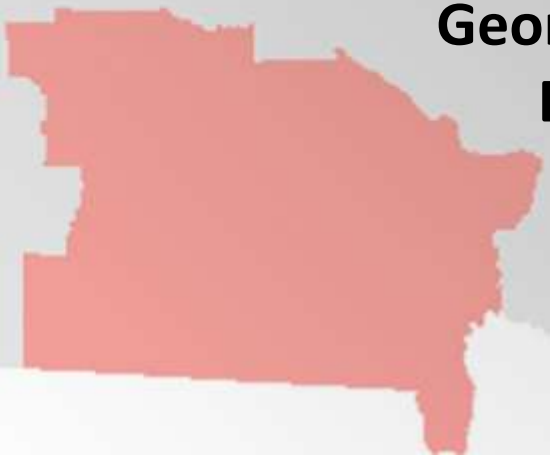
Suwannee-Satilla Regional Water Planning Council

Overview of Regional Water Plan

Darvin Eason, Council Chair
Grady Thompson, Council Vice Chair

November 9, 2011 | Tifton, Georgia



Georgia Department of Natural Resources
Environmental Protection Division

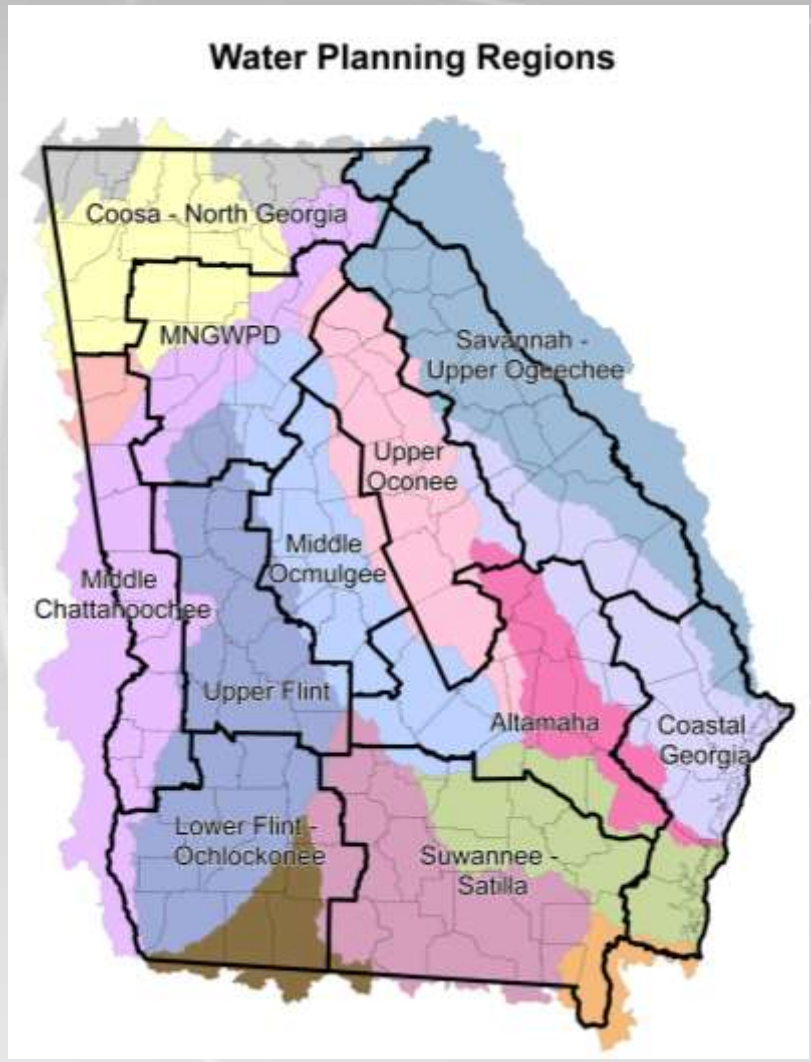
CDM

Overview and Goals for Today's Meeting

- Improve your understanding of the Regional Water Planning information – Today's focus will be on the Withlacoochee and Little River Watersheds
- Identify some key findings of the region
- Discuss potential next steps to address some of these needs

Georgia's State Water Plan

- Water Planning Process Approved by Legislature in 2008
  http://www.gawaterplanning.org/pages/regional_water_planning/index.php
- The wise use and management of water is critical to:
  - Support State's economy
  - Protect public health and natural systems
  - Enhance quality of life for all citizens



