

# Brevard County Workshop on the Save Our Indian River Lagoon Program



Brevard County's  
*Save*  
our  
LAGOON

# November 2016 Ballot Language

**Brevard County, Florida**

**Save Our Indian River Lagoon  $\frac{1}{2}$  Cent Sales Tax Referendum**

**To restore the Indian River Lagoon through financing, planning, constructing, maintaining, and operating capital improvements and capital maintenance projects and programs designed to improve water quality, fish, wildlife and marine habitat, remove muck and reduce pollution, shall an ordinance be approved levying a  $\frac{1}{2}$  cent sales tax for ten years and requiring deposit of all revenue to a Save Our Lagoon Trust Fund solely for such projects, with citizen committee oversight and annual independent audits?**

**YES For the  $\frac{1}{2}$  cent sales tax**  
62.41%

**NO Against the  $\frac{1}{2}$  cent sales tax**  
37.5%



# Save Our Indian River Lagoon Project Plan

## REDUCE Excess Nitrogen & Phosphorus Inputs by 25%

- Fertilizer management through public education and outreach
- Septic system removal
- Septic system upgrades
- Wastewater treatment plant upgrades to improve reclaimed water quality
- Stormwater treatment

## RESTORE 20 Miles of Oyster Bars and Living Ecosystem Services

Create long, narrow oyster bars throughout the lagoon to increase filtration and decrease shoreline erosion.

## REMOVE Detrimental Muck to Reduce Flux by 25%

Remove muck through environmental dredging. Muck contributes to turbidity, inhibits seagrass growth, consumes oxygen, stores and releases nutrients, smothers the natural bottom, and destroys healthy communities of benthic organisms.

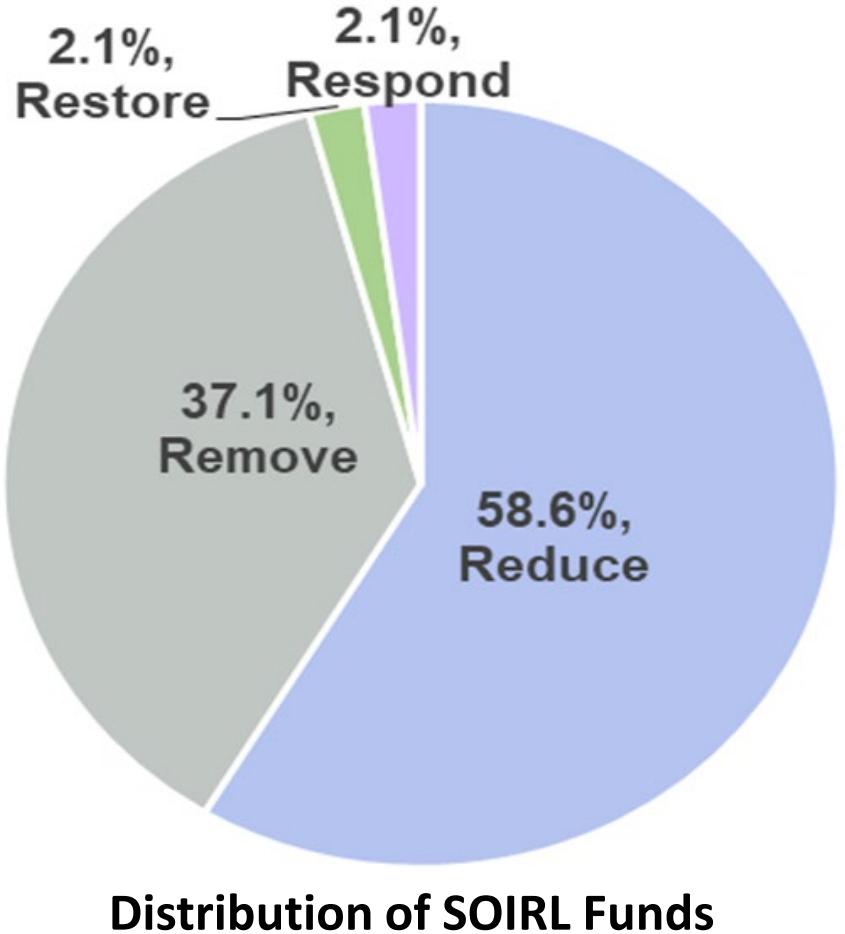
## RESPOND to New Information

Measure progress annually, evaluate changing needs and conditions, consider technological opportunities, and respond by amending the plan accordingly.

