

The History & Management of the Atlantic Intracoastal Waterway in Florida





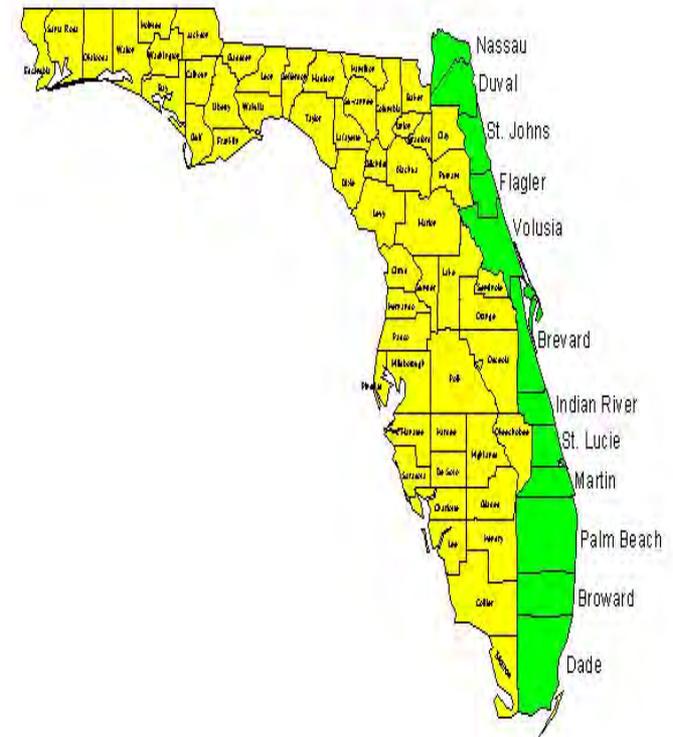
“LOCAL SPONSOR” OF THE ATLANTIC INTRACOASTAL WATERWAY IN FLORIDA

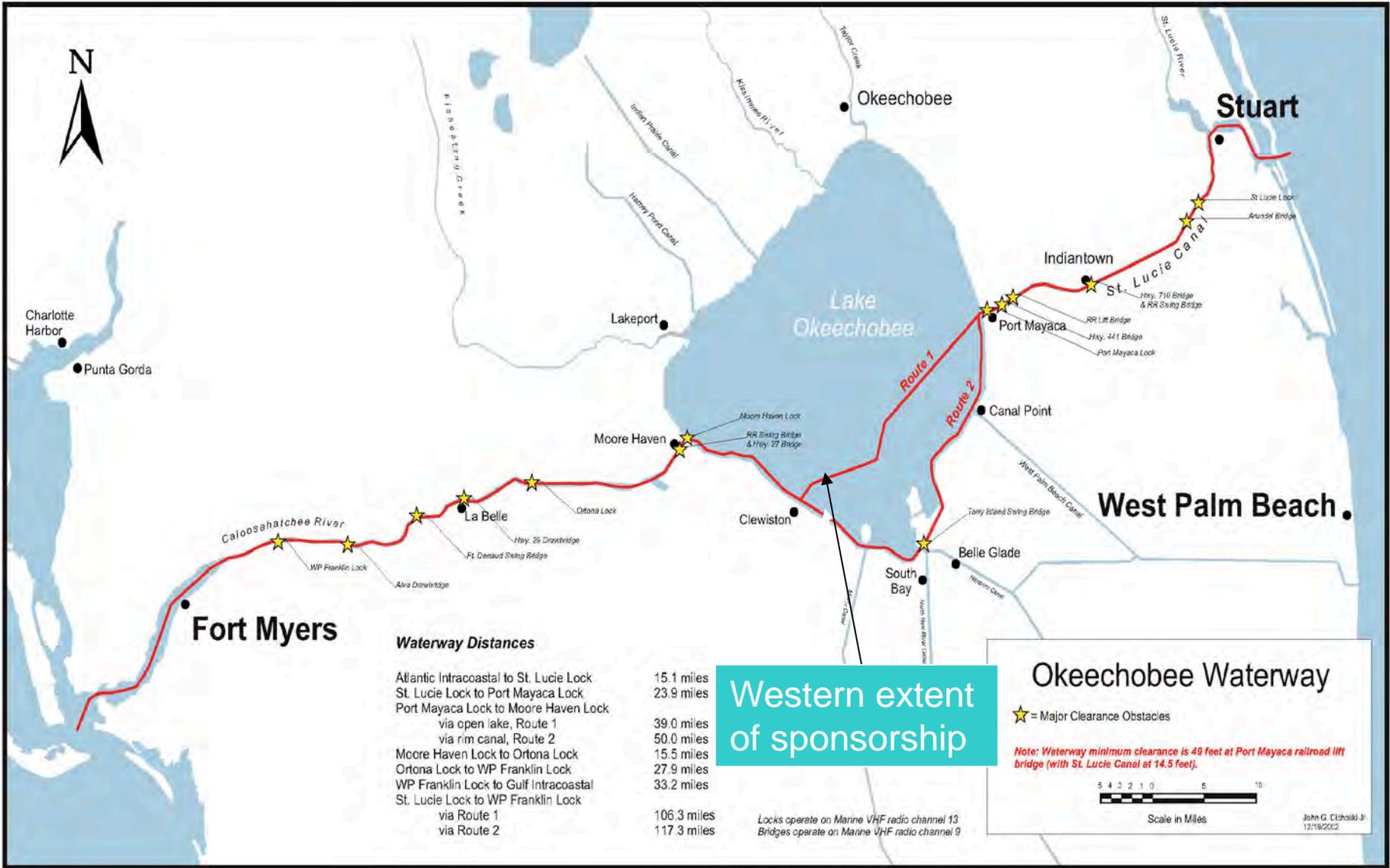
DISTRICT BOUNDARIES

- 12 Appointed Commissioners
- Six staff members
- Levy ad valorem tax
- Administration <2% of budget