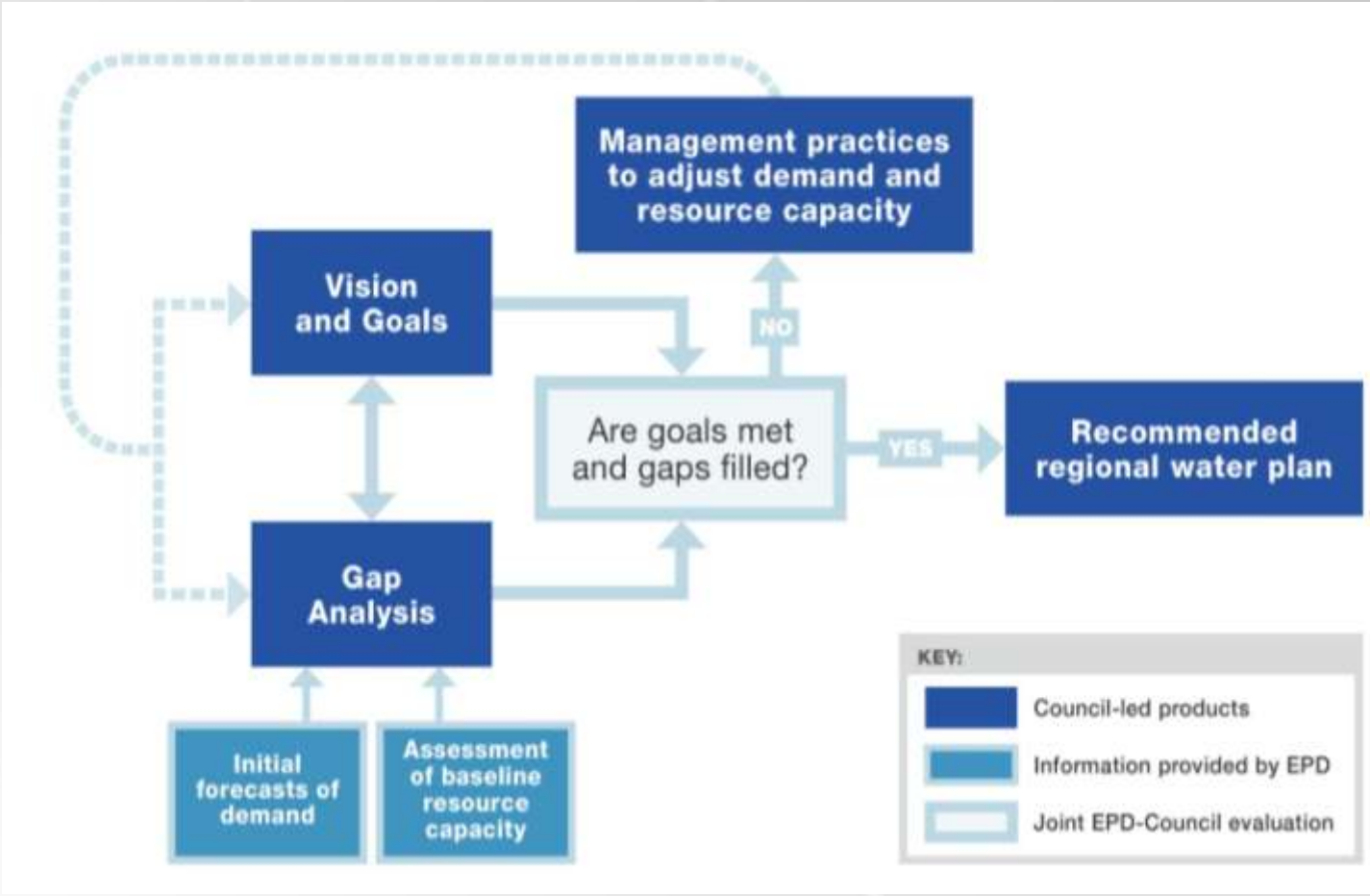
Suwannee-Satilla Water Planning Region

- 18 counties, in the southeastern portion of Georgia
- Major population centers include: Valdosta, Tifton, Waycross, and Douglas
- Major rivers include: Alapaha, Satilla, St. Marys, Suwannee, and Withlacoochee

Some Key Characteristics of the Region

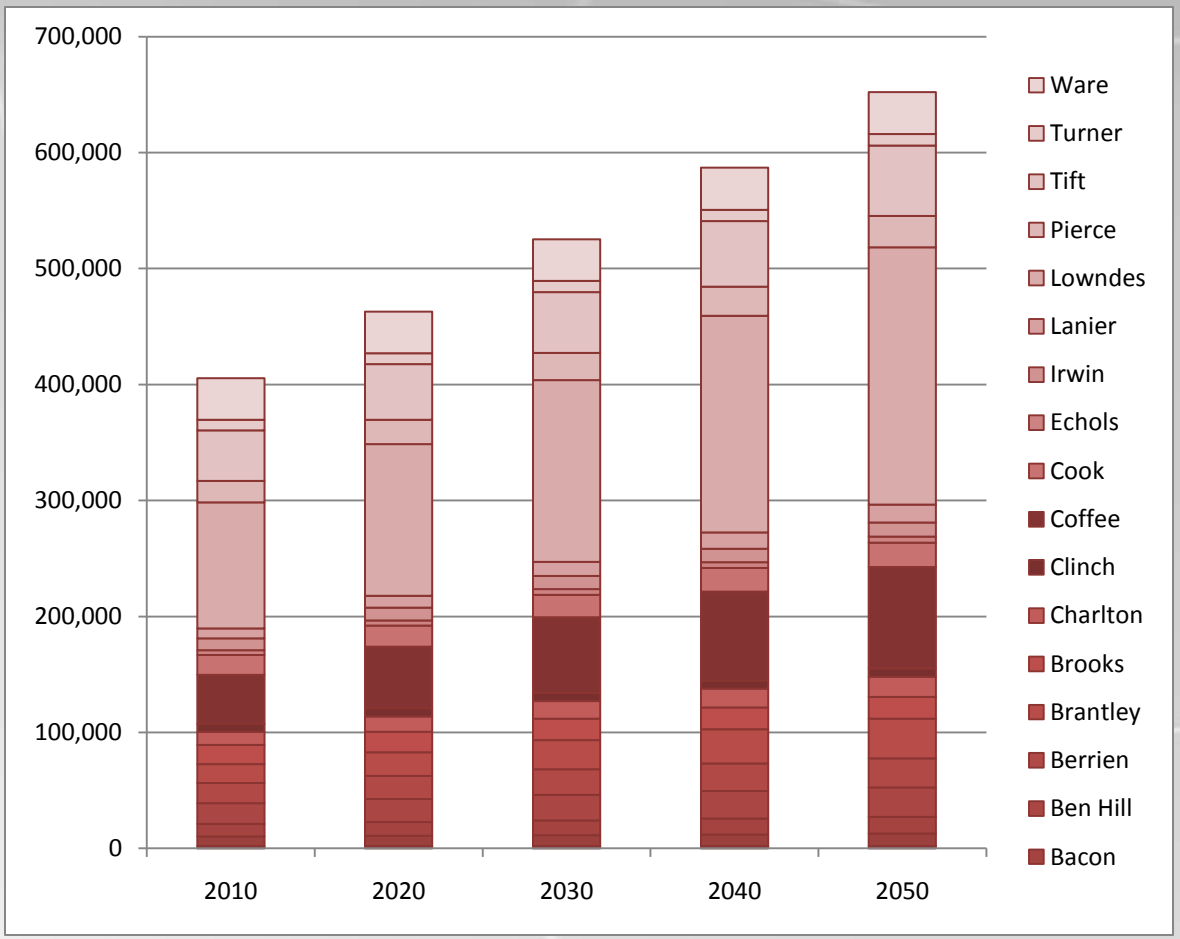
- Key economic drivers in the region include:
  - Agriculture and Forestry
  - Professional and Business Services
  - Education and Healthcare
  - Manufacturing
  - Public Administration
  - Construction
  - Recreation and fishing
- Unique watersheds compared to most of Georgia Rivers
  - Much smaller in size
  - More frequent surface water lower flow conditions
  - Increases the importance of groundwater to the region

