Georgia's
State Water Plan

7th Annual Georgia Environmental Conference, Water Management Practices and Georgia's Adopted Regional Water Plans, Session 5, Course 41

August 23, 2011

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Course Format

- Brief Overview of State Water Plan;
- Four Presentations on Selected Water Management Practices;
- Panel/Question and Answer

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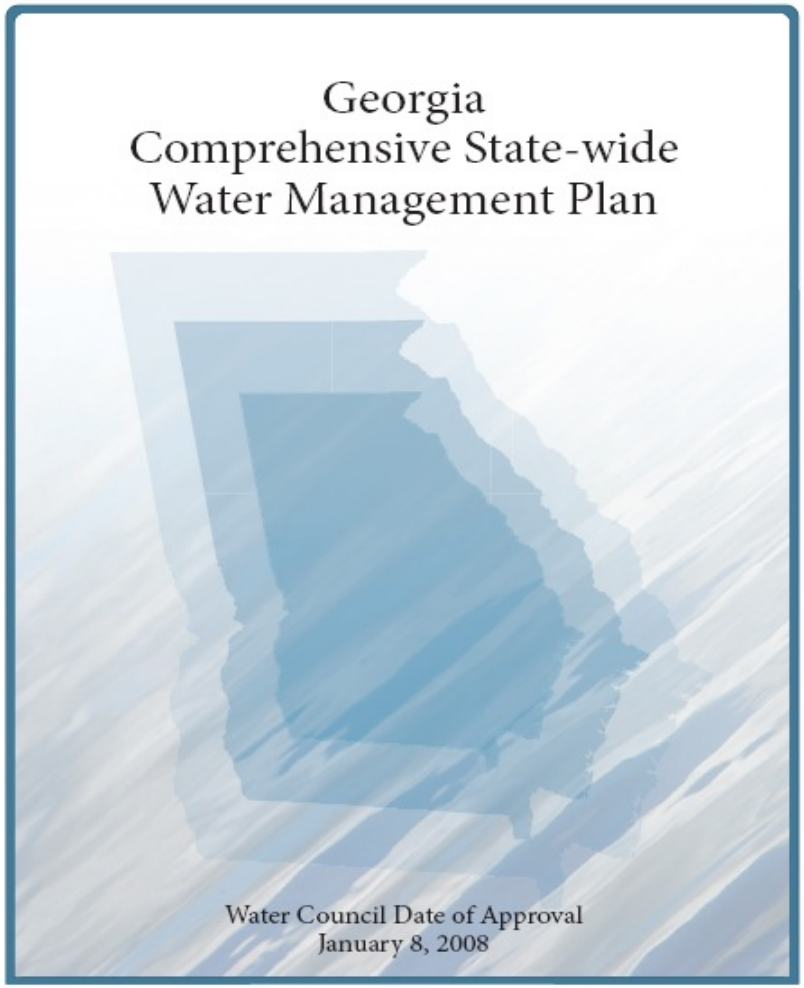
Presentations

- Industrial Water Conservation;
- Reservoirs;
- Desalination; and
- Aquifer Storage and Recovery

State Water Planning



- Comprehensive Water Planning Act directed development of State Plan in 2004 by Water Council;
- State Water Plan approved by General Assembly and signed by Governor in 2008;
- State Water Plan required regional planning through formation of ten regional water planning councils

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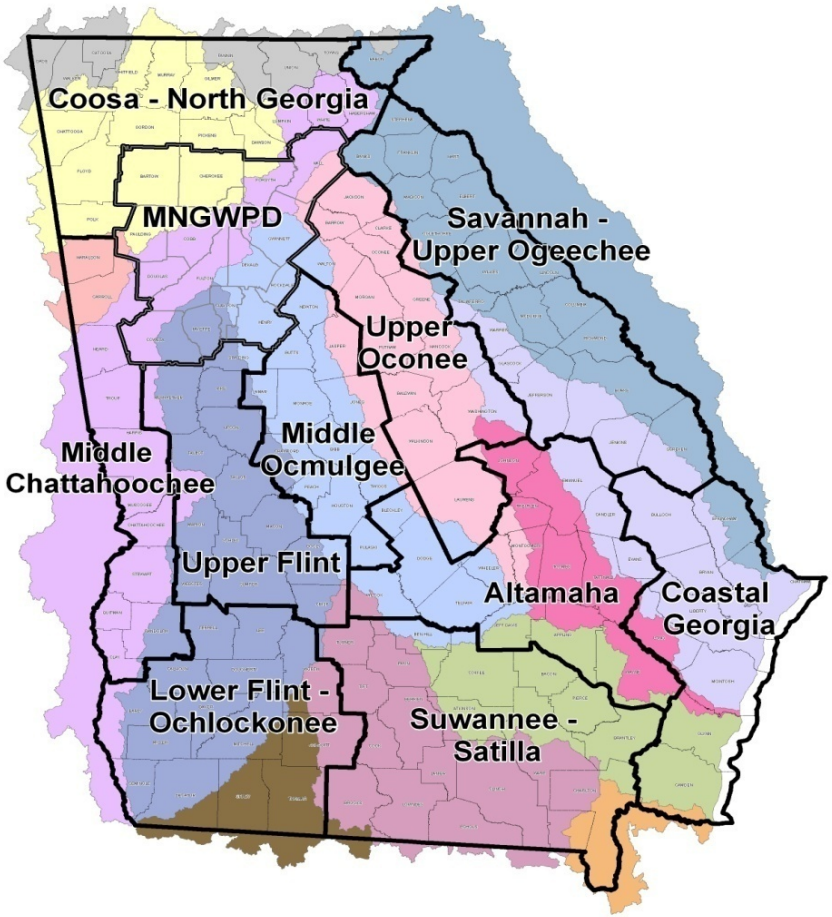
Regional Water Planning

