

**Coastal Georgia Sound  
Science Initiative  
1997-2005**

# **Interim Strategy for Managing Salt Water Contamination in the Upper Floridan Aquifer in Coastal Georgia**

*Georgia EPD, April 1997-December 2005*

- **Goals:**
  - Stop the encroachment of salt water *before* municipal supplies at Hilton Head Island, S.C. and Savannah, Georgia are contaminated,
  - Prevent the existing salt water intrusion at Brunswick, Georgia from worsening

# Questions the Sound Science Initiative Was Designed to Answer

- Where is salt water entering the Upper Floridan Aquifer?
- How fast is salt water traveling under current and possible future conditions?
- When will Upper Floridan wells in Georgia, Florida, and South Carolina no longer meet drinking water standards?
- Does pumping in some parts of coastal Georgia not affect salt-water intrusion?

# Questions the Sound Science Initiative Was Designed to Answer (cont'd)

- What are the other fresh water sources in coastal Georgia and how much would it cost to develop them?
- What are the current information gaps?
- How can the salt-water intrusion problem be stopped and about how much will this cost?

# Coastal Georgia

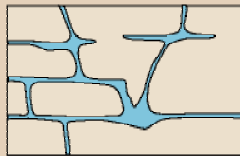
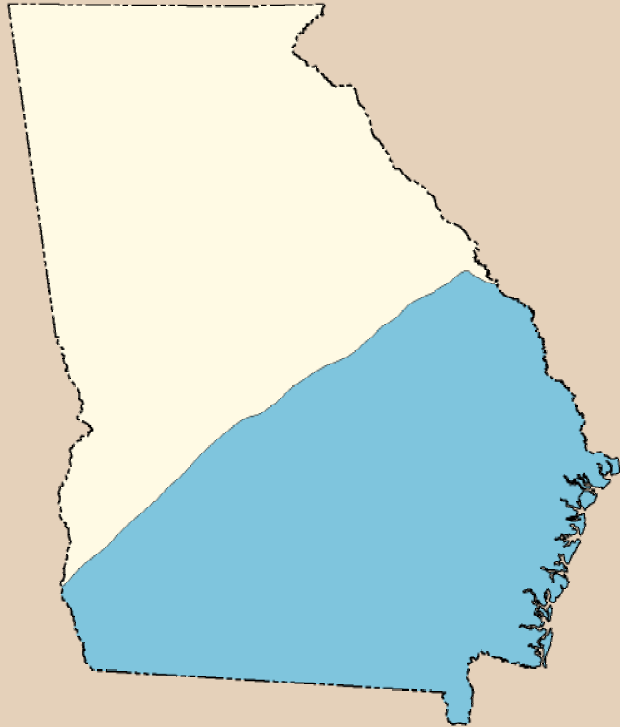


# Floridan Aquifer System

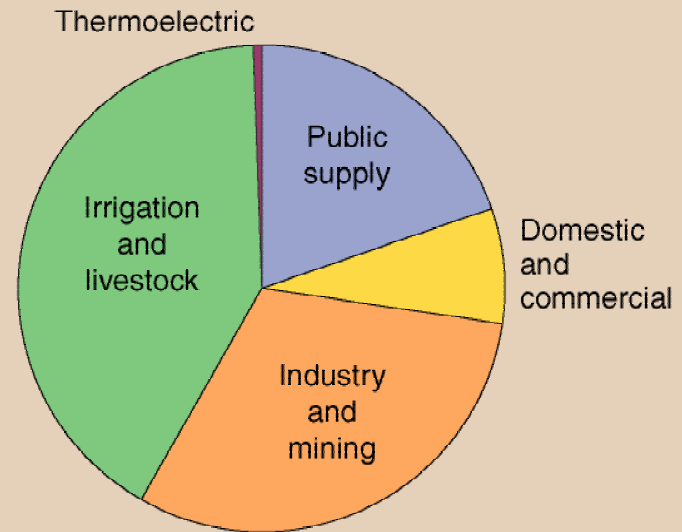
**Depth: 40–900 feet**

**Yield: 1,000 to 5,000 gal/min**

**May exceed 11,000 gal/min**



**Limestone,  
dolomite**



**1997 Water Use  
347 Million gal/day**

# Ground-Water Issues in Coastal Georgia

- Declining ground-water levels
- Saltwater contamination
  - Hilton Head Island
  - Brunswick
- Competition for available supply
  - Projected growth in region
  - EPD restrictions on usage
- Impact of Savannah Harbor expansion
- Need for alternative water sources
- Impact of development on estuaries/wetlands

