SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Northern Everglades- Draft St. Lucie River Watershed Protection Plan

Public Meeting- 10/28/2008

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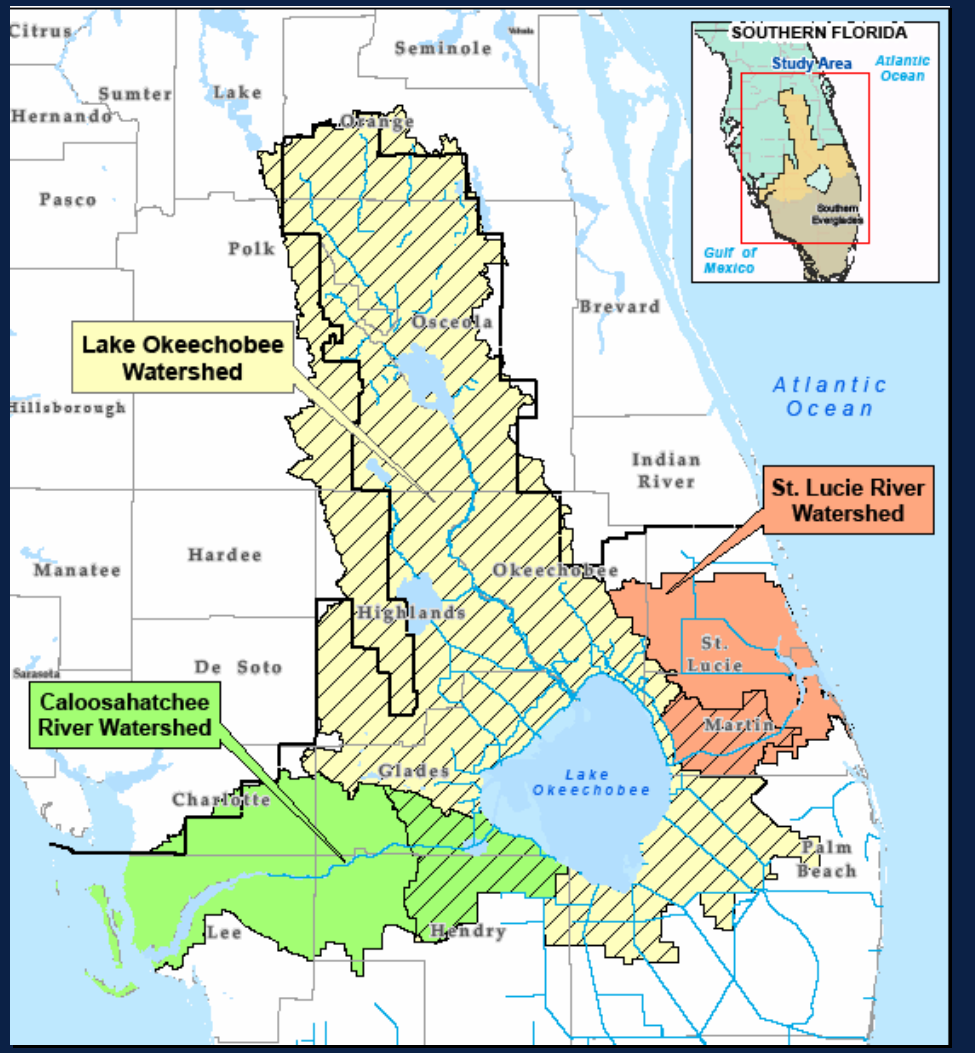
sfwmd.gov

Northern Everglades and Estuaries 2007 Legislation

- Requires development of **Caloosahatchee** and **St. Lucie River Watershed Protection Plans** to identify water quality and storage projects
  - Due by January 1, 2009
  - Developed by SFWMD, in cooperation with
    - Coordinating Agencies (FDEP and FDACS)
    - Lee, Martin, and other affected counties and municipalities



River Watershed Protection Plans-Objectives

- **Nutrient load reductions to achieve adopted Total Maximum Daily Loads**
- **Reduce frequency and duration of undesirable salinity ranges in estuary, while meeting other water-related needs of the region**