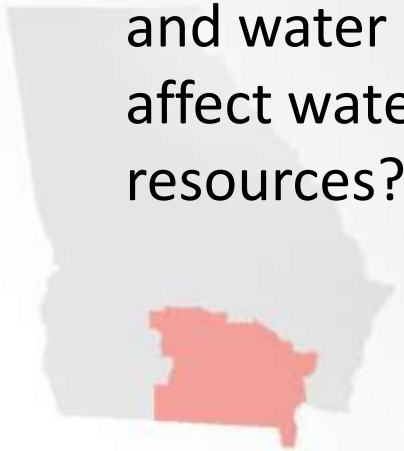
Major Planning Elements



Population Projections

- Lowndes and Tift Counties are expected be the 1st and 3rd largest population centers in the Region
- How will growth and water use affect water resources?



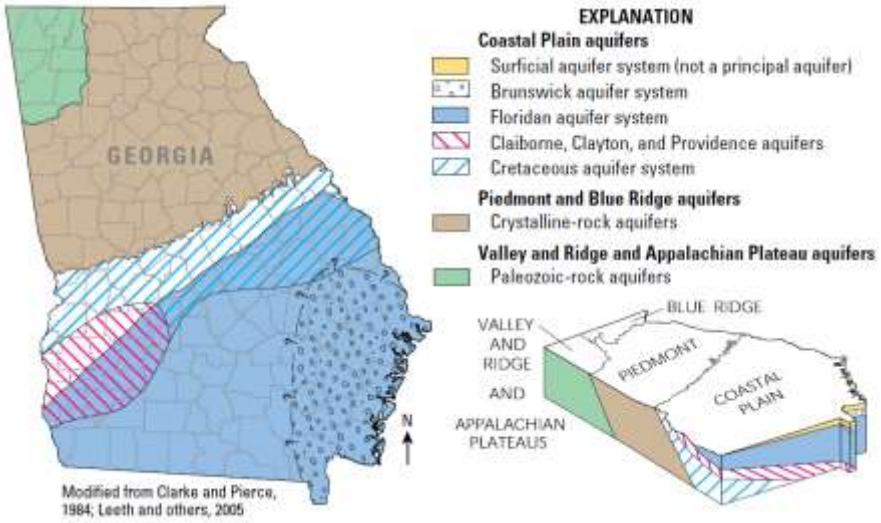


Population projected to increase by 63% from 2010 through 2050, growing from approximately 403,000 to 650,000 residents.

Resource Assessments

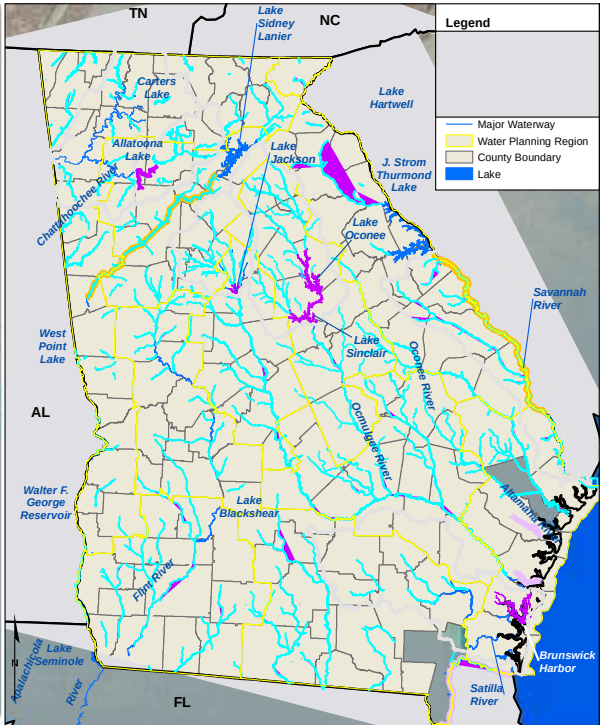
- Three Resource Assessments Completed to Assess Availability of the Resource to Meet Future Needs