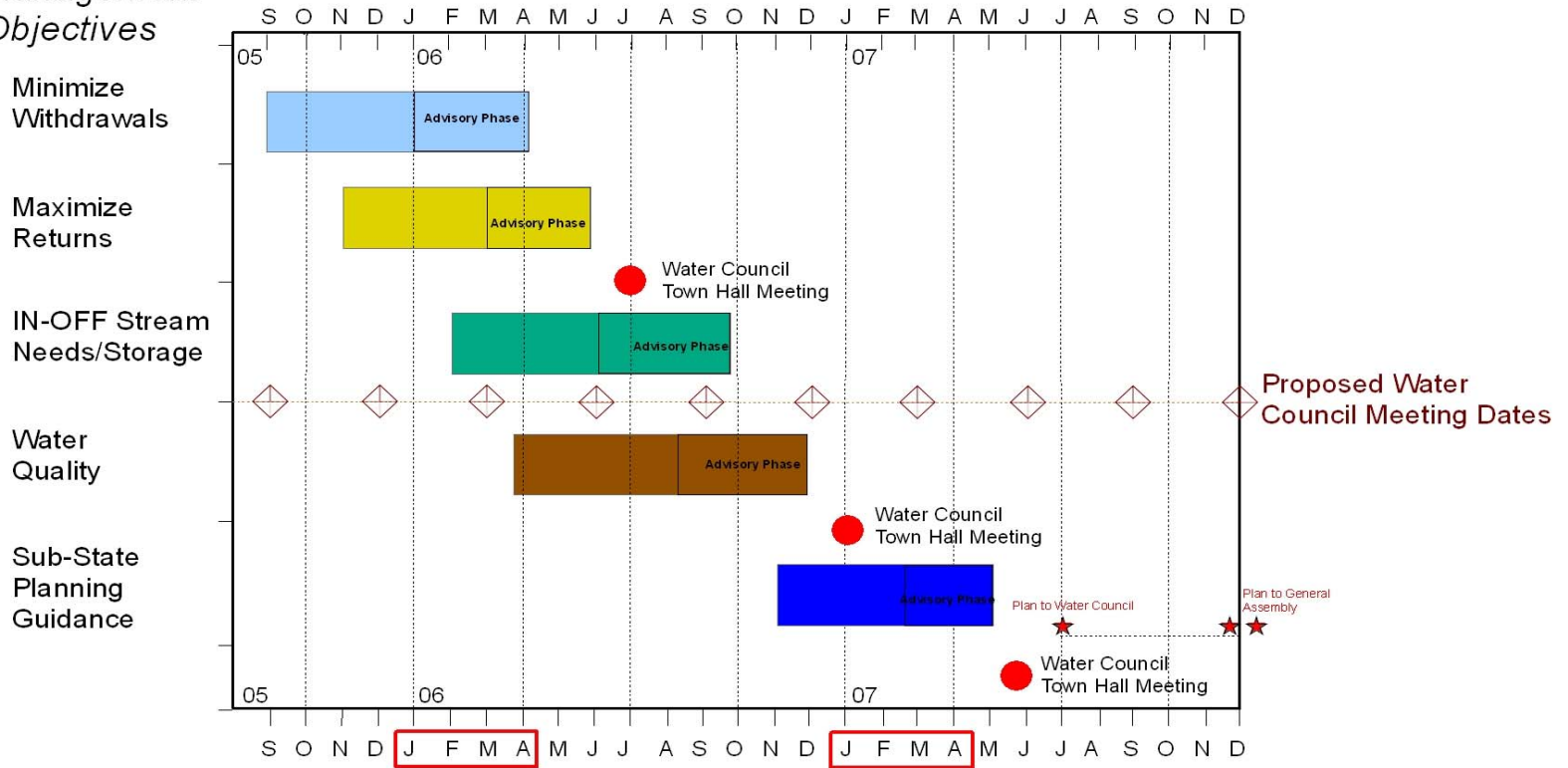


# **What Do We Know Now That We Didn't Know in 1997?**

# PLANNING SCHEDULE

# Development of the GA Comprehensive Statewide Water Management Plan - Tasks & Milestones -

## Management Objectives



Minimize withdrawals of water by increasing water conservation and reuse.

Maximize returns to the basin of origin by managing interbasin transfers, the use of on-site sewage disposal systems, and land application of treated wastewater where water quantity is limited.

