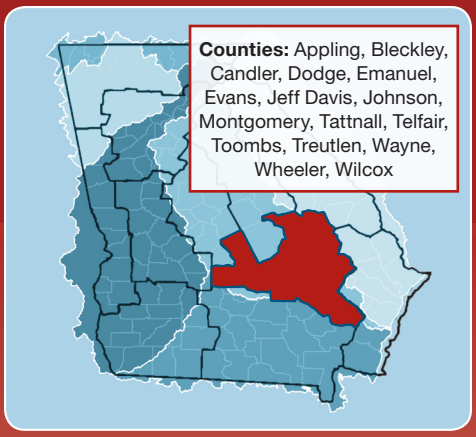
ALTAMAHA REGION

BACKGROUND

The Altamaha 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. The Altamaha River, formed by the confluence of the Ocmulgee and Oconee Rivers, is the major surface water feature in the region. The Altamaha Region encompasses several major population centers including Vidalia, Jesup, Swainsboro, Eastman, and Glennville.



OVERVIEW OF ALTAMAHA REGION

The Altamaha Region includes 16 counties in the south central portion of Georgia. Over the next 35 years, the population of the region is projected to increase from approximately 256,000 to 285,000 residents. Key economic drivers in the region include agriculture, forestry, professional and business services, education, healthcare, manufacturing, public administration, fishing and hunting, and construction.

Groundwater (the majority from the Floridan aquifer) is forecasted to meet about 70% of the water supply needs, with agricultural and industrial uses being the dominant demand sectors. Surface water is utilized to meet about 30% of the forecasted water supply needs, with agriculture and energy as the dominant demand sectors. The energy sector is a major user of surface water from the Altamaha River.

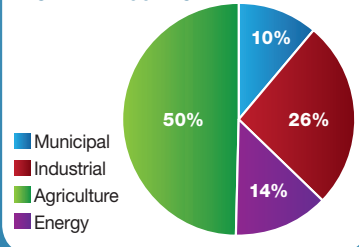
ALTAMAHA WATER PLANNING REGION

KEY WATER RESOURCE ISSUES ADDRESSED BY THE COUNCIL

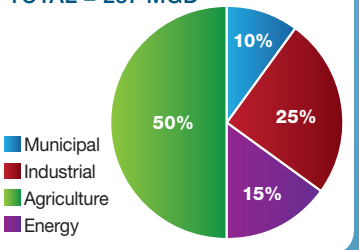
1. Current and future groundwater supplies for municipal/domestic, industrial and agricultural water use
2. Sufficient surface water quantity and quality to accommodate current and future surface water demands
3. Low dissolved oxygen and other water quality issues in streams during periods of low flow
4. Collaboration with other regions that share water resources to ensure that activities do not adversely impact water resources of either region
5. Climate and water supply variability and extremes

