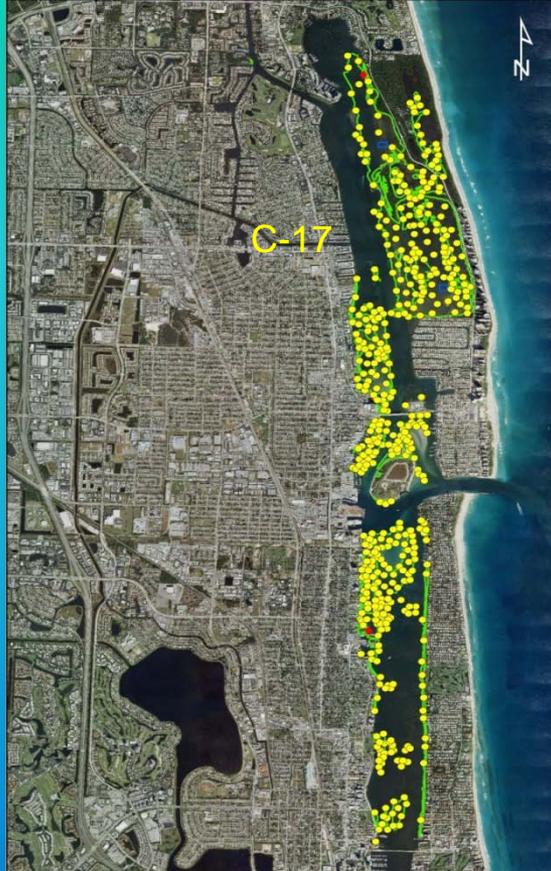


Freshwater Discharges to Lake Worth Lagoon

Robert Robbins, Director
Environmental Resources Management
October 29, 2013

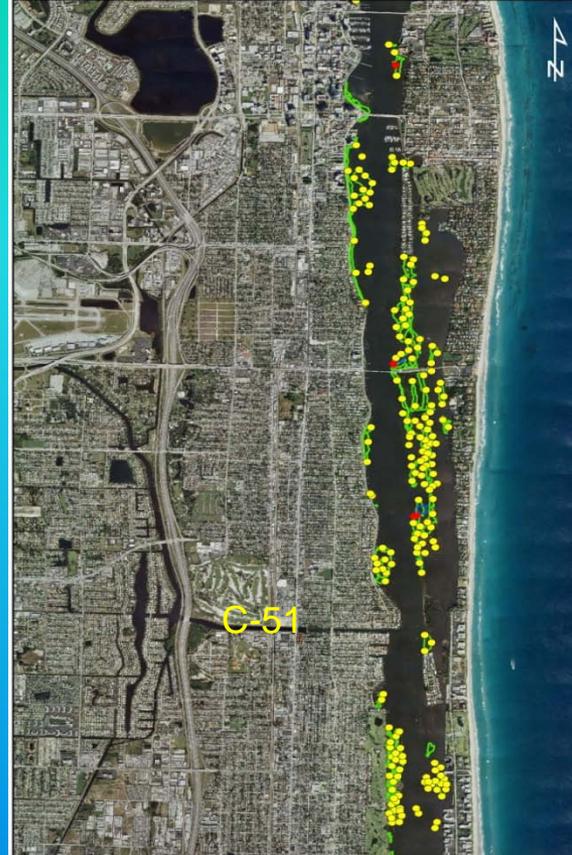


SEAGRASS MAPPING 2013



North Lagoon

- 80% with seagrass
- 20% without seagrass



Central Lagoon

- 22% with seagrass
- 78% without seagrass



South Lagoon

- 54% with seagrass
- 46% without seagrass

Oyster Station

March 2012

August 2013

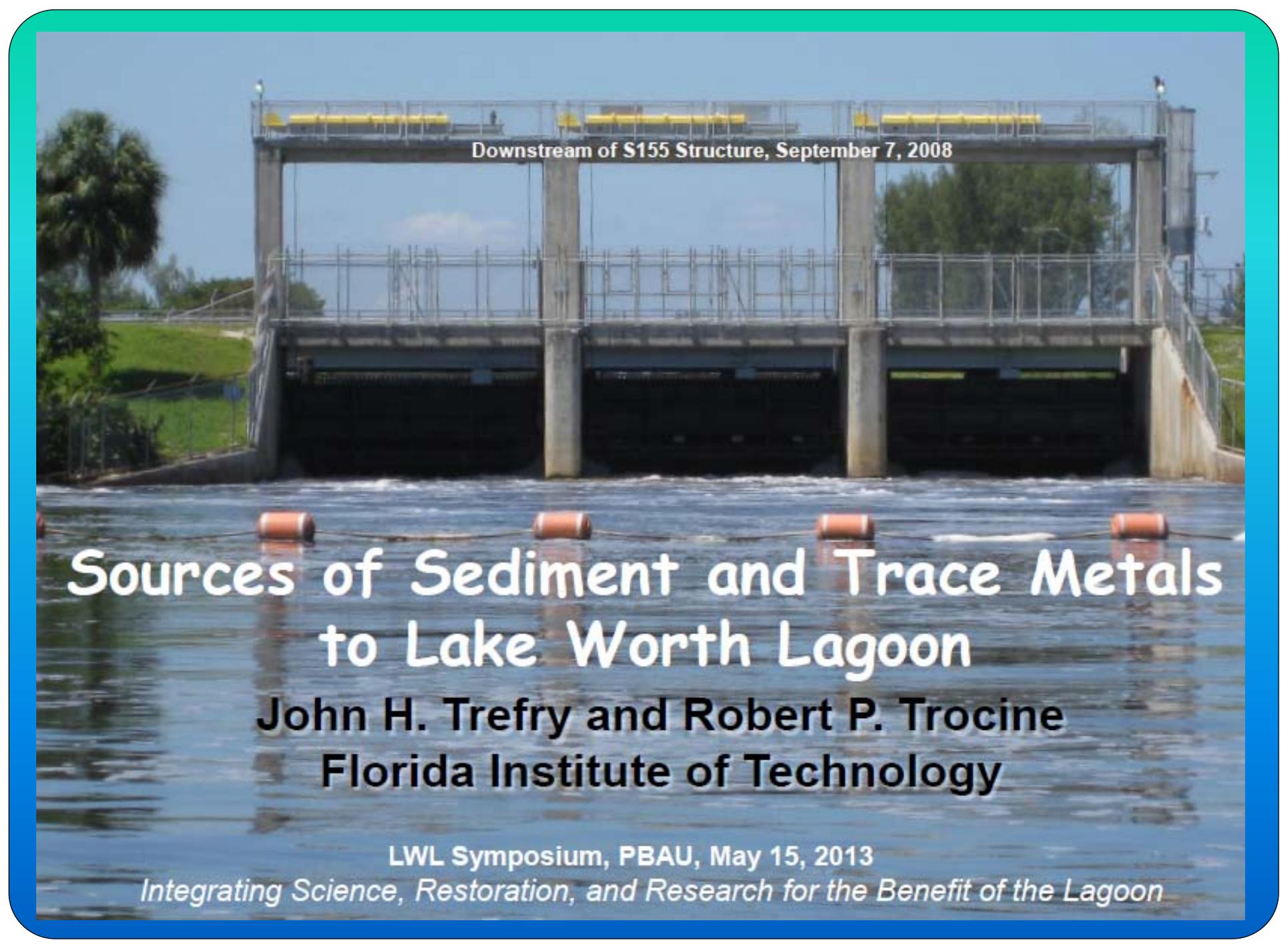




< C-51 in 1940

2013





Downstream of S155 Structure, September 7, 2008

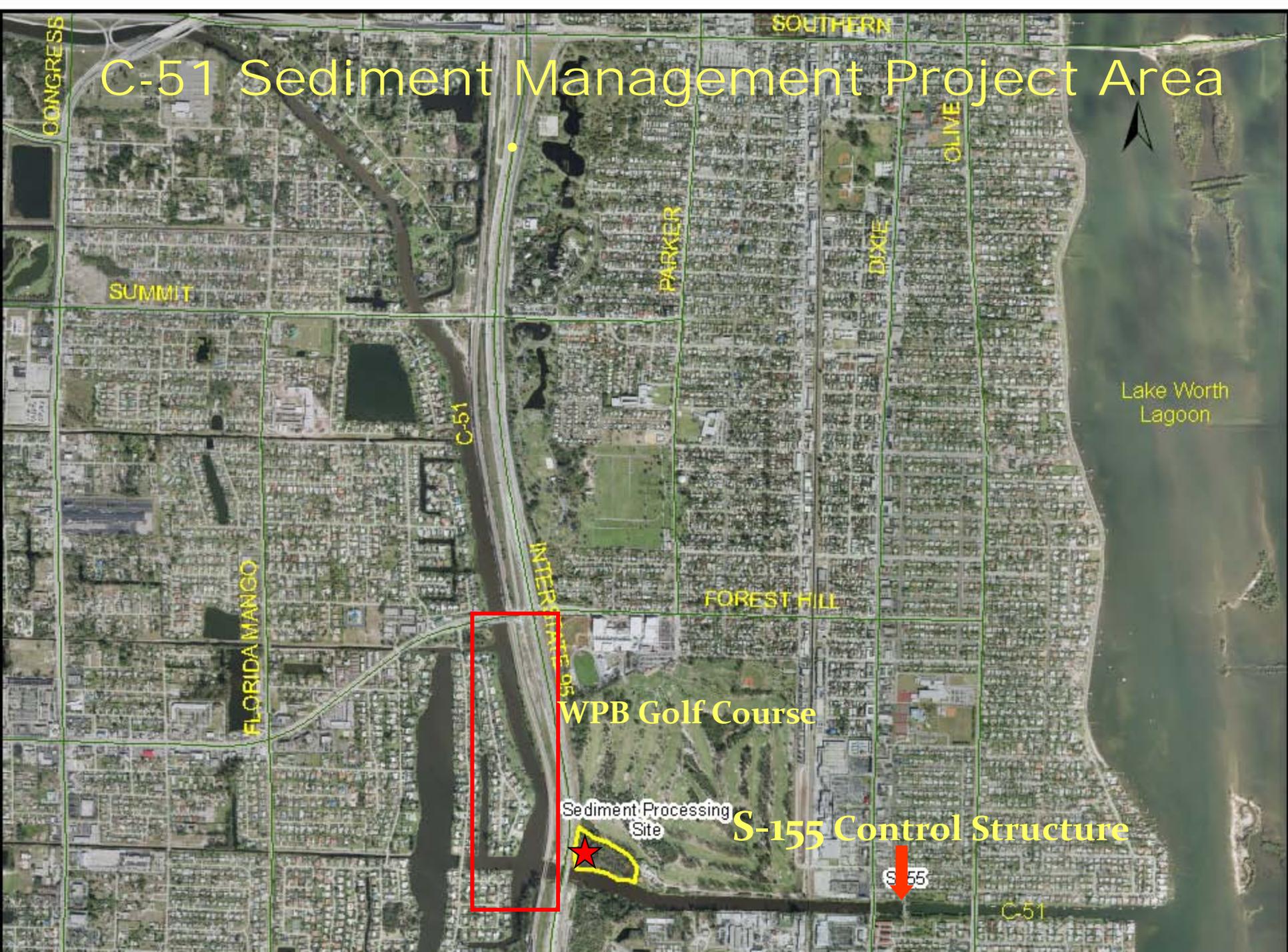
Sources of Sediment and Trace Metals to Lake Worth Lagoon

John H. Trefry and Robert P. Trocine
Florida Institute of Technology

LWL Symposium, PBAU, May 15, 2013

