



Coming
Attractions



HISTORY !
NATURE !
DRAMA !
RESTORATION !

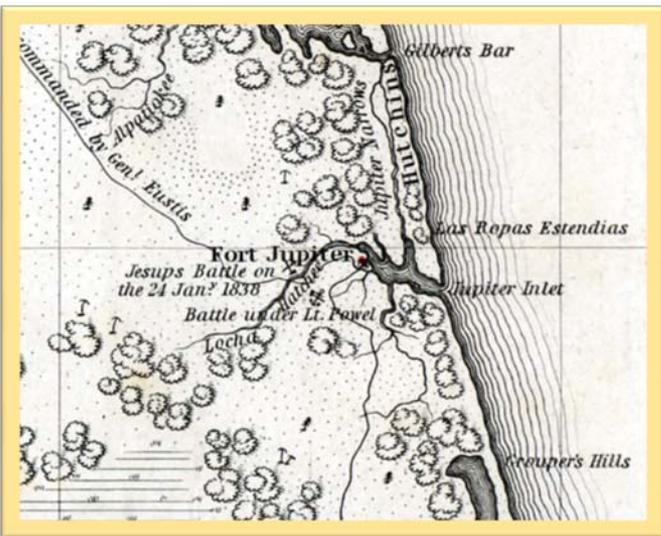


South Florida's Wild & Scenic River

Featuring:

**The Northwest Fork
of the Loxahatchee River**

Area is Rich in History

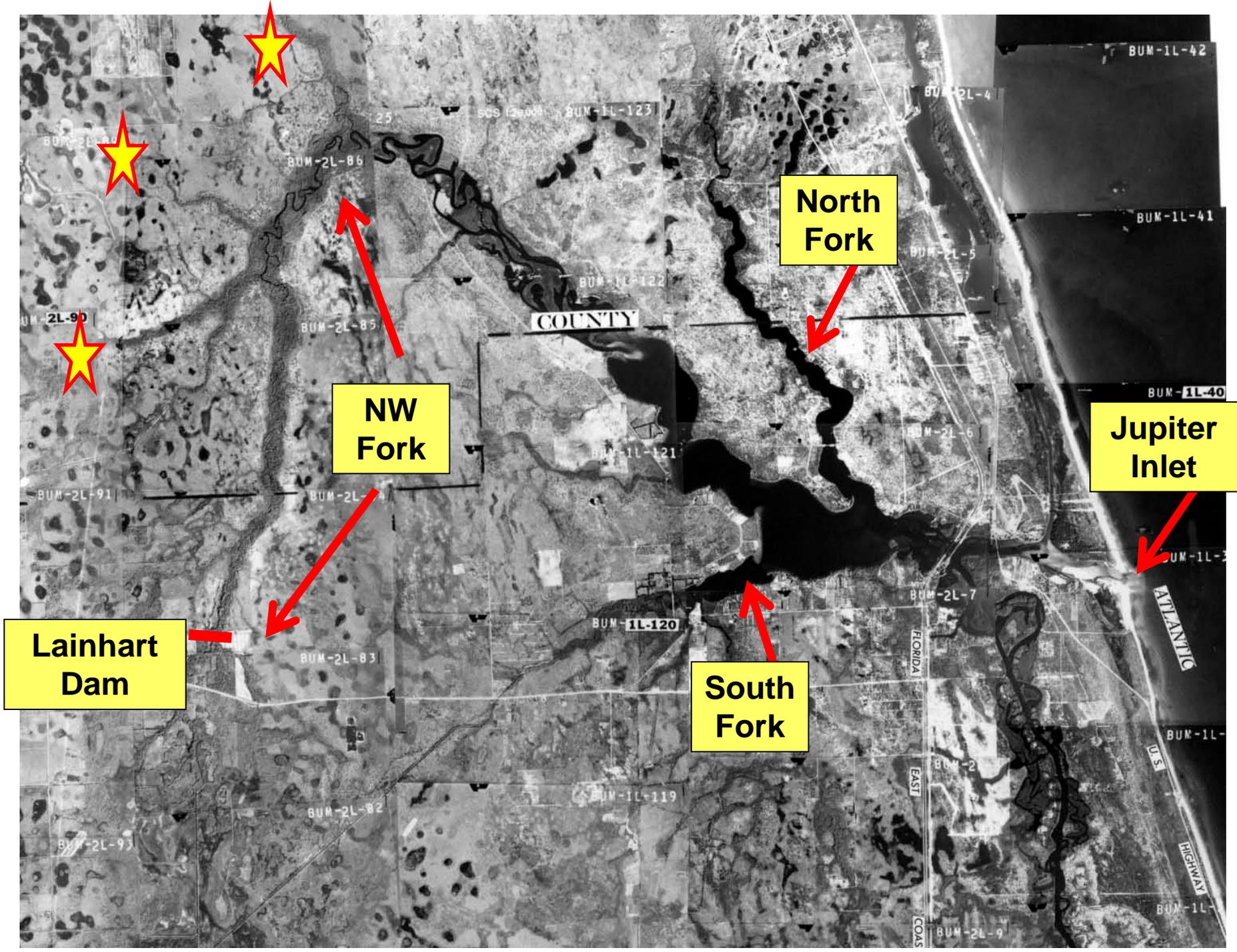


1700 – 1800: Jobe, Creek, Seminole and Jeaga Indian tribes inhabited area

1800's: Seminole Indians named the river “Lowchow” for turtle and “Hatchee” for river

1838: Second Seminole War included the Battle of the Loxahatchee (River Bend Park area)





