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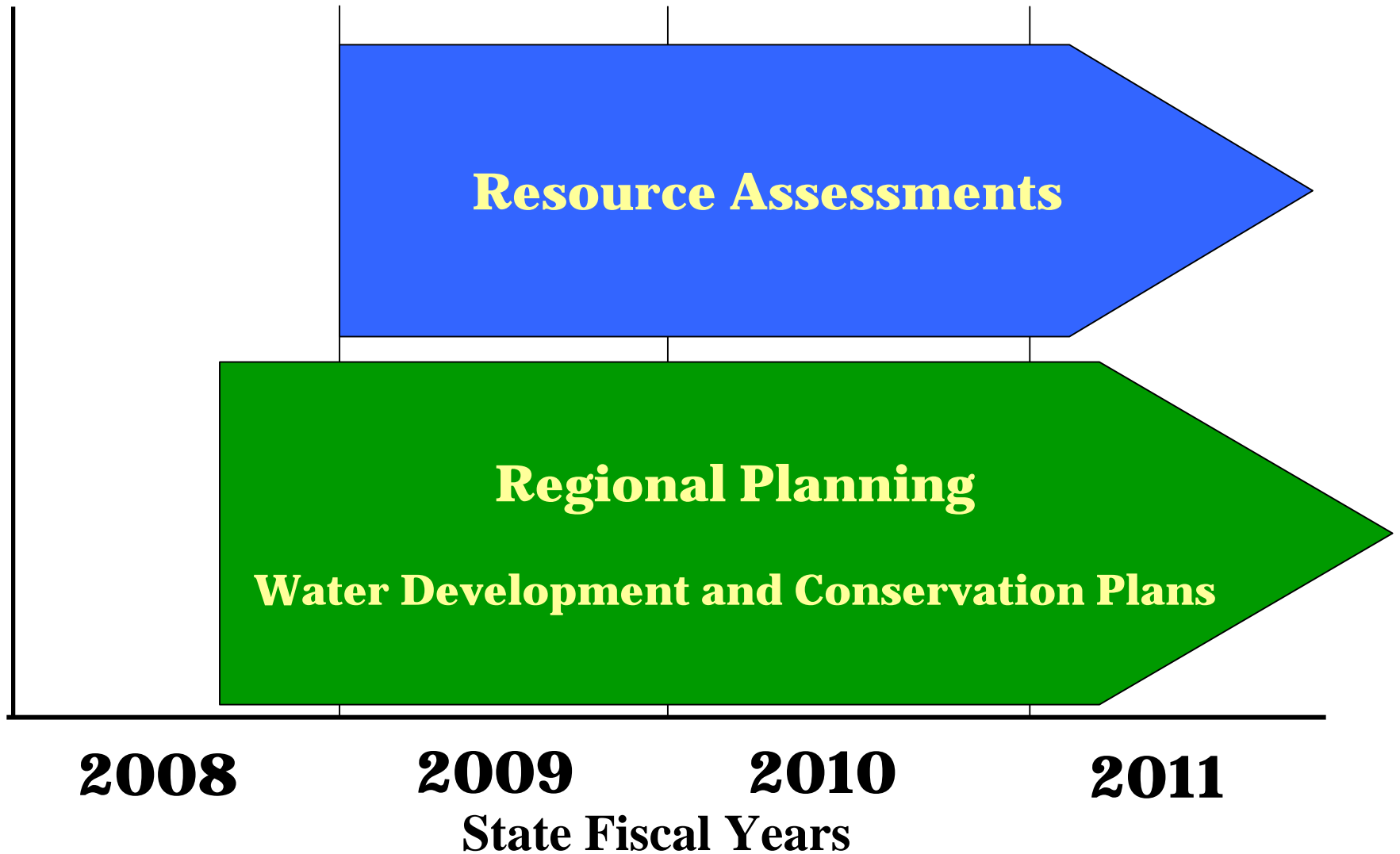
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Water Resource Assessments State Water Plan

Presented at Georgia Association of Water Professionals' Conference
August 20, 2008