Integrating Science, Restoration, and Research for the Benefit of the Lagoon

C-51 Sediment Management Project Area



CONGRESS

SUMMIT

FLORIDA MANGO

C-51

INTERSTATE 95

PARKER

FOREST HILL

DIXIE

OLIVE

SOUTHERN

WPB Golf Course

Sediment Processing Site

S-155 Control Structure

S-155

C-51

Lake Worth Lagoon

Sediment Collection



Total Accretion			
Years	2007 – 2008	2008 – 2010	2010 – 2013
Total (CY)	10,478	6,401	8,643
Average / Year	10,478	3,200	2,881

Take Away Points:

- SFWMD is doing what it can to reduce discharges.
- 'System' lacks water storage.
- CERP, CEPP, A-1, Rock Pits, Mecca, C-51 Reservoir.
- Too much freshwater kills seagrasses and oysters.
- Seagrasses and oysters can recover.
- Muck sediments are left behind.
- Muck smothers most living organisms.
- C-51 Sediment Trap helps.
- Reducing discharges will also reduce sediments.



John's Island



Grassy Flats Restoration

Caps 12 acres of muck

	Proposed seagrass (10.52 ac)
	Enhanced seagrass (9.31 acres)
	Proposed cordgrass (1.14 ac)
	Proposed mangrove (0.33 ac)
	Proposed open area (0.27 ac)
	Proposed oyster/artificial reef (0.57 ac)
	Existing boat access to remain (30' wide)
	Existing mangrove planter (0.8 ac)
	"Danger: Submerged Rock" sign

TOTAL PROJECT COST: \$2.7M

FEDERAL GRANTS – 65%

- **USACE \$842,000**
 - Estuary Restoration Act - Ranked #1
- **USFWS/FWC \$777,000**
 - National Coastal Wetlands Conservation Grant Program
- **FDEP/NOAA \$110,000**
 - Coral Reef Conservation Program

LOCAL MATCH - 35%

- Legislative appropriation (\$110,000)
- PBC \$920,000 (includes in-kind)
- FWC (in-kind)
- WPBFC (in-kind)
- MIA (in-kind)

CONSTRUCTION SPRING 2014



