

# Surface Water Quality Improvement ... a local government perspective

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# Steps toward Protection and Restoration

- 1987 SWIM Priority Water Body
- 1991 Estuary of National Significance
- Various Aquatic Preserve and Outstanding Florida Waters Designations
- 2004 First Approved PIR under CERP
- 2007 Northern Everglades Legislation

# Northern Everglades and Estuary Protection Program



In 2007 the Florida Legislature Expanded the Okeechobee Protection Plan to Include Protection and Restoration of the Lake Okeechobee Watershed and the Caloosatchee and St. Lucie Estuaries

# The Essentials of the St. Lucie Estuary Protection Plan

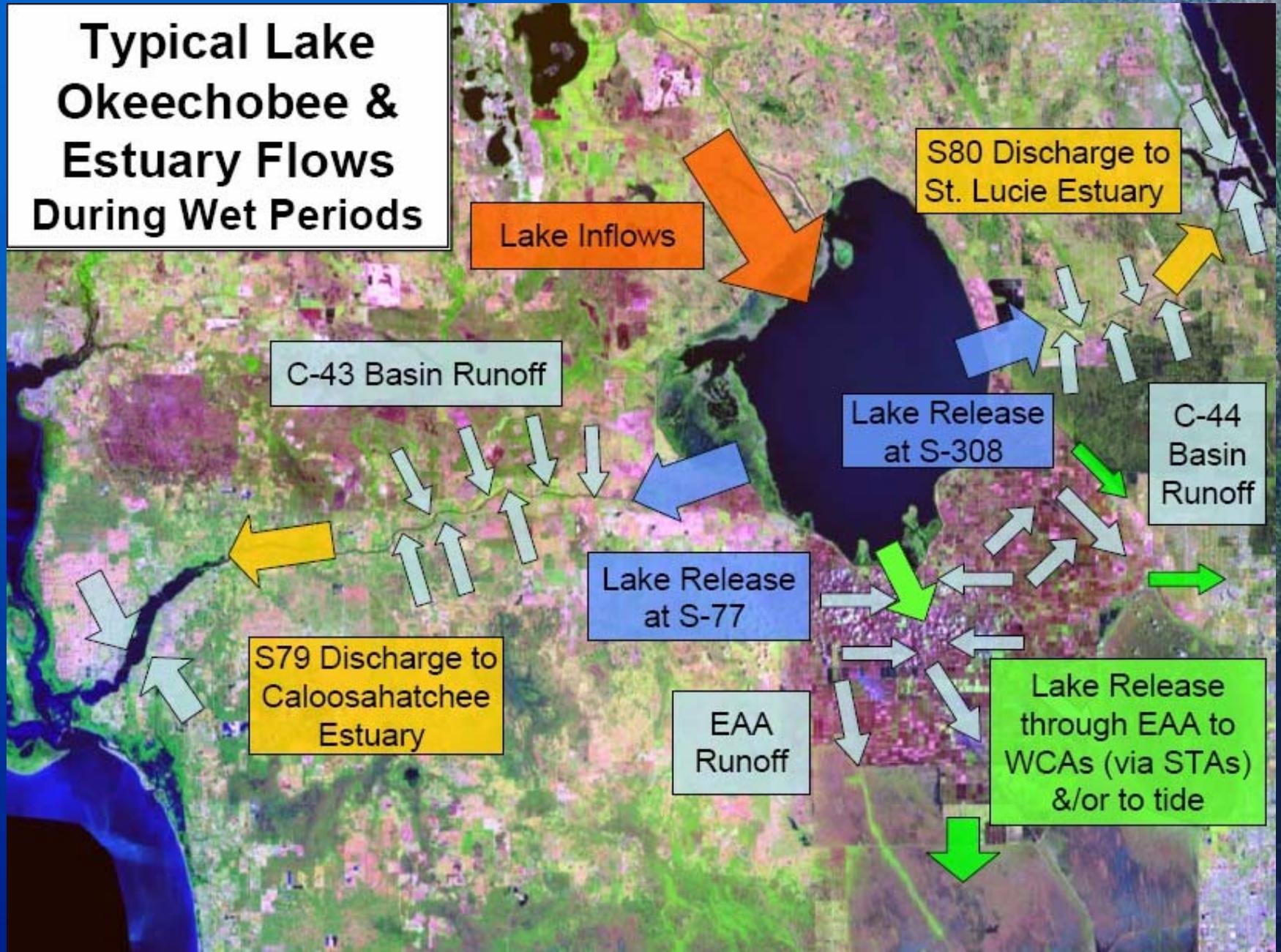
- A Completed Indian River Lagoon South Plan – a Key Component of the Comprehensive Everglades Restoration Plan
- Ramped Up Agricultural and Urban Best Management Practices
- An Ambitious Program of Local Gov' t Stormwater Retrofits to supplement CERP