State Water Plan Implementation



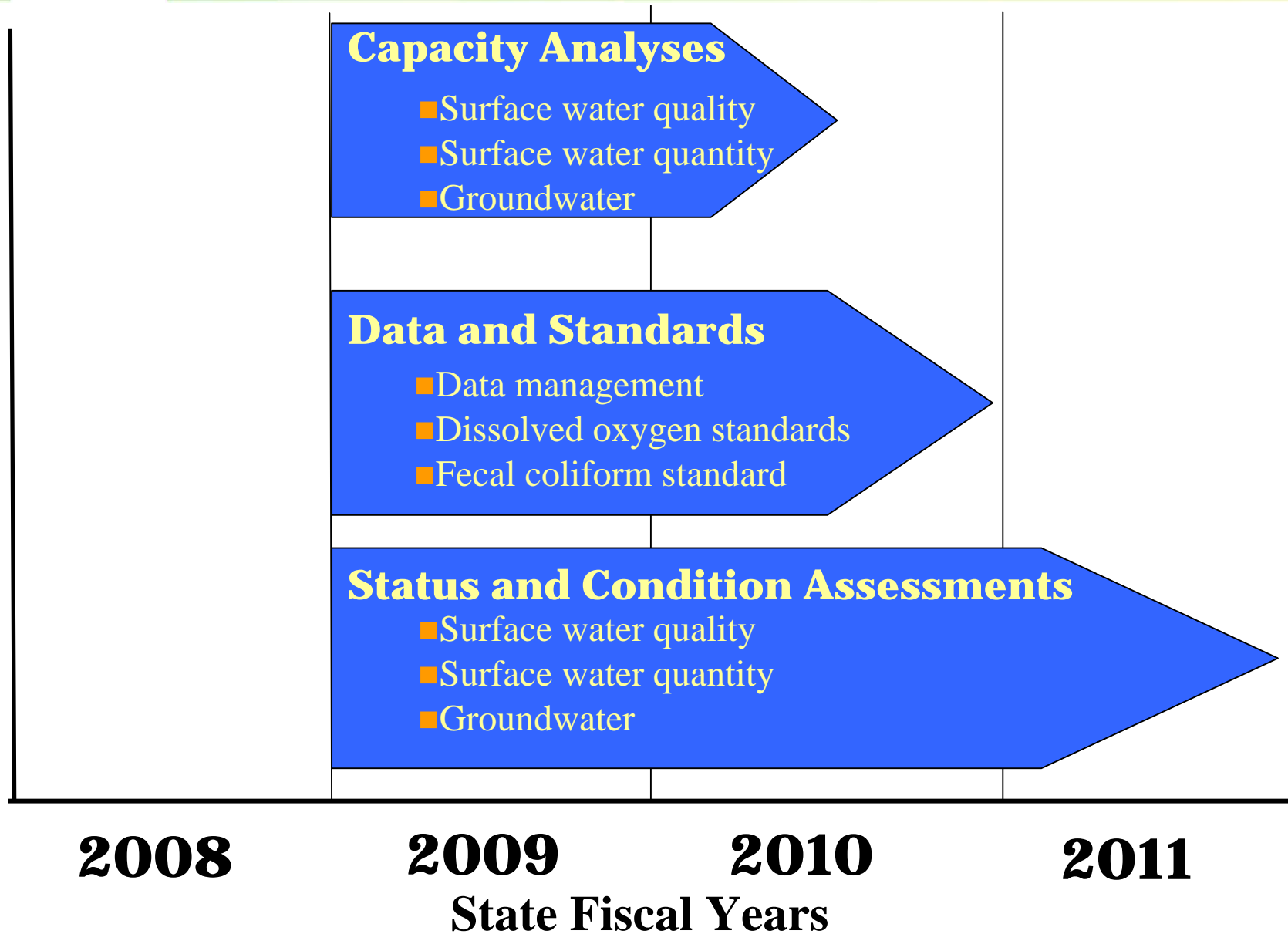


Water Resource Assessments