North Fork

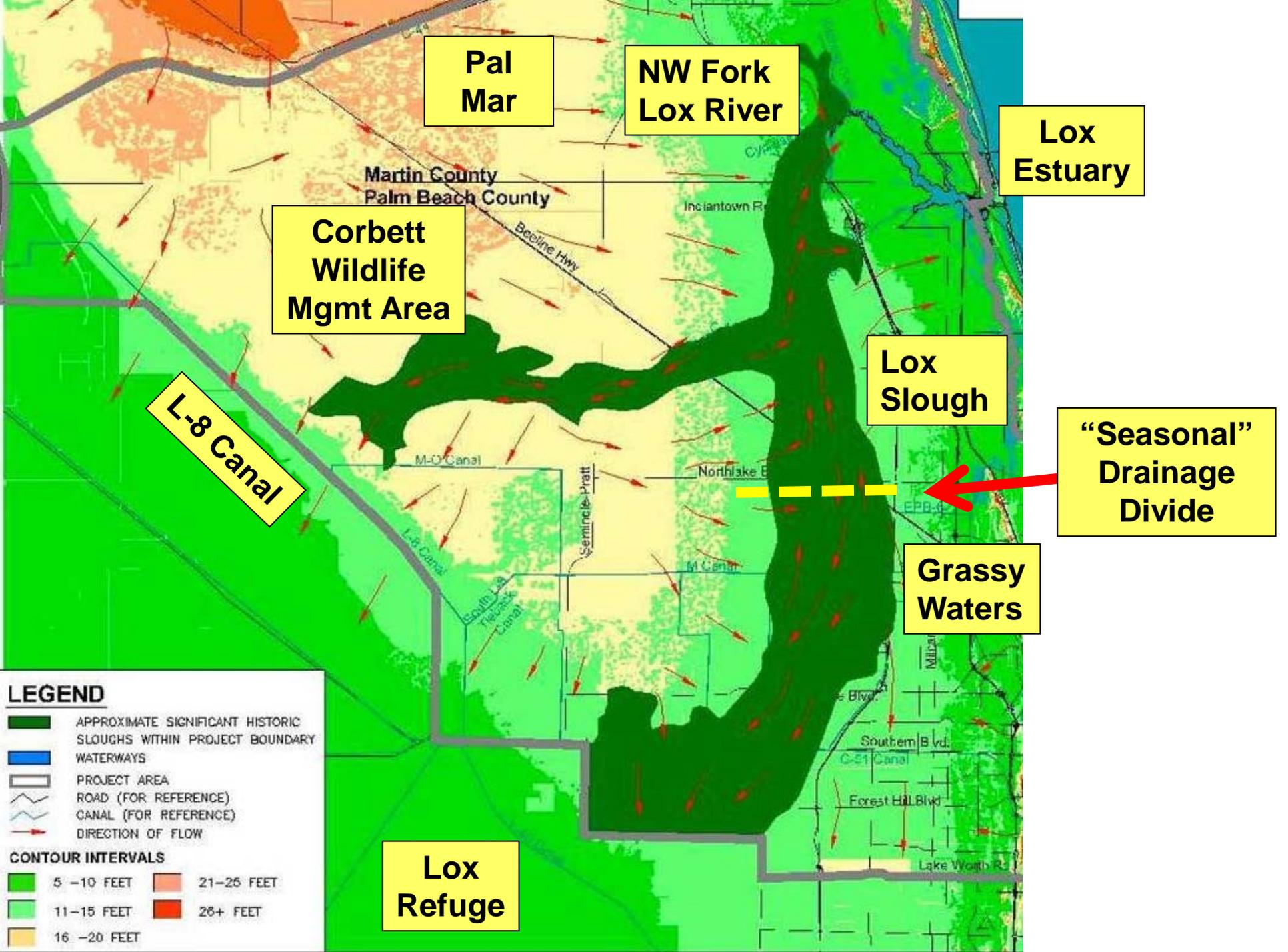
NW Fork

Jupiter Inlet

Lainhart Dam

South Fork





Pal Mar

NW Fork Lox River

Lox Estuary

Corbett Wildlife Mgmt Area

Lox Slough

"Seasonal" Drainage Divide

L-8 Canal

Grassy Waters

Lox Refuge

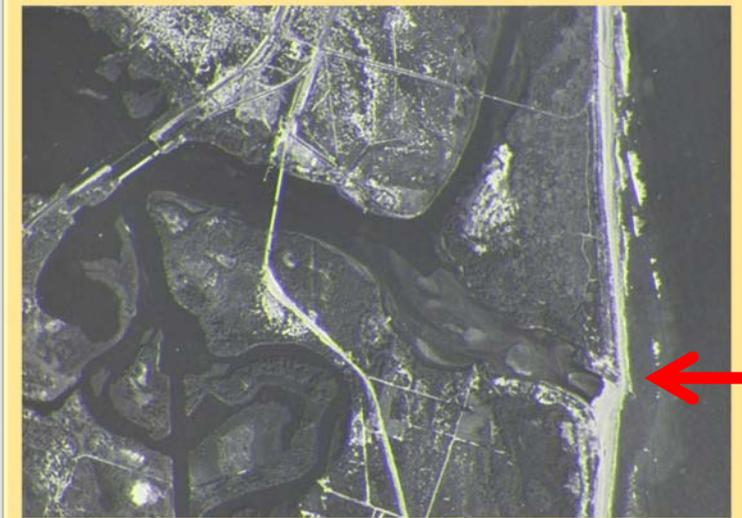
LEGEND

- APPROXIMATE SIGNIFICANT HISTORIC SLOUGHS WITHIN PROJECT BOUNDARY
- WATERWAYS
- PROJECT AREA
- ROAD (FOR REFERENCE)
- CANAL (FOR REFERENCE)
- DIRECTION OF FLOW

CONTOUR INTERVALS

 5 -10 FEET	 21-25 FEET
 11-15 FEET	 26+ FEET
 16 -20 FEET	

Early Modifications of the System



1922: Regular dredging of Jupiter Inlet begins to prevent closure



1930's: Farmers build two wooden dams, Lainhart & Masten, in the Northwest Fork for irrigation purposes

Colorful Characters

Life & Death on the Loxahatchee

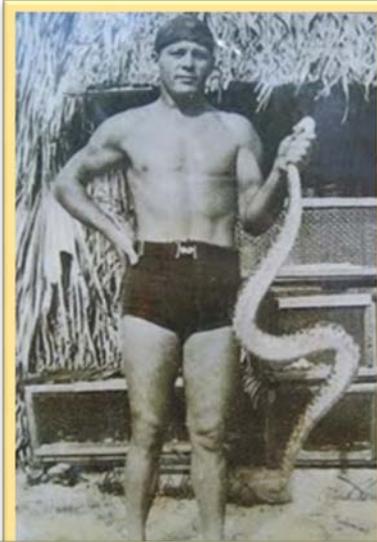


The Story of Trapper Nelson

James D. Snyder



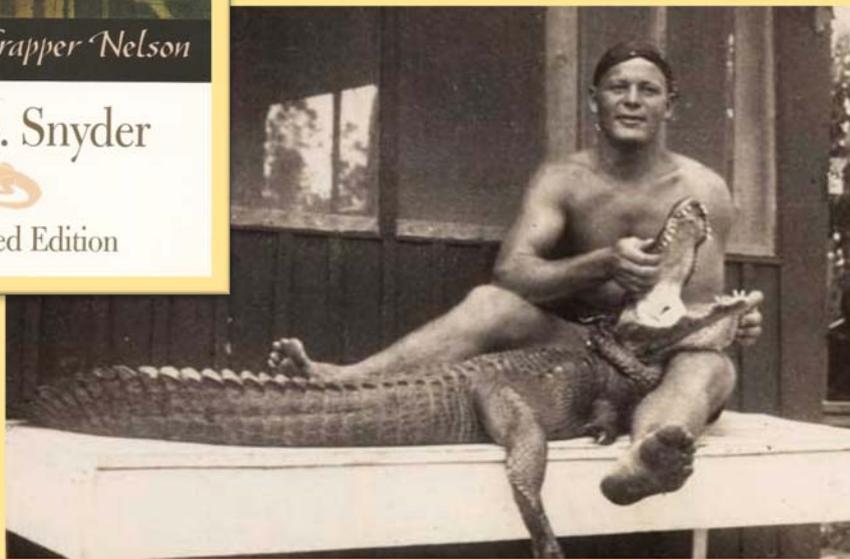
New Revised Edition



1934: Trapper Nelson
establishes homestead

40's – 50's “zoo” tourist attraction

1968: Mysterious death



World War II Base to State Park

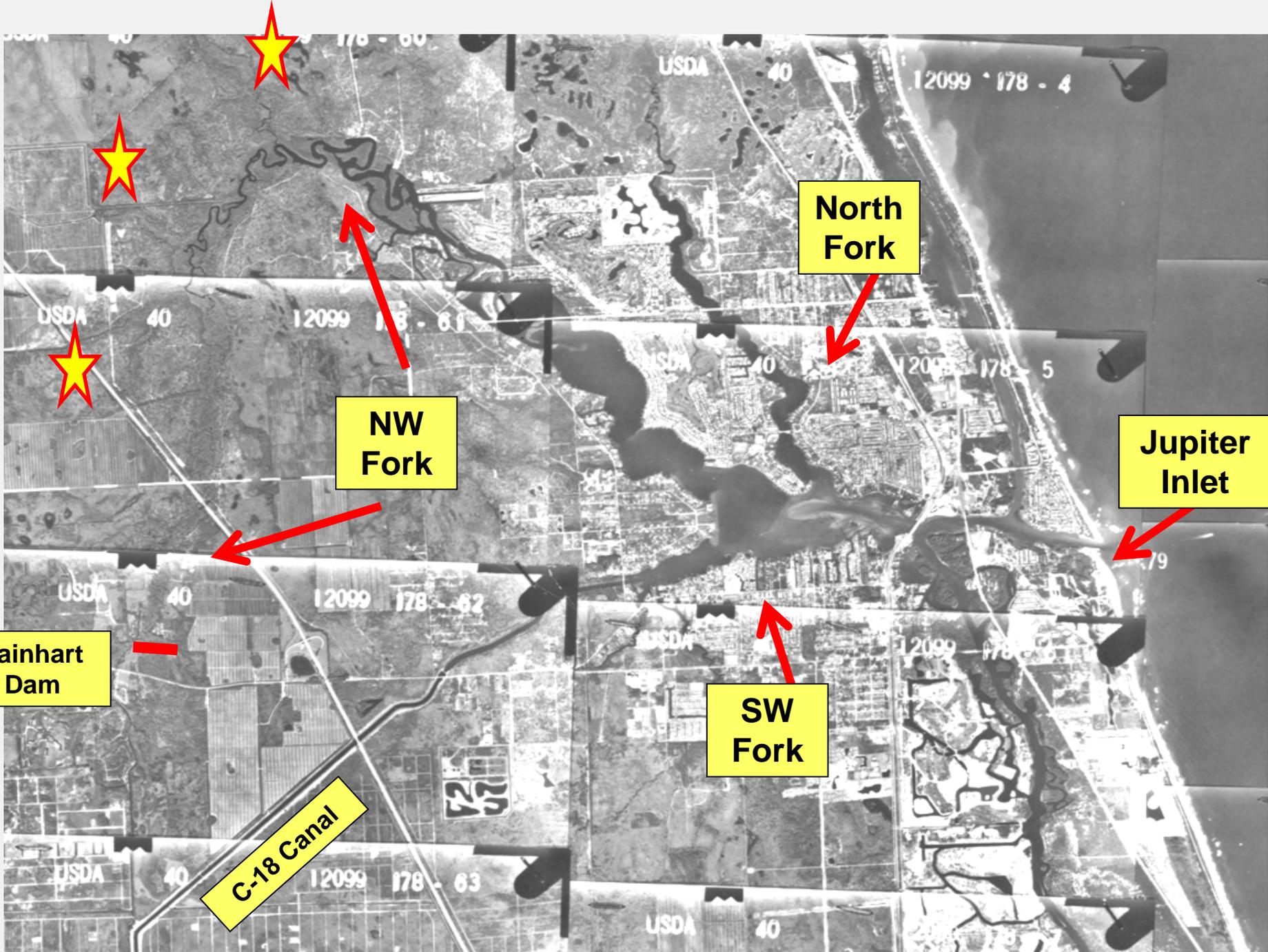


1942: Camp Murphy radar training base

1947: State acquires land for State Park - now Jonathan Dickinson State Park (~11,000 acres)