# Northern Everglades and Estuary Protection Plan

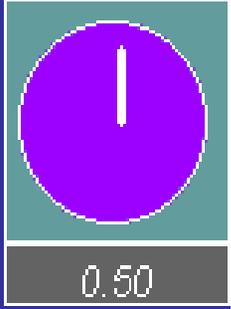
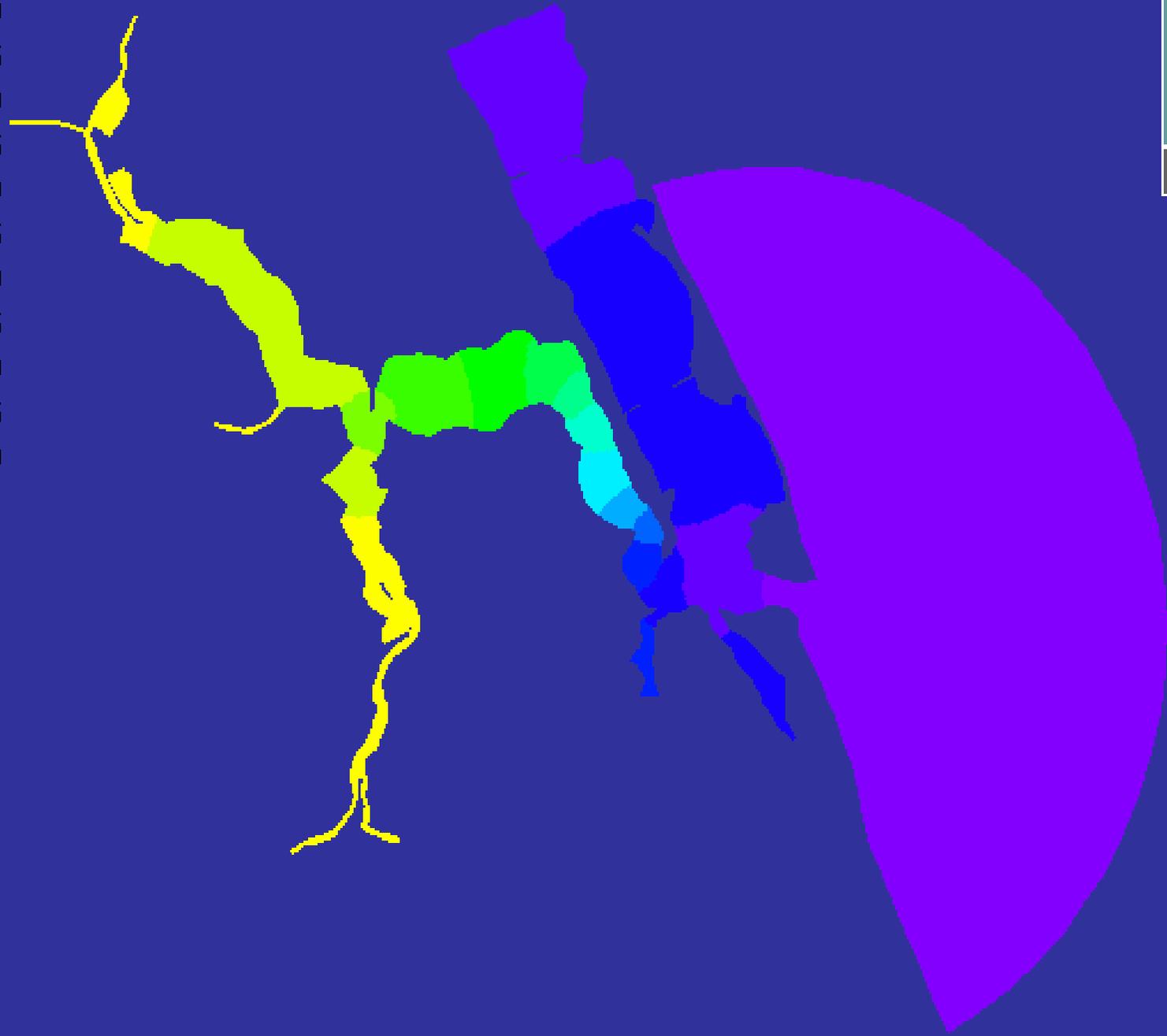
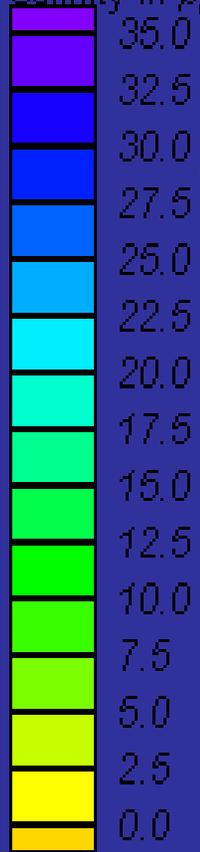
Grew out of the Governor's "Corridor Advisory Committee" Whose #1 Recommendation was ...

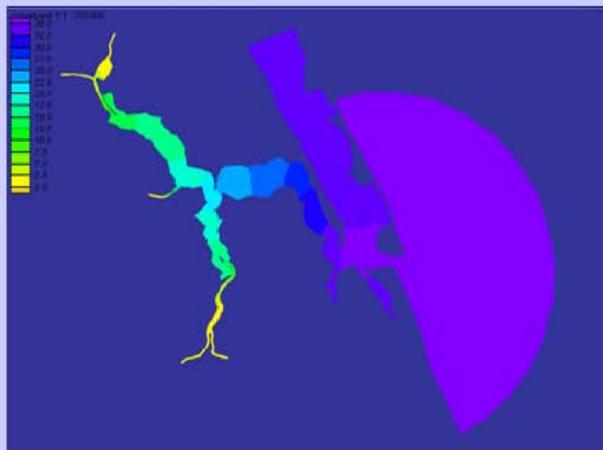
...to Provide Parity – an equal level of protection for the areas north, east and west of Lake Okeechobee