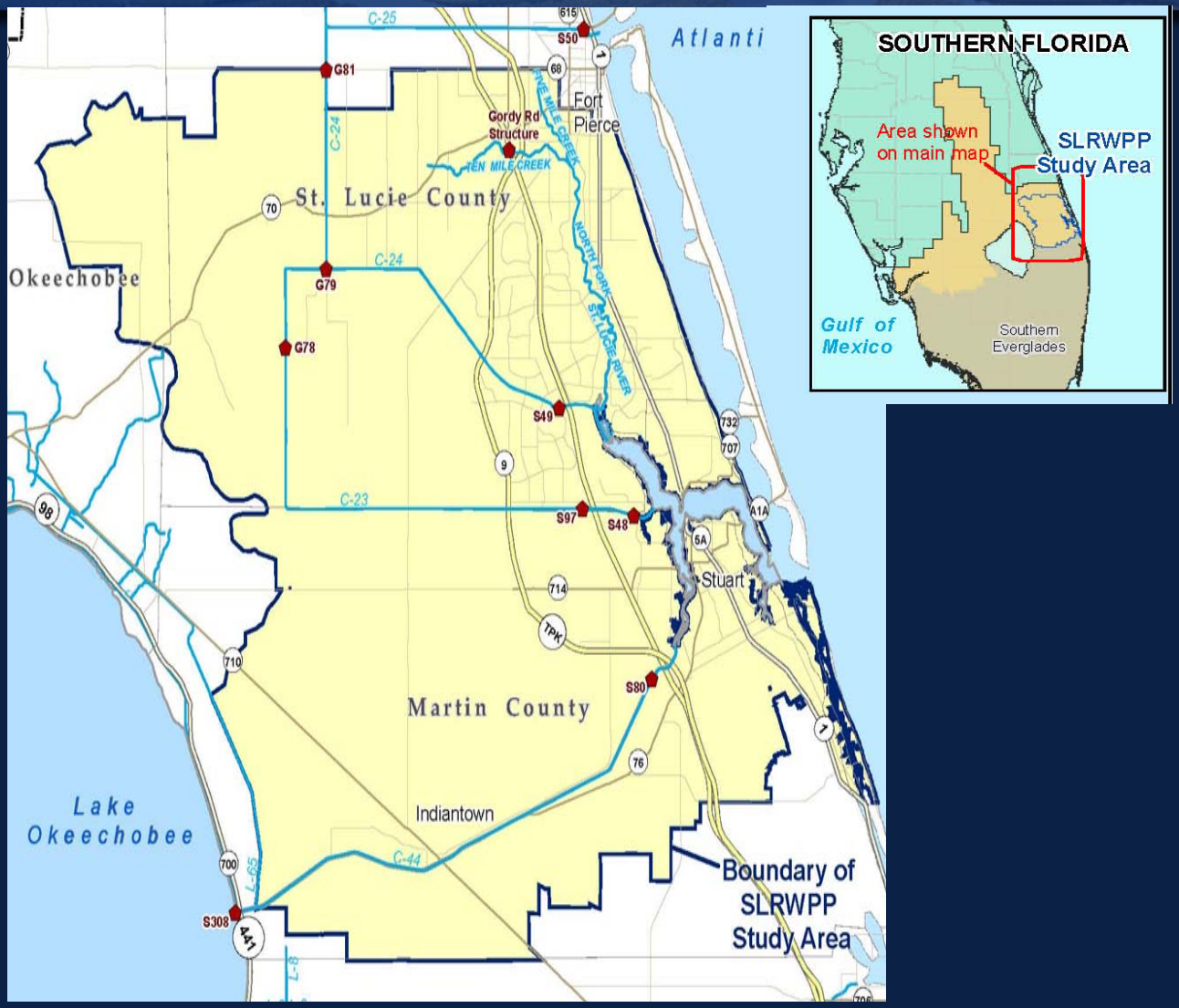
River Watershed Protection Plans-Elements

- **Watershed Pollutant Control Program**
- **Watershed Construction Project**
- **Watershed Research and Water Quality Monitoring Program**

Alternative Formulation and Evaluation

- Formulated alternatives using management measures
- Four alternatives were evaluated for-
  - Nitrogen and phosphorus load removal
  - Water quantity performance
- Alternative 4 was selected as Preferred Plan

St. Lucie River Preferred Plan-Results



Watershed Pollutant Control Program

- Implementation of Agricultural and Urban Best Management Practices
- Revisions to Regulatory Programs
  - Environmental Resources Permitting (ERP) Program
    - Statewide Stormwater Rule
    - Northern Everglades Basin Rule
  - 40E-61 Regulatory Source Control Program in Estuaries

Watershed Construction Project- Results

- Nutrient load reductions to the estuary
  - Total Phosphorus- 56%
  - Total Nitrogen- 55%
- Removal of ~250,000 cubic yards of muck
- Approximately 200,000 acre-feet of watershed storage:
  - Including IRL-S (C-44, C23/24, and Natural Lands Storage) and Ten Mile Creek Water Preserve Area
  - In addition to the 900,000 acre-feet of storage in the Okeechobee Watershed (Lake Okeechobee Technical Plan- Phase 2)

Watershed Construction Project- Results (cont.)