1957: C-18 Canal dredging severs Lox River from Lox Slough headwaters



North Fork

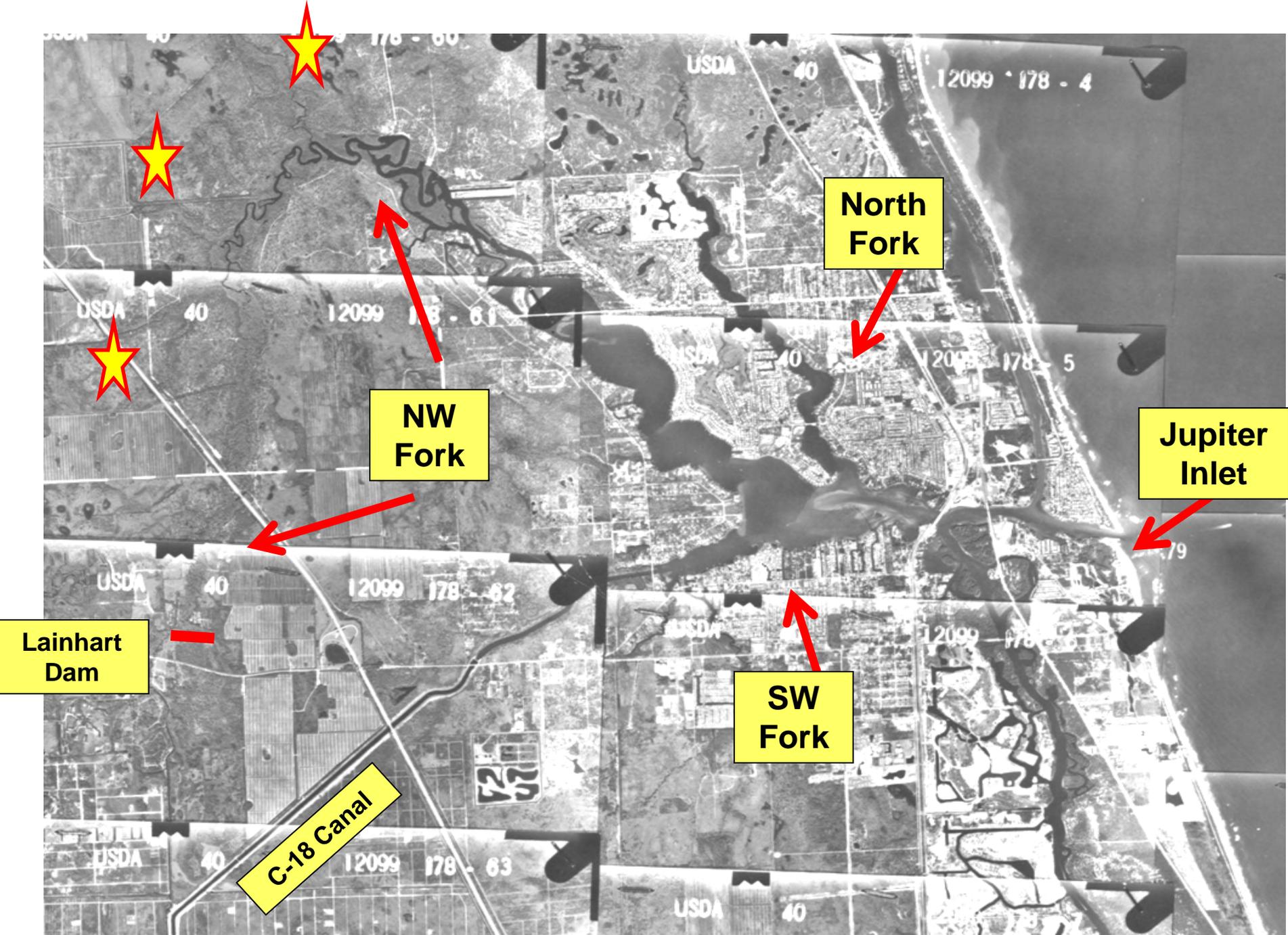
NW Fork

Jupiter Inlet

Lainhart Dam

C-18 Canal

SW Fork



North Fork

NW Fork

Jupiter Inlet

Lainhart Dam

C-18 Canal

SW Fork



Continued Impacts Spark Strong Grassroots Efforts to Protect River

Bulkheading Protest by Conservationists

County Without Objection To Jupiter River Project

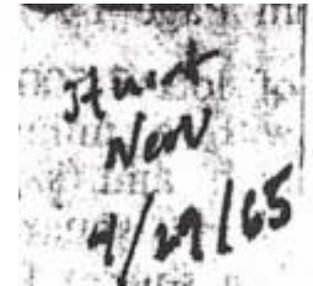
The County Commission, by a 3-2 vote Tuesday, agreed to extend the period of a "no objection" resolution concerning the bulkheading of property in Jupiter River Estates on the Loxahatchee River near Jonathan Dickinson State Park.

Objecting were Commissioners Timer Powers and Ed Miller, who also failed to carry a tabling motion, and an amendment that would have stated the commission's disapproval of bottom land being used for the bulkheading.

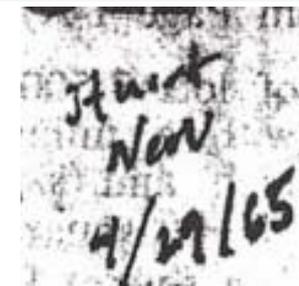
Strong opposition to the commission's action, particularly in failing to mention opposition to the use of bottom land, came from leading Martin County conserva-

tionists. Included in the opposition were: Ross Witham, Nathaniel P. Reed, Robert T. Bair, Charles H. (Chuck) Kindred, as well as a number of Jupiter residents.

The group protested that valuable spawning grounds for fish would be destroyed, and that the beauty of the area would be marred.



Continued Impacts Spark Strong Grassroots Efforts to Protect River

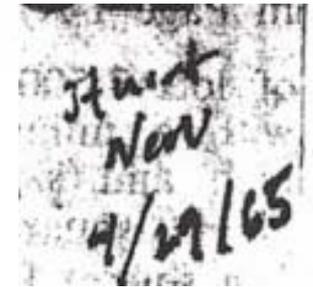


Dredging, filling and bulkheading of river for development

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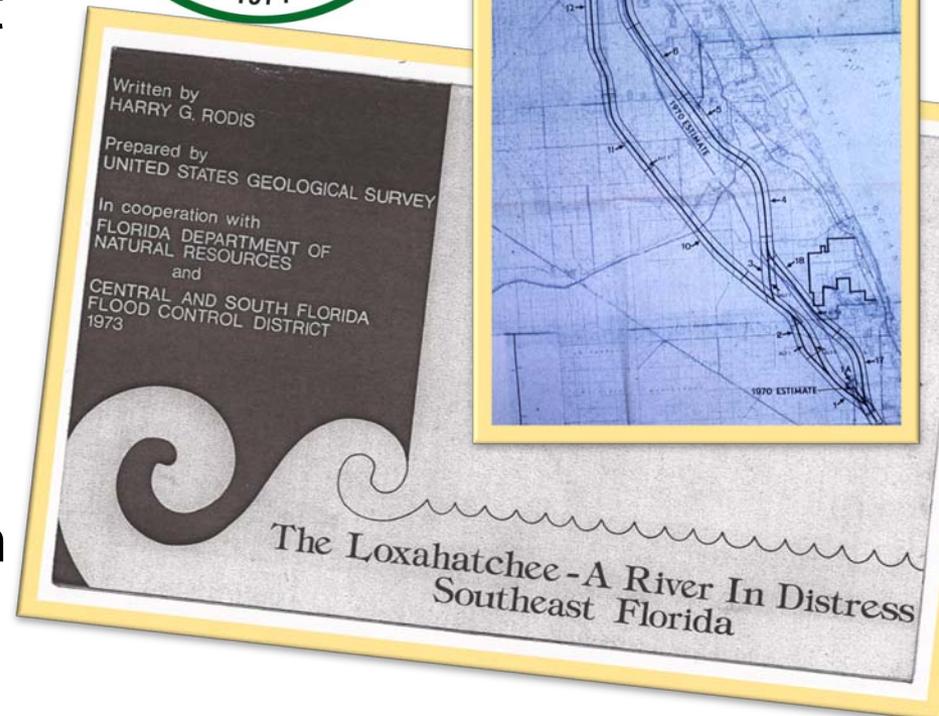
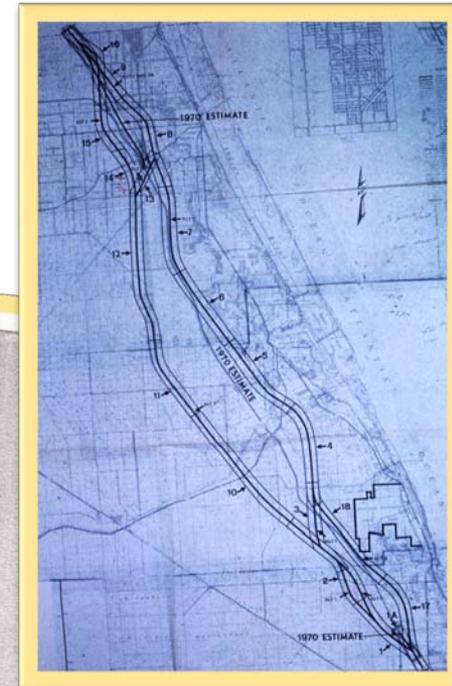
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Continued Push for River Protection

