

Water Quality Protection in Martin County: Progress, Challenges, and Path Forward

**Presentation to the Rivers Coalition
April 28, 2016**

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Martin County

- **Population: ~146,000 residents**
- **Area: 753 square miles (~482,000 acres)**
 - (543 square miles land; 210 square miles water)
- **Twenty-five percent of Martin County in conservation**
- **Board of County Commission has long championed Everglades restoration**
- **Strong wetland protection and development regulations**
- **Our citizens voluntarily taxed themselves, generating \$75 million to implement Indian River Lagoon-South**
- **Waterways are the lifeblood of our community**
- **One out of every 10 jobs in Martin County is marine-related**

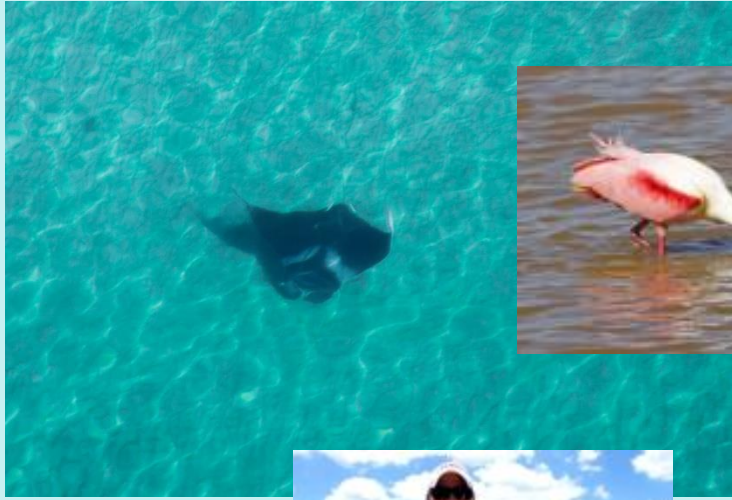
How Water Flows: Then and Now



S-80 Locks to St. Lucie



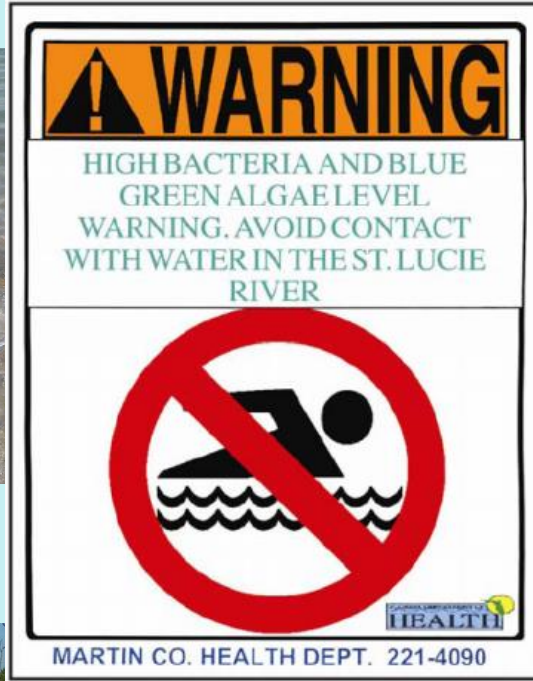
Why is Water Quality Important?



