Building Consensus, Building a Shoreline

A Stakeholder-driven Process to Address Erosion along Cedar Key's Daughtry Bayou

Savanna C. Barry

Regional Specialized Florida Sea Grant Agent

UF IFAS Nature Coast Biological Station

UF IFAS UNIVERSITY of FLORIDA

NATURE COAST BIOLOGICAL STATION

Sea Grant Florida

NRLI FLORIDA NATURAL RESOURCES LEADERSHIP INSTITUTE

UF IFAS UNIVERSITY of FLORIDA

Soil & Water SCIENCES

Florida Coastal Management Program

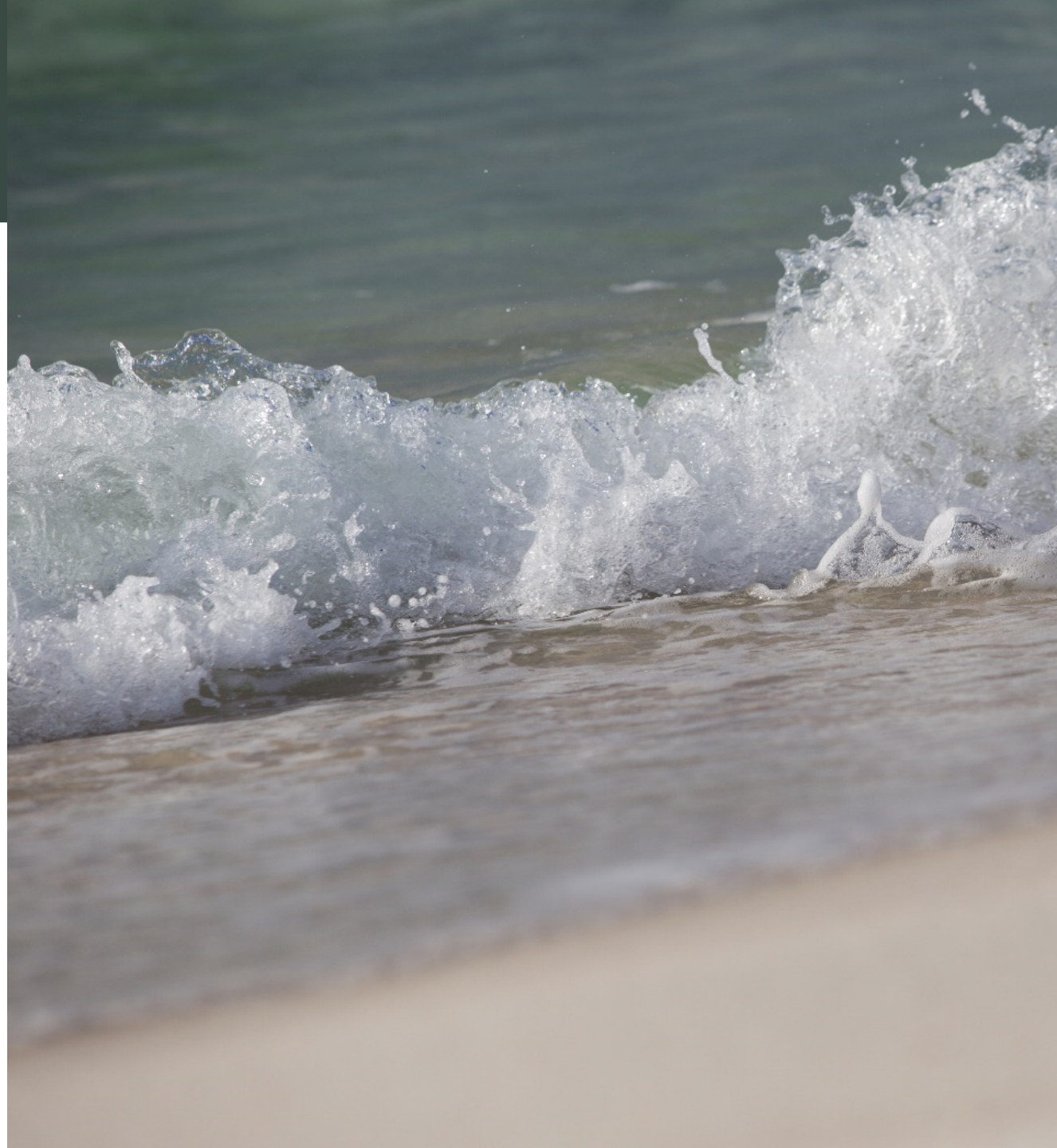
Mark W. Clark, Wendy-Lin Bartels, Jonathan Dain