# Typical Lake Okeechobee & Estuary Flows During Wet Periods

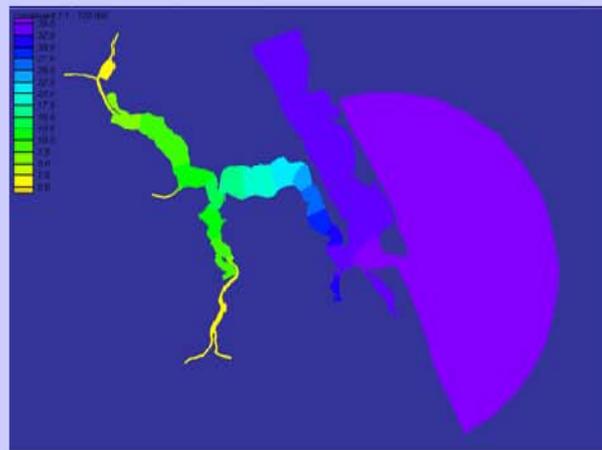


salinity in ppt

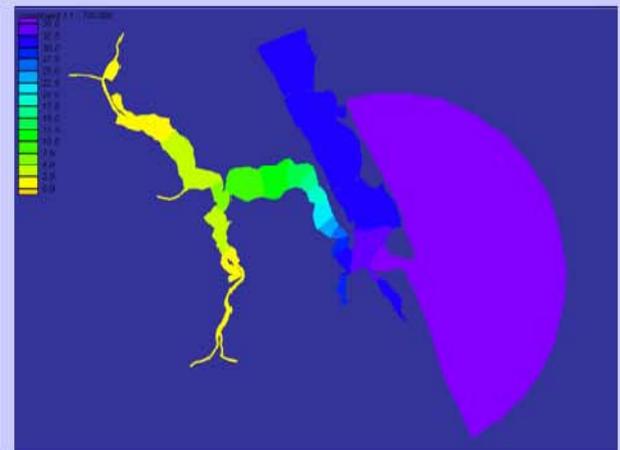




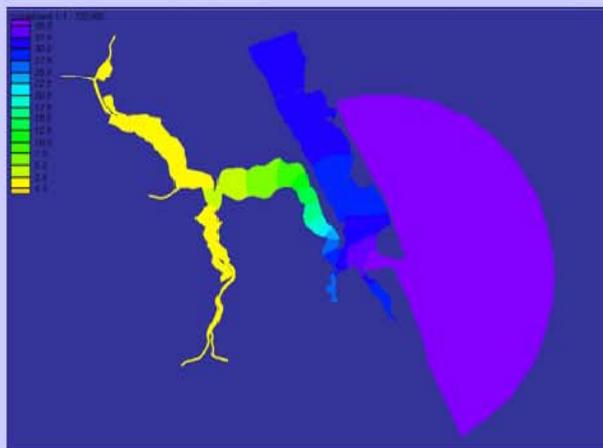
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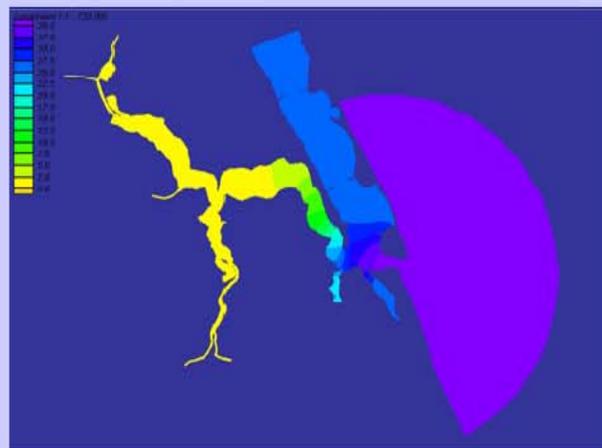