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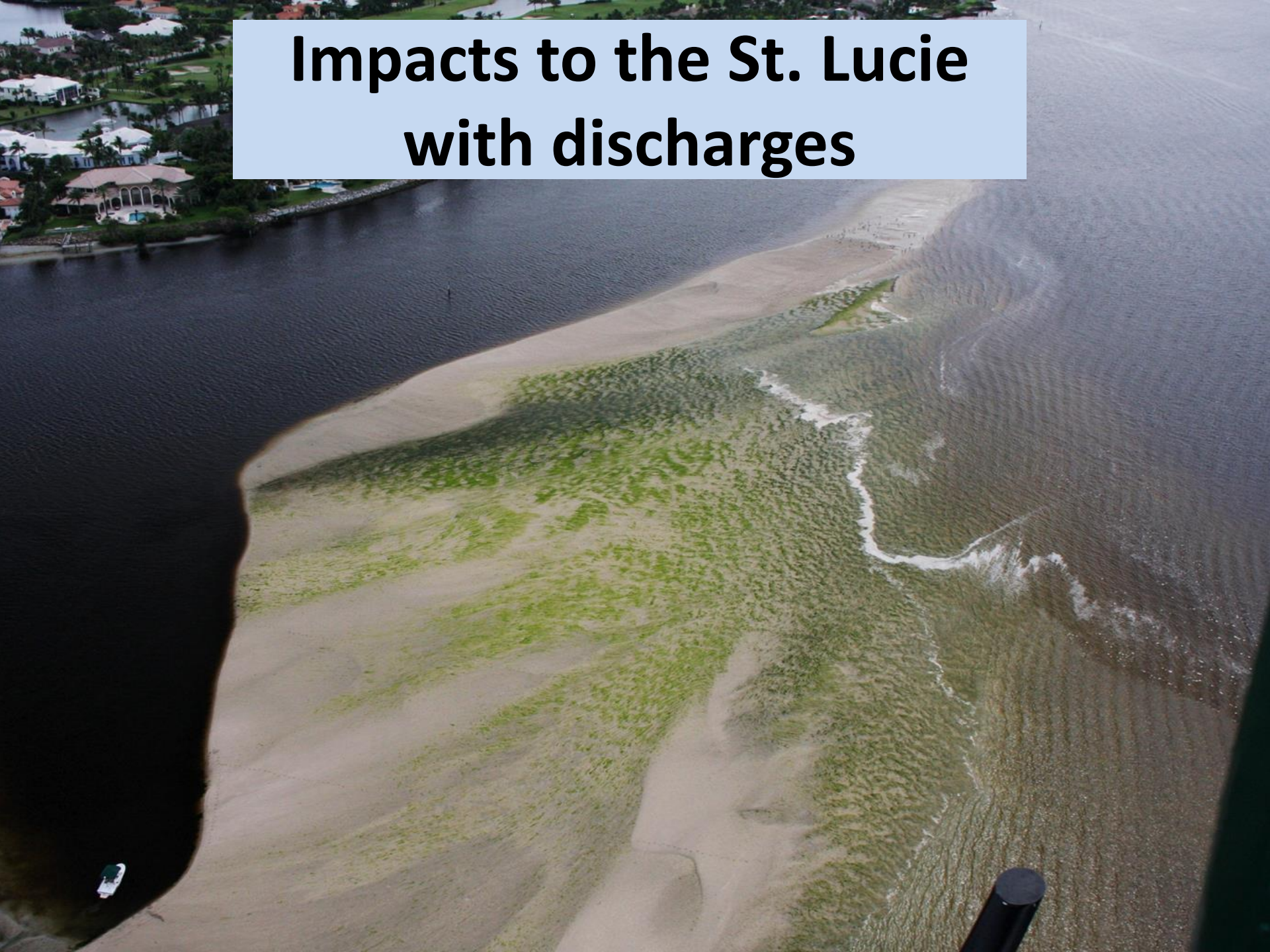
Microcystis aeruginosa – 2005, 2013, 2015



St. Lucie during dry conditions



Impacts to the St. Lucie with discharges





October 31, 2006



July 10, 2013

Photo Sanibel Captiva Conservation Foundation



santorini04
Fairfax, Virginia

Senior Reviewer

- ★ 6 reviews
- 🌐 Reviews in 4 cities
- 🏆 5 helpful votes

“Water is murky and dark brown!”