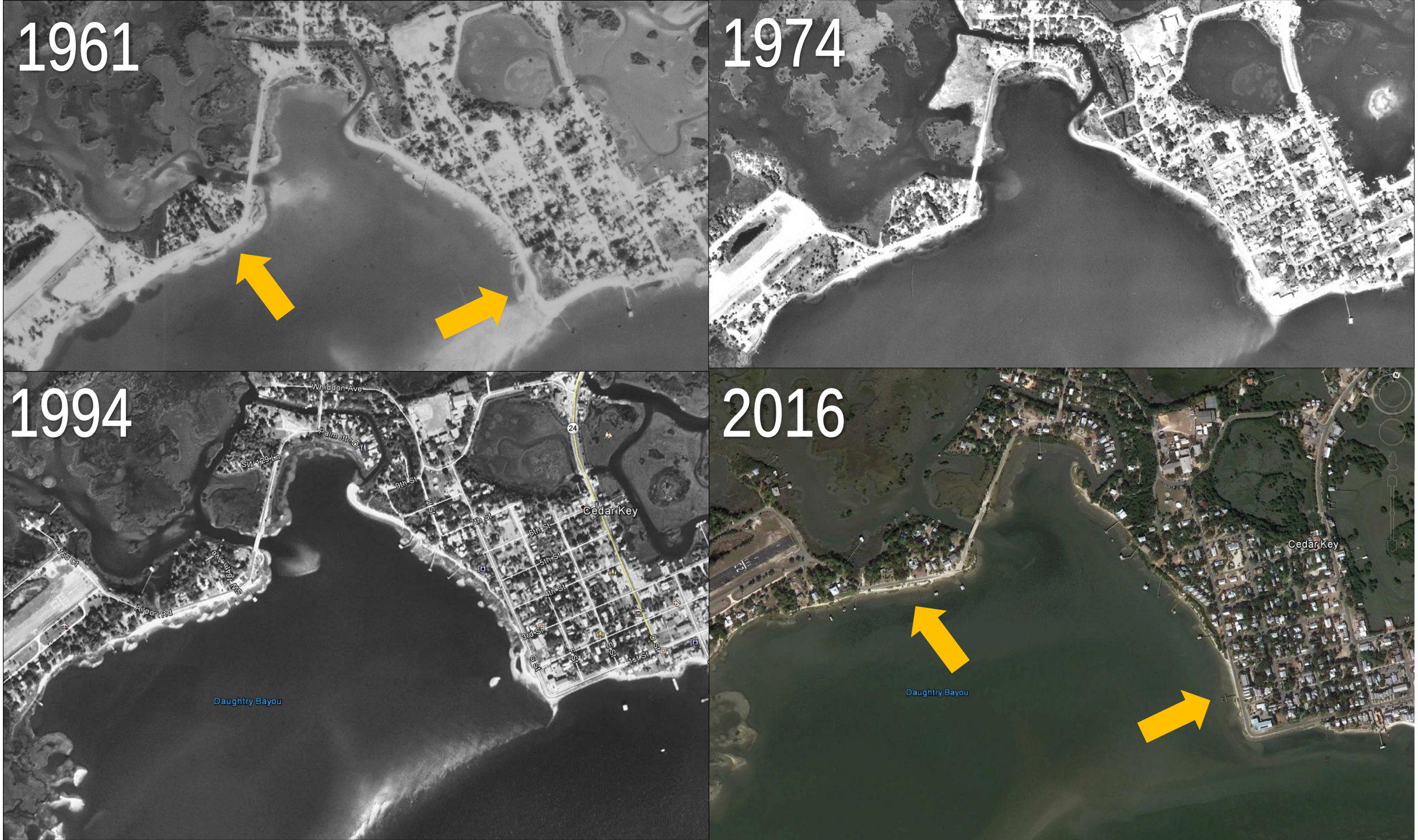
Cedar Key, FL

- Old Florida working waterfront
- Exposed coastal “city”
- Population: 800-1,200
- 5 full-time employees
  - Fire Chief
  - Police Chief
  - City Clerk
  - City Attorney
  - Public Works Director