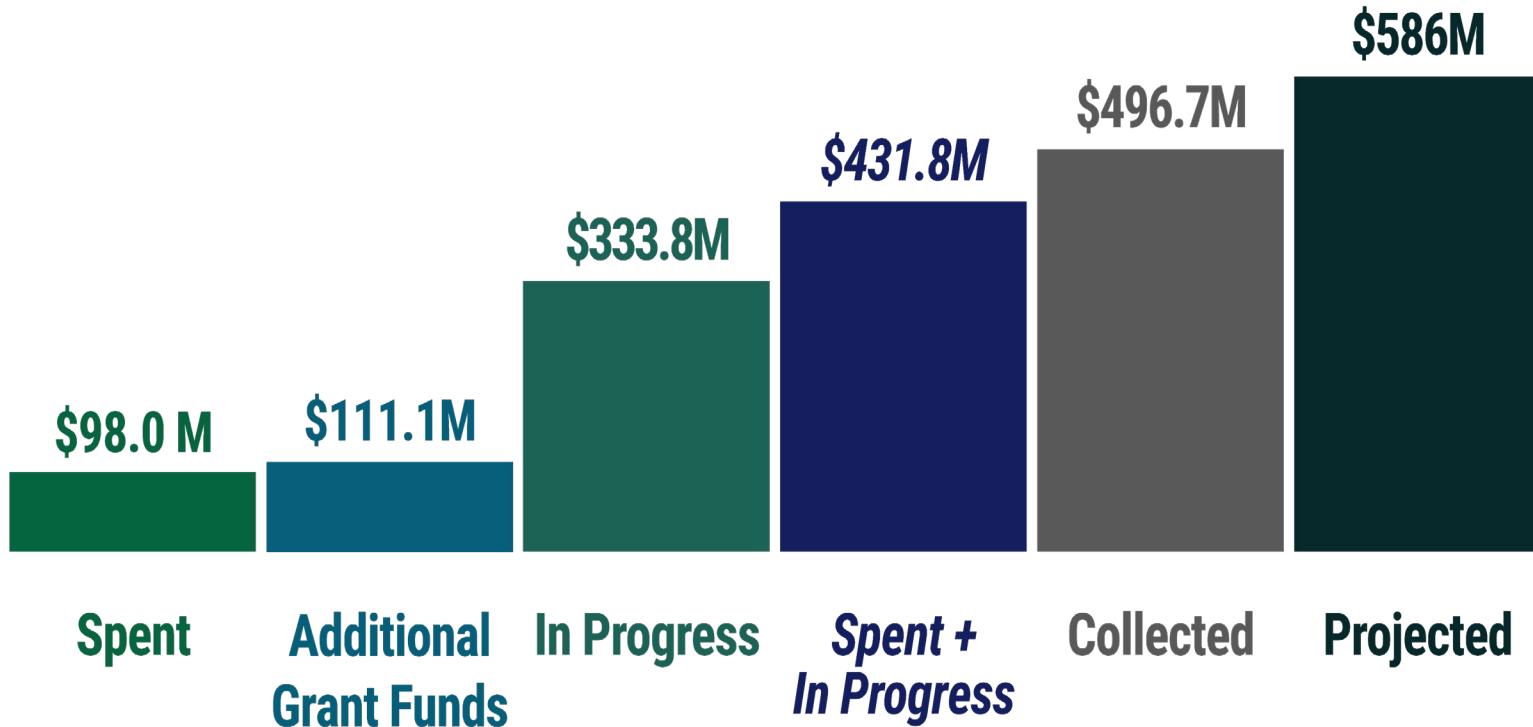


# How Do We Win This Race?

# Funding Allocation and Spending

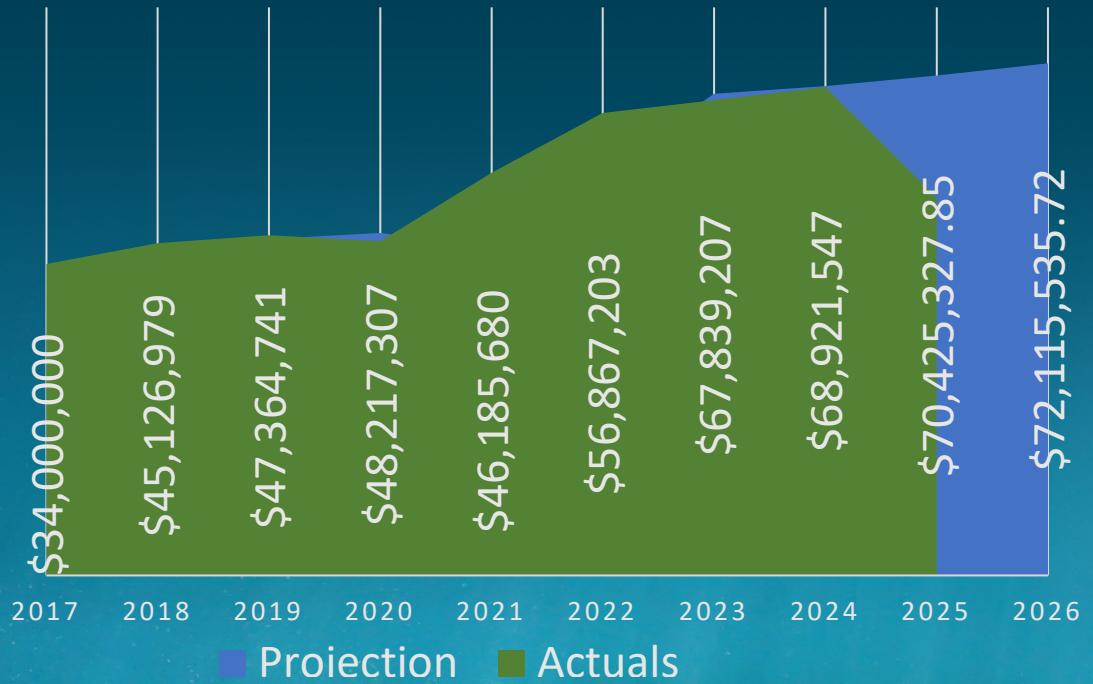


## 1/2 Cent Sales Tax Summary

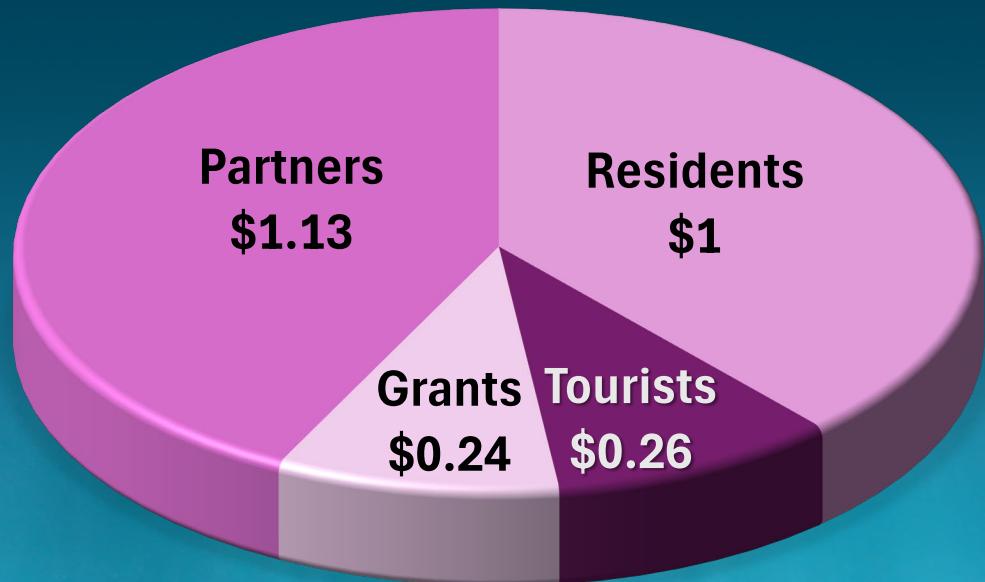


# Revenues and Leveraging

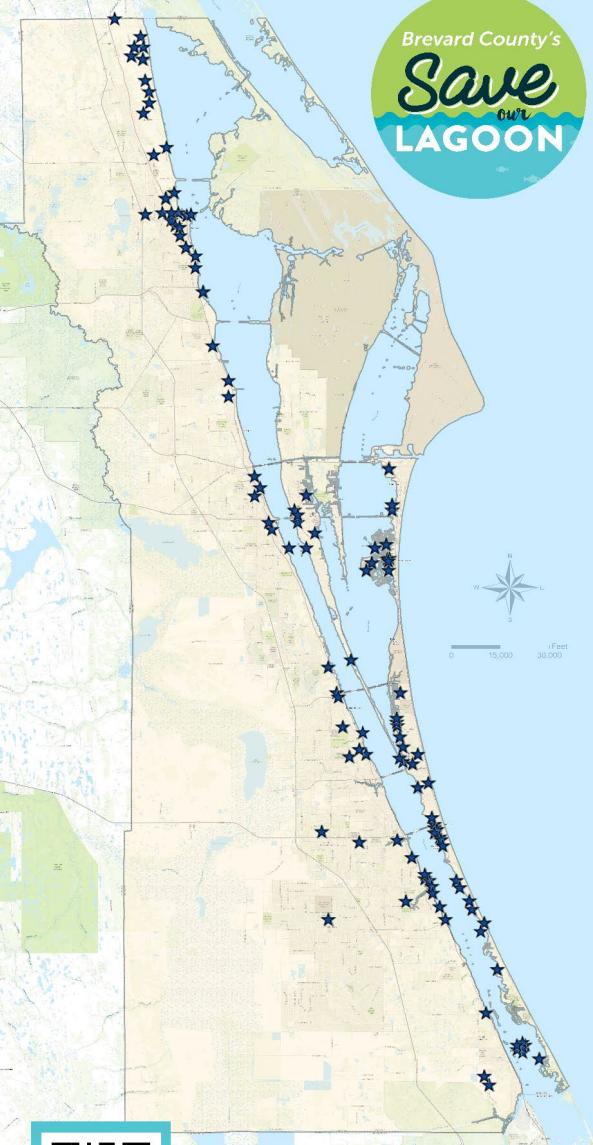
## SAVE OUR LAGOON SURTAX REVENUES



## LEVERAGING EACH DOLLAR \$2.63



## COMPLETED PROJECTS



Scan for more  
project information



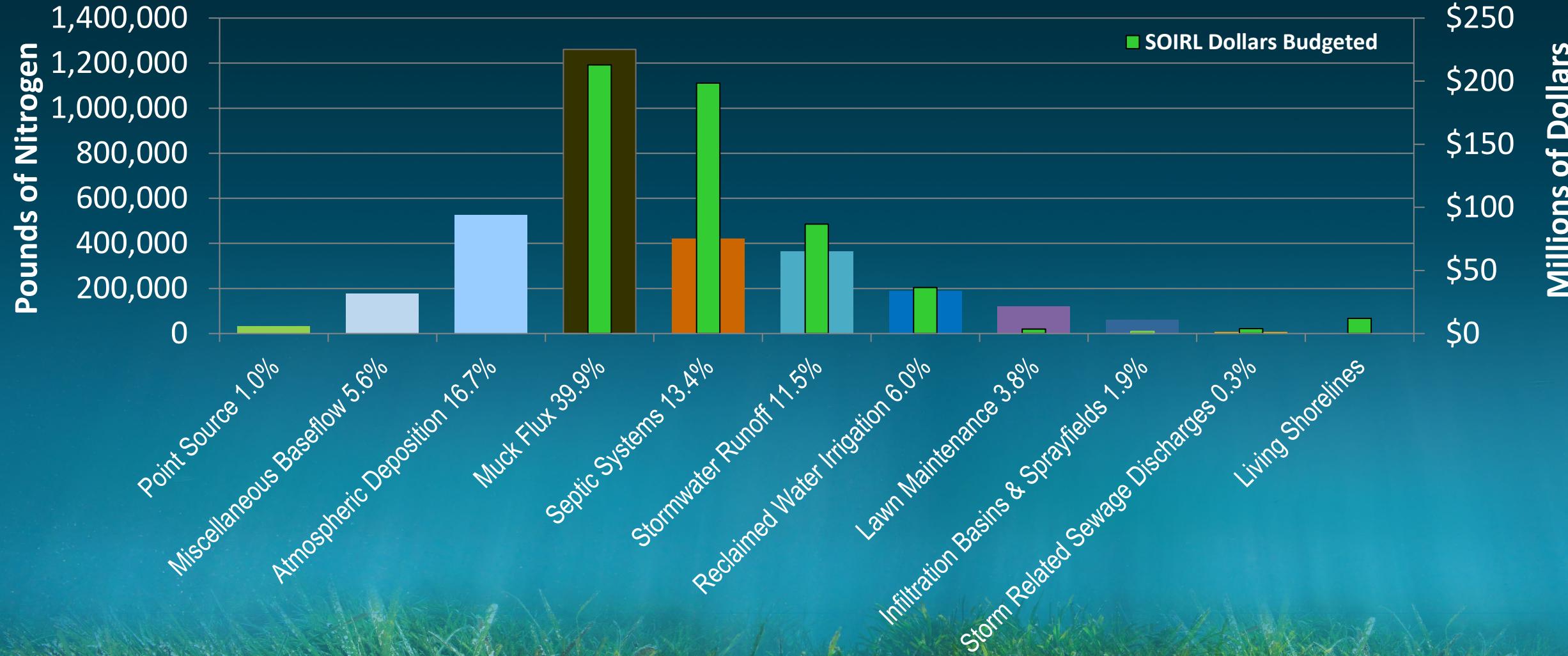
# SOIRL Project Progress

## 119 Completed Projects

16 Titusville  
12 Brevard Zoo  
10 Cocoa Beach  
10 Clam Farmers  
5 Marine Resources Council  
5 Melbourne  
4 Cocoa  
3 Satellite Beach  
2 Indian Harbour Beach  
2 Palm Bay

2 Rockledge  
2 West Melbourne  
1 Private Mobile Home Park...  
1 Private Business Park  
1 Cape Canaveral  
1 Indialantic  
1 Melbourne Tillman WCD  
1 Merritt Island Redevelopment  
1 St. Johns River Water Mgmt  
39 Brevard County Projects  
+ 2,269 Homeowner Projects

# Pollution Sources vs Fund Allocations



100 Community  
Projects  
Completed!

1,842 Home  
Owner Projects  
Completed!