DISTRICT PROGRAMS

- ❖ Land Acq. & Mgmt.
- ❖ Operations
- ❖ Assistance Programs
- ❖ Public Information





N

Charlotte Harbor
Punta Gorda

Fort Myers

Waterway Distances

Atlantic Intracoastal to St. Lucie Lock	15.1 miles
St. Lucie Lock to Port Mayaca Lock	23.9 miles
Port Mayaca Lock to Moore Haven Lock	
via open lake, Route 1	39.0 miles
via rim canal, Route 2	50.0 miles
Moore Haven Lock to Ortona Lock	15.5 miles
Ortona Lock to WP Franklin Lock	27.9 miles
WP Franklin Lock to Gulf Intracoastal	33.2 miles
St. Lucie Lock to WP Franklin Lock	
via Route 1	106.3 miles
via Route 2	117.3 miles

Western extent of sponsorship

Okeechobee Waterway

★ = Major Clearance Obstacles

Note: Waterway minimum clearance is 49 feet at Port Mayaca railroad lift bridge (with St. Lucie Canal at 14.5 feet).



Scale in Miles

John G. Cichoski Jr.
12/19/2012

Stuart

West Palm Beach

Lake Okeechobee

Port Mayaca

Indiantown

Lakeport

Moore Haven

Clewiston

South Bay

Belle Glade

Canal Point

Okeechobee

Fort Myers

La Belle

Caloosahatchee River

WP Franklin Lock

Alva Drawbridge

Rt. 26 Drawbridge

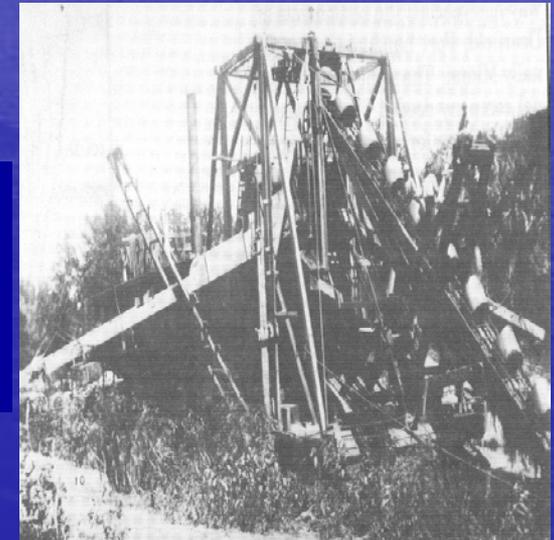
THE BEGINNING OF THE INTRACOASTAL WATERWAY IN FLORIDA

**CONSTRUCTED BY A PRIVATE COMPANY,
THE FLORIDA EAST COAST CANAL COMPANY
BETWEEN 1881 and 1912**



James L. Colee
(courtesy of the St. Augustine Historical Society).

**A LADDER OR BUCKET DREDGE
WAS USED TO CREATE CANALS
CONNECTING THE EAST COAST
LAGOONS AND RIVERS**



**THE RESULTING 5 FT DEEP AND 50 FOOT
WIDE WATERWAY WAS OPERATED AS A
TOLL CANAL**



THE BEGINNING OF GOVERNMENT OWNERSHIP OF THE INTRACOASTAL WATERWAY IN FLORIDA



President-elect _____ "rescued" by Commodore Brook's yacht *Klyo* after encountering a blockage in the canal channel, January 28, 1921. Brook and _____ are at center, waving their caps (courtesy of the Fort Lauderdale Historical Society).



Harry A. Kelsey
(courtesy of the Historical Society of Palm Beach County.)

**THE EXISTING WATERWAY
WAS OWNED BY HARRY KELSEY,
A CANADIAN DEVELOPER WHO WAS
CONSTRUCTING THE TOWN
OF LAKE PARK IN PALM BEACH COUNTY**

**THE FLORIDA INLAND NAVIGATION
DISTRICT WAS CREATED IN 1927 BY THE
FLORIDA LEGISLATURE TO BE THE LOCAL
SPONSOR OF THE WATERWAY**



First board of Commissioners of the Florida Inland Navigation District, 1928. Seated (left to right): John O. Shares, Frank H. Owen, Chairman Charles F. Burgman, A.W. Young, canal owner Harry S. Kelsey, A.M. Taylor. Standing (left to right): E.C. McMullen, Kelsey's attorney Bert Winters, D.H. Conkling, Frank B. Shutts, D.F. Fuquay, A.H. Brook, board attorney A. A. Green, Stanley Kitching.

**CANAL BOND ISSUE
PASSES ELECTION
ON EAST COAST**

Majority In The Eleven Counties
For Project Is
Four To One

JACKSONVILLE, Fla., June 27. (AP)—A bond issue of \$1,887,000 for improvement of the Florida East Coast Canal today appeared assured. Although only about one-seventh of the qualified voters in the 11 canal counties offered votes in the polls, the majority in favor of the project was about four to one on the face of early returns.

Paula derived from the issue were included for use of the Florida Inland Navigation District in obtaining the right-of-way for the canal. The proposition decided by the voters yesterday included a plan to turn over the properties so purchased to the federal government, which will in turn expend \$4,221,000 to enlarge the canal to a depth of eight feet at average low water and a width of 25 feet at the bottom from Jacksonville to Miami. Government expenditure of \$125,000 annually for maintenance also is provided.

Howard county, with a vote of almost 15 to one, endorsed the bond issue of \$1,887,000 for the purchase of the East Coast canal properties. The total vote in the county is 150 for, 127 against. Paul Landwehr, Chamber of Commerce president, is chairman of the committee for the use of the project.

Article from the Fort Lauderdale Daily News, June 27, 1928.