- 1970:** I-95 routing across river escalates public concerns
- 1971:** Law creates independent multi-county special district for river protection - LRD
- 1973:** U.S.G.S study indicates minimum flow of 50 cfs needed for river protection
- 1979:** Settlement agreement with FWF over Lainhart Dam, C-18 canal and river flows



River Corridor Acquisition



1983: Florida Legislature passes “Loxahatchee River Wild & Scenic Designation and Preservation Act”

1985: SFWMD acquisition of corridor as Save Our Rivers project



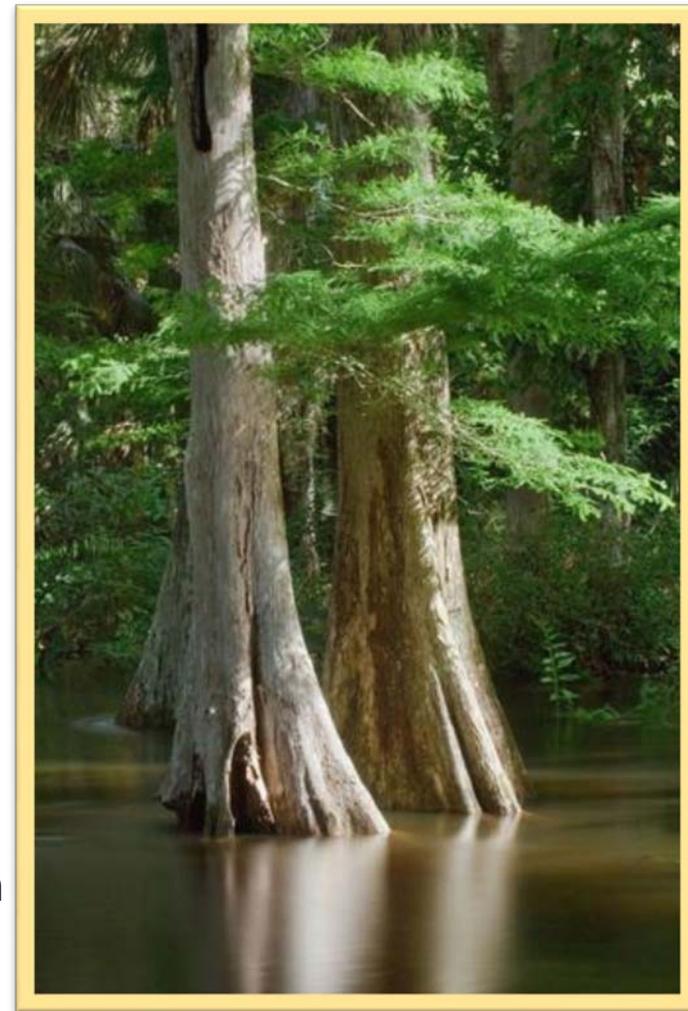
1985: Northwest Fork of Loxahatchee designated as Florida’s first National Wild & Scenic River (10.3 miles)

River Mgmt & Agency Coordination

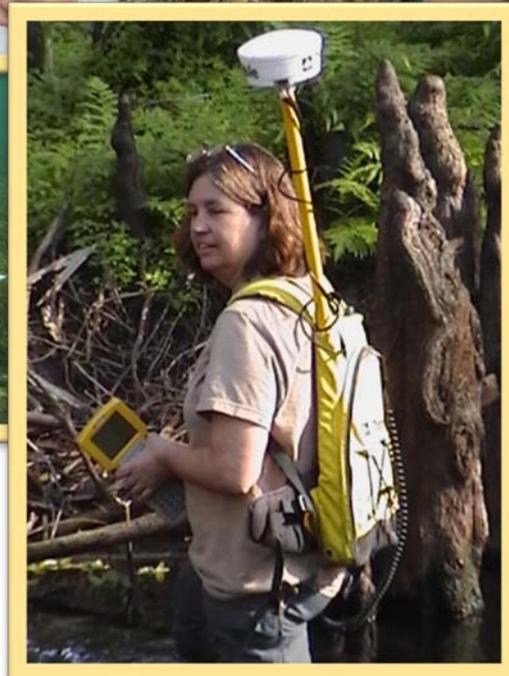
DEP & WMD required to jointly develop and implement river management plan

Legislature establishes a permanent Coordinating Council to provide nonbinding, advisory recommendations on management plan and permits

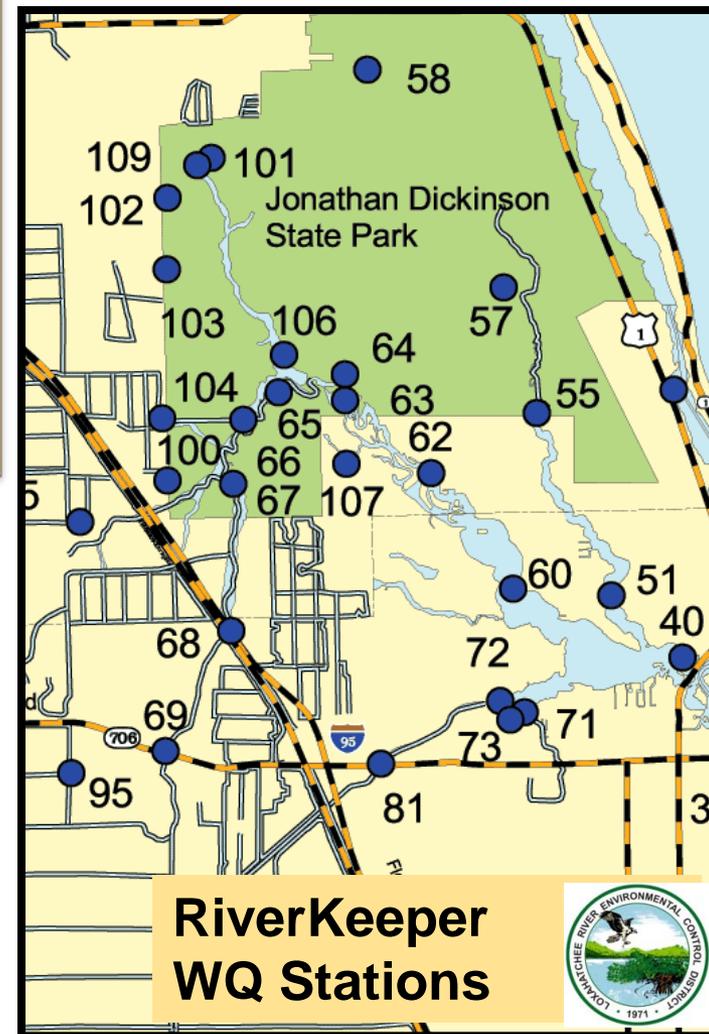
- Palm Beach County
- Martin County
- Jupiter Inlet District
- Town of Jupiter
- Village of Tequesta
- City of Palm Bch Gardens
- Loxahatchee River Dist
- South Indian River WCD
- Northern Palm Beach WCD
- PBC Farm Bureau
- Treasure Coast RPC
- Dept of Transportation
- Fish & Wildlife Comm
- Dept of Agriculture
- USFWS & NPS
- Martin County Coalition
- PB Pack & Paddle
- Boy Scout Council



