

**SEMINOLE COUNTY GOVERNMENT  
AGENDA MEMORANDUM**

**SUBJECT:** Alternative Water Program

**DEPARTMENT:** Environmental Services **DIVISION:** Planning, Engineering & Inspections

**AUTHORIZED BY:** *[Signature]* **CONTACT:** Dennis Westrick, P.E. EXT. 2040  
Robert G. Adolphe, P.E., Director P.E.I. Manager

Agenda Date <u>10/14/03</u>	Regular <input type="checkbox"/>	Consent <input type="checkbox"/>	Work Session <input type="checkbox"/>	Briefing <input checked="" type="checkbox"/>
	Public Hearing - 1:30 <input type="checkbox"/>		Public Hearing - 7:00 <input type="checkbox"/>	

**MOTION/RECOMMENDATION:**

Update Board on the proposed Seminole County Environmental Services Department Alternative Water Supply Program.

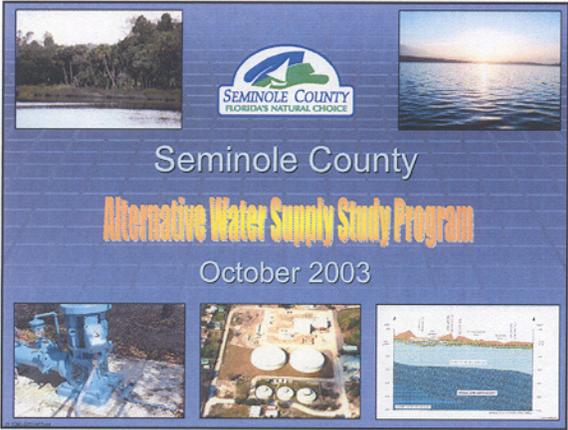
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**BACKGROUND:**

Seminole County faces a challenge to provide adequate water supplies to a growing population while meeting the regulatory requirements of the St. Johns River Water Management District (SJRWMD). Projected consumption in the region exceeds groundwater supplies allocated by SJRWMD. To enable future growth and development, alternative water supply sources must be utilized.

This presentation gives an overview of alternative water supply projects that will be recommended and brought before the Board of County Commissioners for consideration and implementation.

Reviewed by:
Co Atty: <u>na</u>
DFS: <u>na</u>
Other: _____
DCM: <u><i>[Signature]</i></u>
CM: <u><i>[Signature]</i></u>
File No. <u>BESP01</u>



- ### Seminole County Program Objectives
- Obtain and Provide Alternative Water Supply for Seminole County Utility Service Areas, Seminole County, Cities and IOU's, as well as Others in a Regional Fashion
  - Work with the SJRWMD, and Others in the Implementation of Cost-Effective Projects and Strategies

- ### Seminole County Alternative Water Supply Project
- Northwest Regional Water Resources Center
    - Brackish Supply } Potable Use
    - River Supply } Potable Use
    - Reclaimed Water } Irrigation Quality Use
    - Stormwater/Surficial Supplies } Irrigation Quality Use
  - Greenwood Lakes Water Resources Center
  - Other Projects

- ### Northwest Regional Water Resources Center
- | Total Supply (MGD) | Phase     | Water Type   |
|--------------------|-----------|--|
| 5                  | Phase I   | Brackish Groundwater - 5 MGD Potable Water, 1.25 MGD Concentrate |
| 10                 | Phase II  | St. Johns River - 5 MGD Potable Water, 1 MGD Concentrate         |
| 20                 | Phase III | St. Johns River - 10 MGD Potable Water, 2 MGD Concentrate        |
- Timing Based on Need



## NWRWRC Site Plan

- Located on Seminole County Yankee Lake Property, Minimal Site Costs
- Co-located with Northwest Regional WWTF
- Adjacent to SJR, Major Roads, Demand Centers
- Large Buffer Zone
- Concentrate Reuse / Management Opportunities
- Near Large Off-line Reservoir

## NWRWRC Treatment Methods

- PHASE I- Brackish Groundwater / Reverse Osmosis 5 MGD/ 1.25 MGD Concentrate, Quick to Implement
- PHASE II- St. Johns River Pretreatment/ RO 5 MGD/ 1 MGD Concentrate,
- PHASE III- St. Johns River 10 MGD/ 2 MGD Concentrate
- Blend Concentrate with Reclaimed Water, SJR Water

## NWRWRC Construction Costs

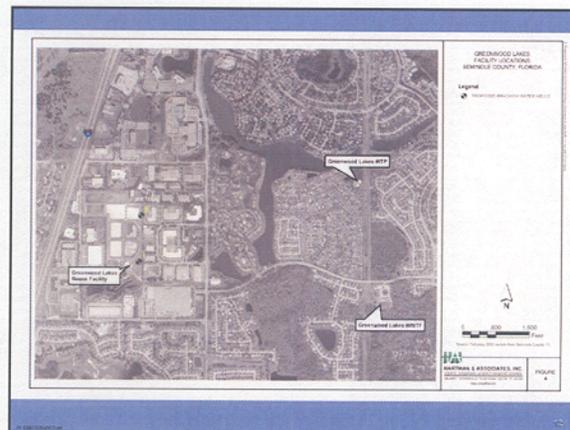
- Phase I Brackish Groundwater 5 MGD \$18.8 Million
- Phase II SJR 5 MGD \$27 Million
- Phase III SJR 10 MGD \$29.7 Million
- Total WTP Project Cost- \$75.5 Million for 20 MGD Potable Water and Approximately 4+ MGD Concentrate Reuse
- ADF 16 MGD/MDF 24 MGD

## NWRWRC Conceptual Transmission Costs

- Phase I- \$6 Million
- Phase III/ IIII- \$2.7 Million

## Greenwood Lakes Water Resources Center

- Brackish Groundwater
- 1-2 MGD
- Back-up/ Emergency Supply for Reclaimed Water Augmentation
- Cost Estimated to be \$1.5 million



## Potential Partners

- City of Lake Mary
- City of Longwood
- City of Sanford
- City of Casselberry
- City of Winter Springs
- City of Altamonte Springs
  - City of Oviedo

## Levels of Participation

- Participant – Agreements & Support
- Participant with Potable Capacity or Capacity Credits
- Participant with I.Q. Capacity or Capacity Credits
- Future Participant

## Potential Regional Customers

- City of Deltona
- Volusia County
- Lake County

## Alternative Water Supply Project Funding

- State Funding
- Federal Funding Opportunities
- SJRWMD Potential Funding
- Impact on Project Cost and Customer Rates

## Alternative Water Supply

# Discussion



SEMINOLE COUNTY  
FLORIDA'S NATURAL CHOICE

Seminole County  
**Alternative Water Supply Study Program**  
October 2003