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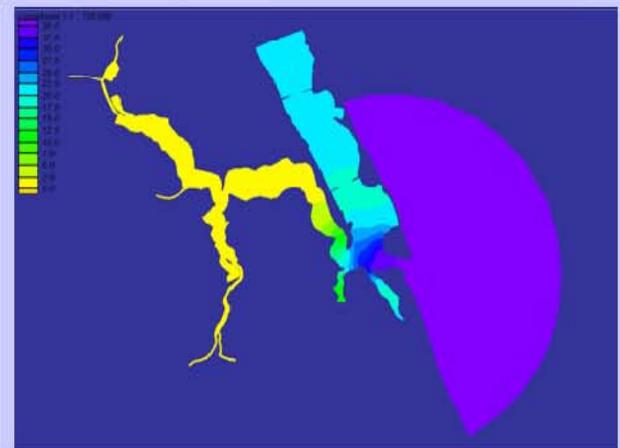
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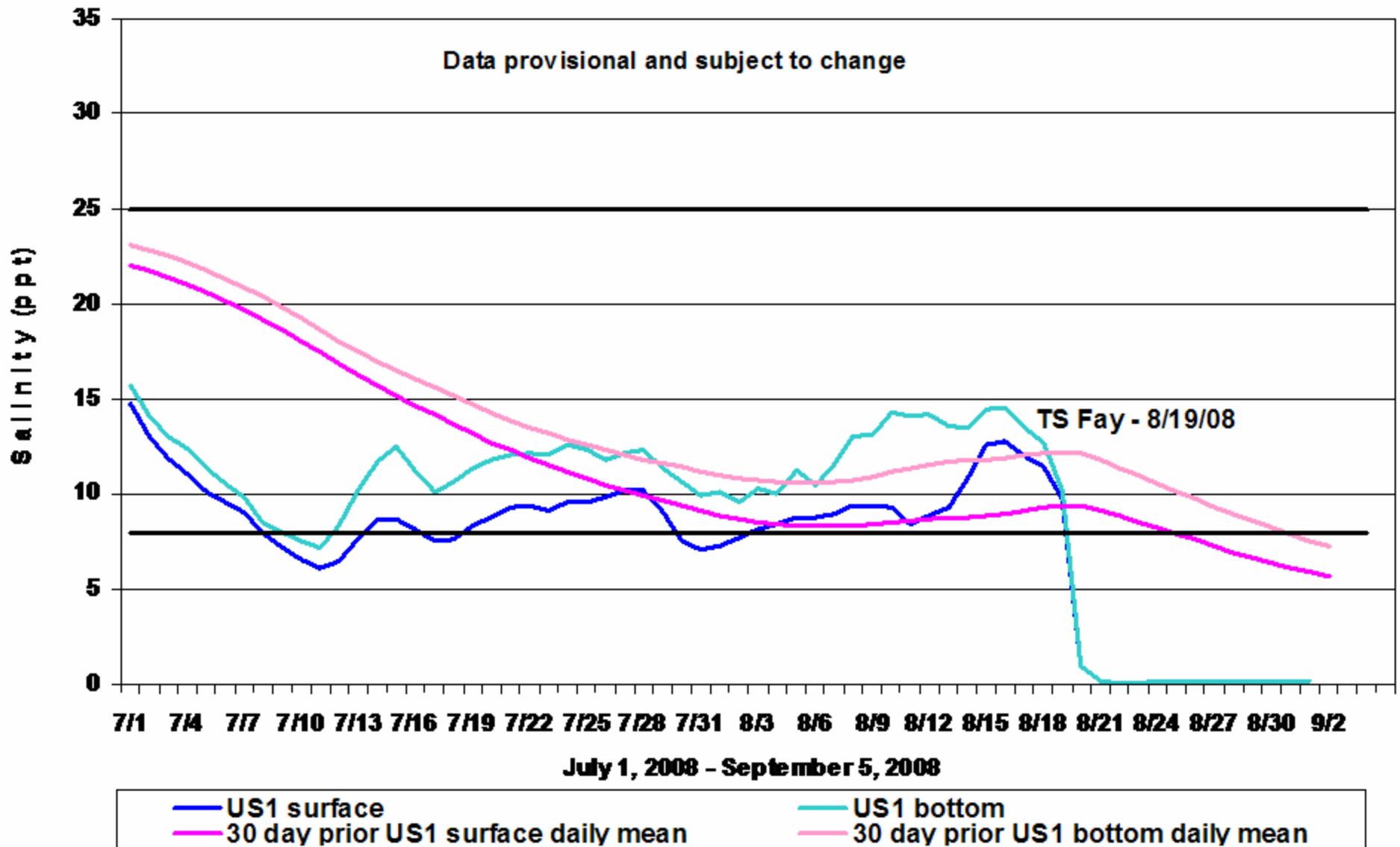
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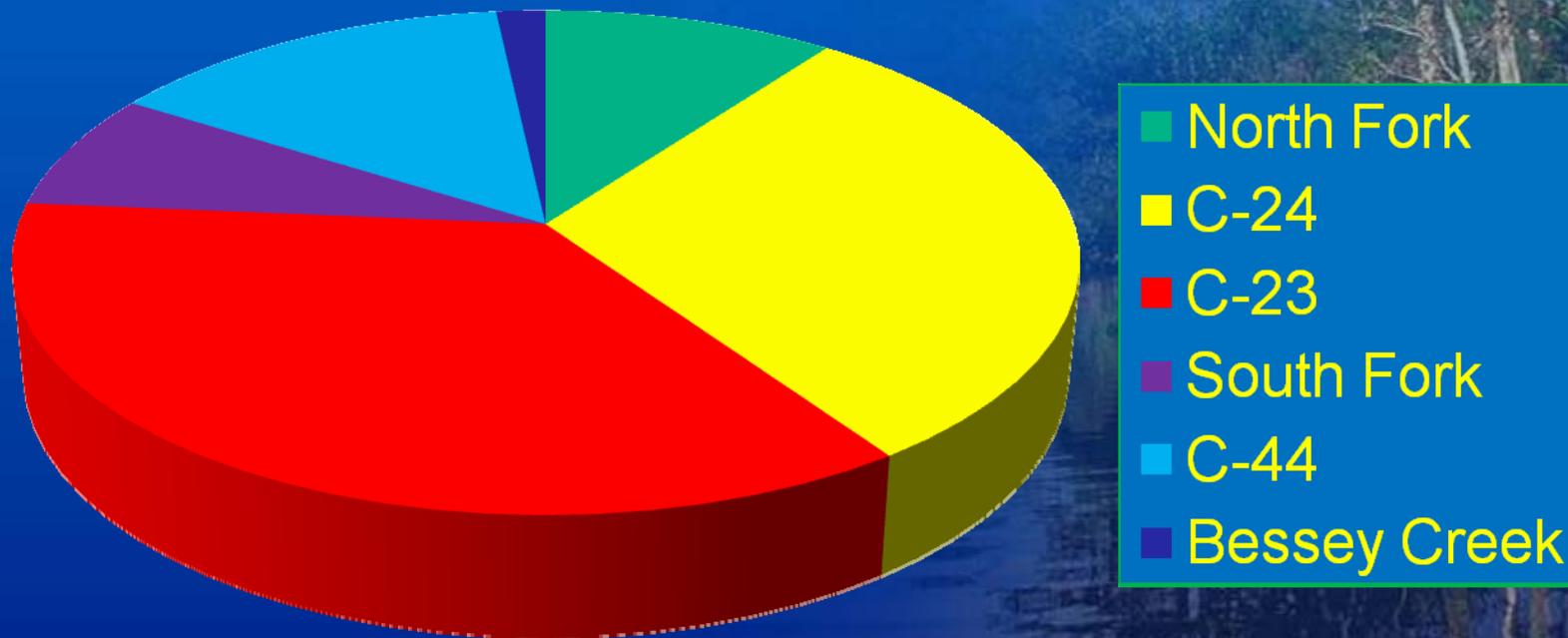
The Impact of Drainage Canal Discharge on the Salinity Gradient in St. Lucie estuary