Coastal Erosion

- Rapid increase in rate of erosion since 1990s
- Previous project attempt in 2008
- Infrastructure & recreational uses threatened, degraded



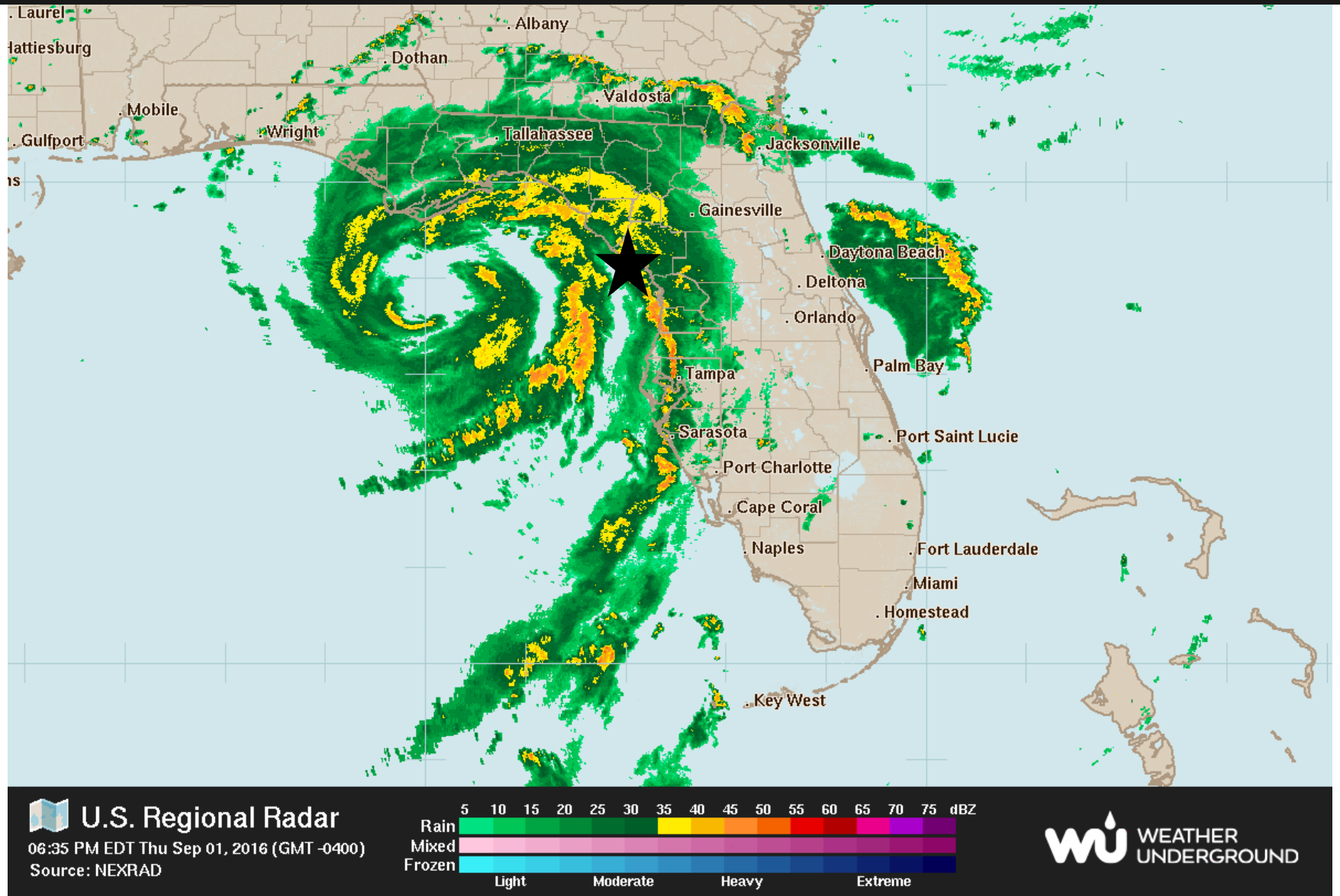

1961
1974
1994
Whidden Ave
Palmetto Dr
SW 129 Ln
9th St
8th St
7th St
6th St
5th St
4th St
3rd St
2nd St
1st St
A St
B St
C St
24
Cedar Key
Joe Ct
SW 49th Ave
Airport Rd
Daughtry Bayou
2016
Cedar Key
Daughtry Bayou