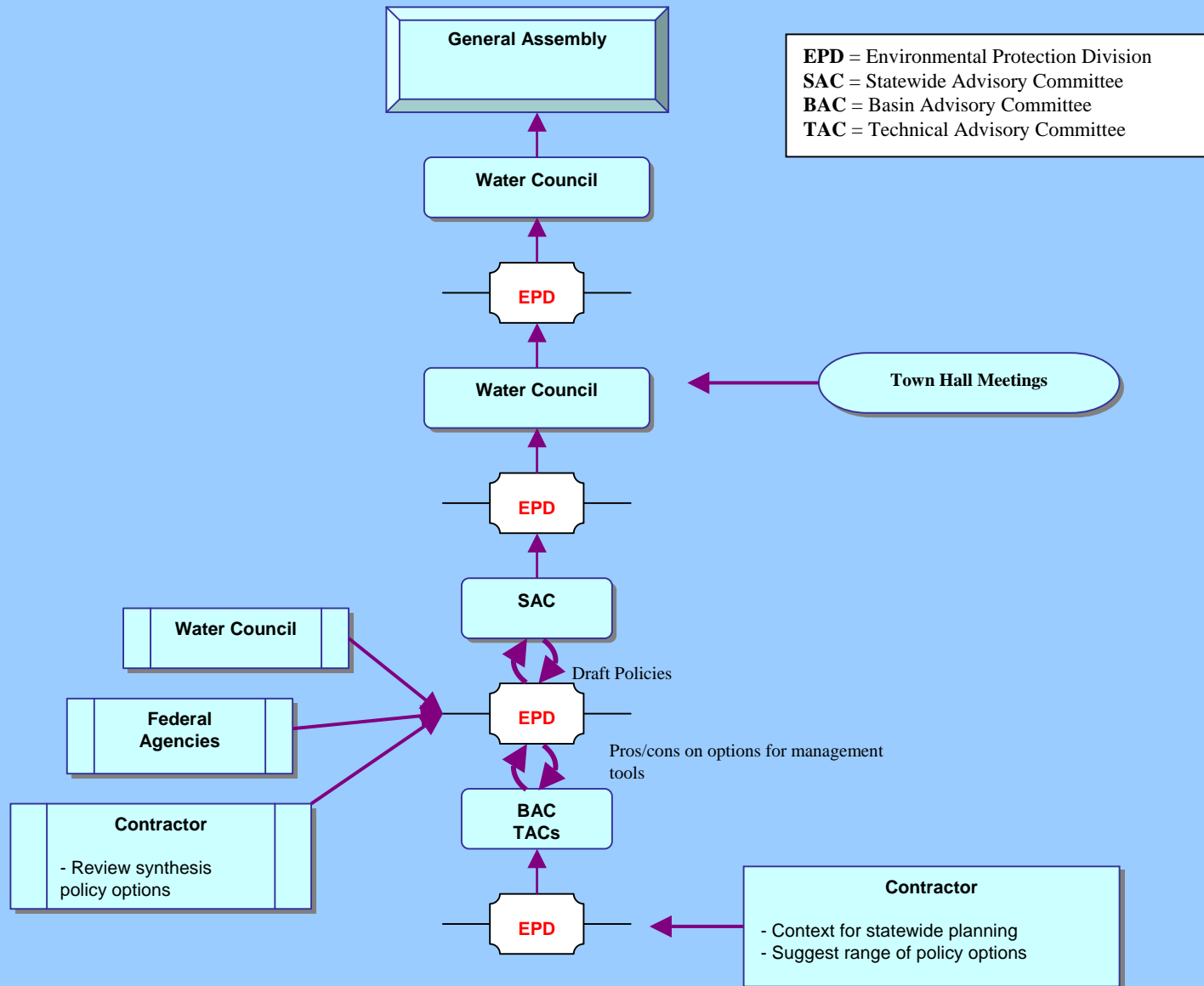
Meet instream and offstream needs for water through efficient surface storage, aquifer management, and reducing water demands.

Protect water quality by reducing pollutant loadings from discharges and runoff from the land to ensure the assimilative capacity of streams is not exceeded and aquatic life is not impaired.

Development of sub-state planning guidance

# ADVISORY PROCESS

# Revised Process Flowchart



# **Roles of the SAC & BACs**

- Provide statewide and local perspectives and input on water management goals, objectives, new policy tools, and sub-state planning framework
- Neither is a decision making body

# Role of the TACs

- Provide expert technical input and advice to EPD related to specific questions on policy tools under consideration
- Two TACs (i.e., conservation & reuse) have held their initial meeting

# 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 (October 1, 2005)

<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>\$12,450</b>	<b>\$4,500 (in kind)</b>
<b>TOTAL</b>		<b>\$758,600</b>	<b>\$158,525</b>	<b>\$600,075</b>

# **WATER COUNCIL RULES OF ORDER**

# The Water Planning Act Directs

- “There shall be a coordinating committee called the ‘Water Council’ composed of...”
- Chairperson of Senate Natural Resources Committee (and one additional SNR member) and the chairperson of the House Committee on Natural Resources (and one additional HCNR member) serve in an advisory capacity

# Other Business

- Request for research and technical resources distributed early October 2005; response due dates are specific to the management objectives (first due date is 10-28-05).
- Facilitator orientation meeting held on October 11, 2005.

# Future Meeting Dates

- Next Water Council meeting scheduled for December 7, 2005. *DISCUSSION?*