Resource Assessments

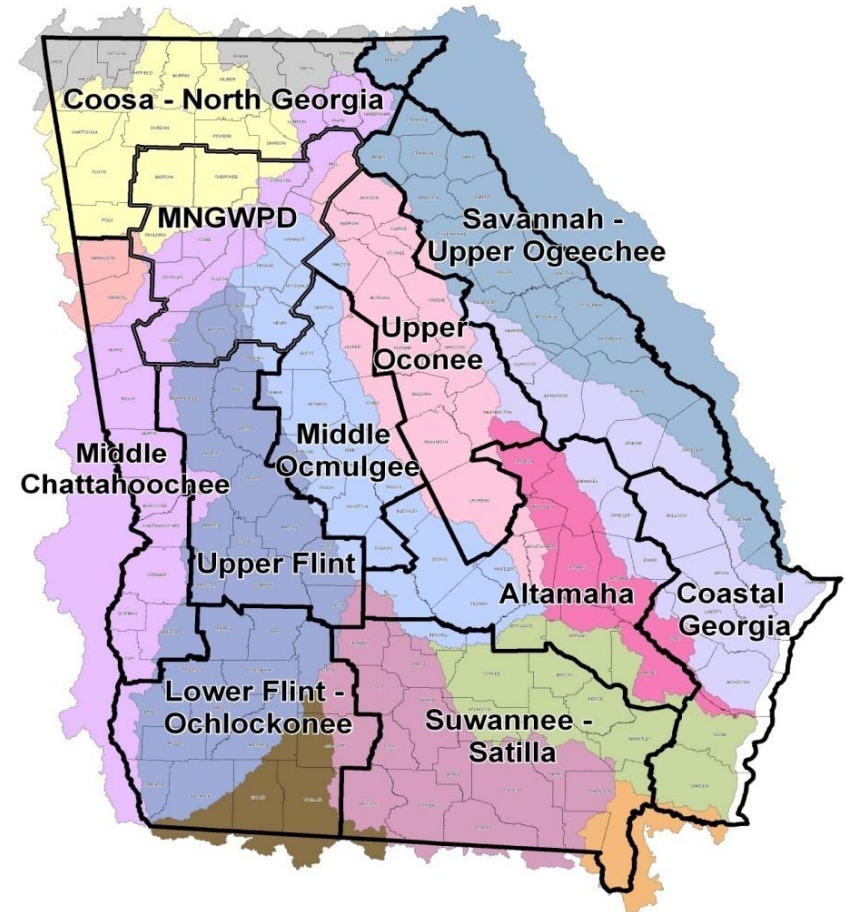
- What are the capacities of our water resources?