# 2025 Save Our Indian River Lagoon Project Status

Progress as of December 31, 2024



142,023 lbs of  
nitrogen reduced  
per year

127,103 lbs of  
one-time nitrogen  
removal

## Public Education & Engagement



Budget: \$4,017,807

TN Reduction: 33,709 lbs/year

Average Cost/lb TN: \$119

Projects Completed: 1

Projects Underway: 6

Projects in the Plan: 7

## WWTF Upgrades for Reclaimed Water



Budget: \$36,471,408

TN Reduction: 82,151 lbs/year

Average Cost/lb TN: \$444

Projects Completed: 4

Projects in Design: 3

Projects in the Plan: 9

## Rapid Infiltration Basin/ Sprayfield Upgrades



Budget: \$90,658

TN Reduction: 317 lbs/year

Average Cost/lb TN: \$286

Projects Completed: 1

Projects in Construction: 0

Projects in the Plan: 2

## Package Plant Connections



Budget: \$1,574,111

TN Reduction: 992 lbs/year

Average Cost/lb TN: \$1,587

Projects Completed: 1

Projects in Design: 1

Projects in the Plan: 3

## Smoke Testing/ Sewer Lateral Repairs



Budget: \$1,700,205

TN Reduction: 6,196 lbs/year

Average Cost/lb TN: \$274

Miles Smoke Tested: 299

1,089 of 1,126 Leaks Repaired

Projects in the Plan: 5

## Septic to Sewer



Budget: \$163,234,830

TN Reduction: 113,243 lbs/year

Average Cost/lb TN: \$1,441

Homes Connected: 830

Homes in Construction: 355

Homes in the Plan: 5,144

## Septic System Upgrades



Budget: \$30,731,280

TN Reduction: 34,294 lbs/year

Average Cost/lb TN: \$896

Homes Upgraded: 353

Homes Contracted: 591

Homes in the Plan: 1,469

## Stormwater Projects



Budget: \$84,213,758

TN Reduction: 239,381 lbs/year

Average Cost/lb TN: \$352

Projects Completed: 46

Projects in Construction: 5