Science Drives Restoration Plans



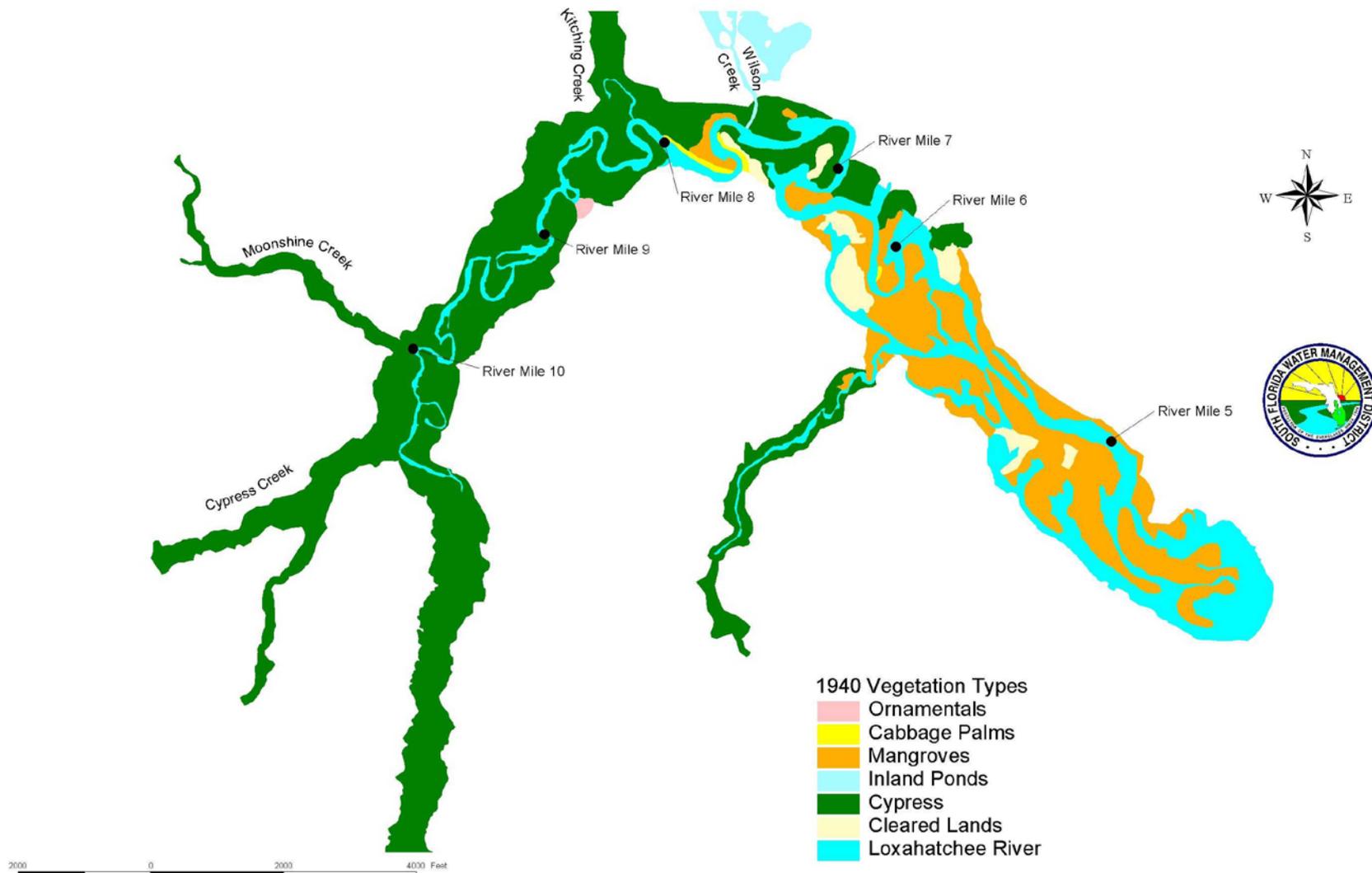
1990's: Numerous studies & plans for watershed protection





Science Drives Restoration Plans

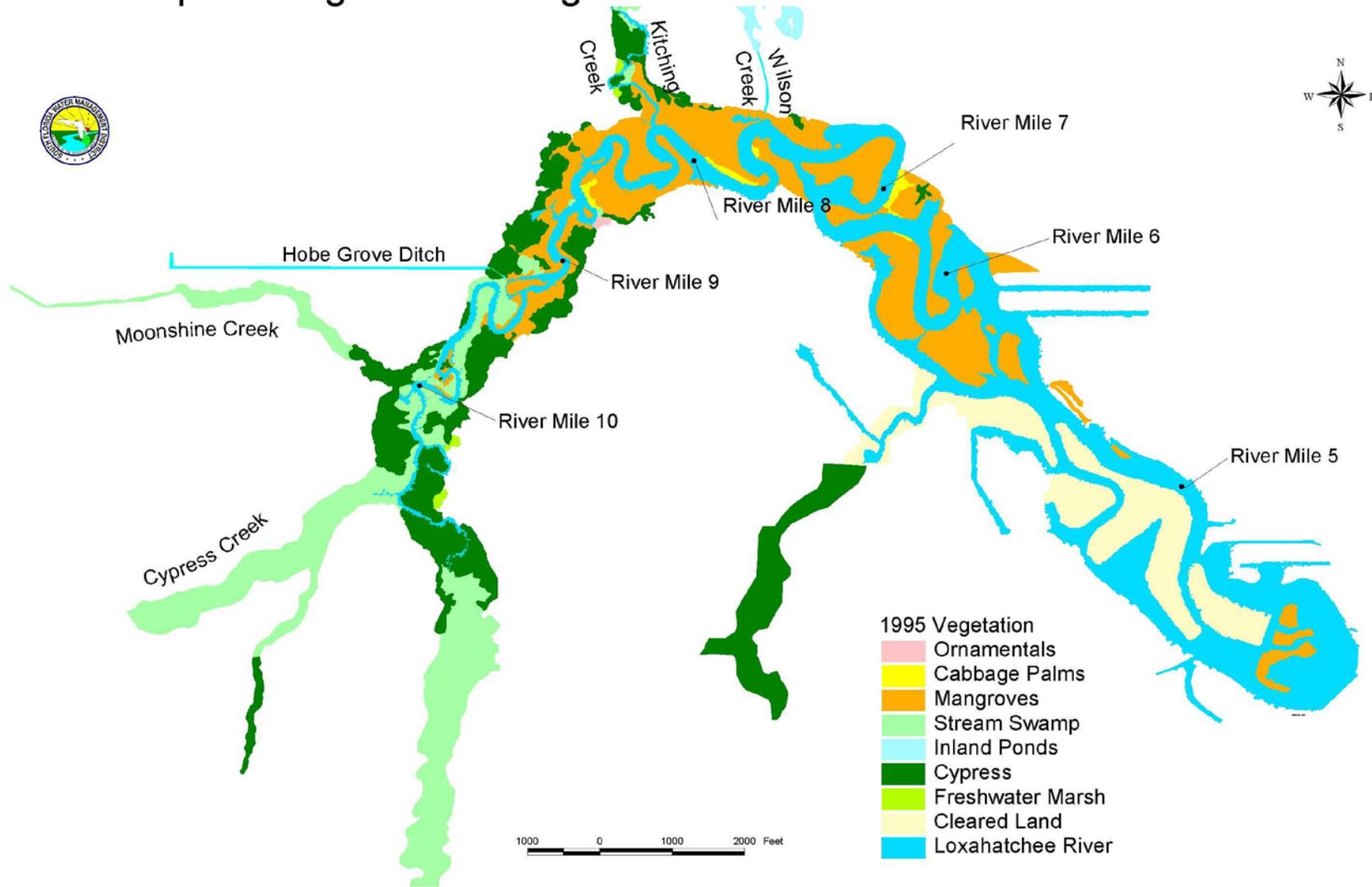
1940: Vegetative Changes along the Northwest Fork of the Loxahatchee River





Science Drives Restoration Plans

1995: Floodplain Vegetation along the Northwest Fork of the Loxahatchee River



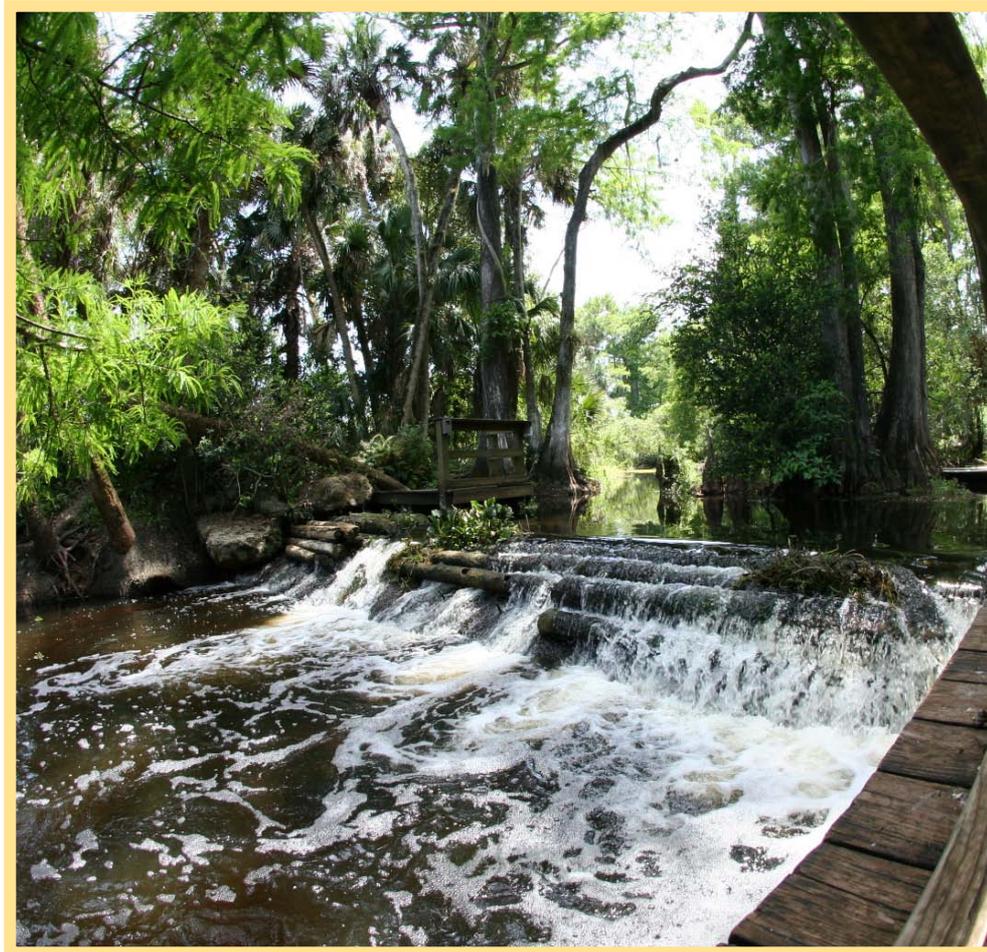
Minimum Flows → Restoration Flows

2003: Minimum flow rule for river adopted

35 cfs - not being met;
recovery strategy needed

☹️ widespread unhappiness ☹️

SFWMD commitment to develop “*a practical Restoration Plan and goal*”