Resource Assessments



- Surface Water Availability
- Surface Water Quality
- Groundwater

Final Delineation of Water Planning Regions



Surface Water Availability



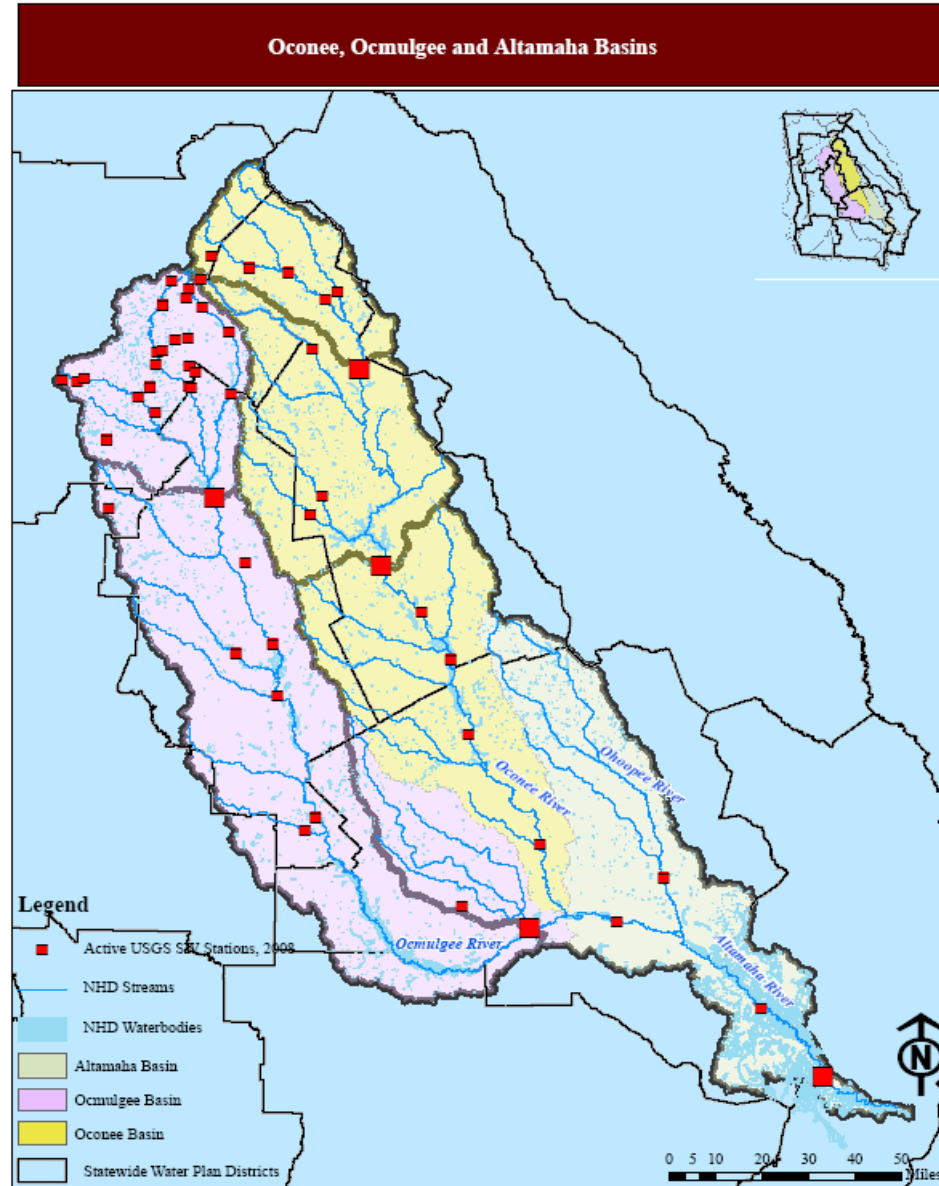
*Art by: Grace Wilhiotel
2007 River of Words*



Water Availability Key Elements

- Observed flow data
- Unimpaired flow
- Basin delineation and node locations
- Desired flow regime
- Tool:
- Current water availability