Projects in the Plan: 253

## Aquatic Vegetation Harvesting



Budget: \$2,337,175

TN Reduction: 42,913 lbs

Average Cost/lb TN: \$54

Projects Completed: 8

Projects in Construction: 0

Projects in the Plan: 10

## Muck Removal



Budget: \$161,761,411

TN Reduction: 235,134 lbs/year

Average Cost/lb TN: \$688

Projects Completed: 3

Projects in Construction: 2

Projects in the Plan: 21

## Interstitial Water Treatment



Budget: \$50,860,669

TN Reduction: 500,032 lbs

Average Cost/lb TN: \$102

Projects Completed: 2

Projects in Construction: 2

Projects in the Plan: 16

## Oyster Bars



Budget: \$11,361,634

TN Reduction: 23,057 lbs/year

Average Cost/lb TN: \$493

Projects Completed: 11

Projects in Construction: 5

Projects in the Plan: 28

## Planted Shorelines



Budget: \$115,895

TN Reduction: 450 lbs/year

Average Cost/lb TN: \$258

Projects Completed: 8

Projects in Construction: 1

Projects in the Plan: 10

## Clam Restoration



Budget: \$510,117

TN Reduction: 3,574 lbs

Average Cost/lb TN: \$143

Projects Completed: 6

Project Underway: 4

Projects in the Plan: 12

2017-2024 Revenue = \$434.7M

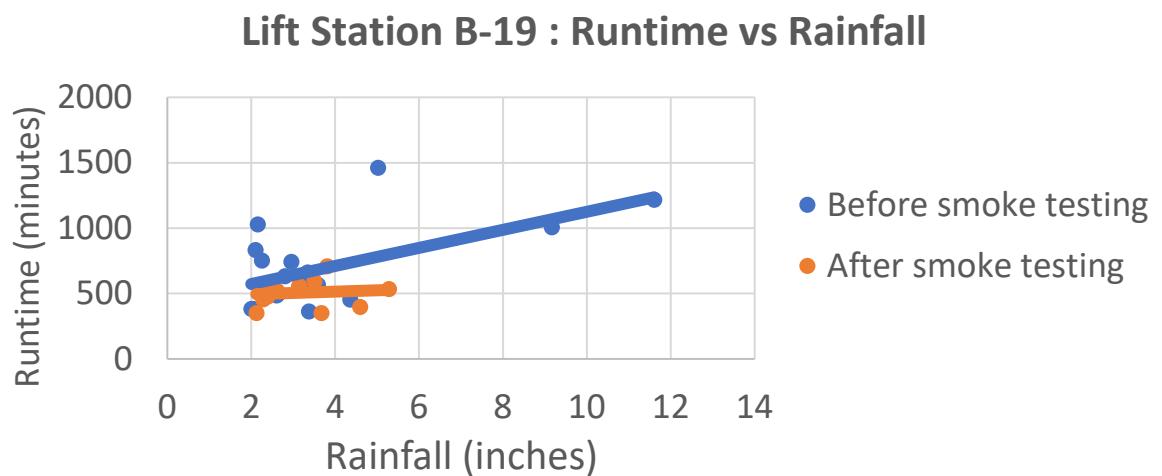
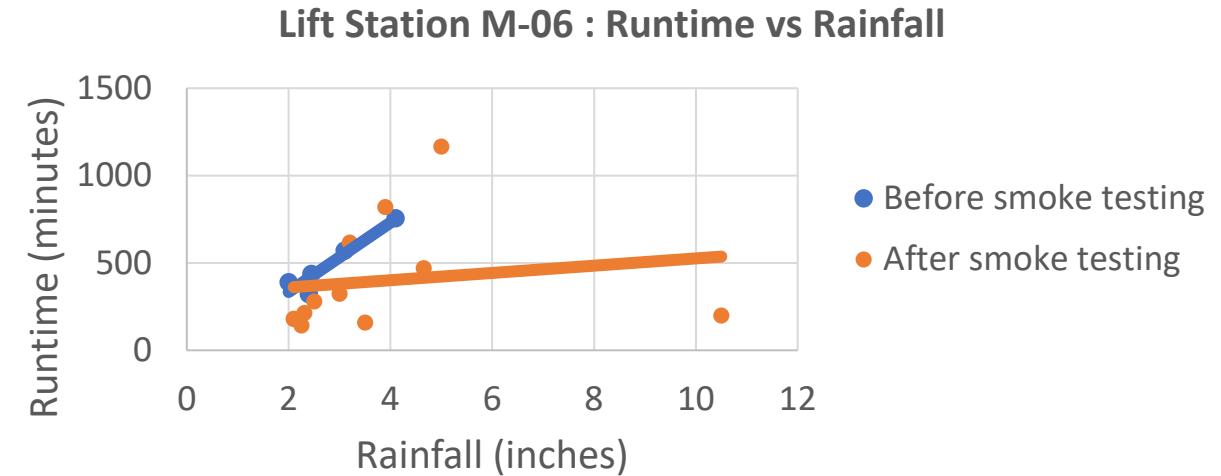
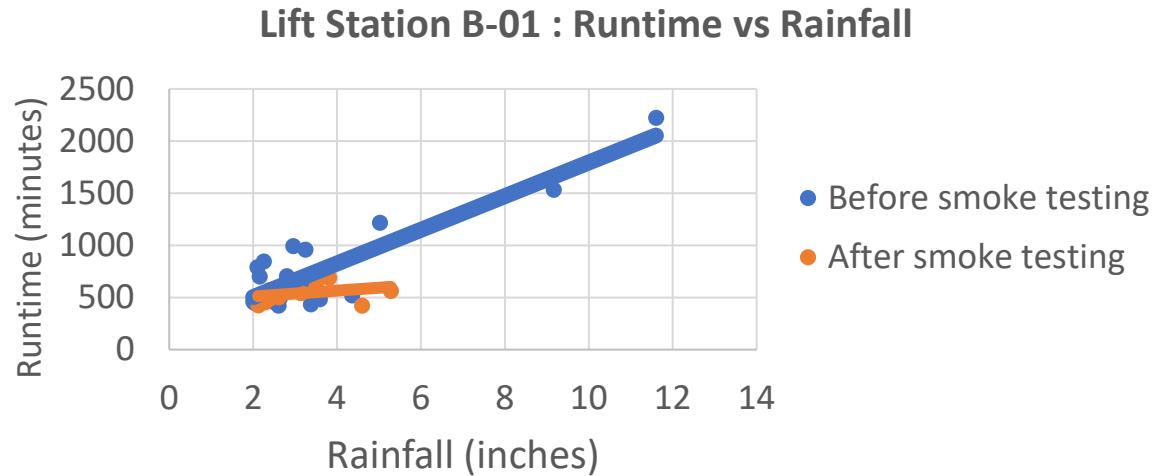
10-Year Revenue Estimate = \$585.7M

2017-2024 Expenditures = \$79.5M

Projects Underway = \$332.9M

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LAGOON

# Prevent Sewage Overflows



# How Septic Systems Pollute the Lagoon

## HOW DO SEPTIC SYSTEMS AFFECT THE LAGOON?

EXCESS ALGAE

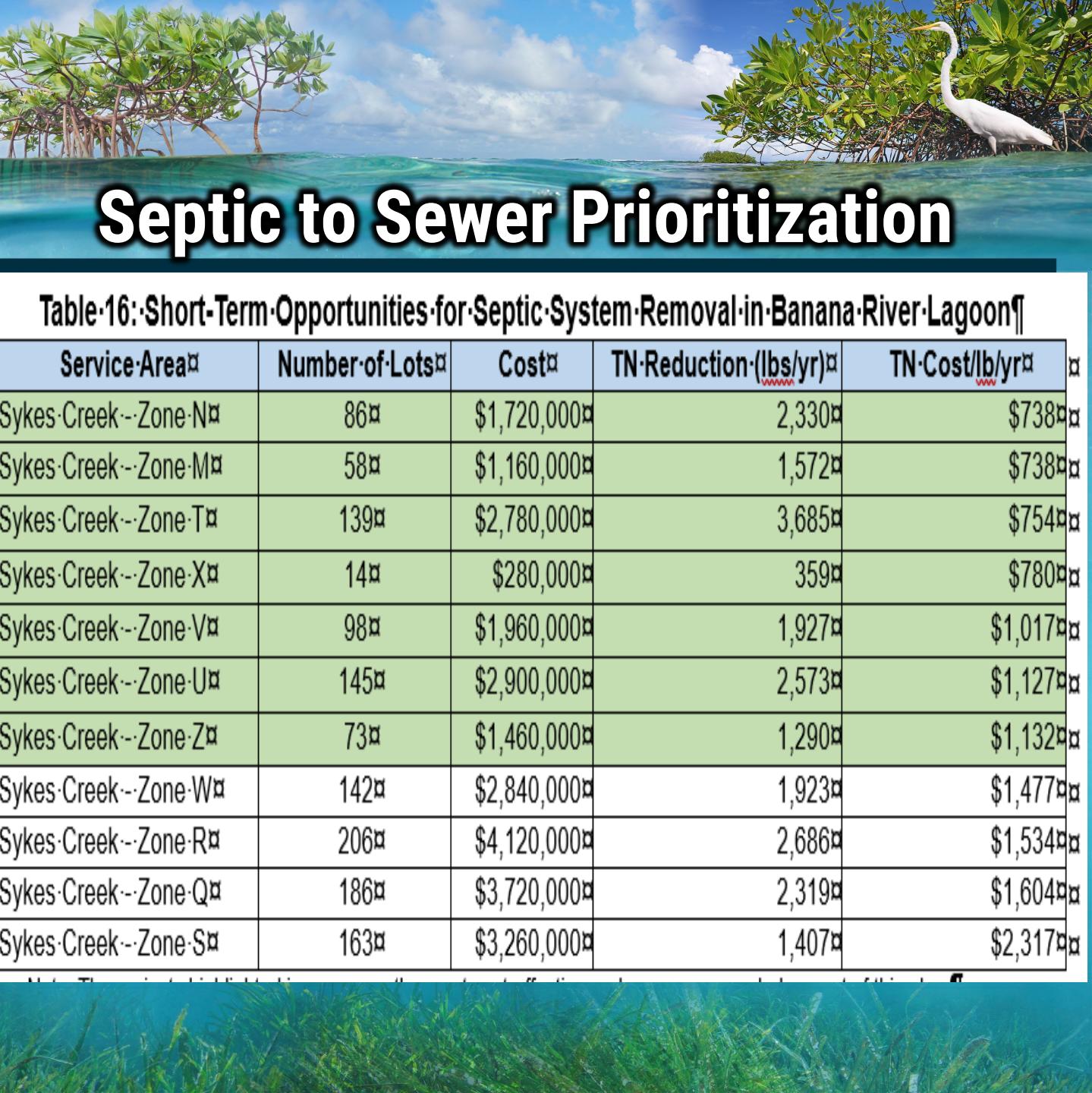
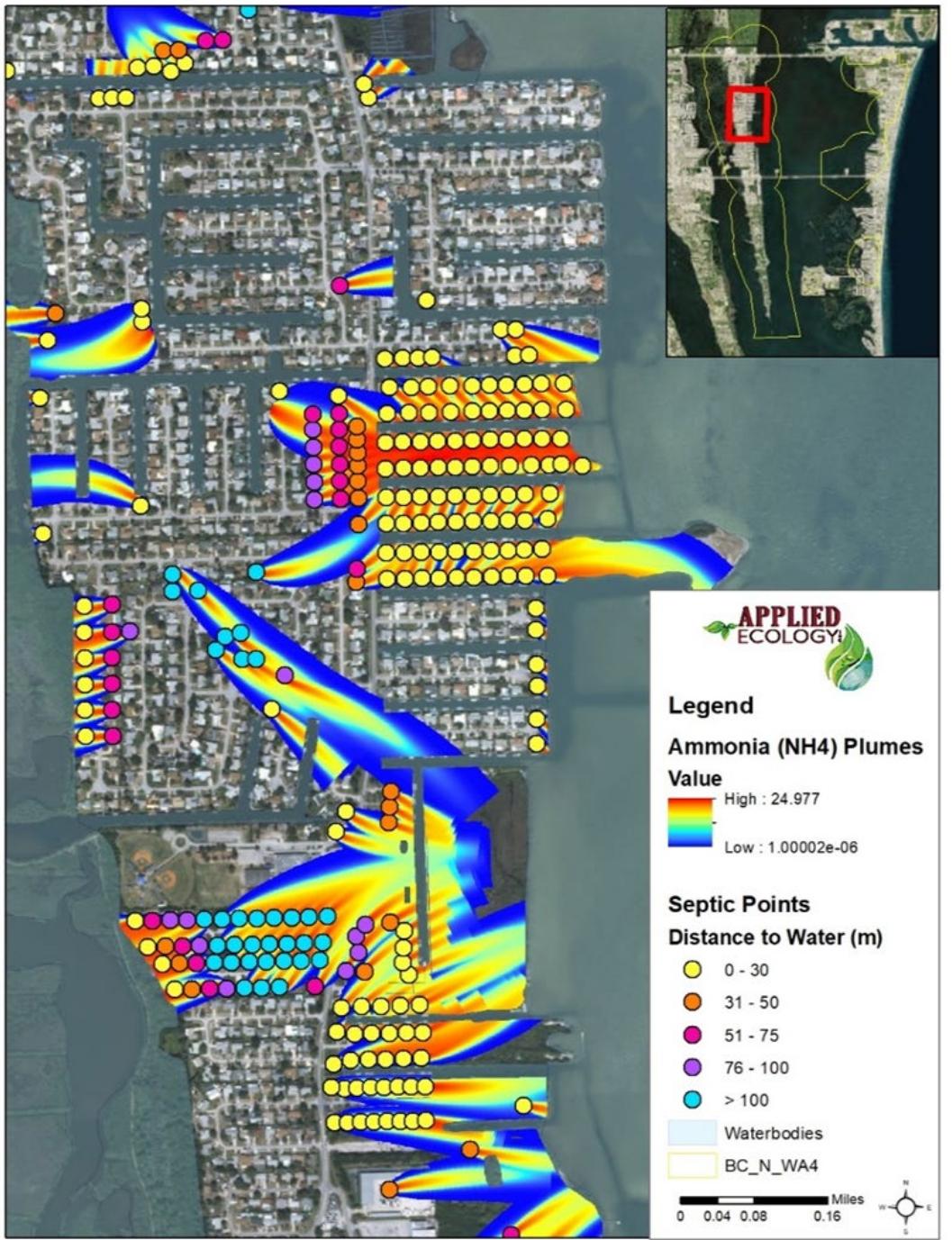
INDIAN RIVER LAGOON