- Characteristics vary significantly in differing regions across Georgia
- Managing water resources to meet current and future needs will require:
  - –regional, resource-based plans
  - –that identify the management practices
  - –appropriate to the resources and users in each region

Final Delineation of Water Planning Regions



Adopted Regional Water Plans

- Regional Water Plan development process initiated March 2009;
- Ten plans adopted by EPD November 15, 2011:

1) Introduction (Process/Council vision statement/Objectives);

2) Region Specifics (History/Geography/Characteristics);

3) Water Resources (Water use/Baseline resource assessments/ Ecosystem conditions/In-stream uses);

4) Forecasting Future Water Needs (Municipal, Industrial, Agricultural, Thermoelectric);

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Adopted Regional Water Plans

5) Comparison of Water Needs with Resource Capacities (Groundwater and surface water availability/Surface water quality);

6) Addressing Water Needs and Regional Goals (Water management practices selected);

7) Implementing Water Management Practices (Schedules/ Responsible parties/Cost estimates);

8) Monitoring and Reporting Progress (Benchmarks/Plan Update/Plan amendments)

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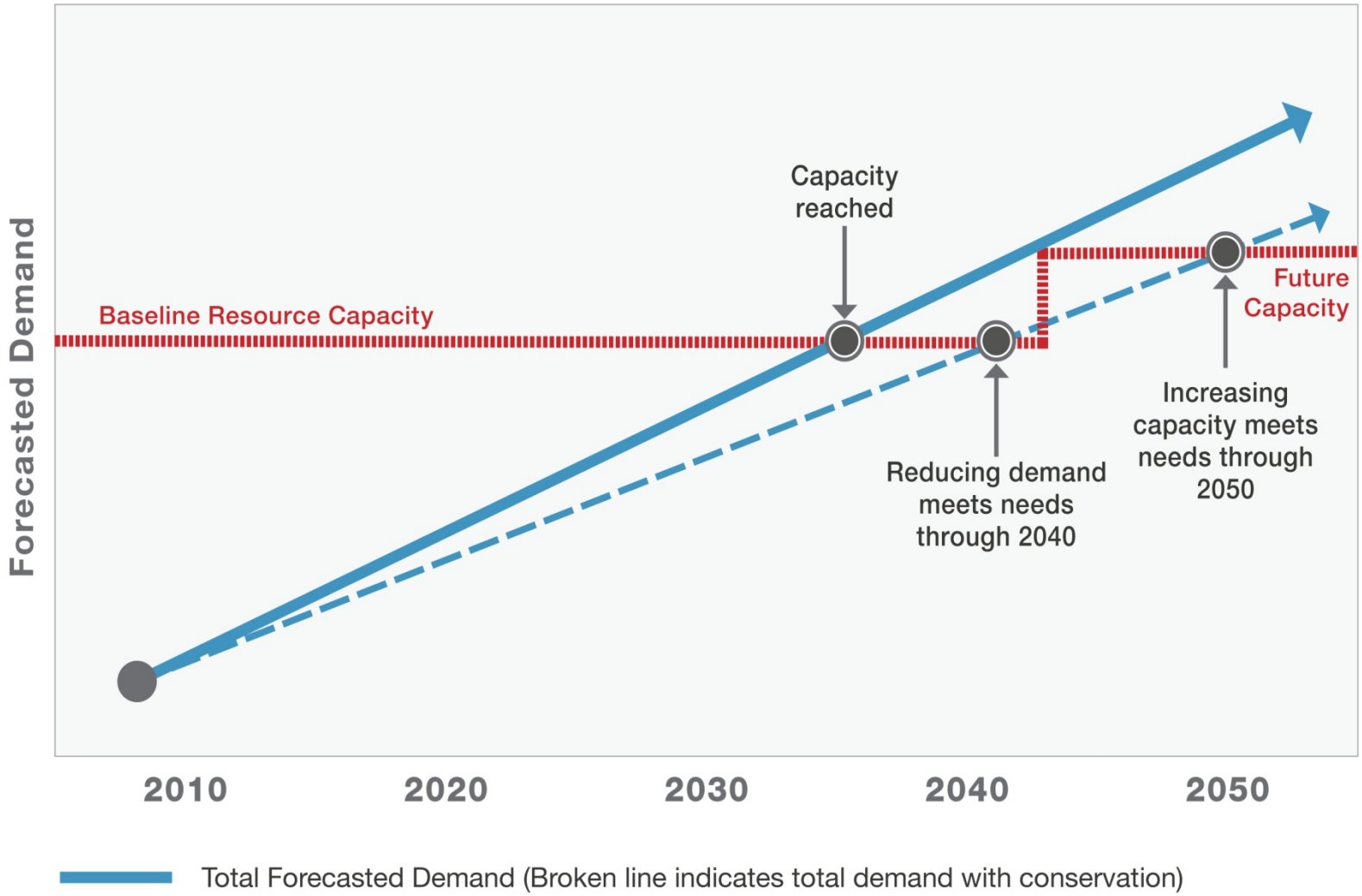
Practices to Reduce Demand/Increase Capacity