Oconee/Ocmulgee/Altamaha



Surface Water Quality



*Art by: Chieh Yin
2007 River of Words*



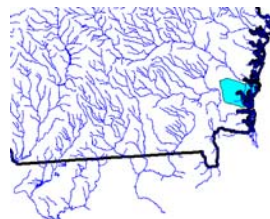
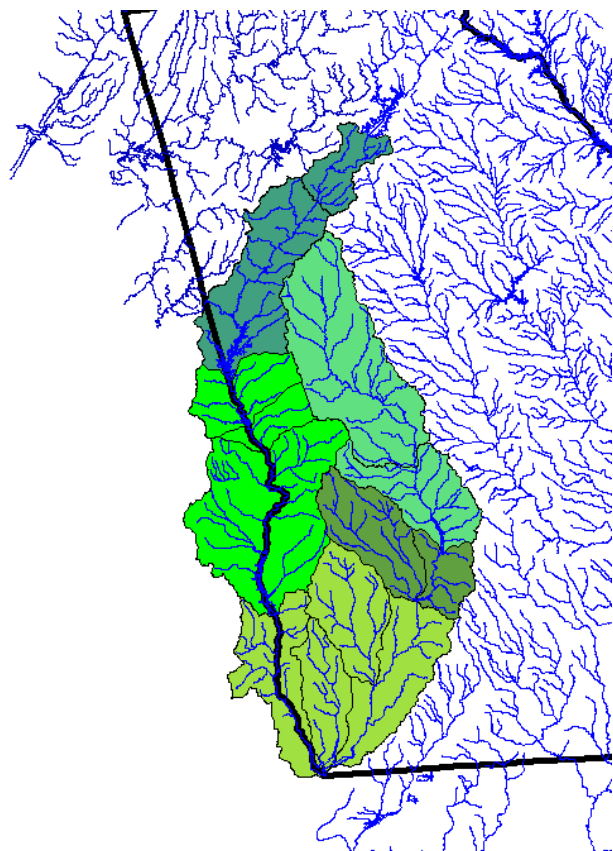
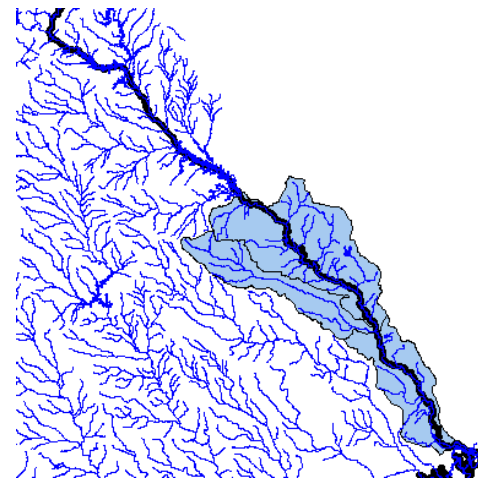
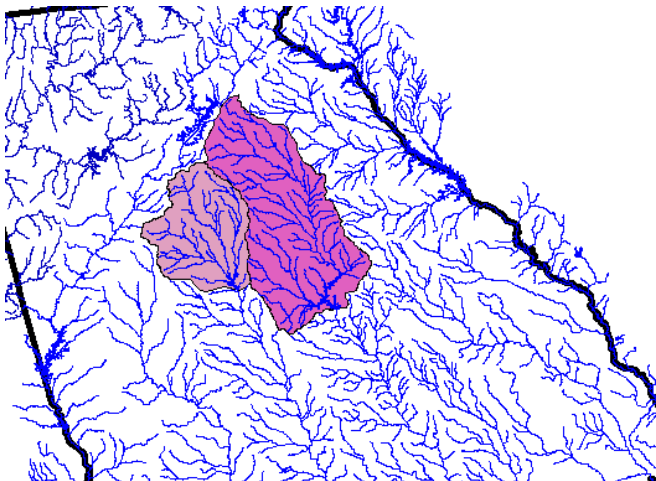
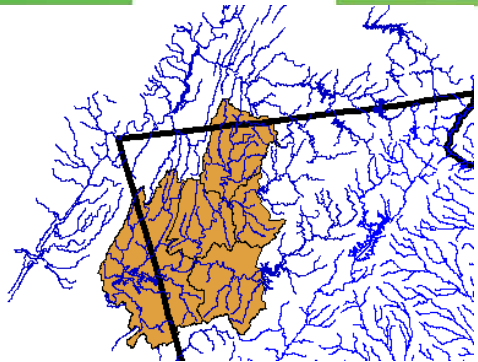
Surface Water Quality

Key elements

- Data compilation
- Basin delineation
- Model development
 - Watershed models
 - River models
 - Lake models
 - Estuary models
- Model calibration and validation
- Current assimilative capacity