1930s-1950s


JUN • 56 •


2016

Hurricane Hermine



Coastal Impacts Catalyzed Discussion

Addressing Coastal Erosion

- UF approached by City of Cedar Key
- Preliminary meeting → FCMP proposal → FCMP grant awarded → Hired Facilitators and Built Project Team

- Stakeholder Visioning Workshop
- Stakeholder Design Workshops

Stakeholder Process

Mix of stakeholders – mix of recreational uses, mix of property vs. non-property owners, City vs. County property/needs

Visioning Workshop Objectives

1. Discuss erosion history in the area and preferences for shoreline uses
2. Learn more about and compared various options for erosion control
3. Narrow down a range of acceptable project types that promise to preserve the shoreline at G Street and Airport Road locations according to preferred uses

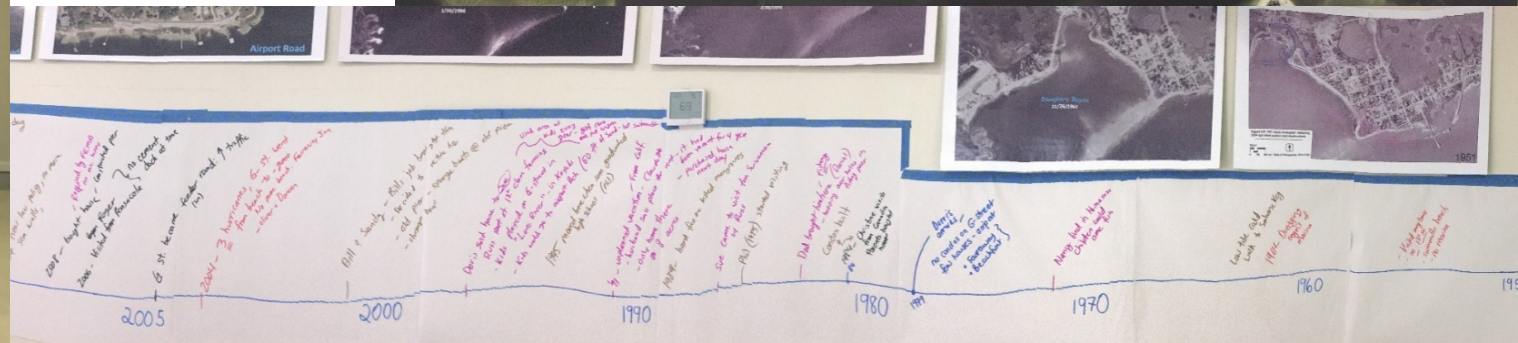
Design Workshop Objective

4. Discuss and evaluate specific project designs and build consensus around one preferred option

1: Discuss Erosion History

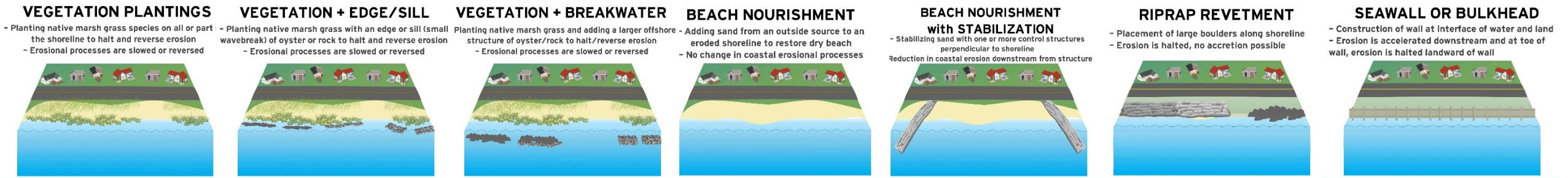
- **Technique:** Icebreaker – Go-around & Sticky Arrows on Map

- **Technique:** Participatory Timeline with Aerial Imagery
  - WHY?
  - Give standing to long-time residents & property owners
  - Give context to newer residents



