

# **Georgia Water Council**

March 1, 2006

DNR Board Room - Floyd Tower East  
Atlanta, GA



# **Minimizing Water Withdrawals through Water Conservation and Reuse**



# Rationale



- Population expected to double in 25 years
- Some reduction in use per capita
- Demand expected to outpace limited supplies
- Regional resources already stressed



# Premises & Principles

- Objective of policies and tools is to minimize water withdrawals
- Certain policies and management tools should apply statewide
- Additional tools should apply to where the resources are stressed
- All water use sectors must be addressed
- No two sectors are alike and no two water users are identical



Atlanta Athletic Club



# BAC Discussion Package

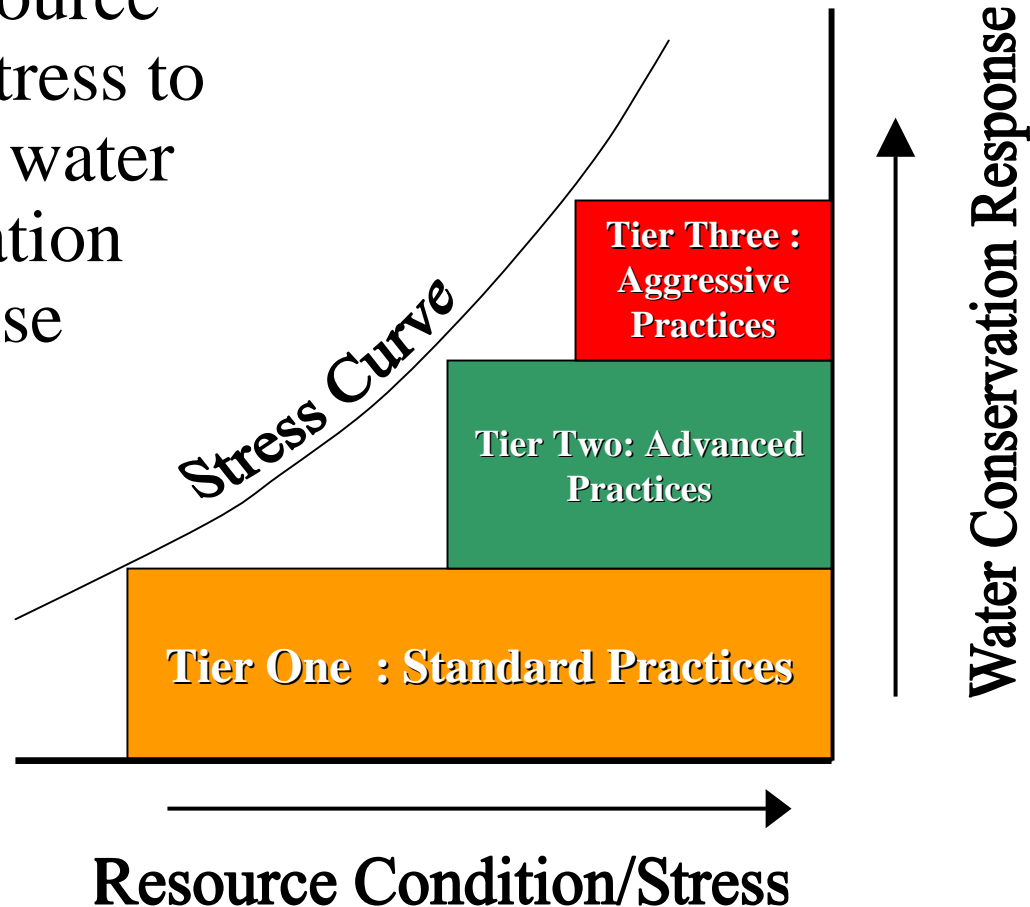
Three primary elements:

1. Policy framework for determining water conservation response
2. Water conservation goals
3. Standard water conservation practices



# Policy Framework: Resource-based Tiered Approach

Water resource condition/stress to determine water conservation response



# Resource-based Tiered Approach

- Unknowns
  - Characteristics of resource stress
  - Thresholds of resource stress
  - Calculations of conservation response
- Knowns
  - Must apply statewide
  - Must allow flexibility to determine the most appropriate response



# BAC Considerations for Framework

## Commonalities

- General acceptance of framework concept
- Concern for details
  - Stress characteristics
  - Break points btw tiers
- Need to assess water availability
- Reuse must off-set other sources

## Divergent Issues

- Equity concerns
  - Water distribution
  - Responsibilities
- Questions of scale and implementation
- Consumptive loss or minimize use



# Water Conservation Goals

*General management objective-specific goals that all water uses and sectors can achieve, to some degree*

- Apply statewide
- Apply to all use sectors and users
- Not quantifiable – *yet*
- Broken down into information goals (4) and conservation goals (5)



# Water Conservation Goals

## Information Goals:

- Meter water uses and improve water use reporting.
- Conduct reuse feasibility studies.
- Conduct water audits.
- Build understanding of conservation through education and outreach programs.