~ 25-35 cfs at Lainhart Dam

“Practical Restoration Plan & Goal”

Recognition that watershed has been significantly and permanently altered:

- C-18 Canal construction
- Residential development
- Opening of Jupiter Inlet
- Oyster bar removal
- Freshwater inflows can't overcome tidal influence

Existing habitat communities serve important function:

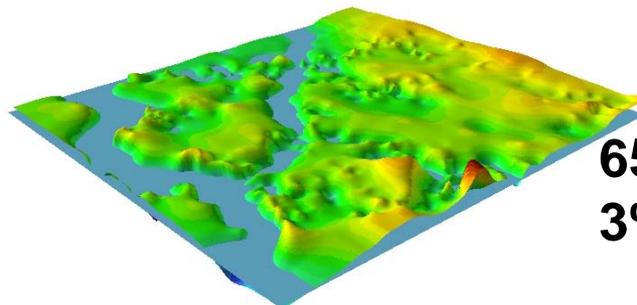
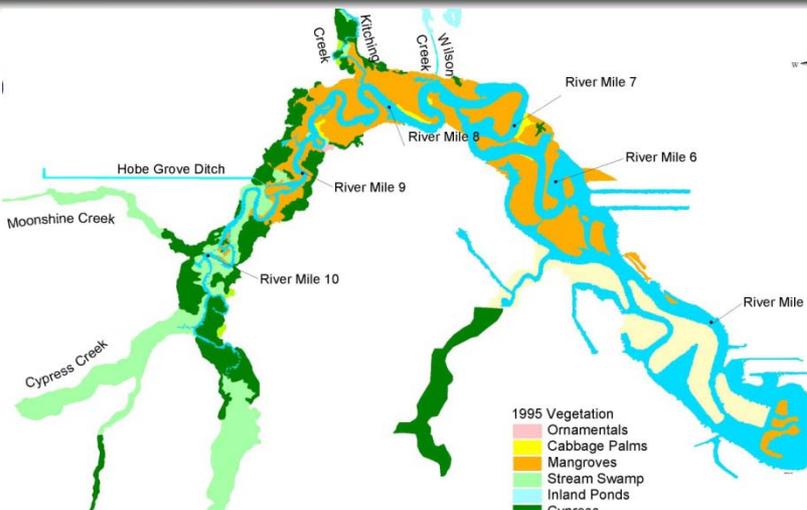
- Mangroves
- Oysters
- Seagrasses



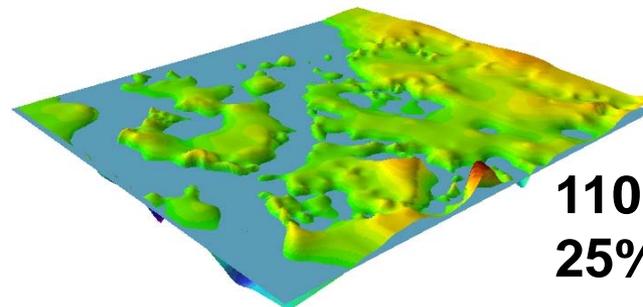
Stakeholders developed a shared “ecosystem vision”



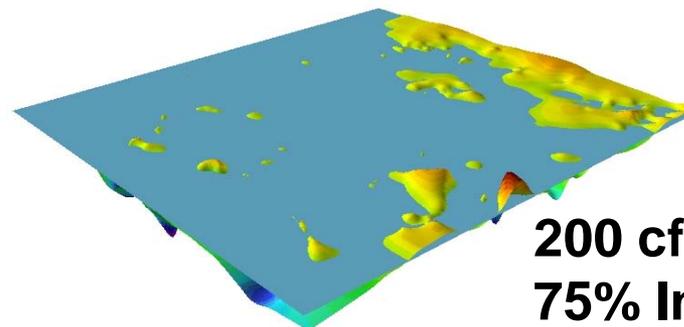
Minimum Flows → Restoration Flows



65 cfs
3% Inundation



110 cfs
25% Inundation



200 cfs
75% Inundation

“Valued Ecosystem Components”

- Cypress swamp and hydric hammock in the riverine reach
- Cypress swamp in the tidal floodplain
- Fish larvae in the low salinity zone
- Oysters in the mesohaline zone
- Seagrasses in the polyhaline zone



Minimum Flows → Restoration Flows

2006: Restoration Plan for the NW Fork of the Loxahatchee River

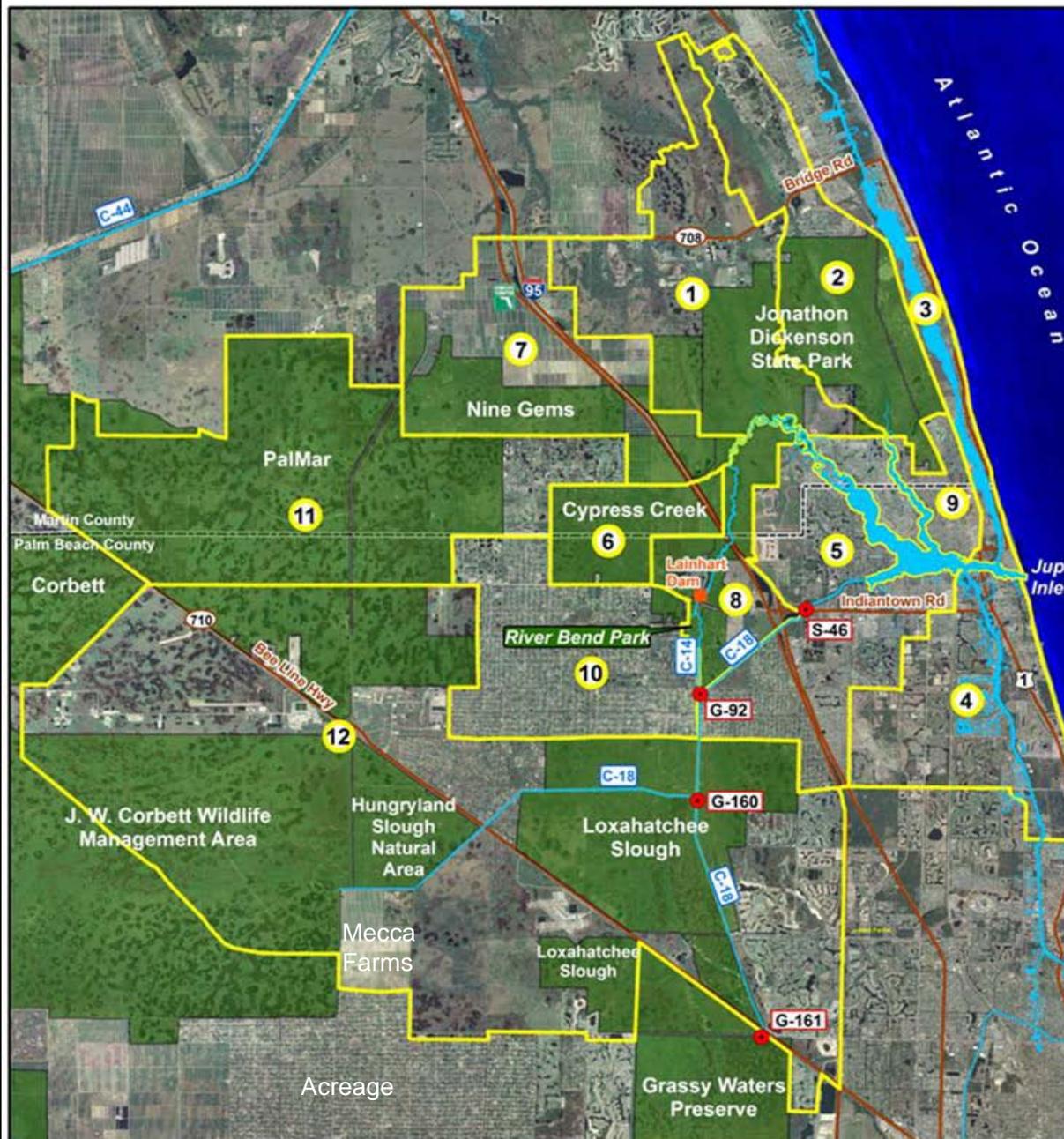
Preferred Restoration Flow Scenario:

Variable dry season flow between 50 and 110 cfs, with a mean monthly flow of 69 cfs over Lainhart Dam and an additional 30 cfs from the downstream tributaries when needed