RWPs versus Water Management Practices

- Coosa North Georgia-42
- Altamaha-71
- Middle Chattahoochee-22
- Upper Flint-18
- Lower Flint-Ochlockonee-17

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RWPs versus Water Management Practices

- Upper Oconee-38
- Middle Ocmulgee-35
- Suwanee-Satilla-76
- Savannah- Upper Ogeechee-30
- Coastal Georgia-86

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Water Management Practices

- Water Conservation
- Agricultural and Forestry BMPS
- Ground and Surface Water Quantity Practices
- Surface Water Quality Practices

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Water Management Practices

- Storm Water BMPs
- Land Use Management
- Research and Development
- Local Planning

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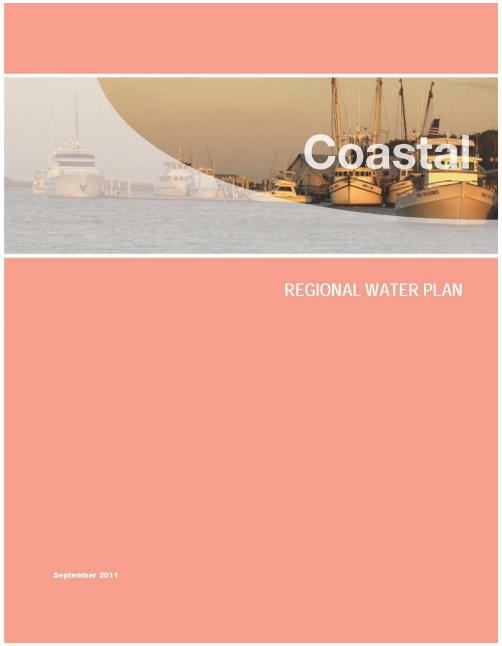

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Coastal Georgia RWP/Selected Practices

"Municipal and Industrial water uses - encourage implementation and adherence to Tier 1 and 2 water conservation measures established in existing and future rulemaking processes and plans by local governments/ utilities."

"Conduct research to determine the feasibility (technical, financial, legal, political), role, and potential benefits and limitations of aquifer storage and recovery (ASR) in critical gap areas and/or recharge of surficial and other Aquifers."

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Coastal Georgia RWP/Selected Practices

"Reverse Osmosis treatment of brackish water - consider feasibility of additional treatment at source of supply through treatment of brackish surface water and distribution of water to help meet water needs in gap areas."

"Desalination - consider feasibility of removal of salt from ocean water and distribution of water to help meet water needs in gap areas."

"Possible joint non-main stem reservoir to serve multiple regions/regional council boundaries with Savannah-Upper Ogeechee and Oconee Councils."

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Speakers and Topics

Industrial Water Conservation: Jeff Wilson, Principle Research Engineer and Water Research Center Project Manager, Research & Technology Management, Southern Company Services;

Reservoirs: Jim Mathis,P.E. - Principal Water Resources Engineer, Infratec Consultants, Inc;

Desalination: Chandra Mysore Ph.D., P.E., BCEE, - National Practice Leader-Water, GHD, Inc;

Aquifer Storage and Recovery: Charles Sexton - Director of Engineering, Beaufort Jasper Water and Sewer Authority, South Carolina.

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