**THE DISTRICT PROMOTED THE PASSAGE
OF A \$1.8 MILLION BOND TO PURCHASE
THE WATERWAY FROM KELSEY AND BUY
OTHER LANDS REQUIRED FOR THE WATERWAY**

1927 GOVERNMENT OWNERSHIP



Waterway enlarged in the 1930's to 100 feet wide and 8 feet deep

1942

**Time to make
improvements**



Potero Del Llano was torpedoed on May 13, 1942.

German submarines off of the east coast of the United States torpedoed many cargo ships, causing Congress to authorize the enlargement of the Intracoastal Waterway to provide a safe and protected route for these ships.



TODAY

FLORIDA ICW STATS

406 Miles in Length

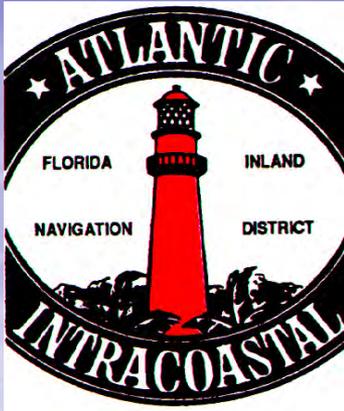
**Florida/Georgia Border to
Crossbank in the FL Keys**

**Project Design Depth
12' MLW, FL/GA border to Ft.
Pierce**

**10' MLW from Ft. Pierce to Miami
7' MLW from Miami to Crossbank
8' for the OWW**

500,000 cyds. per year of dredging

**Est. \$12-\$14 Million annually to
maintain at optimum functionality**

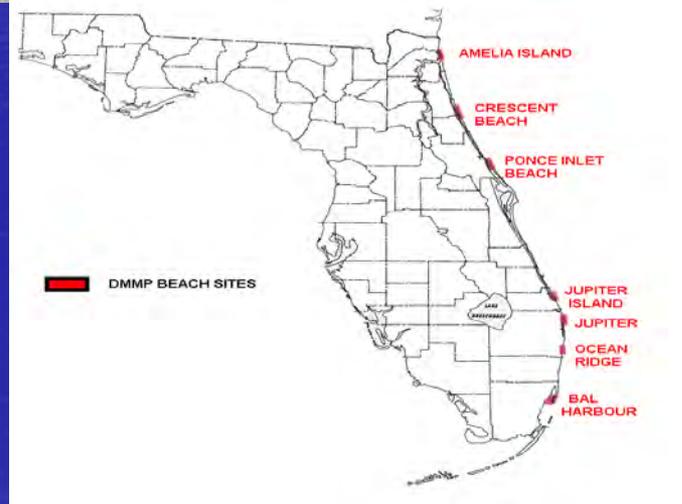


LAND ACQUISITION AND MANAGEMENT

22,000 acres of Right of way lands

35,000 acres for Dredged Material Management

3,500 acres for Long Term Dredged Material Management



**LONG RANGE DREDGED
MATERIAL MANAGEMENT PLAN**

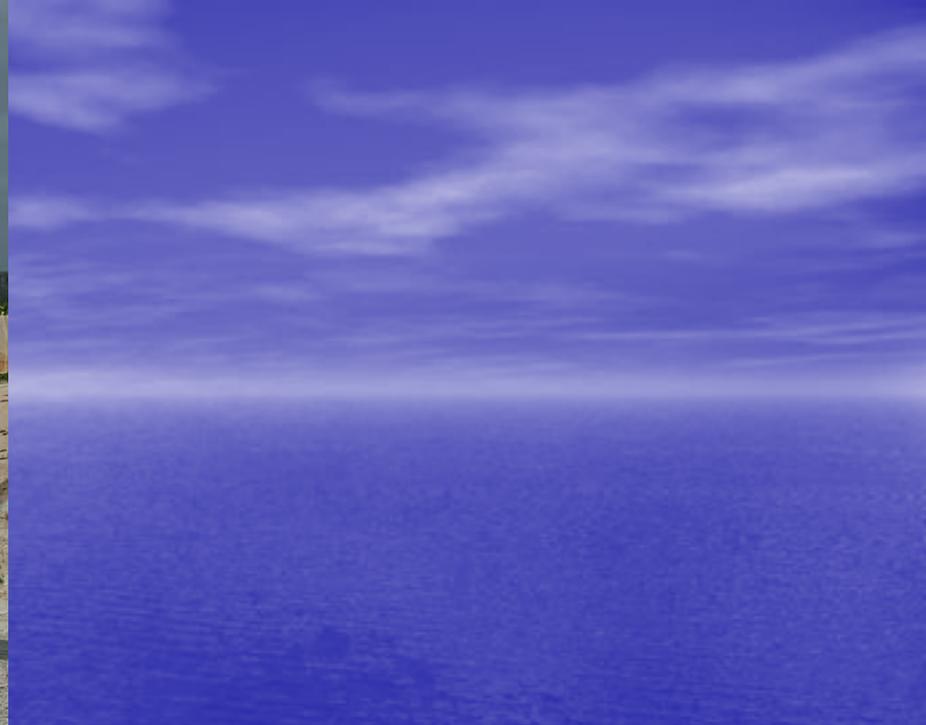
**FOR THE
ATLANTIC INTRACOASTAL
WATERWAY
IN FLORIDA**

DREDGED MATERIAL MANAGEMENT PLAN RESULTS

**OVER THE NEXT 50 YEARS
ICW MAINTENANCE DREDGING WILL
PRODUCE**

- 12.5 MCYDS. OF BEACH QUALITY MATERIAL ONTO 8 BEACH SITES**
- 12.5 MCYDS. OF NON-BEACH MATERIAL INTO 54 UPLAND CONTAINMENT SITES**