2: Understand Erosion Control Options

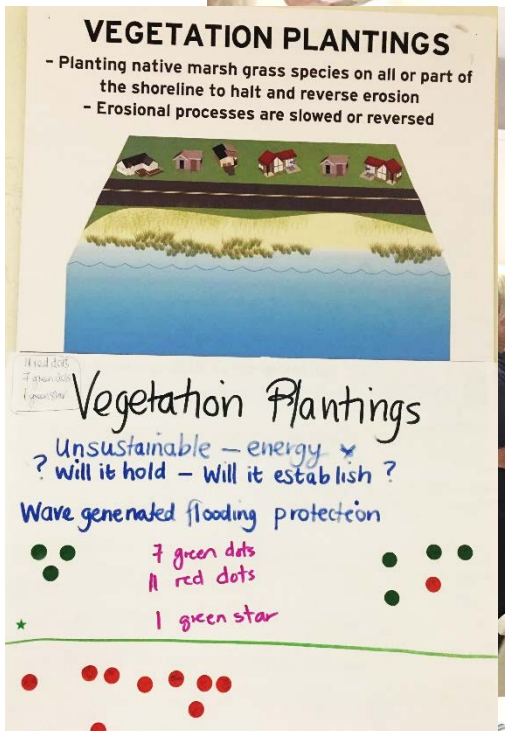
- **Technique:** Golf Cart Field Trip with Informational Handouts
  - WHY?
  - Make options tangible and relatable
  - Q&A with expert in informal setting

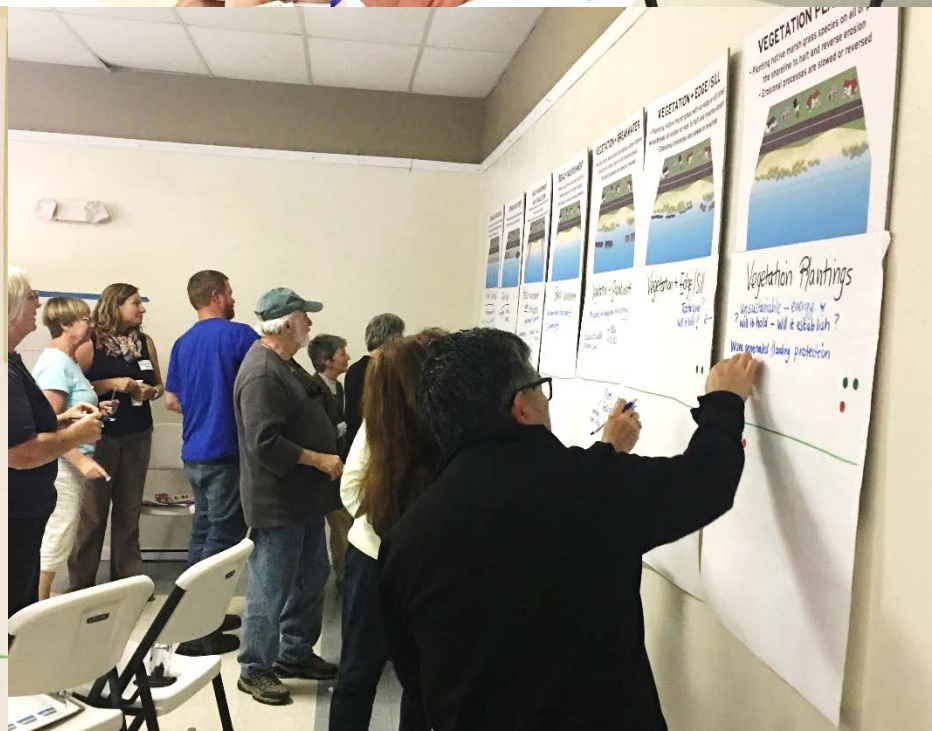


3: Narrow Down List of Project Types

- **Technique:** Field Trip Debrief – Plenary and in Pairs
  - WHY?
  - Collect narrative information about why certain projects preferred/disliked

- **Technique:** Sticky Dot Voting - 2 top and 2 bottom choices
  - WHY?
  - Failsafe method to gather quantitative information about preferences





Design Workshops

- **Technique:** Looking Back, Looking Forward
  - Remind participants what we did last time, get new ones up to speed
  - Give lay of the land for where we want to end up

- **Technique:** Present realistic project design ideas, discussion, scorecard/ranking
  - WHY?
  - Integrate narrative and quantitative feedback
  - Give "expert" information (hopefully) without biasing