# Salinity Envelope and Surface and Bottom Mean Daily Salinity in the St. Lucie Estuary at US1



# Stormwater Contributors

## Phosphorus Loads – By Tributary



Total of 213 Metric Tons per Year - Estimated Annual Phosphorus Load

# Martin/St. Lucie Impaired Waters According to FDEP

- St. Lucie Lower Estuary – Nutrients
- North Fork St. Lucie – Nutrients, D.O.
- C-24 – Nutrients, D.O.
- C-23 - Nutrients, D.O.
- South Fork St. Lucie – Nutrients, D.O.
- C-44 – D.O.

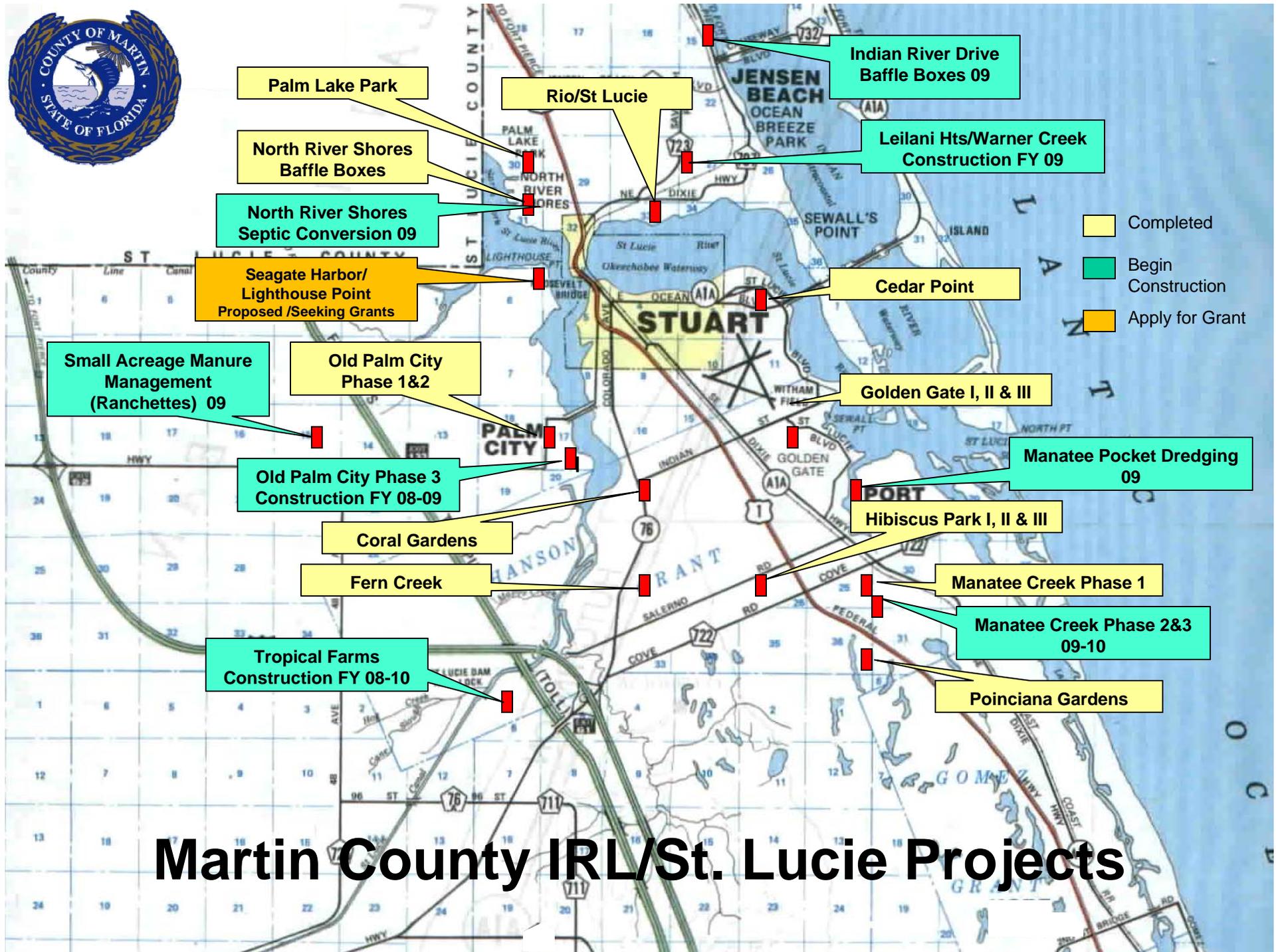




# What Has Martin County Done? Stormwater

- Completed 14 Local Stormwater Retrofits
- Leveraged \$10M of Local Funds with State and Regional Grants to Construct \$31M of Local Projects serving 4,500 acres





# Martin County IRL/St. Lucie Projects

# Project Financing:

Project Name	Taxes	SRF	SLRIT	TMDL	Sec. 319	LRPI	SJR WMD	FDEP	LAND	FDOT	County Land / ROW	In - Kind Services	Contributions	# of Funding sources by Project
Coral Gardens	1	1	2								1			5
Cedar Pointe	1		1								1		1	4
Fern Creek	1	1	2								1	1	1	7
Golden Gate PI,PII,PIII	1	1	3		1						1			7
Hibiscus Park PI & PII	1		1								1	1		4
Kitching Creek/Flora Ave	1				1	1						1	2	6
Little Club PI & PII	1				1	1						1	1	5
Manatee Creek Retrofit P1	1	1	1	1	1									5
Old Palm City PI & PII	1				1						1			3
Palm Lake Park	1		3											4
Polinclana Garden PI & PII	1		1										2	4
Rlo St Lucie PI	1	1	1				1				1	1		6
Salerno Creek / RPI & PII	1	1	2		1			1	2	1	1	2		12
Tropic Vista	1	1			1						1	1		5



# What Has Martin County Done? Land Acquisition

- Citizen Approved Sales Tax 8 out of the Past 10 Years
- Generated \$75M to Date – 45,000 Acres
- Environmentally Sensitive and/or Lands Necessary for CERP
- Leveraged Those Funds with Regional and State Dollars to Buy Land
- Increased Martin County Public Lands from 8% in 2000 to 24% today



# Martin County

Title: Conservation Lands Status and Outlook  
Created By: James H. Smith  
Revised By: James H. Smith  
File Date: 06/20/08