Groundwater Availability

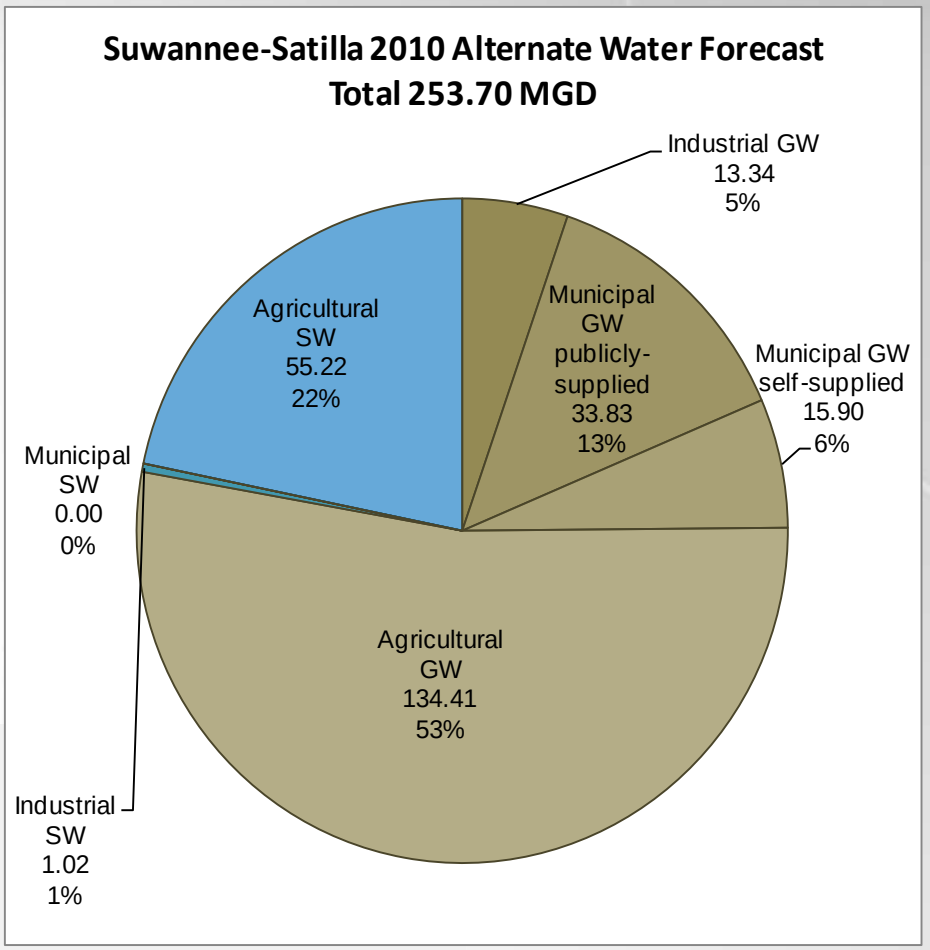


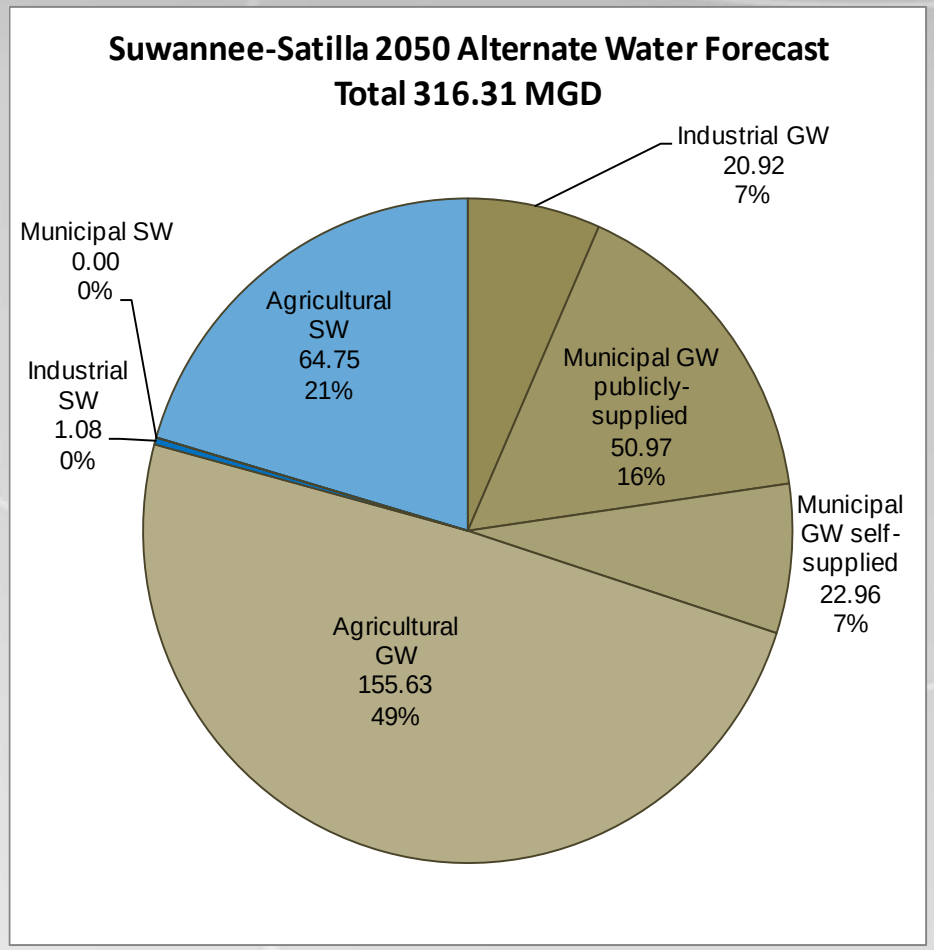
Surface Water Availability

Surface Water Quality (Assimilative Capacity)