Before sand placement



After sand placement



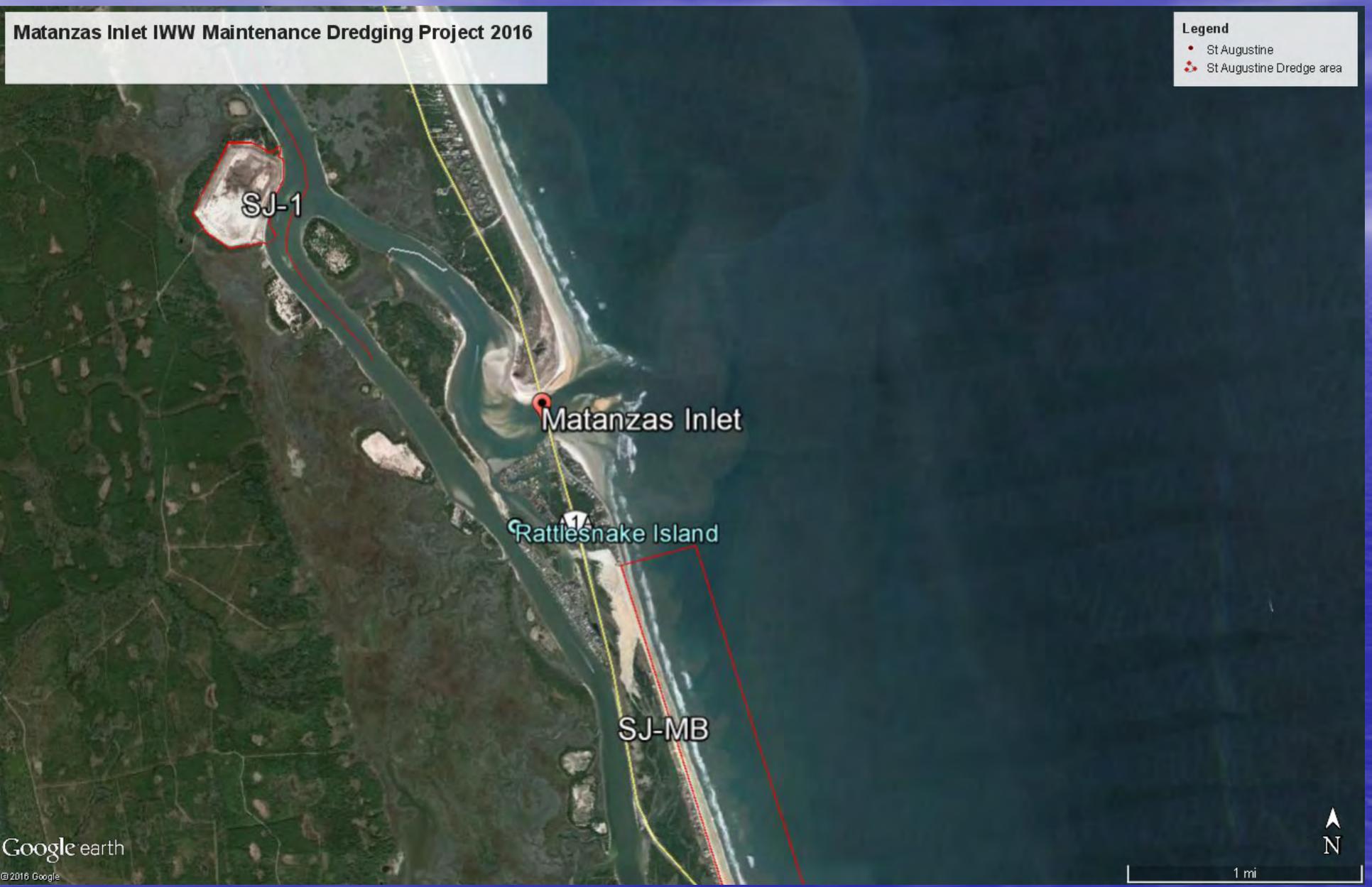
SUMMERHAVEN
BEACH



Matanzas Inlet IWW Maintenance Dredging Project 2016

Legend

- St Augustine
- ▭ St Augustine Dredge area



**New Barrier
Island Breach
Beginning Near
Matanzas Inlet,
(Hurricane Mathew
2016)**



UPLAND DREDGED MATERIAL MANAGEMENT AREAS (FL-3 UNDER CONSTRUCTION)





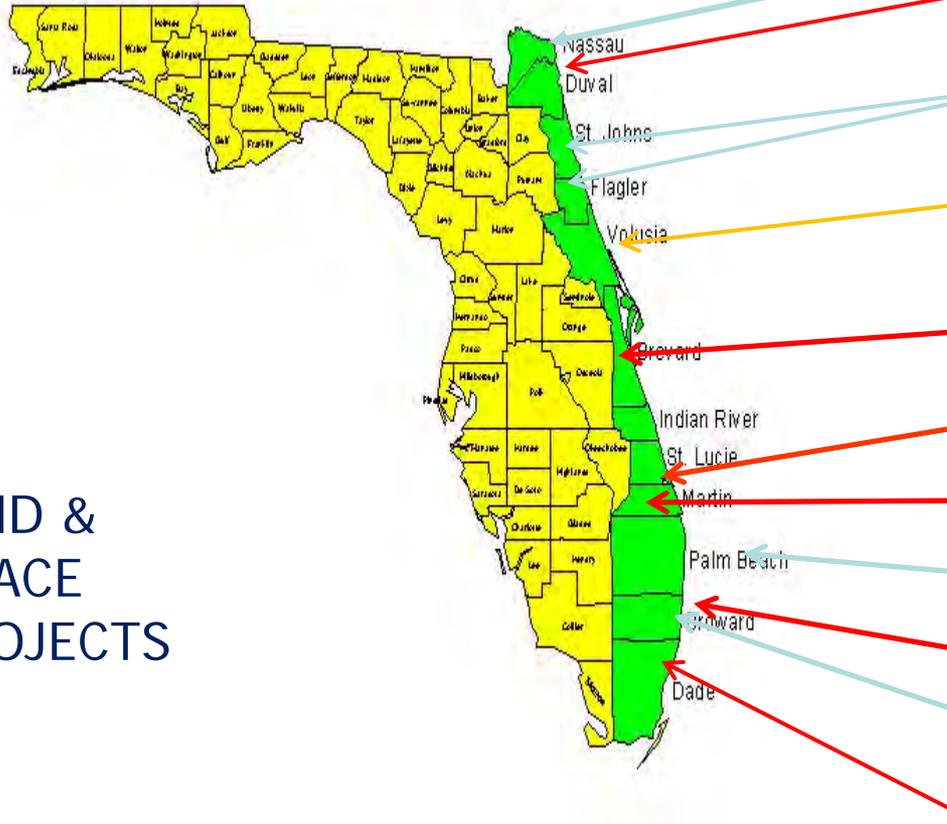
DMMA PI (Peanut Island)