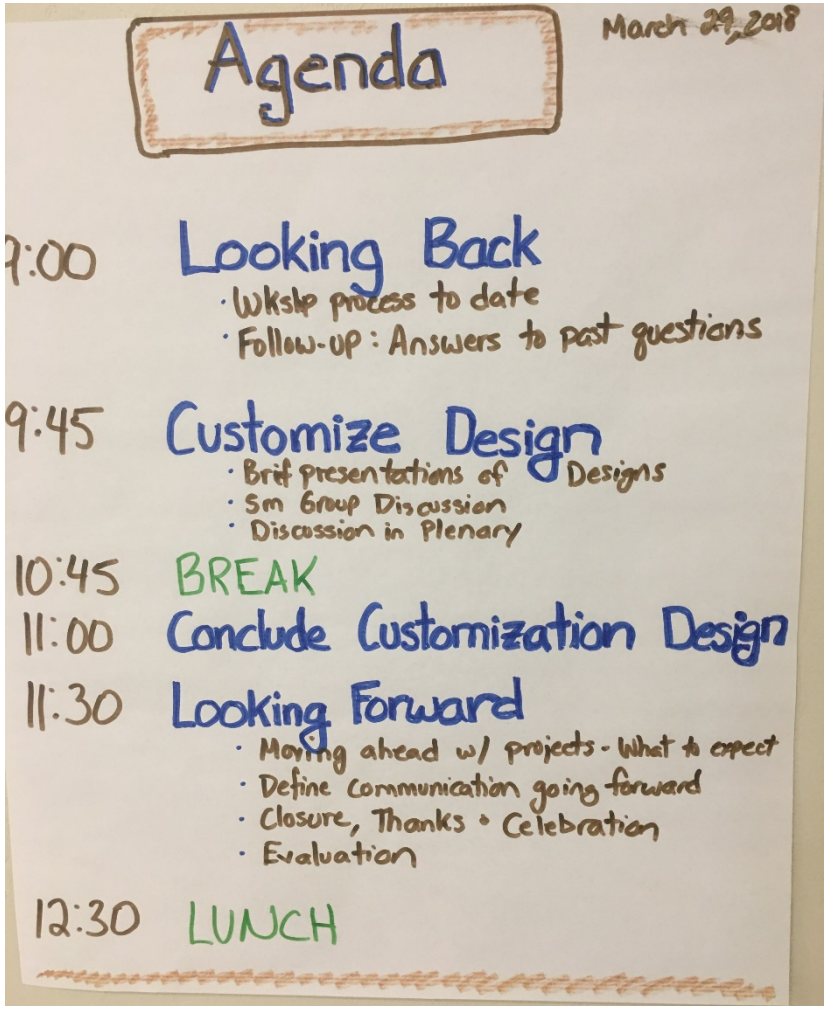
	opt. 1	opt. 2	opt. 3	opt. 4	Do Nothing
1)Environmental Service (C- = negative, B = no change, A+ = most improved)					
a)Carbon Sequestration	A-	A+	A-	B	↓
b)Wave dissipation	B+	A	A-	A+	↓
c)Water quality	A-	A+	A-	B	↓
d)Habitat/Biodiversity	A-	A+	A	B+	↓
category average	***A-***	***A+***	***A-***	***B+***	↓
2)Cost (C- = high, A+ = low)					
a)Construction cost	A+	A-	B	C-	–
b)Maintenance cost	A-	A-	B	C+	–
category average	***A***	***A-***	***B***	***C***	–
3)Project longevity (C- = shortest time, A+ = longest time)					
	B	**A**	**A-**	**A+**	↓
4)Likelihood of obtaining external funding (A+ = high, C- = low)					
	A+	**A**	**B**	**C+**	–