## Conservation Lands Status and Outlook

June 2008

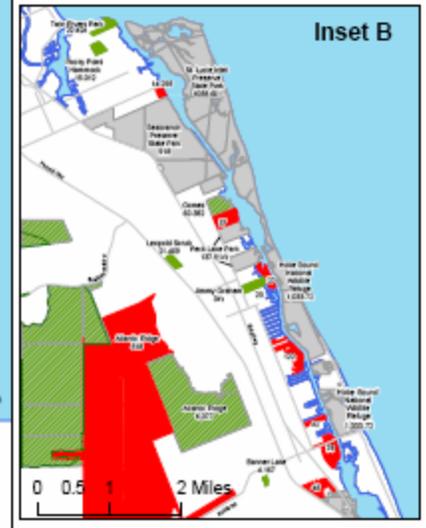
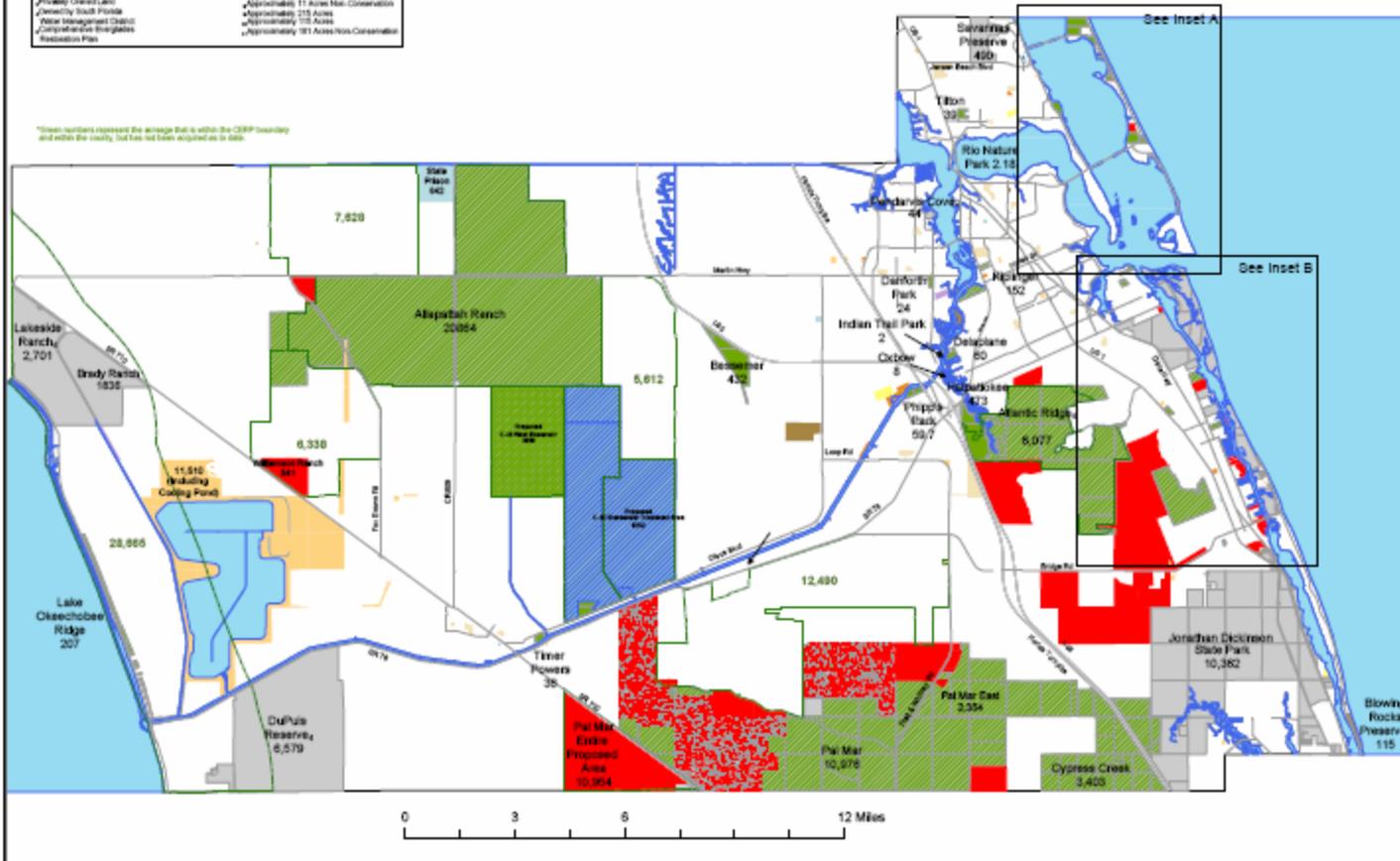


Disclaimer: The geographic information systems map product, created from Martin County ("COUNTY") is believed to be a public record and is provided "as is" without warranty of any kind, and the COUNTY expressly disclaims all express and implied warranties, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. The COUNTY does not warrant, guarantee, or make any representations regarding the use, or the results of the use, of the information provided to you by the COUNTY in terms of correctness, accuracy, reliability, timeliness or otherwise. The user risks as to the results and performance of any information obtained from the COUNTY is solely assumed by the recipient.

- |                        |                                 |  |                                |
|------------------------|---------------------------------|--|--------------------------------|
| Partially County Owned | State Property Non-Conservation | Florida Inland Navigable District Property | CDRP Boundary                  |
| Other Owner            | School Property                 | Federal Property                           | C-64 Stormwater Treatment Area |
| Proposed Acquisition   | Railroad Property               | Florida Power & Light Property             | C-64 Wetland Reserve           |
| County Owned           | Private Conservation            | SPWMD Property                             | PUMP                           |

- |  |  |
|--|--|
| ✓Inventory Martin County<br>✓Inventory The State of Florida<br>✓Private Owned Land                     | ✓Approximately 1,200 Acres   |
| ✓Inventory South Florida<br>Water Management District<br>Comprehensive Reclamation<br>Restoration Plan | ✓Approximately 373 Acres Non-Conservation<br>✓Approximately 11 Acres Non-Conservation<br>✓Approximately 215 Acres<br>✓Approximately 110 Acres<br>✓Approximately 381 Acres Non-Conservation |

\*Town boundaries represent the average that is within the CDRP boundary and within the county, but they are not drawn as such.





January 2003

ALLAPATTAH  
RANCH  
RESTORATION



January 2008



JAN 3 2008

# What Has Martin County Done? Waste Water

- Pulled all Treated Effluent out of the River
- Implemented 100% Waste Water Reuse
- Converted Areas of Problematic Septic Tanks to Regional Sewer
- Banned the Land Disposal of BioSolids in Martin County