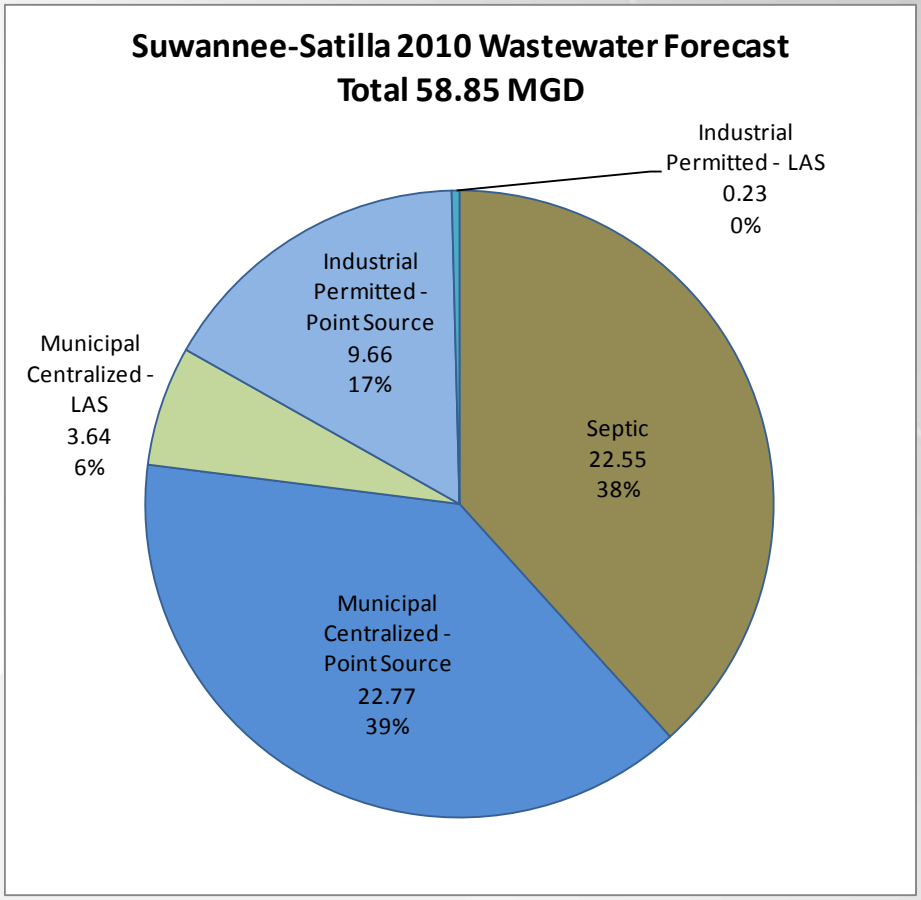


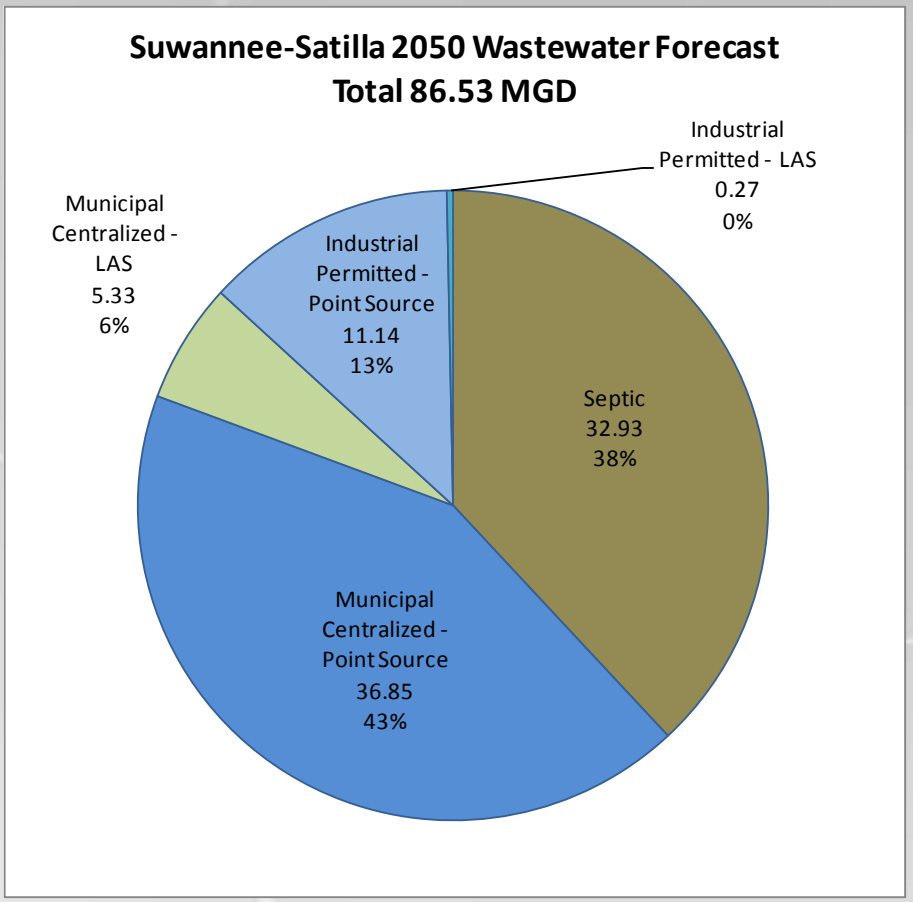
Forecasted Water Needs for the Region





Forecasted Wastewater Needs for the Region



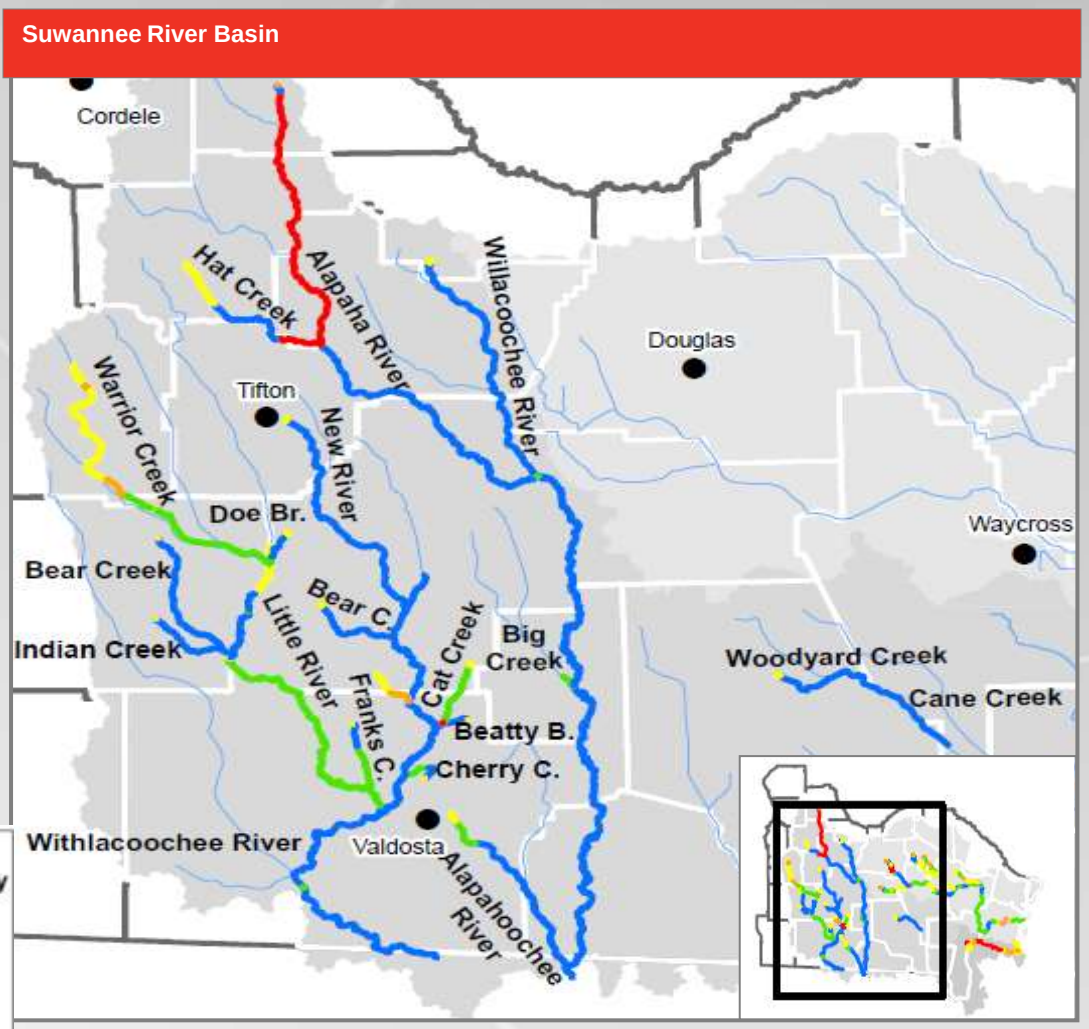


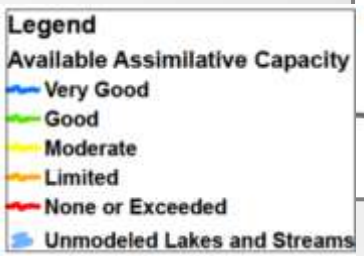
Major Findings and Conclusions for the Region

- Management Practices should be developed and implemented to address water resource shortfalls as determined by the three Resource Assessments.
  - ***Groundwater:*** *Overall, results indicate that the sustainable yield for the modeled portions of the regional aquifer(s) is greater than the forecasted demands.*
  - ***Surface Water Quantity:*** *There are sufficient surface water supplies at several locations throughout the Suwannee-Satilla Region, but there are also surface water shortfalls during some periods of time at the Atkinson, Fargo, Jennings, Pinetta, and Statenville nodes.*
  - ***Surface Water Quality:*** *There are four reaches within the Suwannee River Basin, four reaches within the Satilla River Basin, and one reach in the St. Marys River Basin that exceed assimilative capacity.*