🟢🟢🟡🟡🟡 Reviewed August 10, 2013

During first week of August we visited sanibel and captiva. **Warning! Only the beaches in captiva have clear, sea glass green water. The rest of sanibel, including bowman's beach, have the murkiest, darkest brown water we have ever seen in Florida.** Apparently the rainy summer has drenched up silt from the large river nearby, and spread all around the Gulf, near Sanibel. The water was so dark, it makes shelling impossible. One can't see the bottom, even with goggles or masks on. The beach itself was wide and the waves gentle, **but the brown water put a damper on our vacation.** Before we book another trip to Sanibel, we DEFINITELY call in advance about the water condition!!

Visited August 2013

Was this review helpful? Yes No 2

[Problem with this review?](#)

[See 2 more reviews by santorini04 for Sanibel Island](#)

[Ask santorini04 about Bowman's Beach](#)

July 10, 2013

Photo Sanibel Captiva Conservation Foundation

Water-Related Economic Benefits to Martin and St. Lucie Counties

TOTAL: \$840 million annually

Sales - \$519 million/year

Marinas

Boat sales/repairs

Fishing tackle/bait/charters

Personal income - \$206 million/year

6,600 jobs supported—Marine Industries

Guide/commercial fishing

Repair personnel

20,500 jobs supported—Tourism

Food/beverage services

Hotel/motel personnel

Tourism - \$115 million/yr

Visitation to beaches/hotels

Recreational fishing/boating

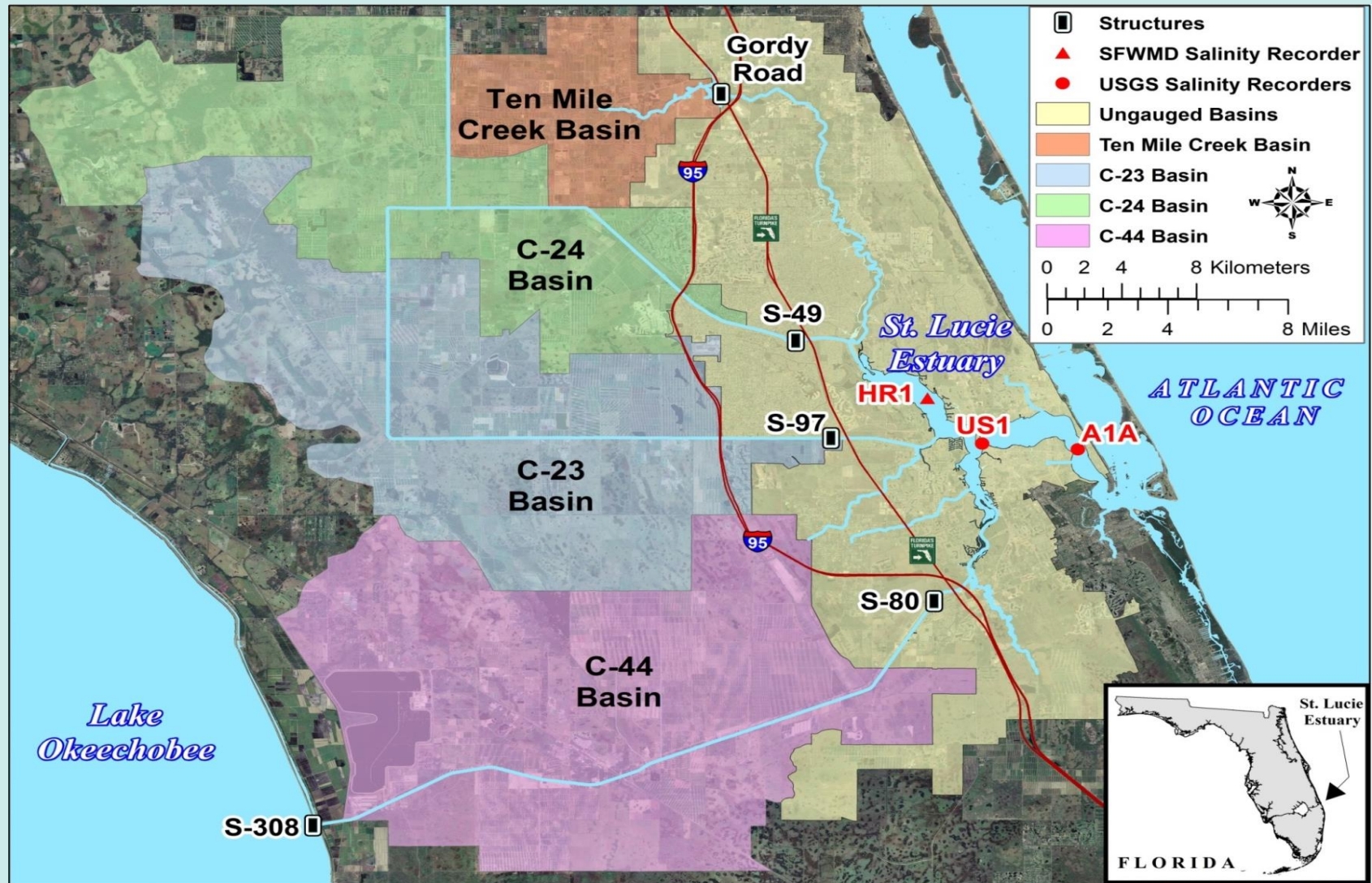
Plus, Property Values - \$588 million+ (Martin County)