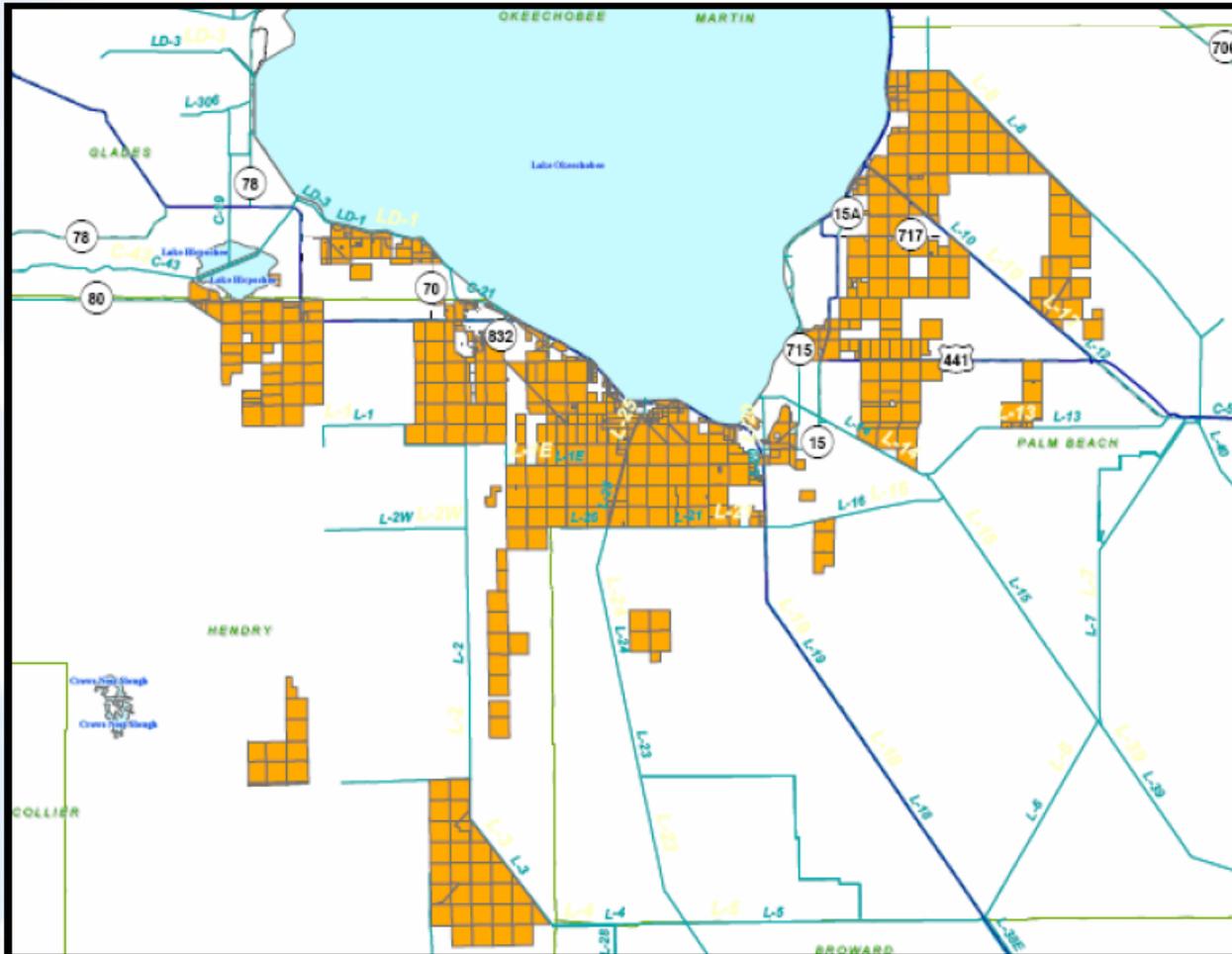




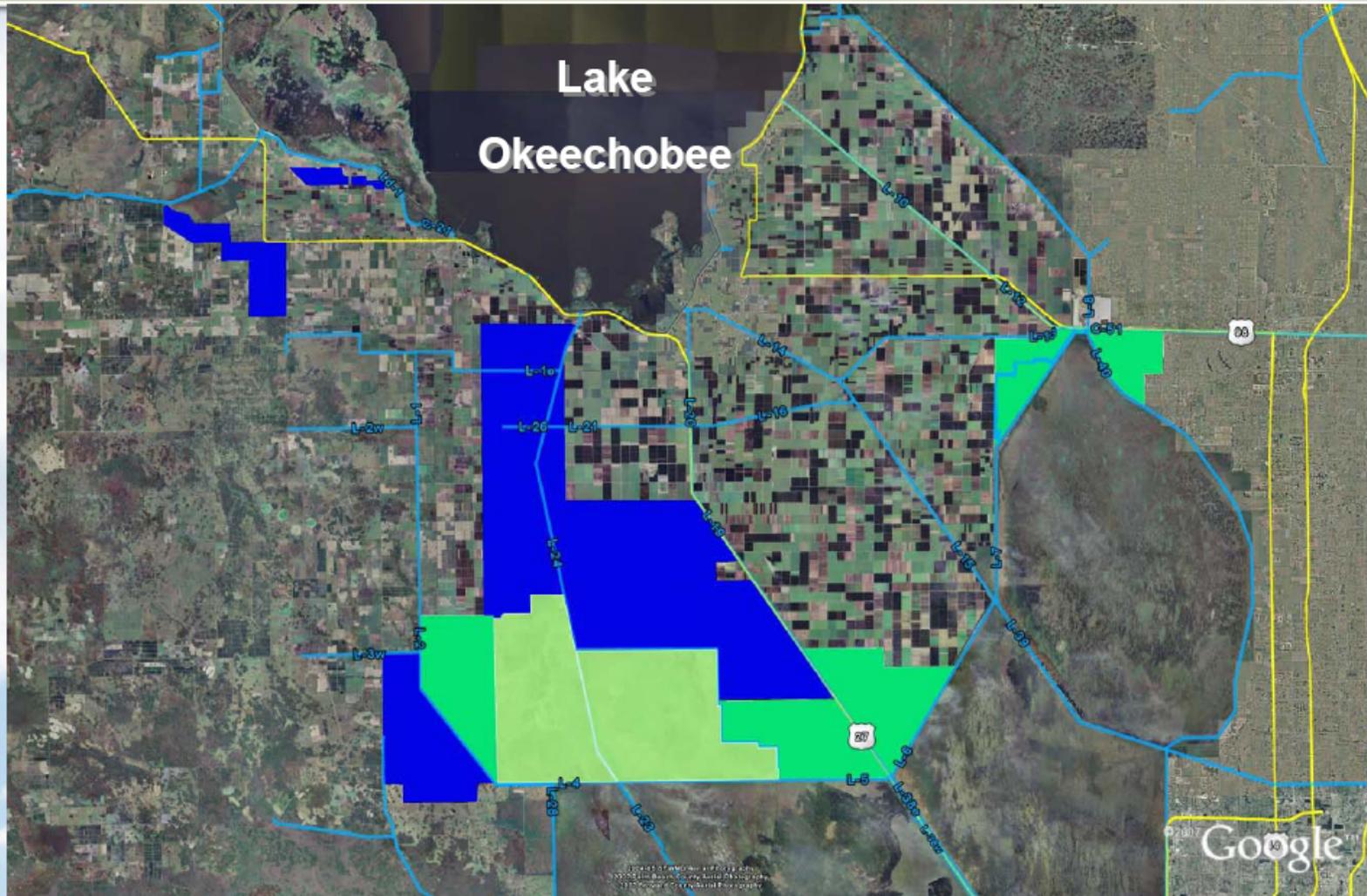
# What Still Needs to be Done?