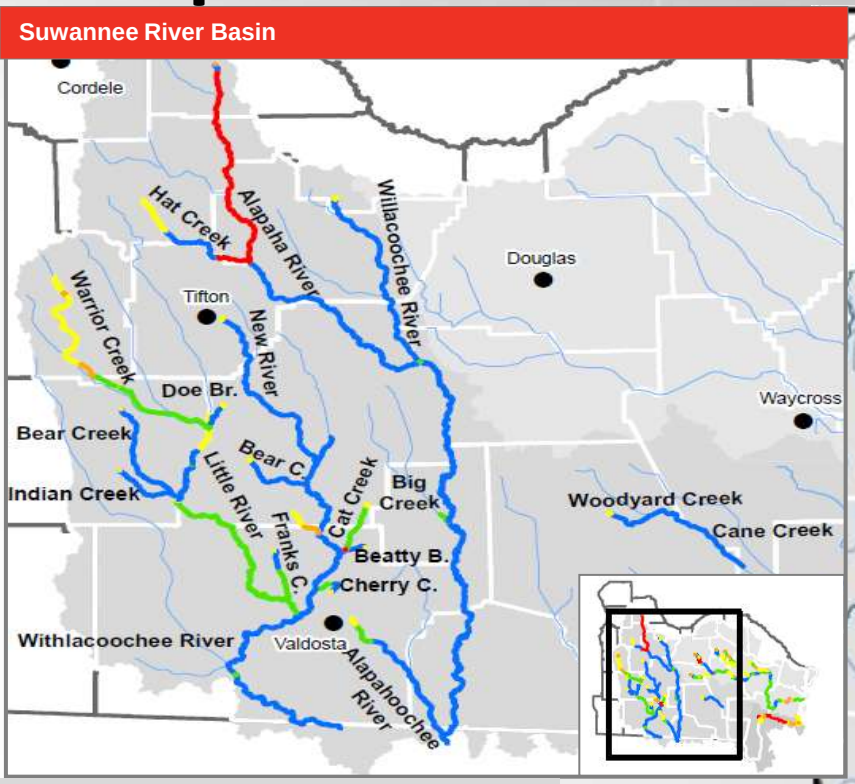
Baseline Water Quality in the Little River and Withlacoochee River

- Management of Point sources and Non-point source runoff is vital to maintaining water quality as the region grows

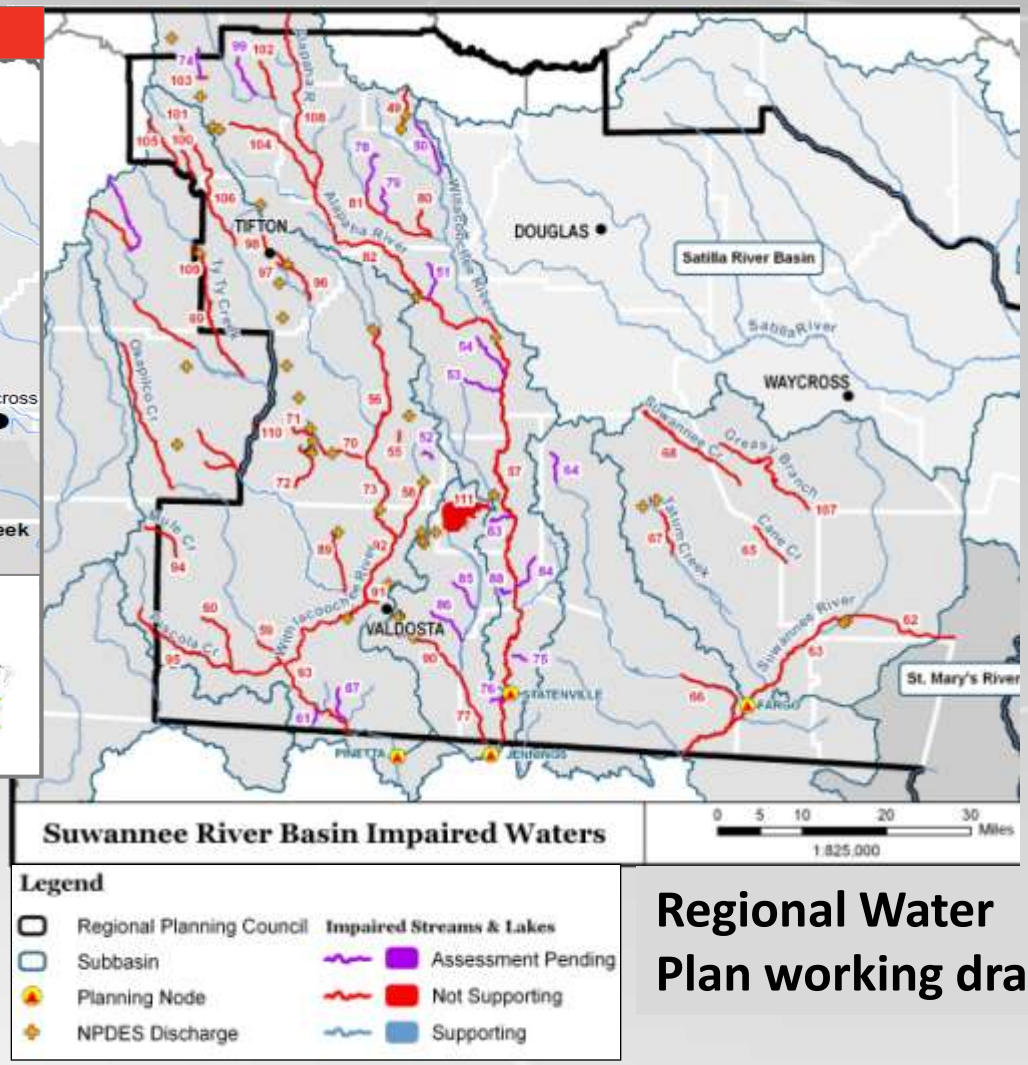




Impaired Waters Designations
Non-point sources and “natural conditions”



