT RESULTS

**GROUNDWATER:** At the regional level, for modeled aquifers, no groundwater resource shortfalls are expected to occur in the Suwannee-Satilla Region over the planning horizon.

**SURFACE WATER QUALITY:** Assimilative capacity assessments indicate the potential need for improved wastewater treatment within the Suwannee, Satilla and St. Marys river basins. 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 35 years, the modeling analysis indicates that forecasted surface water demand within the Suwannee-Satilla Region is projected to cause stream flows in the Alapaha River (at the Jennings and Statenville planning nodes), Satilla River (at the Atkinson planning node) and Withlacoochee River (at the Pinetta planning node) to fall below targets for support of instream uses (resulting in "potential gaps"). A map of the node locations, their drainage areas, and a summary of the potential gaps are provided below.

## POTENTIAL 2050 SURFACE WATER GAPS IN THE SUWANNEE-SATILLA REGION



## SUMMARY OF MODELED 2050 POTENTIAL SURFACE WATER GAPS

Node	Duration of Gap (% of total days*)	Avg. Flow Deficit (MGD)	Long-term Avg. Flow (MGD)
Atkinson	5	13	1,445
Jennings	8	23	892
Pinetta	9	30	1,112
Statenville	12	21	684

\*Model simulation period is 1939 - 2013

## SUWANNEE-SATILLA MANAGEMENT PRACTICES

The Suwannee-Satilla Plan describes over 70 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:** The Suwannee-Satilla Council supports the 25 water conservation goals contained in the 2010 Water Conservation Implementation Plan (WCIP), including adherence to Tier 1/Tier 2 measures. Other recommendations include irrigation audits and metering of irrigation systems.

**WATER SUPPLY:** Provide incentives for dry-year releases from farm ponds, groundwater development, wetland restoration, and increases in wastewater returns. Study feasibility of seasonal surface water permit conditions.

**WASTEWATER & WATER QUALITY:** Increase permitted wastewater capacity; monitor nutrient pollution; upgrade or replace treatment facilities.

**INFORMATION NEEDS:** Acquire additional data/information on agricultural consumptive use to confirm or refine if it is less than 100% consumptive; Refine surface water agricultural forecasts & Resource Assessments to improve data on source of supply and timing/operation of farm ponds and dual source irrigation systems.

**RECOMMENDATIONS TO STATE:** Focus on education, incentives, collaboration, cooperation, and enabling and supporting plan implementers; institutionalize and fund water planning; focus funding and assistance on areas with shortfalls. Work with Georgia EPD's Agricultural Water Metering Program, as well as other partners to improve agricultural water use data collection and management.