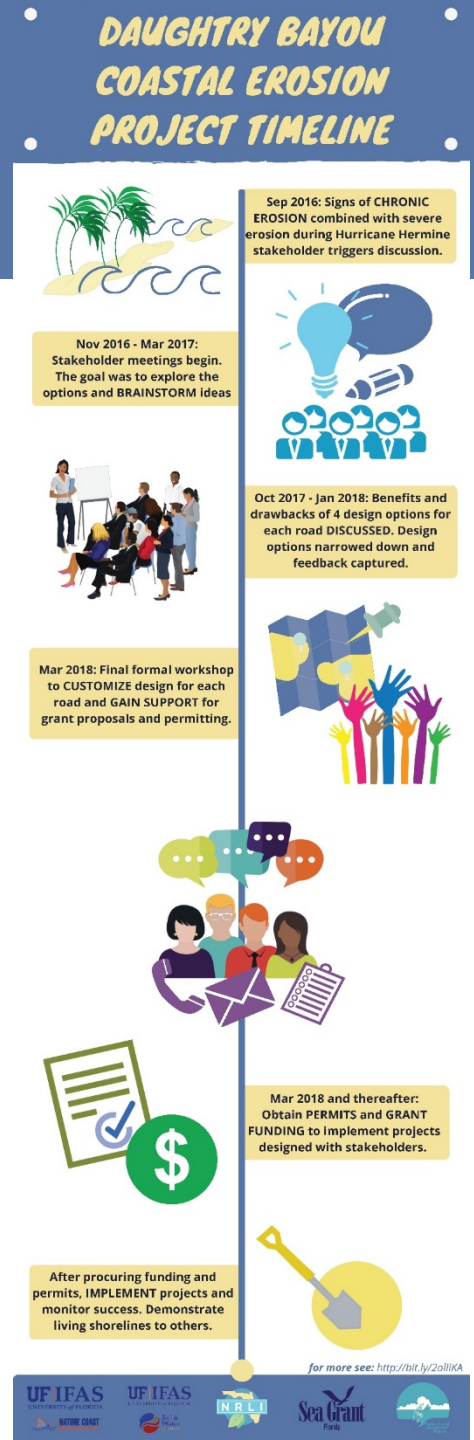
Enter: Mangroves!

- Northward creep of mangroves into Cedar Key
- Installation of a living shoreline would increase recruitment of mangroves
- Make or break moment in the workshop process
- Pragmatism vs. purism

Wrap-Up Workshop

- **Technique:** Workshop Pre-Work – Online Customization Survey
  - Give participants a chance to look ahead at what we will talk about
  - Give people who could not attend a channel to provide input
- **Technique:** Looking Back
  - Summary of process and survey results
- **Technique:** Present design with highest votes from last workshop, group round-table discussions for customizing/tweaking design
- **Technique**: Looking Forward
  - Define how we want to communicate going forward
  - Set realistic expectations for timeline

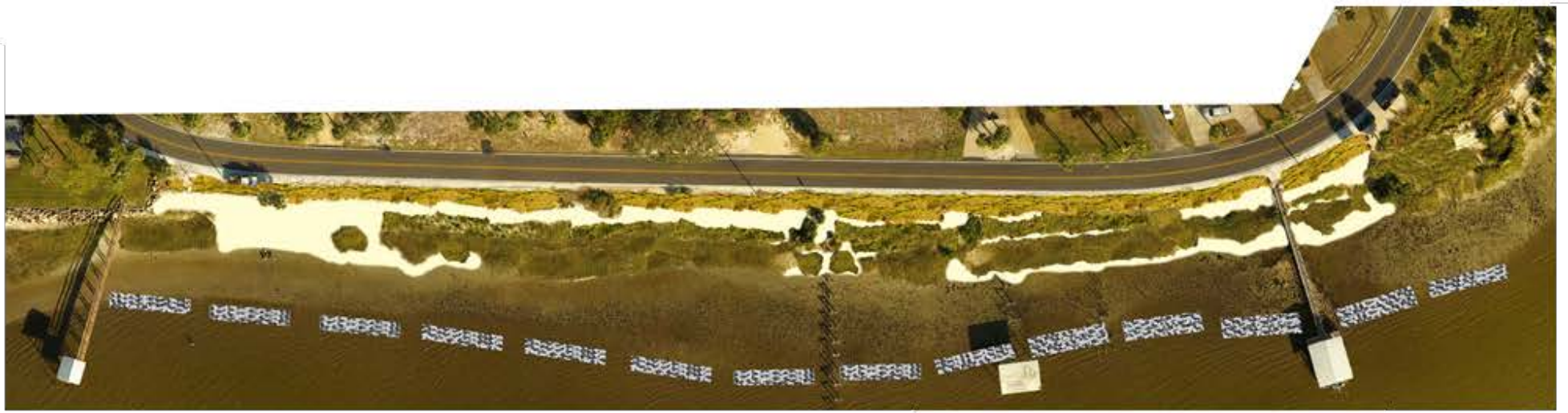




A. G Street – Present Condition

B. G Street – Proposed Project

C. Airport Rd. – Present Condition



D. Airport Rd. – Proposed Project

If you have roughly $385,000 you want to use to fund TWO awesome local projects…

Savanna Barry, Ph.D.