!!!! Peanut Island Weekend !!!!!



CURRENT & UPCOMING ICW PROJECTS

Blue 2016, Red 2017, Orange 2018+



FIND &
USACE
PROJECTS

Dredging Nassau Reach 1 \$3M

Maintenance Dredging Sawpit \$4 M

St. Aug & Matanzas IWW Dredging \$8M

Dredging/Offloading Vicinity & of Ponce Inlet IWW \$7.5 M

DMMA BV-4B Construction \$5M

OWW & Crossroads Dredging \$1 M

Construction of DMMA O-7 \$5M

IWW Deepening Palm Beach \$2M

Broward Reach 1 Dredging \$5M

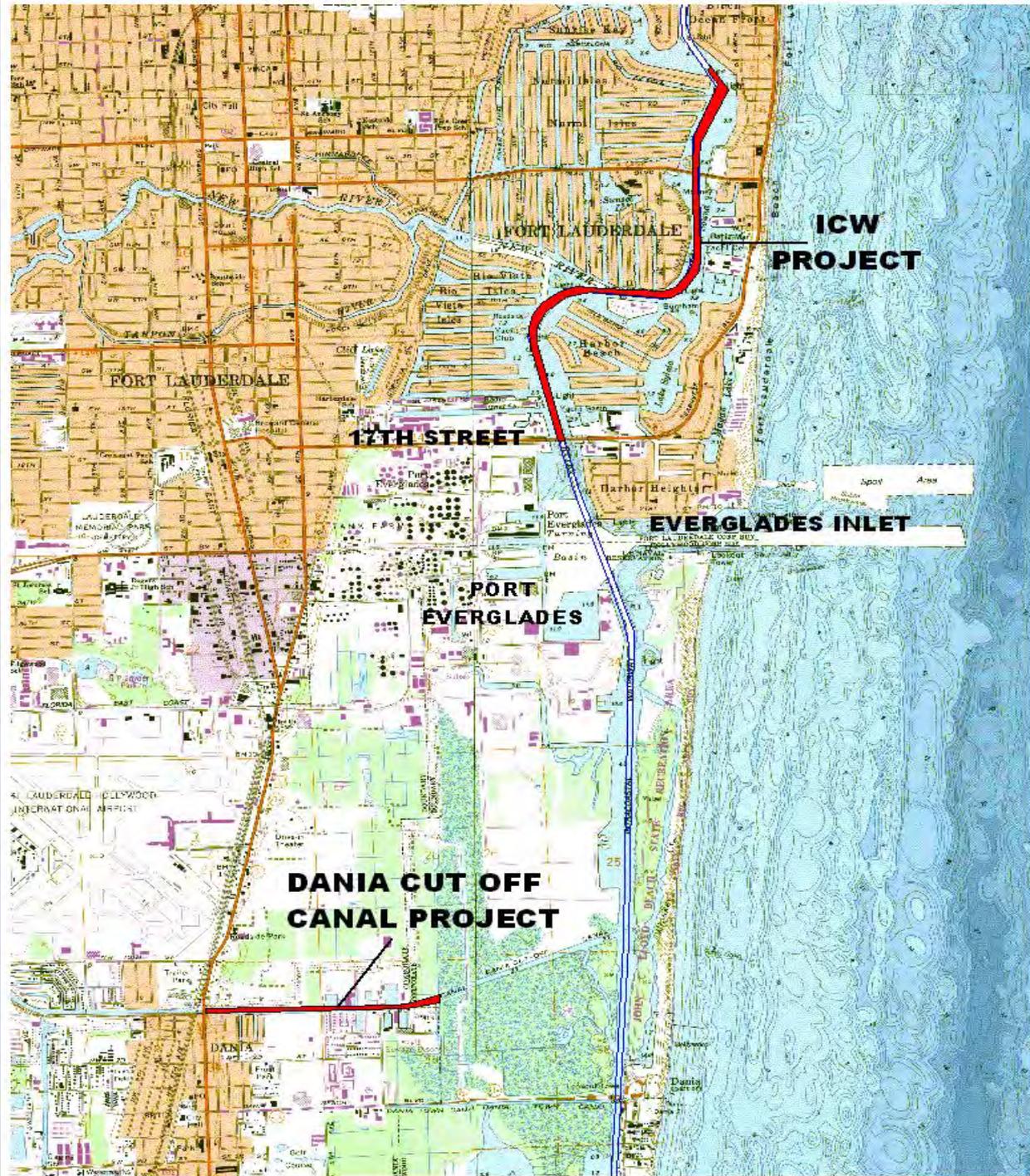