FORECASTED REGIONAL WATER DEMANDS

2015 WATER DEMAND
TOTAL = 255 MGD



2050 WATER DEMAND
TOTAL = 287 MGD



Georgia's State Water Plan

ALTAMAHA REGION

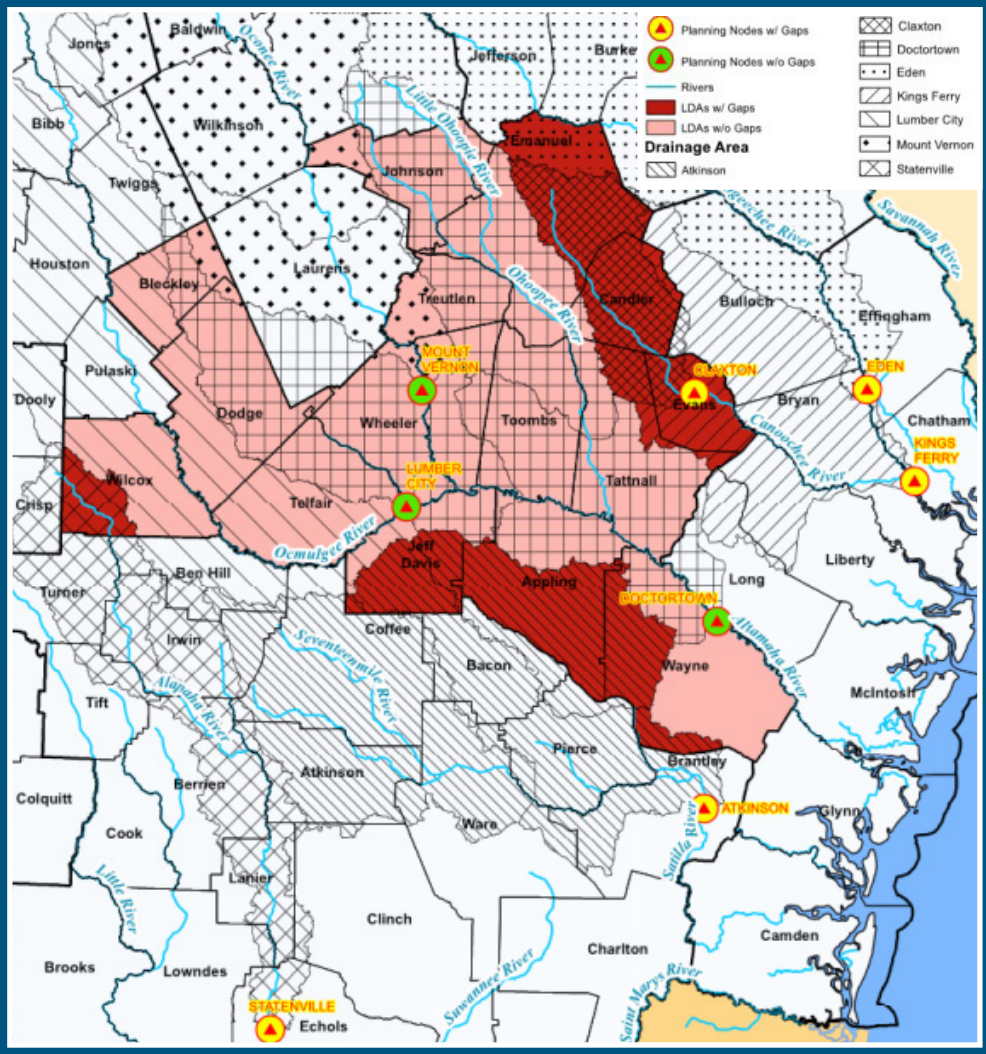
SUMMARY OF 2017 RESOURCE ASSESSMENT RESULTS

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

SURFACE WATER QUALITY: Assimilative capacity assessments indicate the need for improved wastewater treatment in some facilities within the Altamaha, Ocmulgee, Ogeechee, and Suwannee 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 Altamaha Region is projected to cause stream flows in the Canoochee River at the Claxton planning node to fall below targets for support of instream uses (resulting in "potential gaps"). Increased demand in the region may also add to modeled potential surface water gaps downstream of the region on the Ogeechee River at the Kings Ferry, Eden planning nodes, the Satilla River at the Atkinson node, and the Alapaha River at the Statenville node. 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 ALTAMAHA 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
Claxton	15	3	292
Eden	3.3	16	1,430
Kings Ferry	3	24	2,364
Statenville	12	21	684

**Model simulation period is 1939 - 2013*

ALTAMAHA MANAGEMENT PRACTICES

The Altamaha Plan describes over 60 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: Implement practices in Water Stewardship Act; evaluate practices for agricultural water use in areas with shortfalls in streamflow; promote conservation education programs.

WATER SUPPLY: Provide incentives for dry-year releases from farm ponds, groundwater development, wetland restoration, and increases in wastewater returns.

WASTEWATER & WATER QUALITY: Increase permitted wastewater capacity; monitor nutrient pollution; implement nutrient management practices.

INFORMATION NEEDS: Study human impacts on water quality; refine agricultural consumption data; research groundwater potential to address surface water shortfalls; irrigation efficiency education and research; study impacts of wetland restoration on streamflow; monitor and evaluate estuaries.

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; continue monitoring to help conserve Georgia's natural, historic, and cultural resources.

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