An aerial photograph of a coastal estuary. The water is a deep blue-green color, with a prominent central island covered in dense green mangrove vegetation. The island is surrounded by shallow, darker water channels. In the background, a residential area with houses and palm trees is visible along the shoreline. The foreground shows a sandy beach and shallow, turquoise water with visible seabed features.

**The health of the estuaries
(and the local economy)
depends upon the quality of its watershed.**

St. Lucie Estuary Drainage Basins

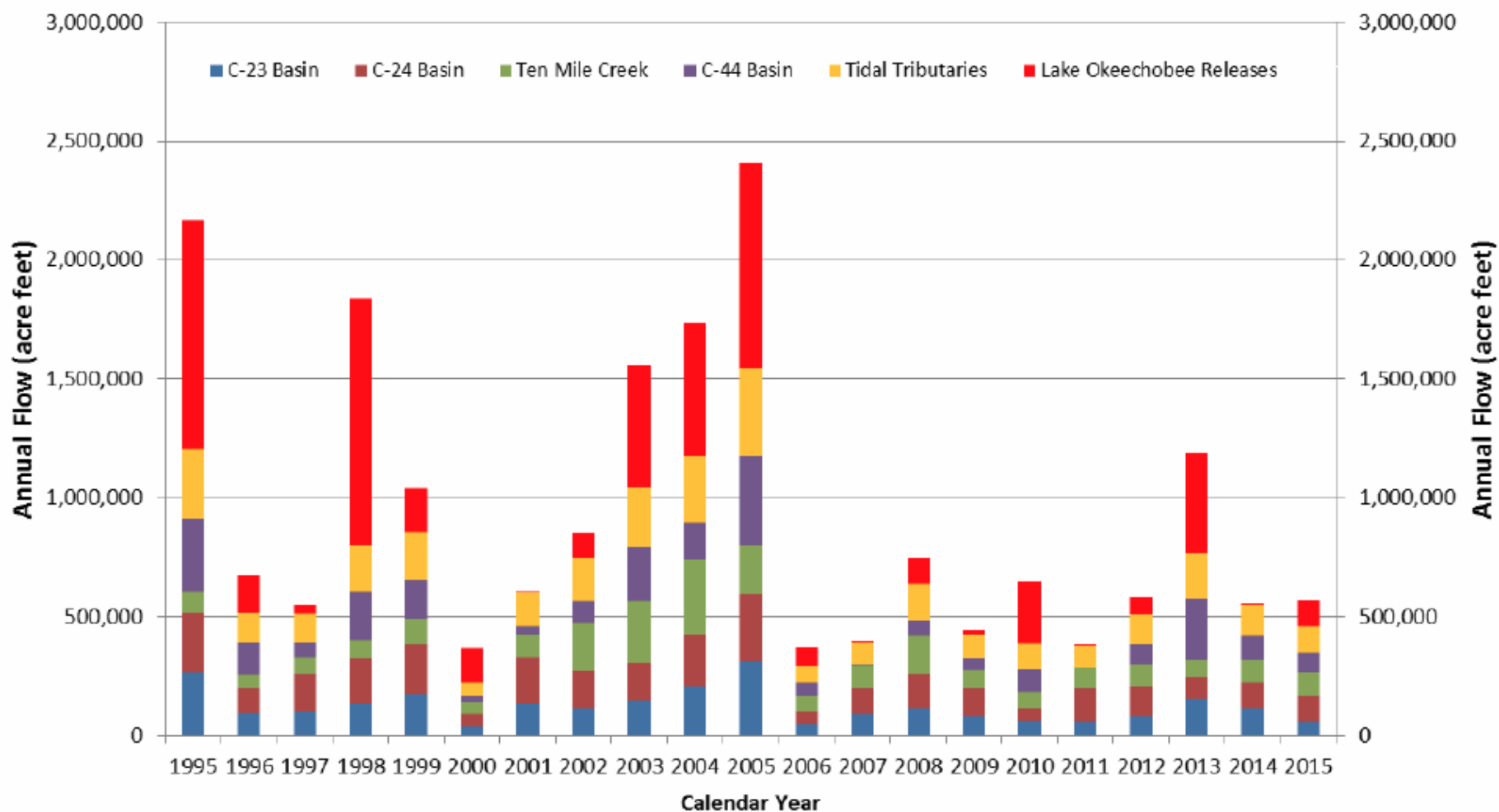


St. Lucie Watershed = ~538,000 acres

Annual Flows into the St. Lucie River and Estuary: 1995-2015

Average annual flow to River = 937,709 acre feet.

Average annual Lake releases to River = 269,524 acre feet (29%).



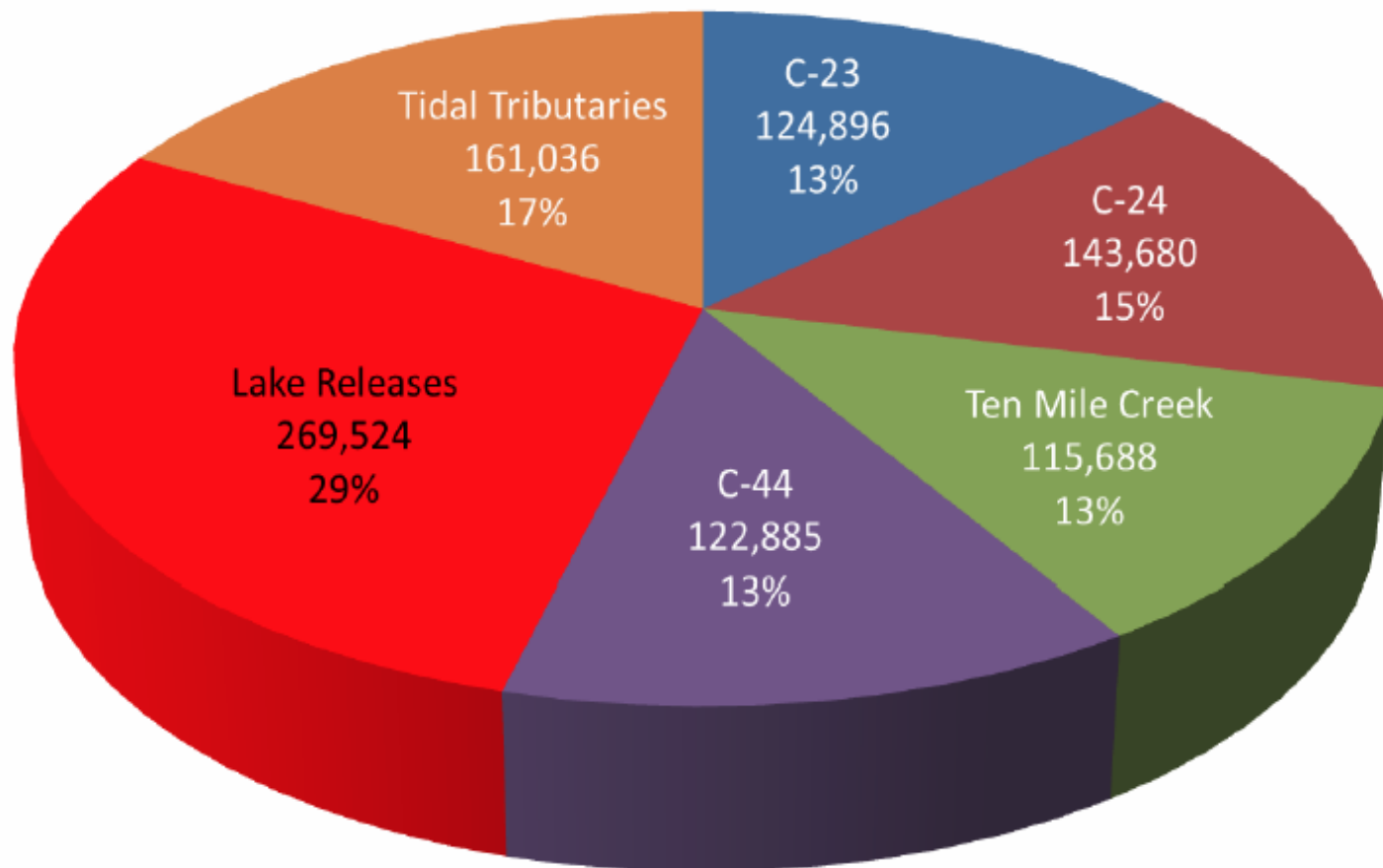
DRAFT - SUBJECT TO REVISIONS. Notes: 1. Missing flows for C-23 Basin are estimated from S-97 and C-24 flows prior to 1996.