Water Quality Analyses by Watershed

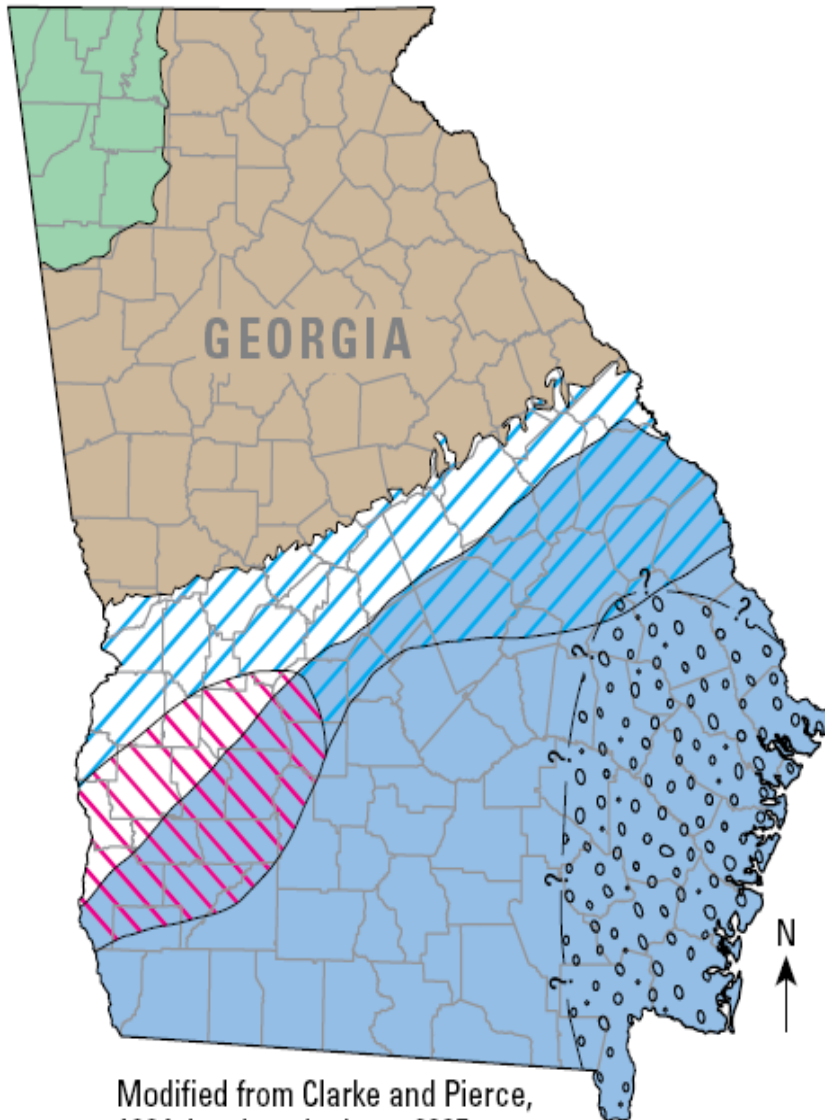


Groundwater



*Art by: Brittany Thomas
Georgia Winner
2005 River of Words*






Aquifers



Modified from Clarke and Pierce, 1984; Leeth and others, 2005

EXPLANATION


Coastal Plain aquifers

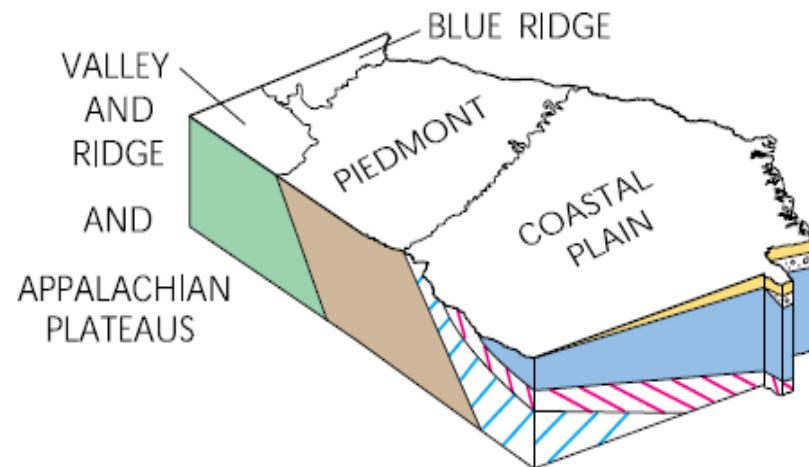
-  Surficial aquifer system (not a principal aquifer)
-  Brunswick aquifer system
-  Floridan aquifer system
-  Claiborne, Clayton, and Providence aquifers
-  Cretaceous aquifer system