IWW Deepening Broward \$18M

Dredging IWW Vicinity of Bakers Haulover Inlet \$1 M

\$12-\$14 Million per year on average for maintenance and improvement

Broward
IWW
Deepening
Project

Dania
Cutoff
Canal
Deepening
Project

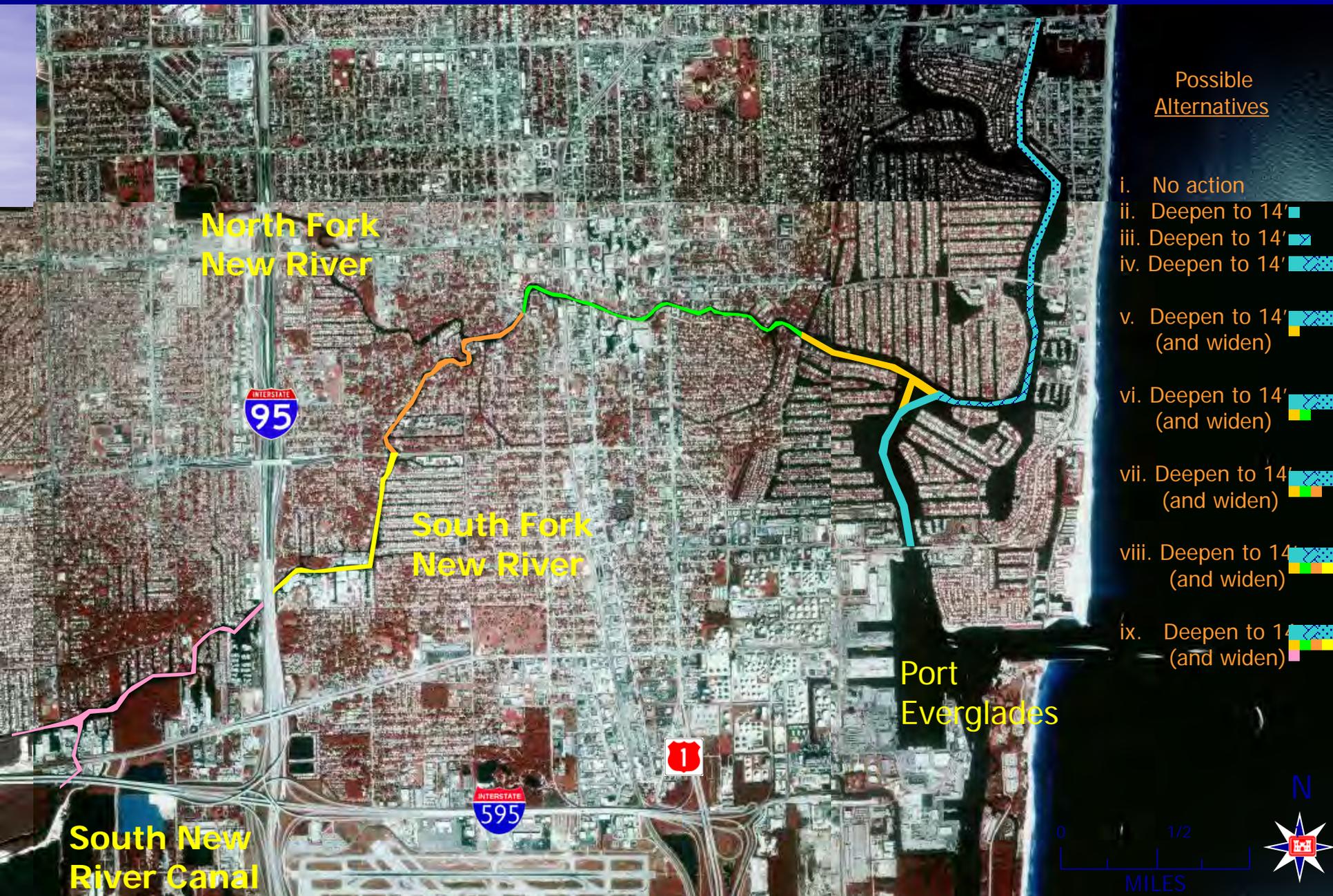


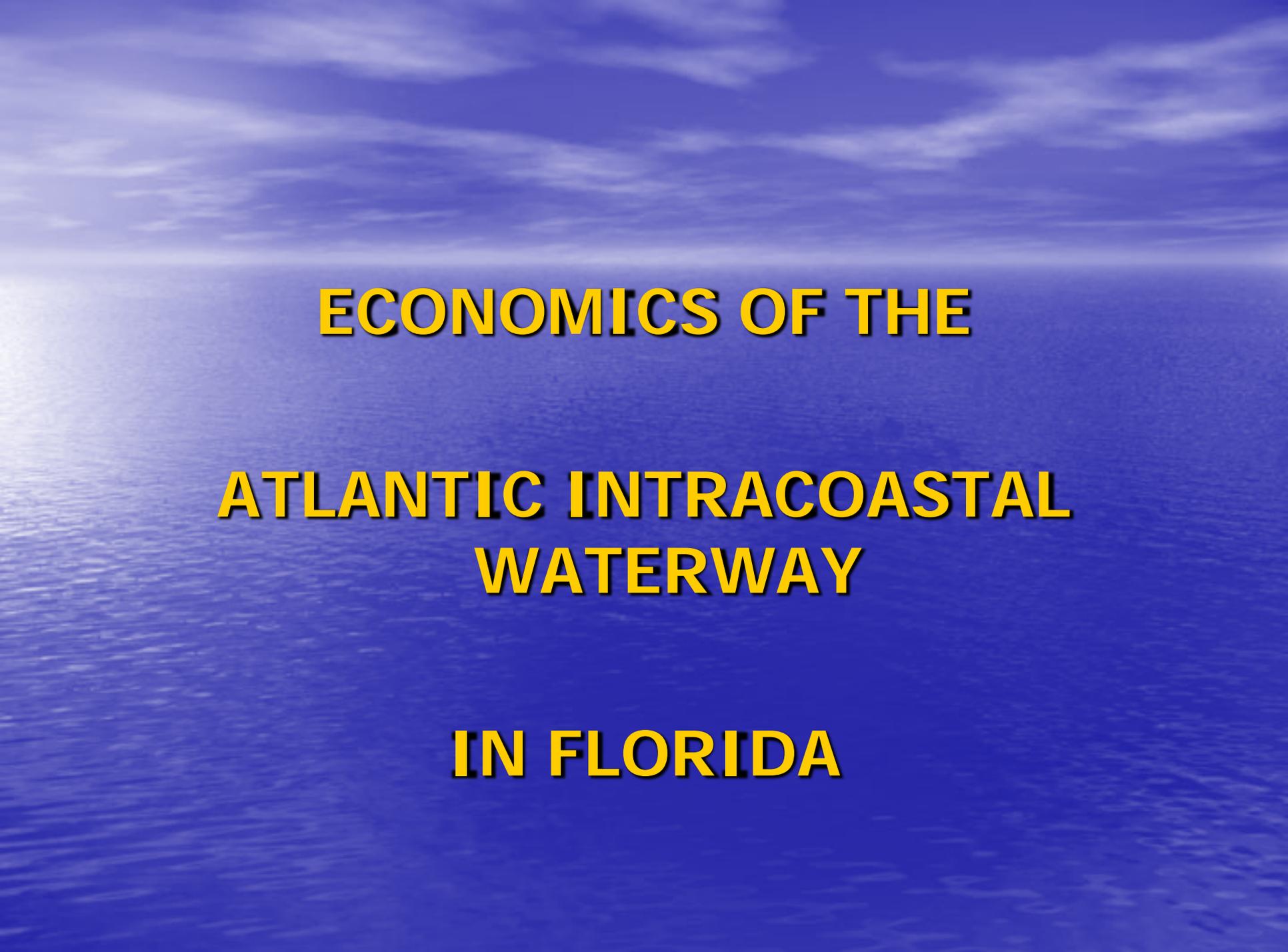
Broward IWW Deepening Project



- 12+ Years of permitting.
- Direct coordination w/2 cities, Broward County & Port Everglades.
- Numerous utility issues (water, electric, cable), schedules.