2. Missing flows for Ten Mile Creek are estimated from C-24 flows prior to 2000.

3. Flows for Tidal Tributary inflows estimated as 31% of (C23+C24+C44+Ten Mile Creek) inflow.

Inflows to St. Lucie River & Estuary: 1995-2015

Average annual inflow in acre feet



DRAFT - SUBJECT TO REVISIONS. Notes: 1. Missing flows for C-23 Basin are estimated from C-24 flows prior to 1996. 2. Missing flows for Ten Mile Creek are estimated from C-24 flows prior to 2000.

3. Flows for Tidal Tributary inflows estimated as 31% of (C23+C24+C44+Ten Mile Creek) inflow.



Need solutions to divert both basin and Lake flows

Complete Everglades Restoration Projects Already Authorized

- Indian River Lagoon-South
 - C-44 Reservoir and STA
 - C-23 / C-24 and C-25 Reservoir and STA
- Focus on completing land acquisition and full implementation
- Create more storage around Lake Okeechobee with specific purpose of reducing damaging freshwater discharges to the Northern Everglades Estuaries



Local Accomplishments

- **Strong fertilizer ordinance**
- **Stormwater retrofit projects**
- **Alternative treatment technology projects**
- **Manatee Pocket Dredging**



Septic Tanks: Local Progress

- **53 package wastewater treatment plants (WWTPs) identified as threats by the Indian River Lagoon Act connected = 4.3 MGD**
- **Additional 17 package WWTPs identified as non-threats connected = 1.5 MGD**
- **Total average daily flow removed = 5.8 MGD**
- **Martin County Board of County Commissioners took proactive step in November 2015 to develop and implement a mandatory connection policy focusing on specific problem areas**

An Engaged Public is Key



- Continue advocacy with federal and state elected officials
- Expand message to Congressional members outside of Florida delegation