Savanna.barry@ufl.edu

352-325-6080

UF IFAS UNIVERSITY of FLORIDA

NATURE COAST BIOLOGICAL STATION

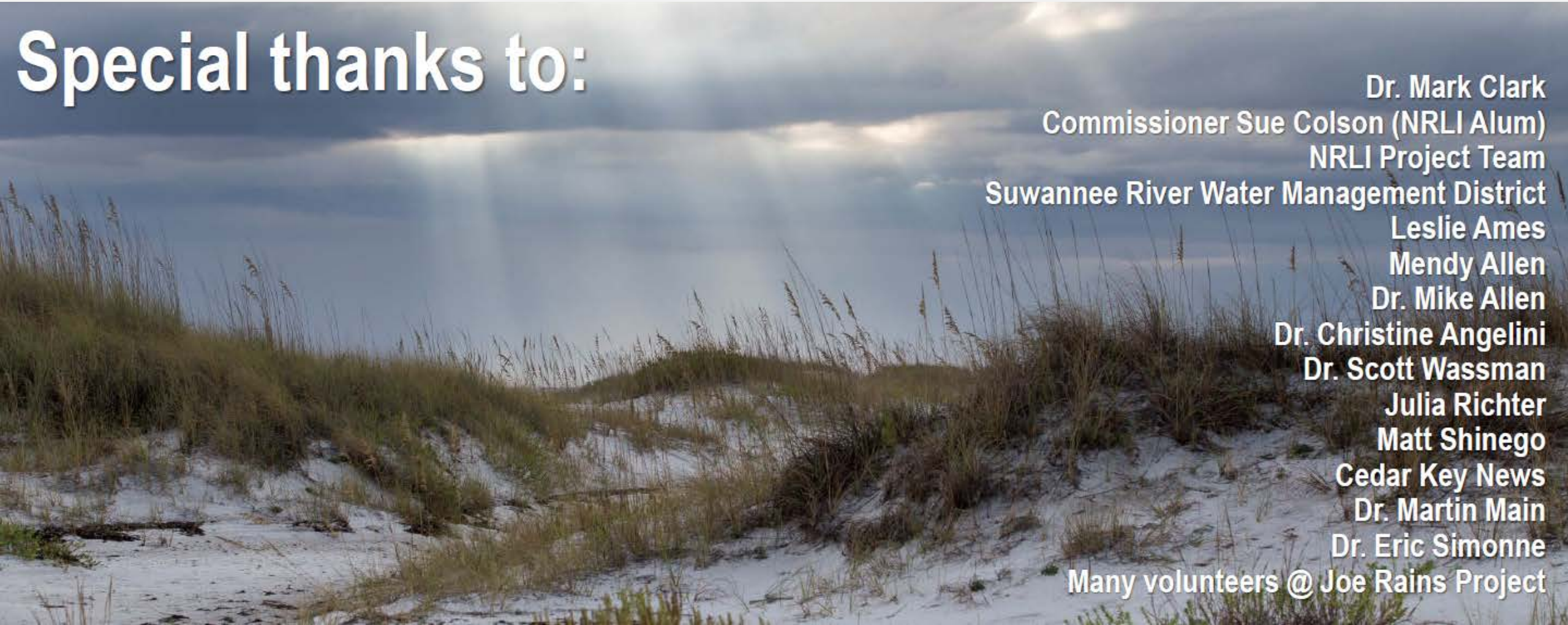
Sea Grant Florida

NRLI FLORIDA NATURAL RESOURCES LEADERSHIP INSTITUTE

UF IFAS UNIVERSITY of FLORIDA

Soil & Water SCIENCES

Florida Coastal Management Program



Special thanks to:

Dr. Mark Clark
Commissioner Sue Colson (NRLI Alum)
NRLI Project Team
Suwannee River Water Management District
Leslie Ames
Mendy Allen
Dr. Mike Allen
Dr. Christine Angelini
Dr. Scott Wassman
Julia Richter
Matt Shinego
Cedar Key News
Dr. Martin Main
Dr. Eric Simonne
Many volunteers @ Joe Rains Project