- Difficult to modify permits once is initiated.
- Remain flexible to issues and changes!

NEW RIVER DEEPENING PROJECT AREA





**ECONOMICS OF THE
ATLANTIC INTRACOASTAL
WATERWAY
IN FLORIDA**

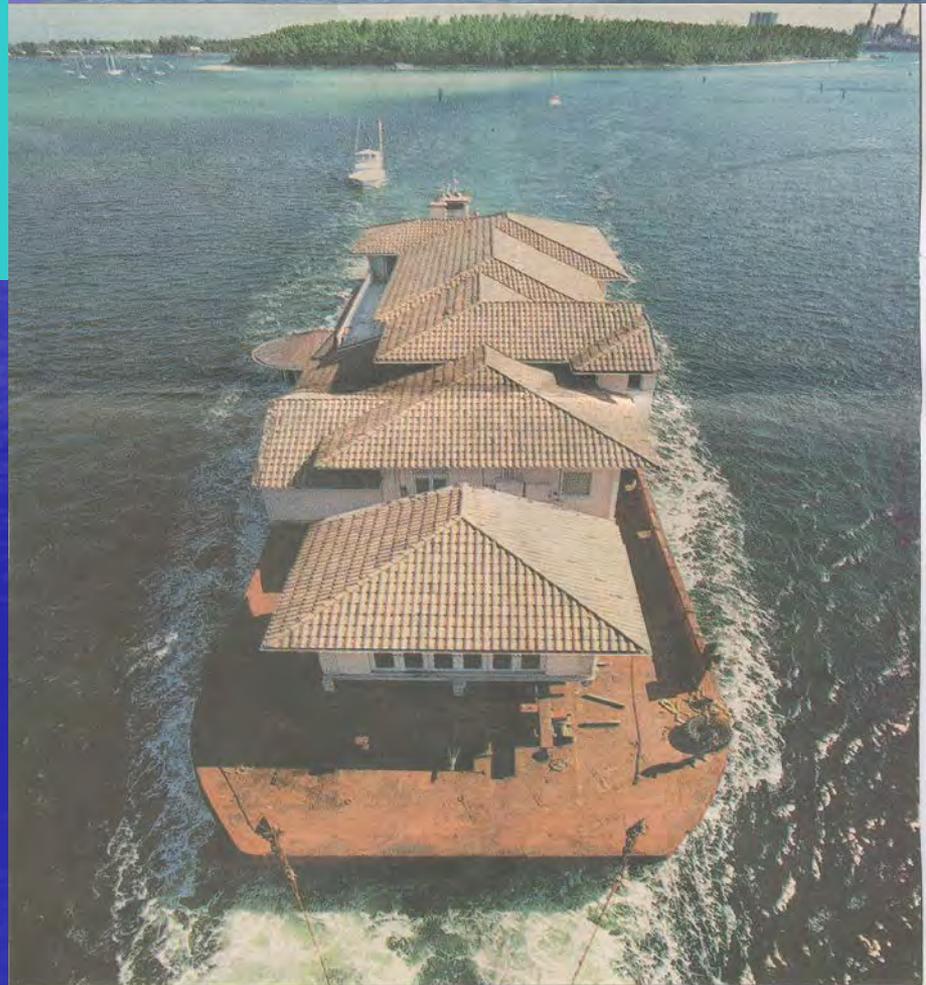
COMMERCIAL ECONOMICS OF THE ATLANTIC INTRACOASTAL WATERWAY IN FLORIDA

- CARGO TRANSPORTED = 1.7 MILLION TONS (97% Fuel Oil)
- TOTAL CARGO VALUE = \$0.6 Billion
- TOTAL ECONOMIC OUTPUT = \$0.8 Billion
- TOTAL PERSONAL WAGES = \$70+ Million
- TOTAL JOBS = 5,000+