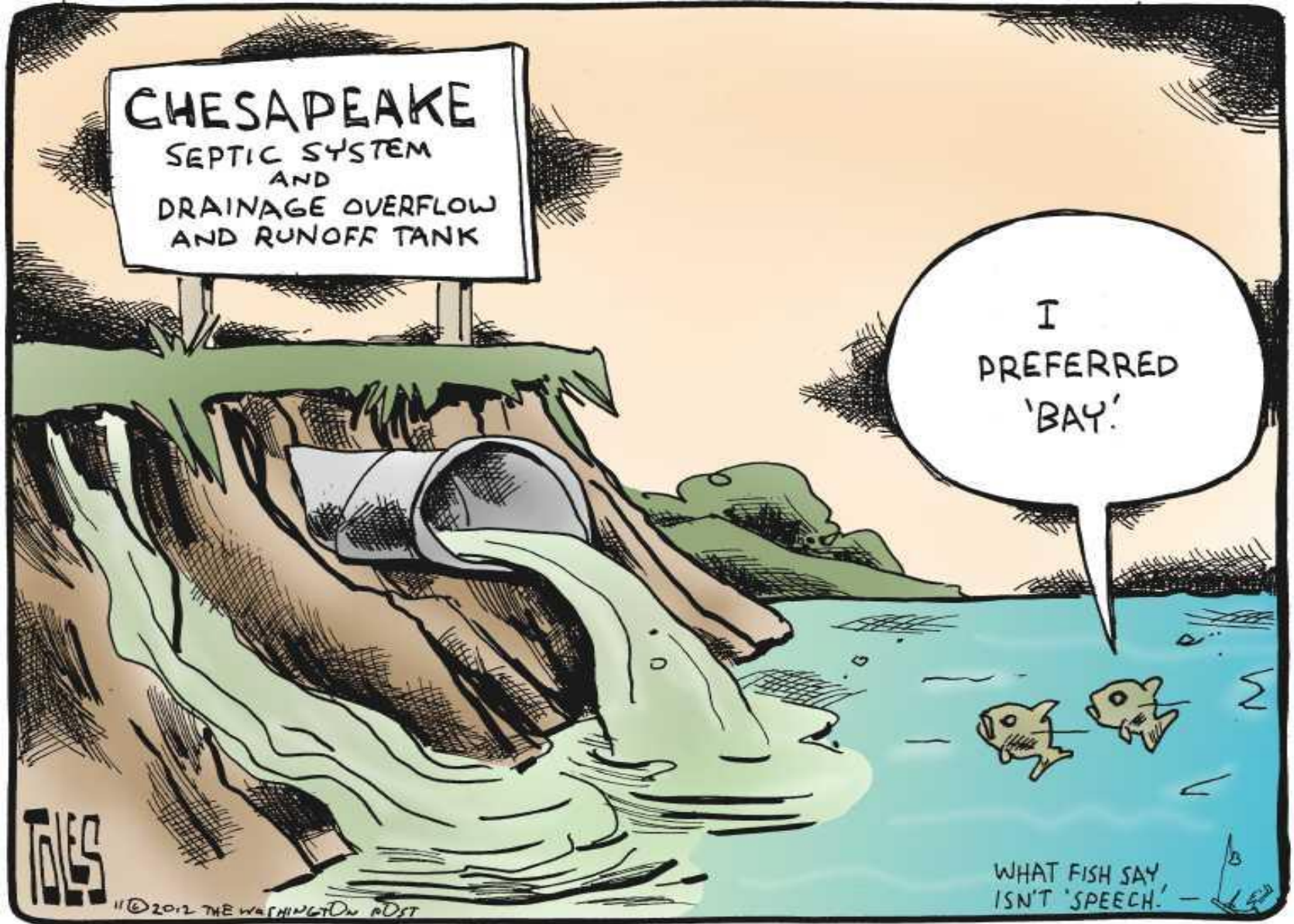


Key Elements to Success

Consistent effort towards:

- Funding
- Progress
- Partnerships





**Thank you for your
role in developing solutions!**