Piedmont and Blue Ridge aquifers

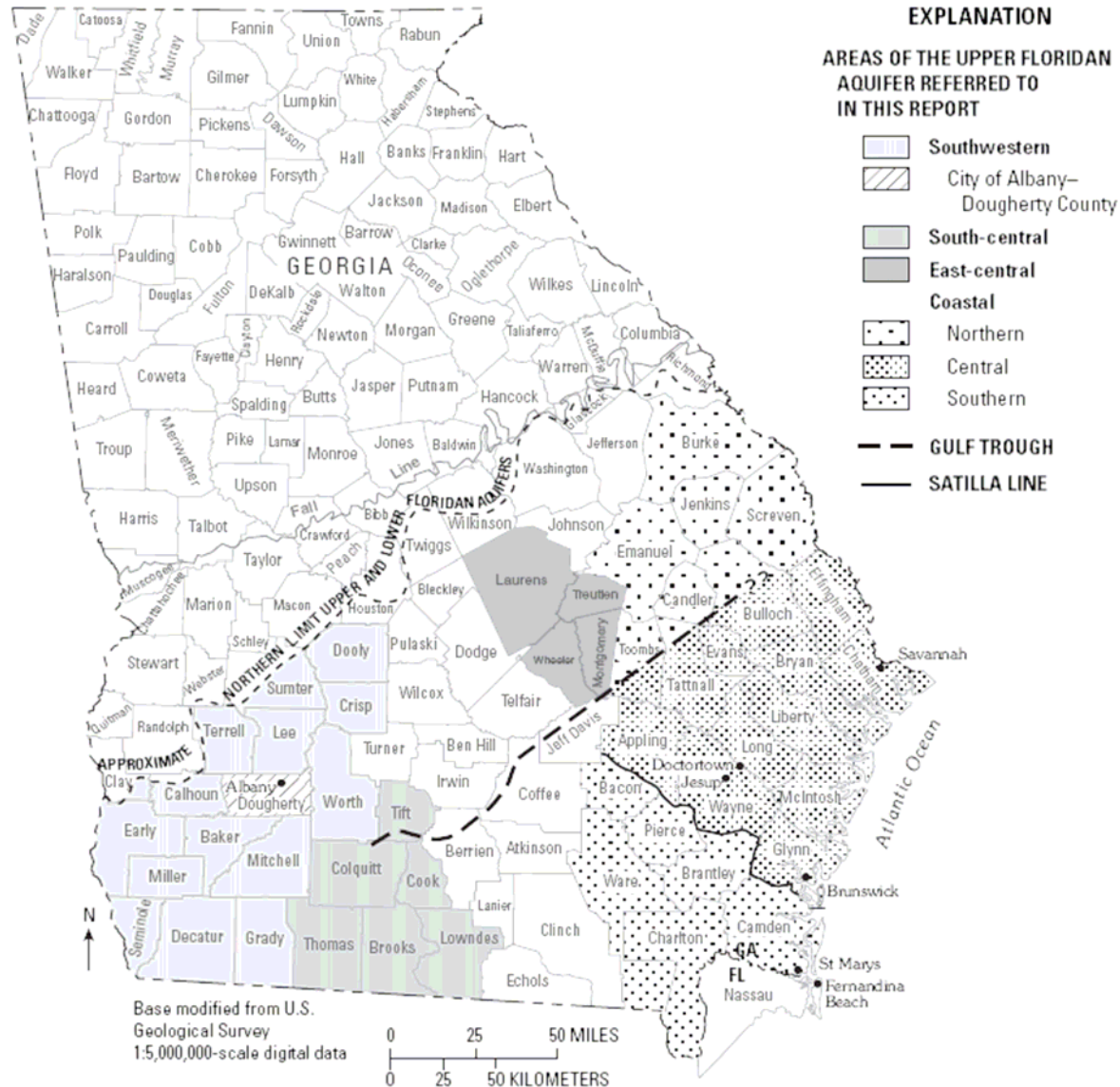
-  Crystalline-rock aquifers

Valley and Ridge and Appalachian Plateau aquifers

-  Paleozoic-rock aquifers



Upper Floridan Aquifer





Groundwater Key elements

- Aquifer prioritization
- Data compilation
- Develop groundwater budget models
- Determine sustainable yields
- Determine benchmarks for further analyses



Unacceptable groundwater impacts

- Dropping water levels
- Uneconomic pumping conditions
- Degradation of groundwater quality
- Reduction in hydraulically connected stream flows
- Land subsidence



Key Near-term Activities

■ 2008

- Contractor selection
- Data gathering and model development

■ 2009

- Current assessments

■ 2010

- Future assessment (Regional Planning)

■ 2011

- Preparation of recommended Water Development and Conservation Plans



How can I get involved?

- Water Planning Council member
- Technical advisory groups (ad hoc)
 - Various technical topics (monitoring plan and desired flow regime are examples)
- Review of documents
 - Will be posted on web
- Plan review



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