Land Acquisition Partnerships to Protect River Watershed

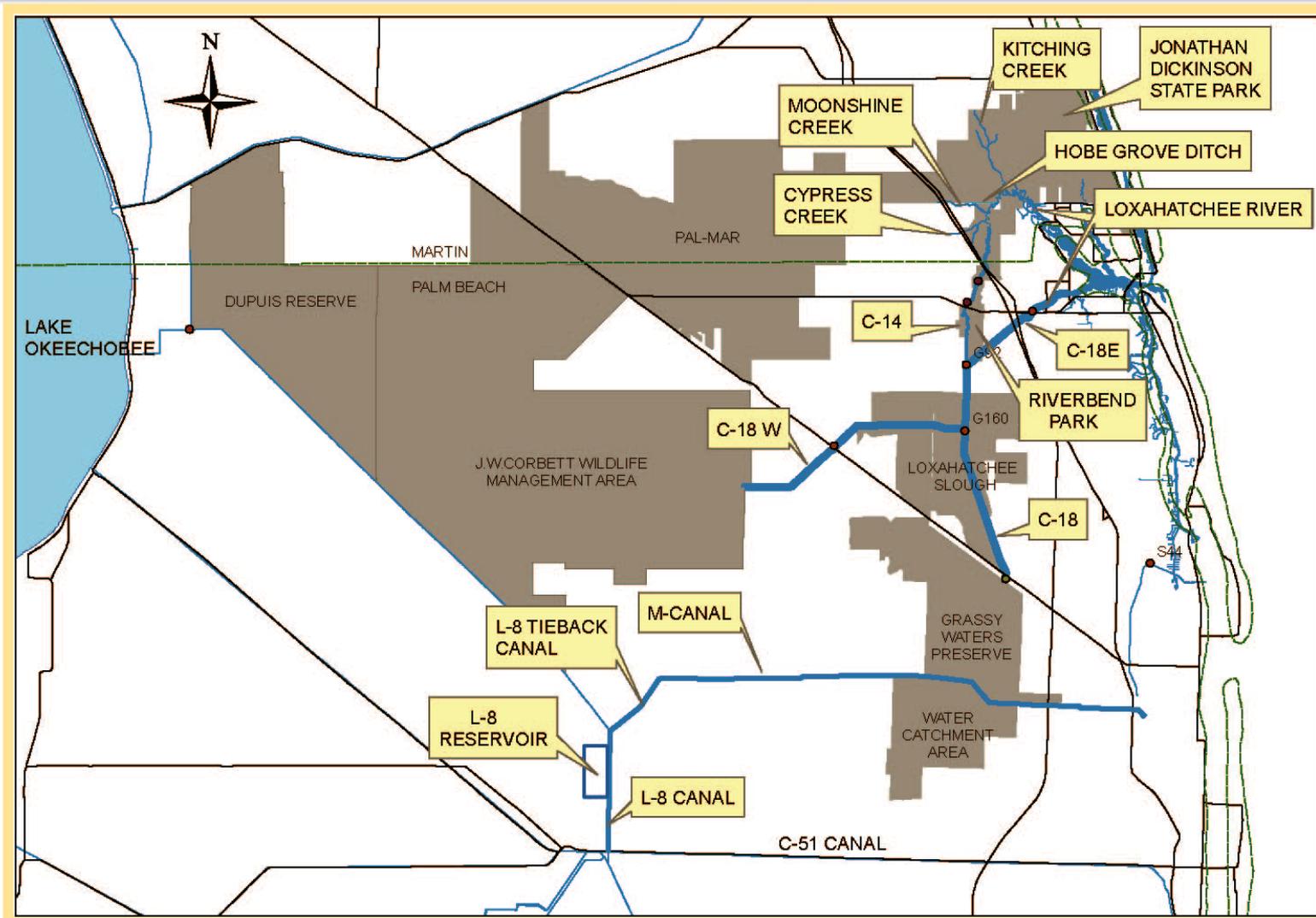
~ 22,000 ac acquired by Martin County, Palm Beach County & SFWMD to protect and restore river watershed



Loxahatchee River Watershed



Regional Water Availability Rule Protects Watershed from Consumptive Use Impacts



Continued Incremental Progress on Restoration Project Components



2003: G-160 Constructed



2003: L-8 Reservoir Acquired



2006: G-161 Constructed



2002-09: Slough Structures Replaced

Continued Legislative Commitment to River Protection & Restoration

Loxahatchee River
Preservation Initiative

50 – 50 match grant
funding program

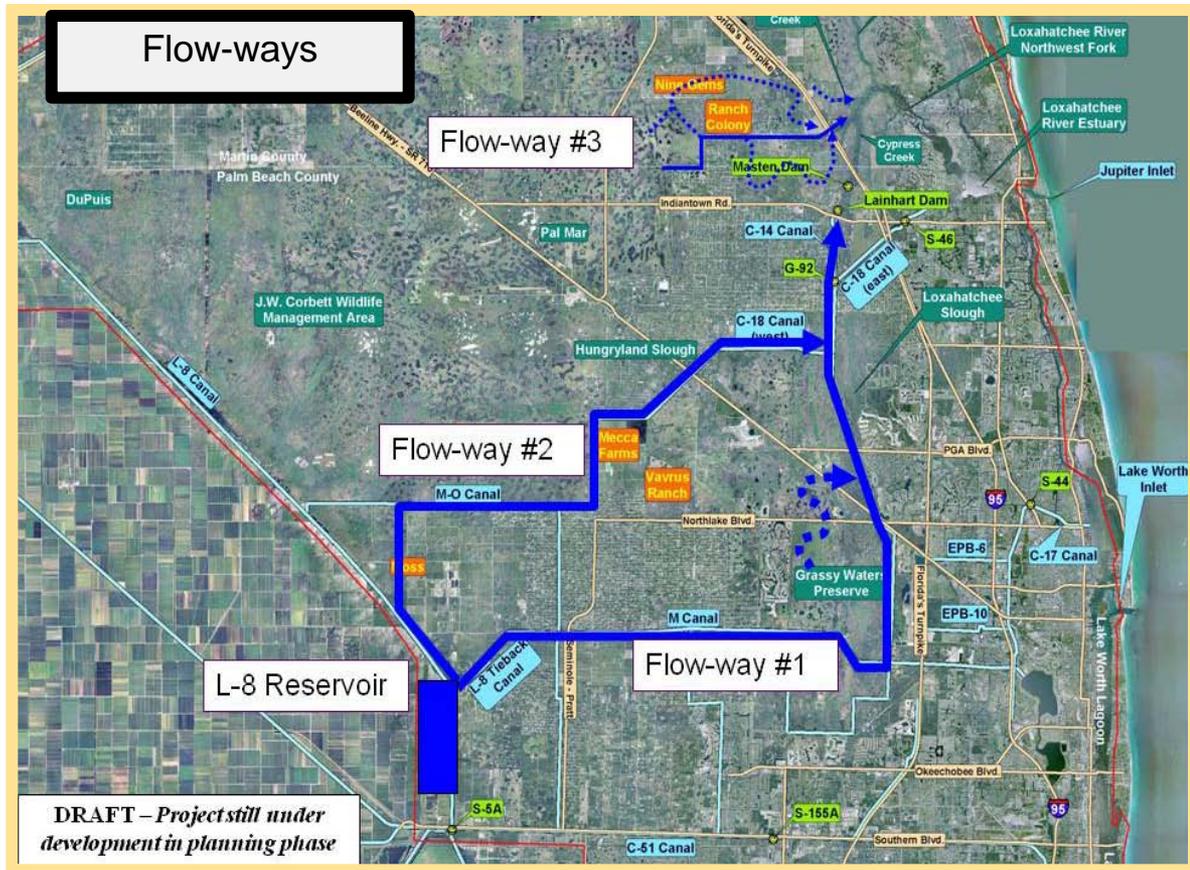
More than \$34 million in
restoration projects