OVERSIZED CARGOS

- HOUSES
- BRIDGE PILINGS
- ROCKET BOOSTERS
- LARGE GENERATORS





DISTRICT RECREATIONAL WATERWAY STATISTICS

- **300,000+ Registered Vessels**
- **Thousands of Visiting Vessels**
- **Registered Vessels make 16 Million Vessel Trips per year**



RECREATIONAL ECONOMICS OF THE ATLANTIC INTRACOASTAL WATERWAY IN FLORIDA

- **TOTAL ECONOMIC OUTPUT = \$30 Billion**
- **TOTAL PERSONAL WAGES = \$4.4 Billion**
- **TOTAL JOBS = 260,000+**
- **TOTAL PROPERTY VALUES = \$19.4 Billion**

DECREASE IN WATERWAY ECONOMICS

**IF MAINTENANCE DREDGING CEASED
AND THE WATERWAY RETURNED
TO A 3 FOOT CONTROLLING DEPTH**

- **DECREASE IN ECONOMIC OUTPUT (53%)**
- **DECREASE IN PERSONAL WAGES (52%)**
- **DECREASE IN JOBS (52%)**
- **DECREASE IN PROPERTY VALUES (28%)**

INCREASE IN WATERWAY ECONOMICS IF MAINTENANCE DREDGING WAS INCREASED TO CONSISTENTLY PROVIDE A 10 AND 12 FOOT CONTROLLING DEPTH

- INCREASE IN ECONOMIC OUTPUT (18%)**
- INCREASE IN PERSONAL WAGES (16%)**
- INCREASE IN JOBS (15%)**
- INCREASE IN PROPERTY VALUES (10%)**



WATERWAY

ACCESS

ASSISTANCE PROGRAMS

1. Public Navigation Channel Dredging.
2. Public Navigation Aids & Markers.
3. Inlet Mgt. Projects Beneficial to Public Navigation.
4. Public Shoreline Stabilization of District Waterways.
5. Acquisition & development of Public DMMA or Commercial/Industrial Access.
6. Waterway Signs & Buoys.
7. Acquisition & Improvements to Public Boat Ramps & Launching Facilities.
8. Acquisition & Improvements to Public Boat Docking & Mooring Facilities.
9. Derelict Vessel Removal.
10. Waterway-related Environmental Programs & Facilities.
11. Public Fishing & Viewing Piers .
12. Waterfront Parks & Boardwalks.
13. Maritime Mgt. Planning.
14. Waterway Safety Programs & Equipment.
15. Beach Renourishment Adversely Impacted by Navigation.
16. Environmental Restoration, Enhancement , or Mitigation.
17. Other Waterway-related Projects.

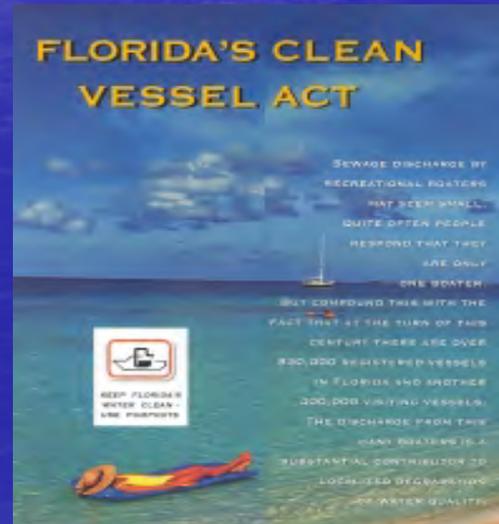
SINCE 1986:

- \$200+ MILLION IN DISTRICT ASSISTANCE
- 1,000+ PROJECTS
- \$700+ MILLION IN IWW IMPROVEMENTS



WATERWAY CLEAN UP PROGRAMS

- Debris/Litter Clean ups
- Derelict Vessel Removal
- Spoil Island Restoration and Enhancements





Hurricane Manual for Marine Interests in Broward County

February 2003

Final Report



AN ECONOMIC ANALYSIS OF THE DISTRICT'S WATERWAYS IN VOLUSIA COUNTY

PALM BEACH COUNTY BOATING SAFETY AND MANATEE PROTECTION ZONES

**SLOW SPEED
MANATEE
ZONE**

SPOIL ISLANDS OF THE INDIAN RIVER LAGOON BREVARD COUNTY

The Florida Inland Navigation District

State Sponsor of the
Atlantic Intracoastal Waterway

REPORT ON THE ATLANTIC INTRACOASTAL WATERWAY CHANNEL CONDITIONS

8.3	Shoaling along channel edges from marker G21 to marker G25.
5.5	Extreme shoaling along west edge and moderate shoaling south of the bridge to marker R14.
6	Shoaling begins 350 ft north of marker G21 and continues from G25 to 1000 ft west of R26.
6.3	Shoaling on north side of channel from marker R14 and then shoaling across the channel from marker R14 to marker R26.
8.9	Minor shoaling on east side of channel from marker R26 to marker R27.
8	Shoaling across channel from marker R27 to marker R28.
5.5	Minor Shoaling on west side of channel at marker G83. Severe shoaling on the west side of channel at marker G83.
7.6	Shoaling begins 900 ft. north of marker G19 and continues to marker G19A.
3.5	Shoaling throughout the Palm Valley Cut, but severe shoaling is on the west side.
5.9	Shoaling from marker G29 to marker R10 with moderate shoaling on the west side and severe shoaling on the east side.

The Economic Impact of Palm Beach County Waterways

ENJOY YOUR FLORIDA WATERWAYS