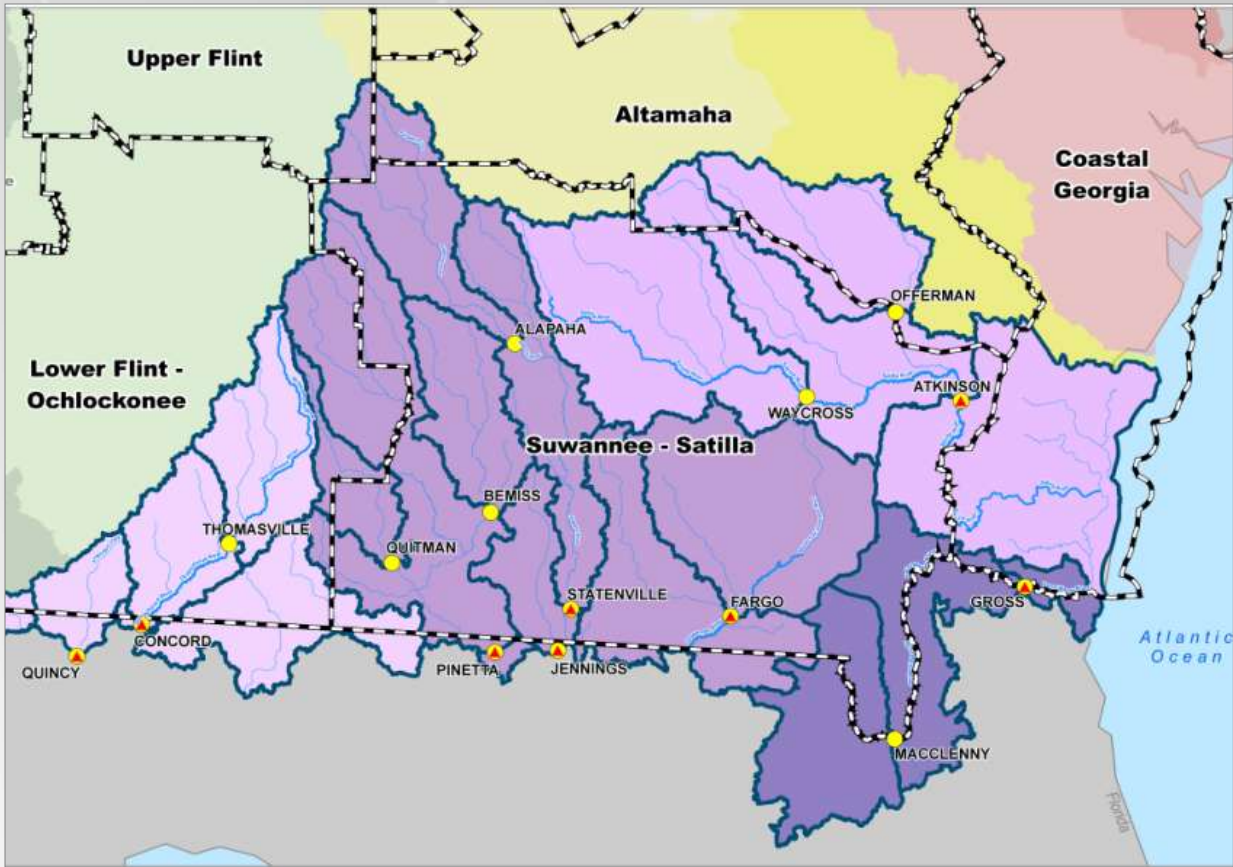
Regional Water Plan includes Agricultural, Urban, Rural, and Forestry Best Management Practices



Regional Water Plan working draft

Addressing Low-Flow Conditions is Critical to Maintain Existing Uses, and to Sustain Ecosystems and Water Quality

- Withlacoochee River-Pinetta
- Alapaha River - Statenville and Jennings
- Satilla and Suwannee Watersheds



Major Findings and Conclusions for the Region

- Management Practices are needed to address regional needs and resource shortfalls
- Management Practices include:
  - *Water conservation*
  - *Refining planning information*
  - *Use of existing or new storage to help reduce the frequency/severity of critical low flow conditions*
  - *Sustainable use of groundwater during times of limited surface water flows*
  - *Improving/upgrading water treatment*
  - *Addressing non-point sources of pollution*

Addressing Regional Surface Water Needs – A Closer Look

- Additional/Alternate to Existing Surface Water Supply Sources ASWS-9 - Incentives for Greater Wastewater Return Flows; Coordinated Management
- Evaluate incentive-based programs to increase wastewater returns; modify land application system, septic systems, and manage stormwater to improve return flows while maintaining water quality
- Evaluate feasibility, and encourage use of, regional storm water management, and if feasible, implement coordinated stormwater management to attenuate high flows and help augment low flows and improve water quality for the Withlacoochee River above the Pinetta Node

Major Findings and Conclusions for the Region

- Role of Local Government
  - Develop educational programs
    - Water conservation
    - Septic system maintenance
    - Stormwater management
  - Identify and pass local ordinances and standards
    - Stormwater management
    - Land development
  - Conduct regional environmental planning
  - Identify opportunities for green space
    - Incentive
    - Voluntary

Funding Sources

- Potential funding sources are identified within the Regional Water Plan with additional information
- Sources may include:
  - State Revolving Fund Program
  - Other State of Georgia Funding Programs
  - State and Federal Grants
  - Water/Wastewater System Revenues
  - State and local government incentive programs

The Water Planning Process

www.suwanneesatilla.org