# Water Conservation Goals

## Conservation Goals:

- Reduce water loss.
- Minimize outdoor water use and waste.
- Maximize in-house efficiency.
- Adopt conservation-oriented rate structures.
- Adjust management practices to minimize water use.



# Water Conservation Practices

*Sector-specific activities or management practices to achieve conservation goals and min. withdrawals*

- Agricultural Irrigators
- Industrial Water Users
- Power Providers
- Public and Private Water Providers



# Discussion



# Maximizing Returns



# Premise

- Stream flow patterns & amounts allow present and future downstream water needs to be met
- Georgia's reasonable use principle requires consideration of downstream needs in making upstream consumptive use decisions
- Decisions and investments made today may limit the ability to respond to stresses that become apparent in the future



# Stream Flow Influences

- *No Statewide Regulatory Control*
  - Climate/Precipitation
  - Stream/Aquifer Interactions
  - Ground Cover/Slope Circumstances

- *Statewide Regulatory Control*
  - Interbasin Transfers (IBTs)
  - Septic
  - Land Application Systems (LAS)
  - Reservoirs (location, size, operation)
  - Withdrawals & Discharges



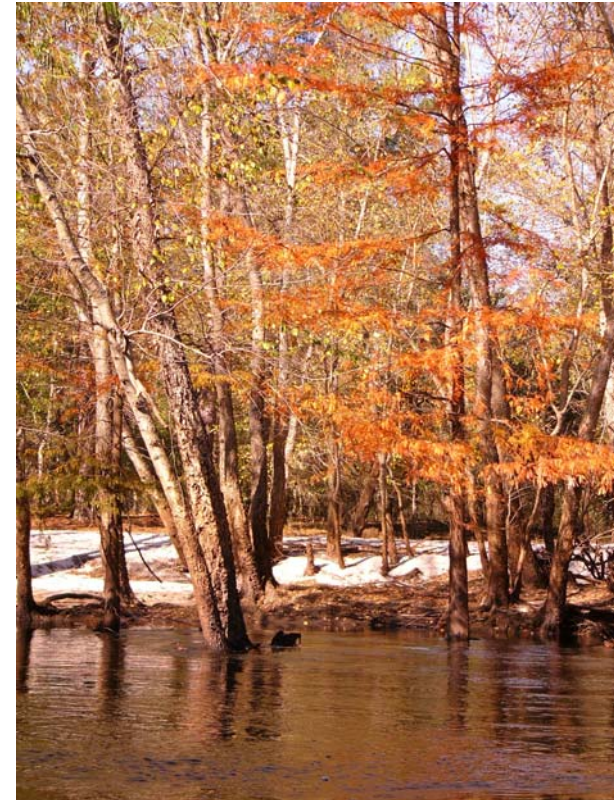
# Prototype Policy Framework

- Establish Desired Flow Regimes in Sub-Basin Settings
- Set ‘Safe Allowable Consumptive Use’ for Sub-Basins
- Manage IBTs, Septic, LAS within Sub-Basins to Conform to ‘Safe Allowable Consumptive Use’



# BAC Meeting Dates

- March 8 – Flint, Ochlockonee
- March 9 – Coosa, Tallapoosa, Tennessee
- March 13 - Metro District Overlay & Oconee, Ocmulgee, Altamaha
- March 14 – Satilla, Suwanee, St. Mary & Chattahoochee
- March 21 – Savannah, Ogeechee
- March 23 – Statewide Advisory Committee



Canoochee River, GA



# Discussion



# Budget



# State Water Plan Budget

<b>Year</b>	<b>Federal Drinking Water State Revolving Fund</b>	<b>State Appropriated</b>	<b>Total</b>
<b>'05</b>	\$300,000	\$300,000	\$600,000
<b>'06</b>	\$390,000	\$540,000	\$930,000



# Water Planning Contracts & Expenditures

(March 1, 2006)

<b>CONTRACTS</b>	<b>NATURE OF WORK</b>	<b>TOTAL &amp; SOURCE</b>	<b>BILLED</b>	<b>BALANCE</b>
<b>Carl Vinson Institute (UGA)</b>	<b>Policy Research</b>	<b>\$247,150 (state)</b>	<b>\$146,075</b>	<b>\$101,075</b>
<b>Fanning Institute (UGA)</b>	<b>Professional Facilitation</b>	<b>\$494,500 (federal)</b>	<b>\$0</b>	<b>\$494,500</b>
<b>Corps of Engineers (Mobile/Savannah)</b>	<b>Project Management Software Training</b>	<b>\$16,950 (state)</b>	<b>\$16,950</b>	<b>\$0</b>
<b>CH2M Hill</b>	<b>Statewide Water Use &amp; Conservation Analysis</b>	<b>\$60,000 (federal)</b>	<b>\$12,000</b>	<b>\$48,000</b>
<b>TOTAL</b>		<b>\$758,600</b>	<b>\$158,525</b>	<b>\$544,675</b>

# Other Business