Excess nitrogen, phosphorus, and pollutants from septic systems can enter groundwater and migrate to the IRL.

Traditional septic systems remove only 30-40% of the nitrogen that flows through them.

**20%**  
of the algae-feeding nitrogen entering the IRL is from septic systems.

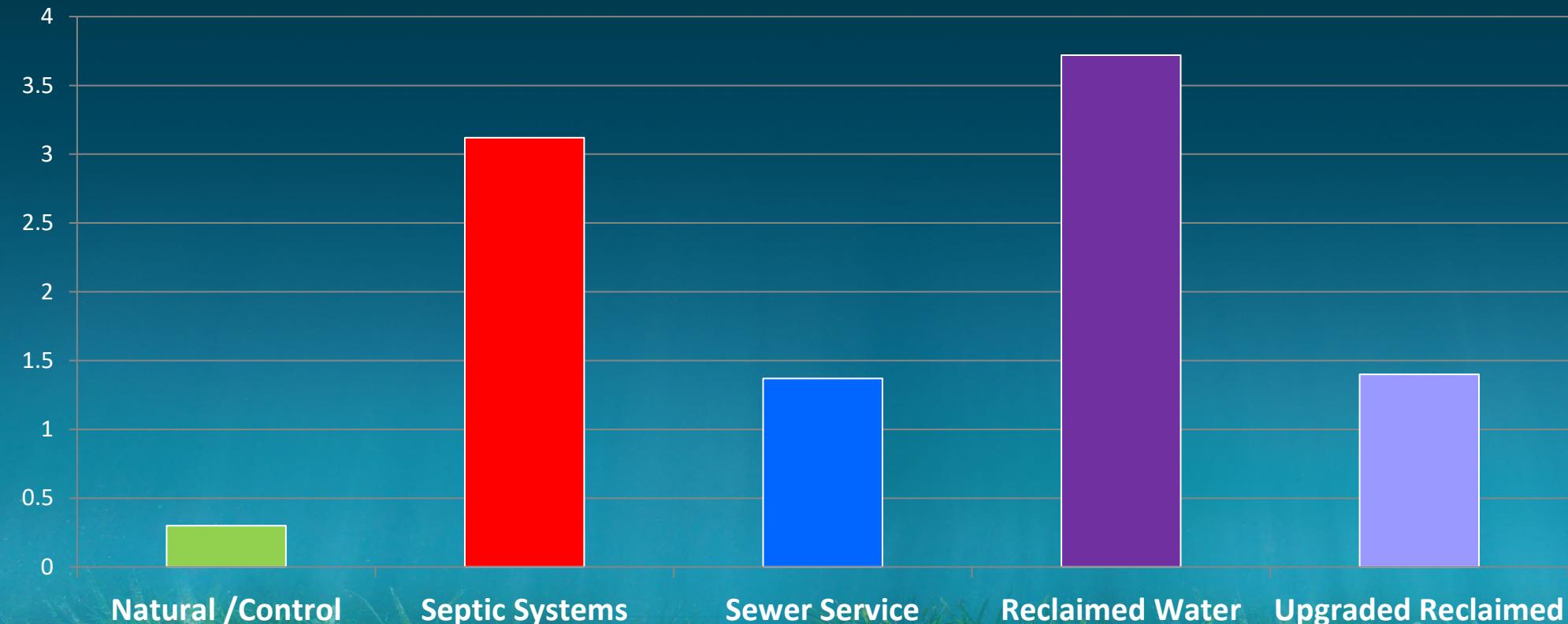




# Groundwater Monitoring Data

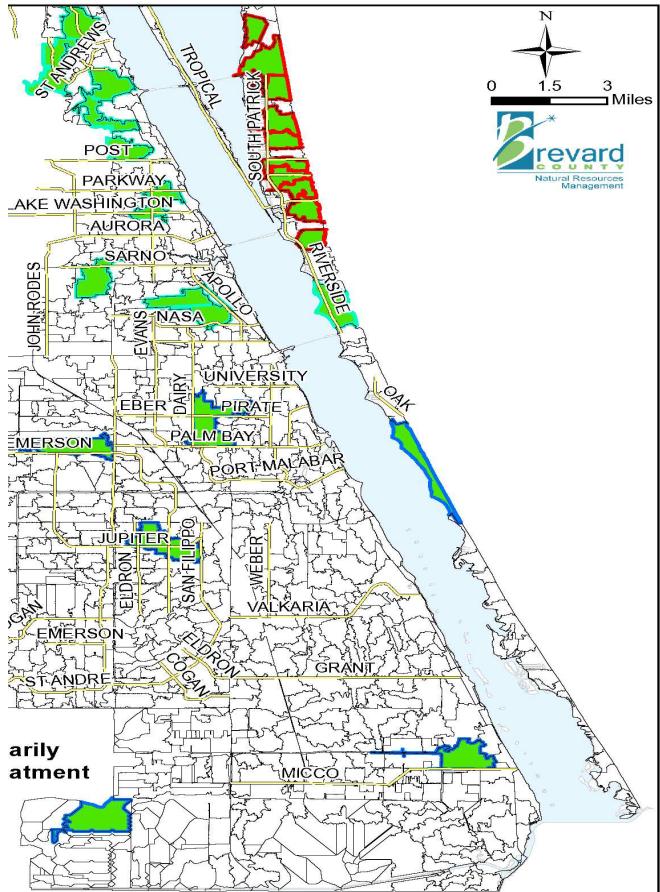
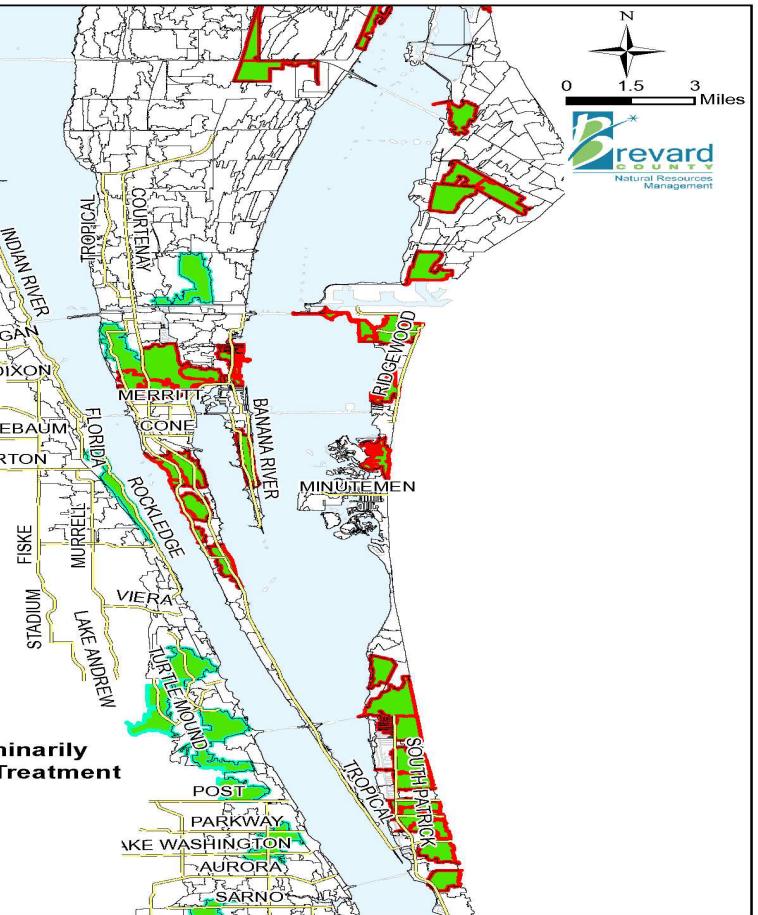
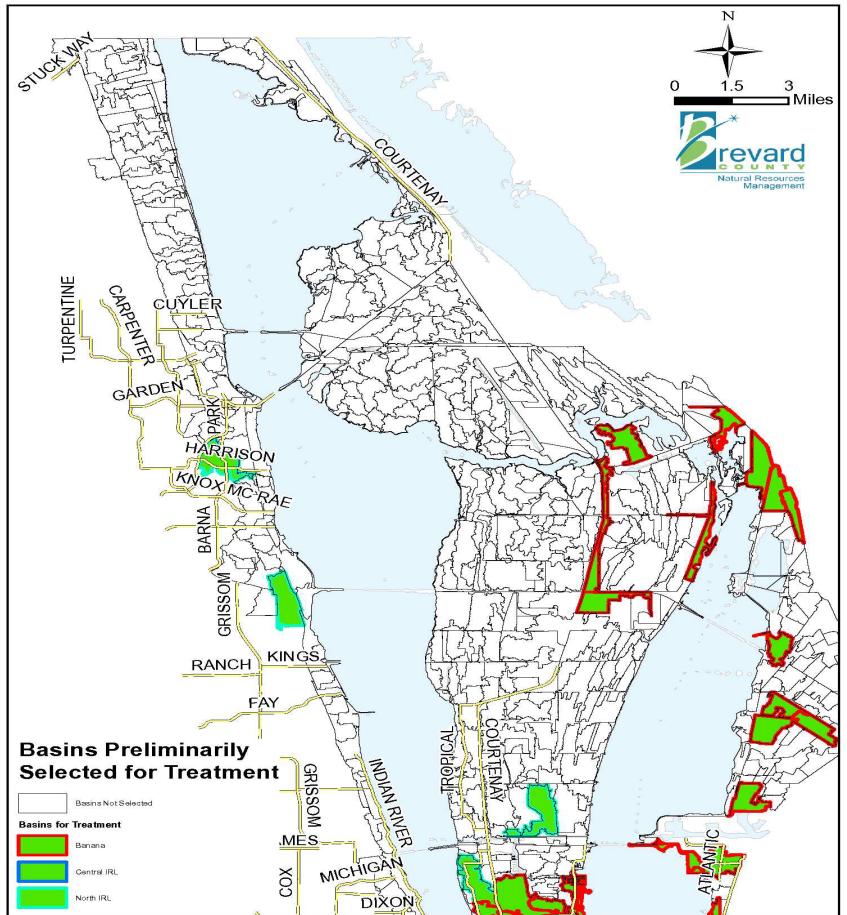
## Groundwater Nitrogen Concentrations

(June 2018 – November 2025, Geometric Mean mg/L TN)



Results from 6+ Years of Monthly Groundwater Quality Sampling

# Stormwater Project Prioritization

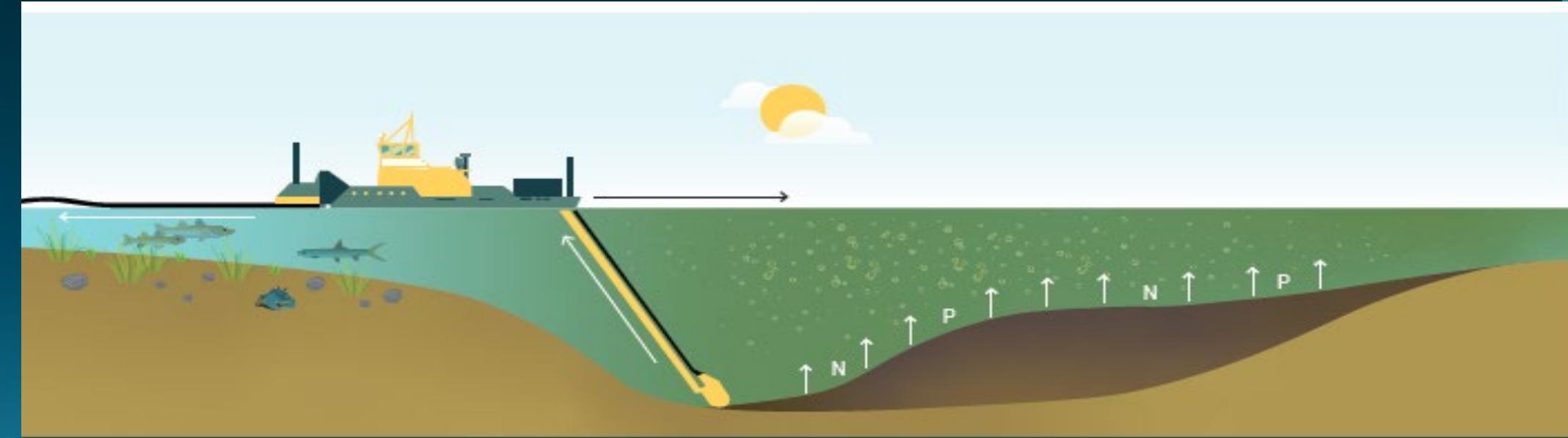


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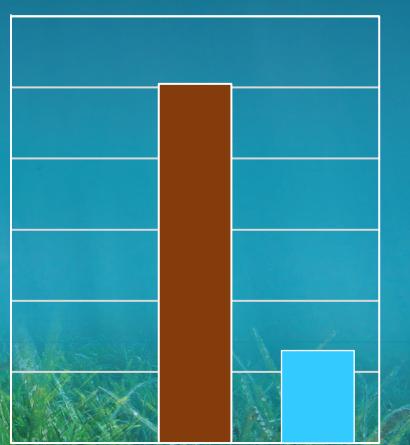
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# Muck Removal