- Complete the IRL Plan
- Find Alternative Storage North of the Lake
- Adopt the Revisions to the Environmental Resource Permitting Program
- Acquire and Construct Additional Storage, Treatment and Conveyance South of the Lake

# Location of U.S. Sugar Properties



# Conceptual Project Configurations Adjusted to Address Land Constraints

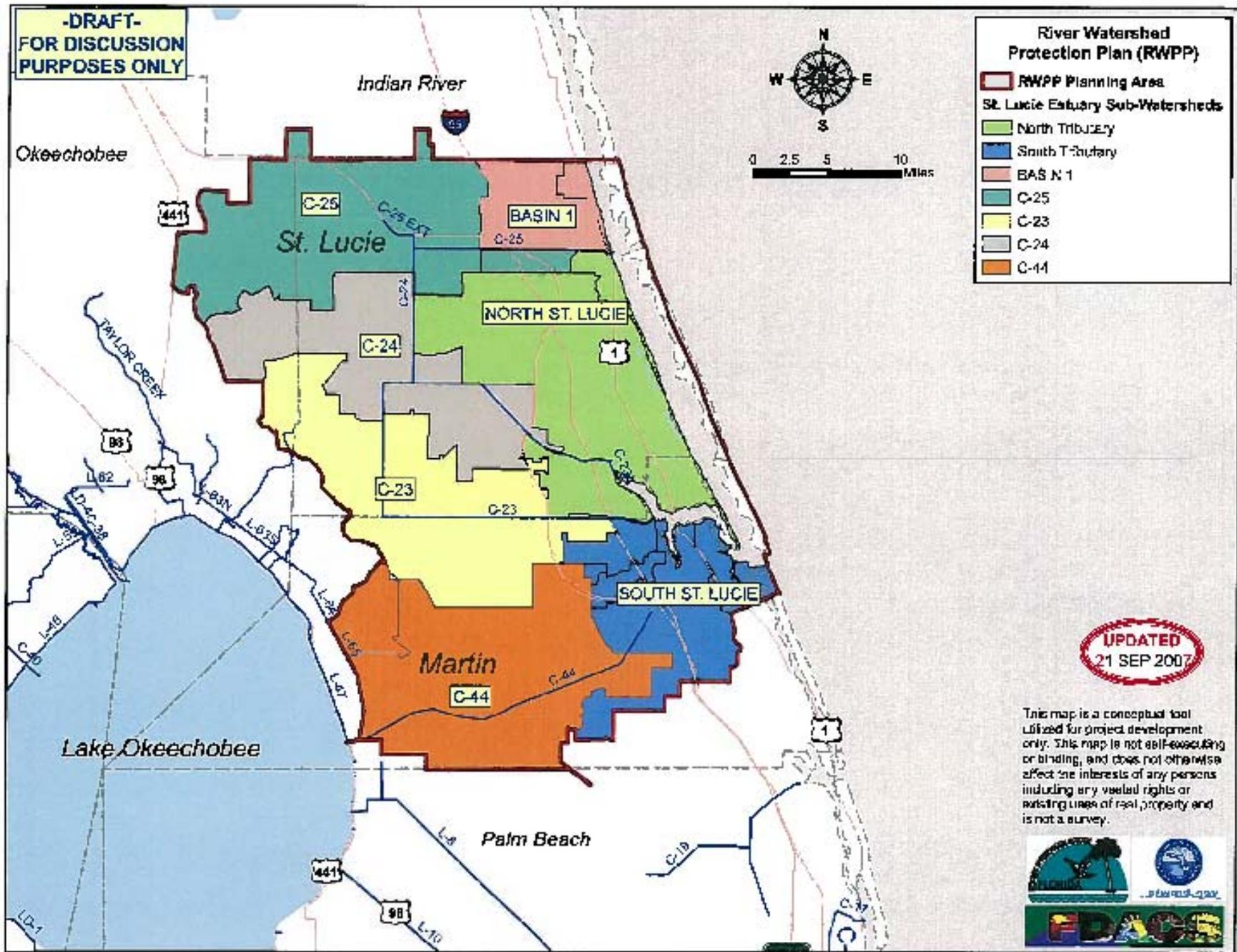


# What Still Needs to be Done?

- Ramp up Ag and Urban BMP Program Including Fertilizer Ordinances
- Continue Tributary Monitoring
- Continue Local Retrofits Targeting Worse Offenders
- Continue to Acquire Land
- Dedicate State Funding for Estuary Restoration
- Diversion for Beneficial Use



**-DRAFT-  
FOR DISCUSSION  
PURPOSES ONLY**



Lake Okeechobee

Indian River

St. Lucie

NORTH ST. LUCIE

SOUTH ST. LUCIE

Martin

Palm Beach

441

98

98

1

441

98

1

TAYLOR CREEK

L-62

L-63

L-64

L-65

L-66

L-67

L-68

L-69

L-70

L-71

C-25

C-25

C-24

C-23

C-23

C-44

BASIN 1

C-25

C-19

C-1