Legislative appropriations
2003 – 2009



Loxahatchee River MFL Recovery & Restoration Strategy

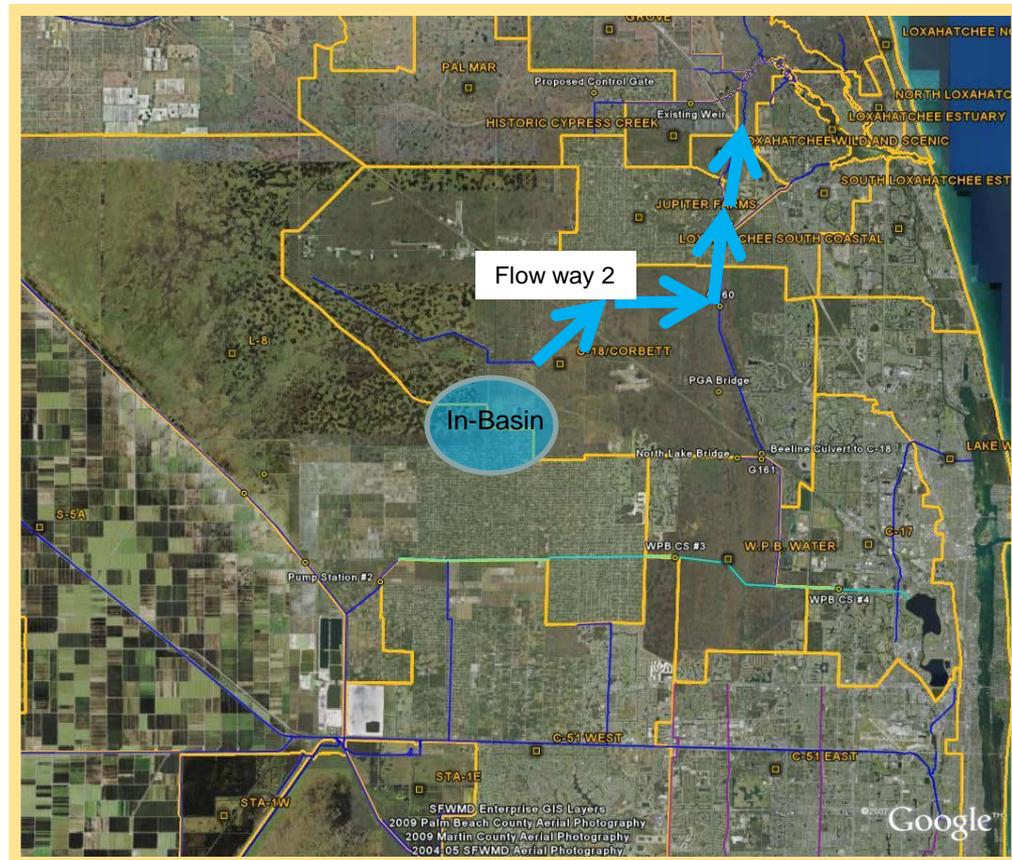
- CERP project is the MFL recovery AND restoration plan
- Designed to capture, store and treat excess water that is currently discharged to the Lake Worth Lagoon and use that water to enhance the Loxahatchee River and Slough



Restoration Strategies – Additional Components

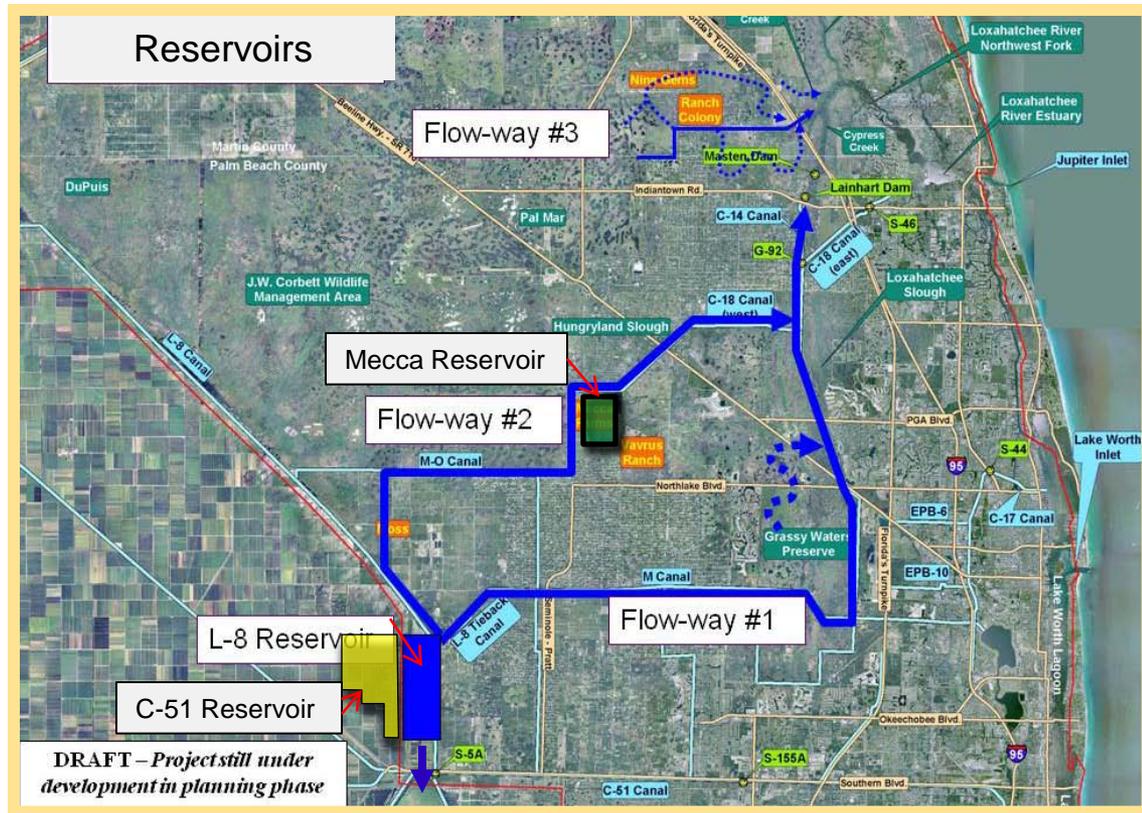
Replacement Features

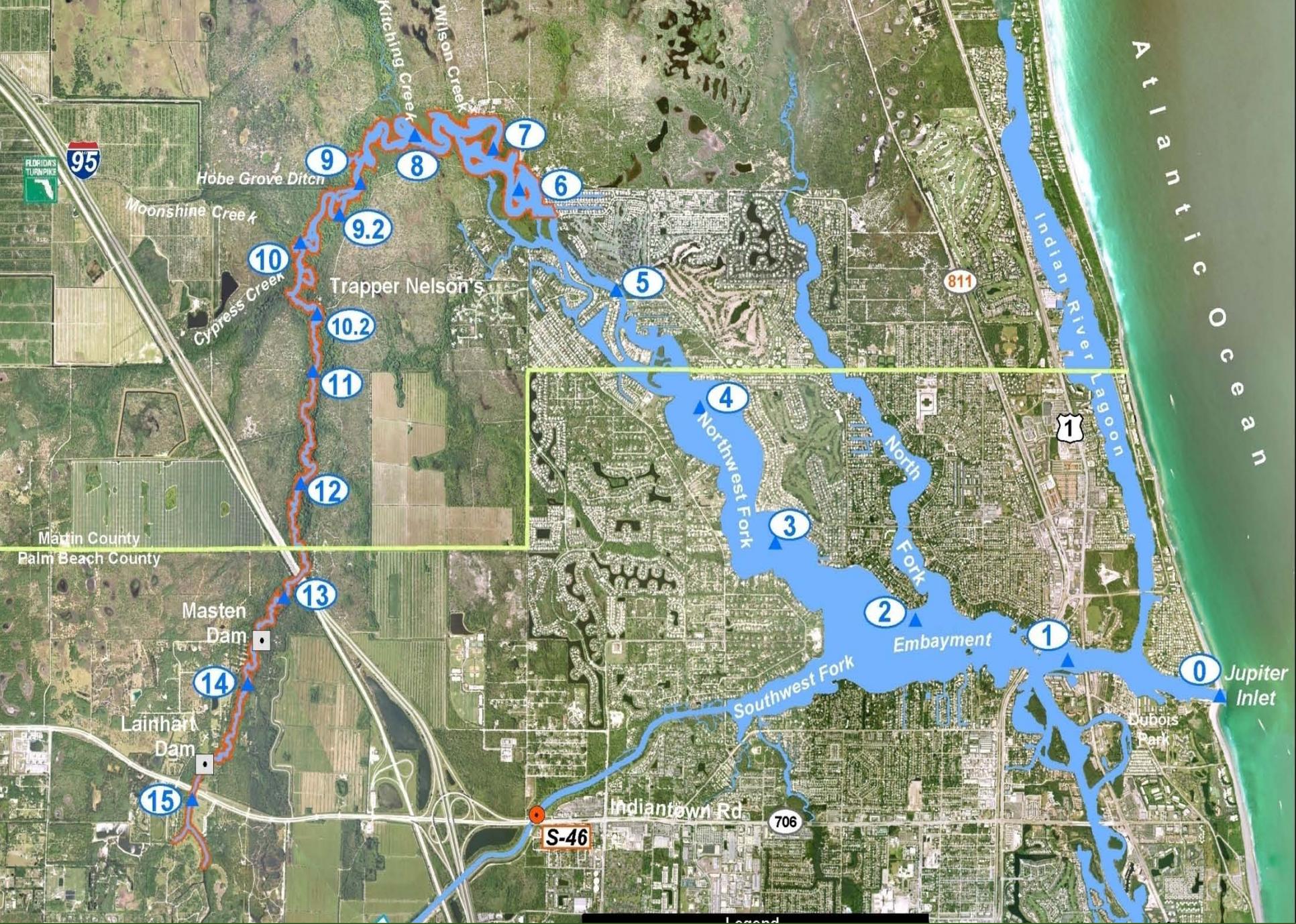
- Acquire and construct replacement storage to capture flows from C-18 western basin for Flow-way 2 to the river
- Non-binding letter of Intent to Negotiate submitted to PBC
- Discussions initiated on Mecca property



Path Forward Replacement Features

- Continue North Palm Beach Project Implementation Plan
 - Formulate for all three flow ways
- In the interim, L-8 serves multiple functions while Mecca Reservoir is constructed
- Ultimately, utilize L-8 Reservoir primarily as Flow Equalization Basin for Everglades Water Quality





Atlantic Ocean







The End

*Thanks to Dick Roberts, FPS (retired) for
historical photographs and information*



Questions?