High Flows

- A 75% improvement in high flow events between 2000 and 3000 cfs
- A 50% improvement in high flow events greater than 3000 cfs

Low Flows

- Improved performance- low flow is not a significant issue for the St Lucie Estuary

Ecological Assessment

- 45% improvement in number of years with oyster mortality
- Reduction in months with detrimental high flows from 15% to 9.7%

Watershed Research and Water Quality Monitoring Program

- Existing estuarine and watershed monitoring programs are sufficient
  - Recommended to continue with future optimization
- 4 research projects identified

Preferred Plan Summary

St. Lucie Preferred Plan
•IRL-S •BMPS/Regulatory Programs •Additional regional phosphorus treatment in C-23/24 basin •Local quality/quantity/habitat projects (e.g., stormwater retrofits; septic conversions; Alternative Water Storage Facilities; muck removal)
Summary
• ~200,000 ac-ft/yr storage (IRL-S and Ten Mile Creek) • Nutrient treatment

Plan Implementation Strategy

- **Multiple Phases**
  - **Phase I- projects initiated 2009-2012**
  - **Phase II- projects initiated 2013-2018**
  - **Phase III- projects initiated beyond 2018**

St. Lucie RWPP- Phase I

		Initiated	Completed
Construction Project	Alternative Water Storage Facilities- Indiantown Citrus Growers Association Phase I and II		✓
	Florida Ranchlands and Environmental Services Projects (Alderman-Deloney complete)	✓	✓
	CERP-IRL South: C-44 Reservoir/STA	✓	
	CERP-IRL South: Allapattah Complex- Natural Storage and Water Quality Area	✓	
	Alternative Water Storage Facilities-Indiantown Citrus Growers Association- Phase III, Dupuis, Waste Management St Lucie Site, Caulkins	✓	
	Hybrid Wetland Treatment Technology Pilot Project	✓	
	Local-Stormwater Projects (e.g., retention/detention ponds, treatment wetlands, conveyance and structural improvements)	✓	✓
	Local-Wastewater Projects (e.g., sludge disposal management, sewage treatment and disposal systems)		✓
	Local- Habitat Restoration (e.g., muck removal, oyster balls)	✓	✓
	Florida Ranchlands and Environmental Services Projects	✓	
	Farm and Ranchland Protection Program	✓	

Cost Categories

- **Non-CERP Cost**
  - **Costs to be paid from State, SFWMD, and/or local sources**
- **CERP Cost**
  - **State CERP costs are eligible for 50 percent cost share with the federal government; may also include local cost share**
- **Local Cost**
  - **Costs that will be covered entirely by local government or may be cost shared with local government and State or SFWMD sources**
  - **$5M per River Watershed per year was used for Phase I estimates (covers local projects and Alternative Water Storage Facilities)**

St. Lucie RWPP- Phase I Costs

		CERP	Non-CERP	Local
Construction Project		$504-694M		$15M[a]
Pollutant Control Program	Agricultural		$1.64-2.0M[b]	
	Urban		$393-479M[c]	
Research and Water Quality Monitoring			$2.7M[d]	

[a] $15M reflects state's contribution

[b] Assumes 50% state contribution for capital costs only; all BMPs implemented by 2015

[c] Includes total capital costs

- No cost share assumptions included, but most costs will be borne by local and state programs and only a fraction of these costs will likely be borne by RWPPs
- No phasing assumptions included

[d] Reflects research and additional monitoring not ongoing monitoring

Next Steps

- Complete Public Review Process
  - Draft Plan is available online between Oct 1 and Oct 31 at https://my.sfwmd.gov/northerneverglades
  - Comments can be submitted via
    - Website (web board)
    - US Mail to- Mike Voich, c/o SFWMD, MS 7640 3301 Gun Club Road, West Palm Beach, FL 33406
- Final Plan delivery to the Legislature by Jan 1, 2009
- Annual progress reports and three year plan updates
- Public involvement throughout plan updates and revisions

https://my.sfwmd.gov/northerneverglades

Questions