Eau Gallie River  
Muck Dredging  
Bloom Severity Index  
Before and After  
Dredging



# Oyster Restoration

- Most sites are built by Brevard Zoo
- UCF provides independent monitoring
- 100% success this year
- 80% success over all years

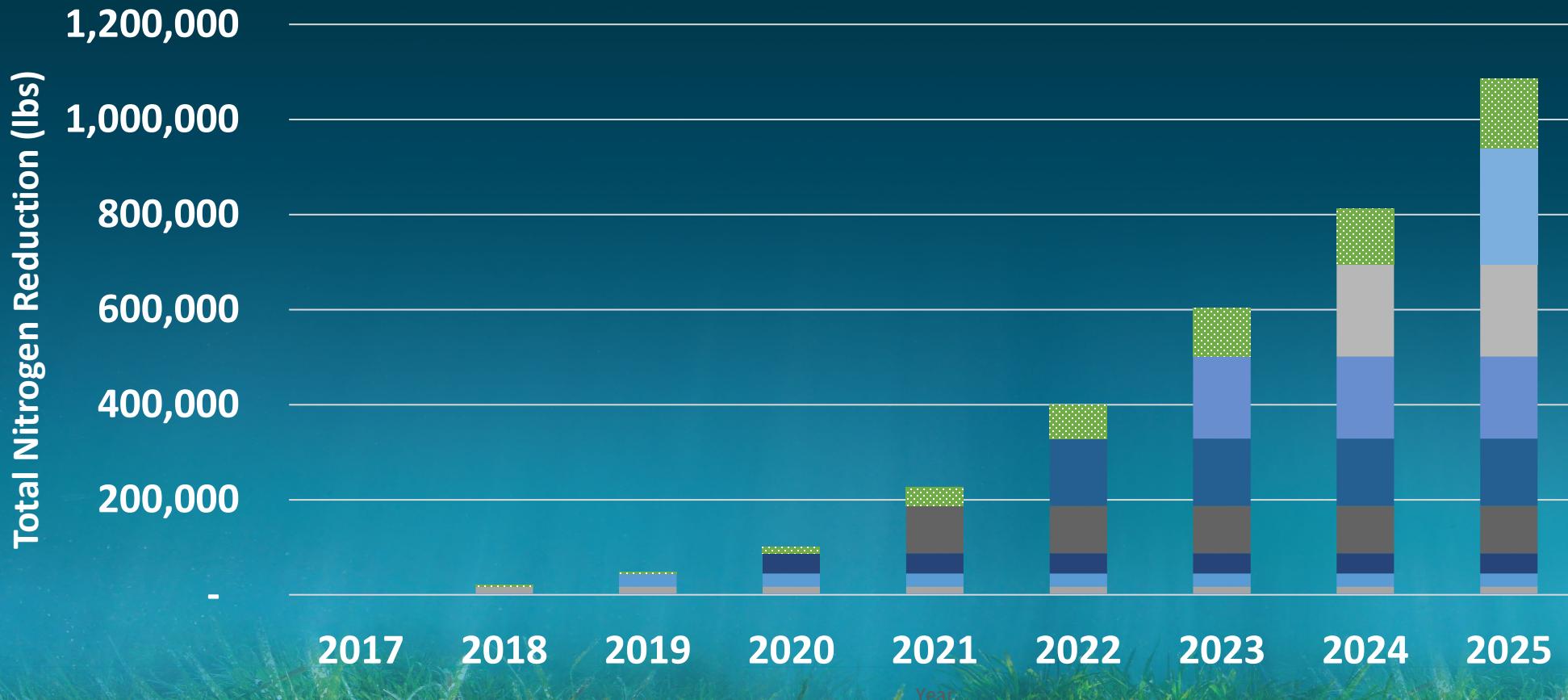
  

- Clam restoration getting started
- Planted Living Shoreline buffers

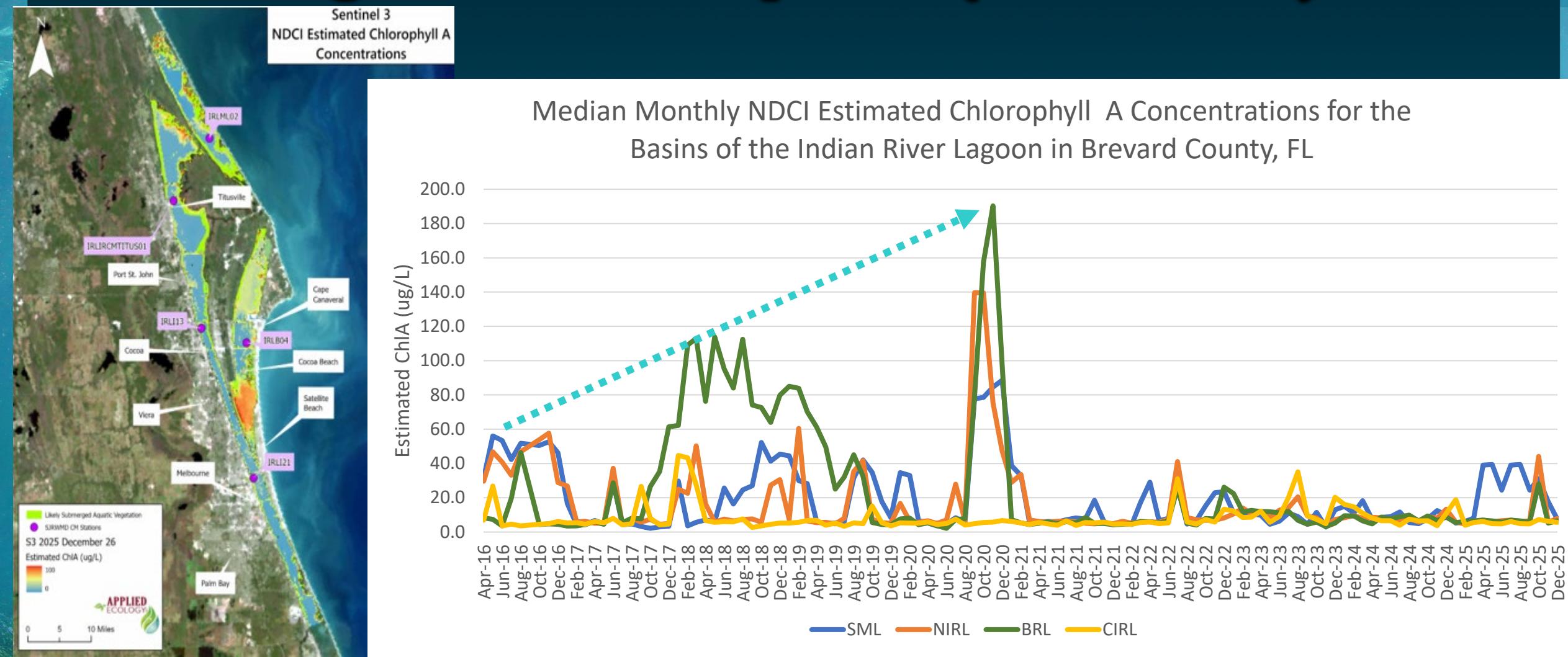


# Cumulative Total Nitrogen Reduction

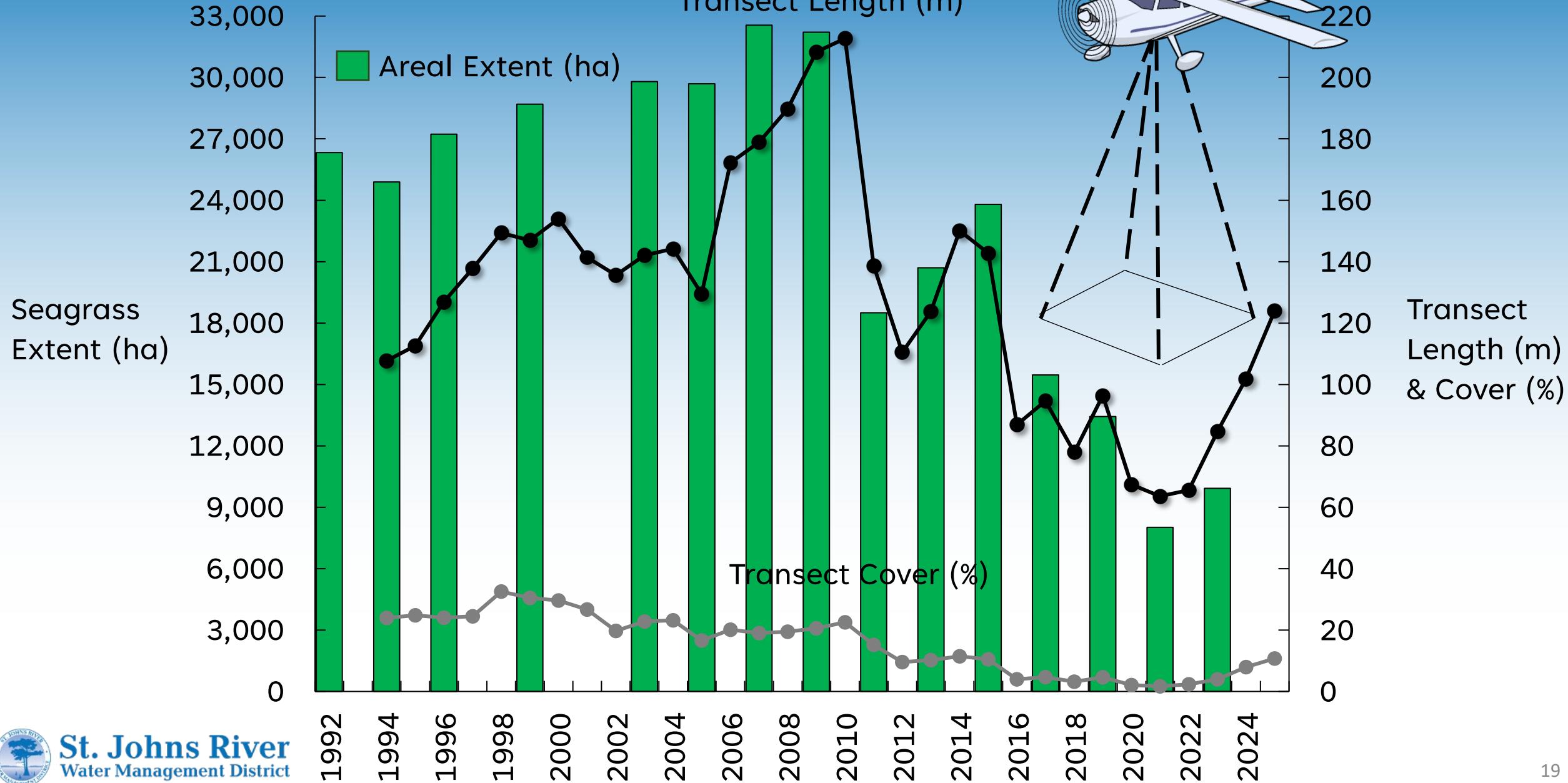
Cumulative Total Nitrogen Reduction (Pounds TN)



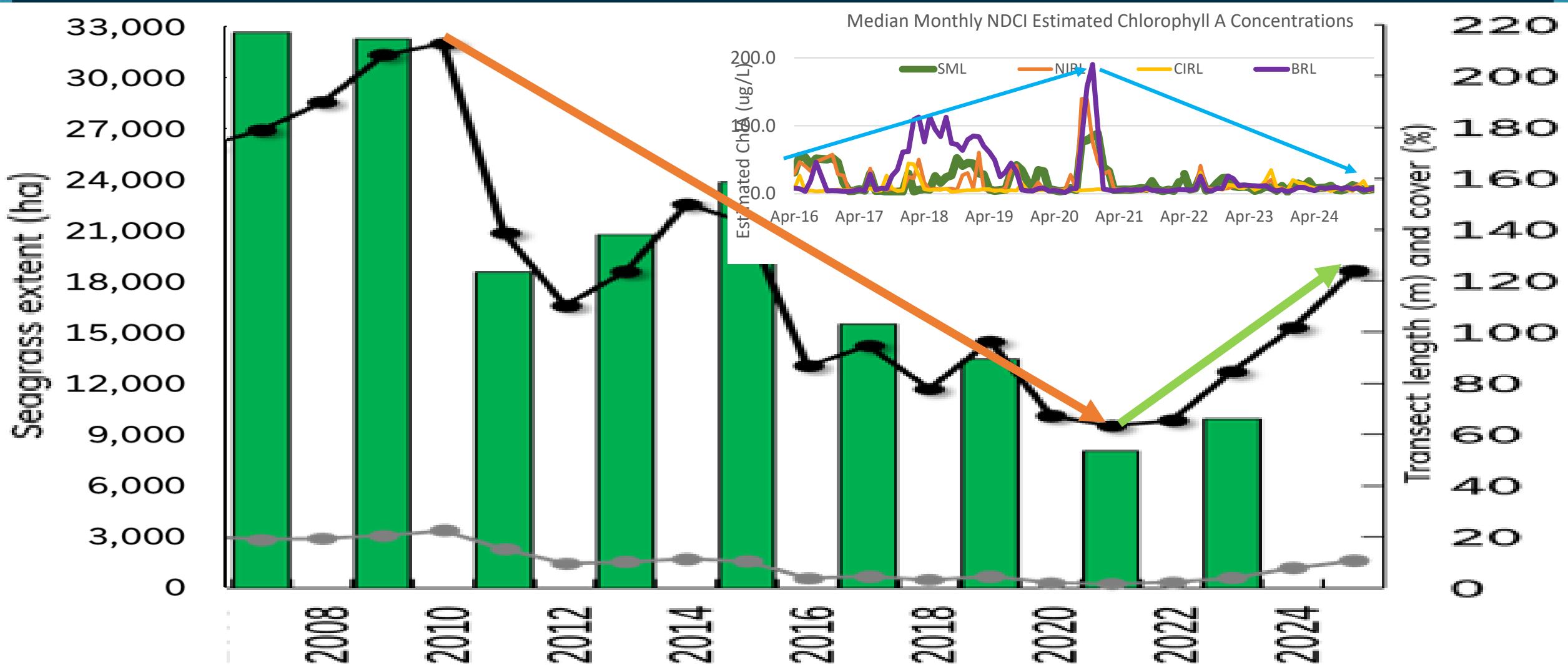
# Algae Bloom Response (2016-2025)



# Seagrass Extent



# Evidence of Progress: Seagrass Response





# Cleaner Water Grows More Seagrass



- Seagrass supports up to 40,000 fish per acre
- Seagrass is the Foundation of a Healthy and Productive Lagoon
- Uptakes and sequesters nutrients and provides food, habitat, & oxygen
- Ideal seagrass environment - shallow, protected, expansive



**SOIRL is working.  
Restoration takes time.  
Hope is on the Horizon!**

Virginia Barker, Director  
Brevard County  
Natural Resources Management Department

*Kim*



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