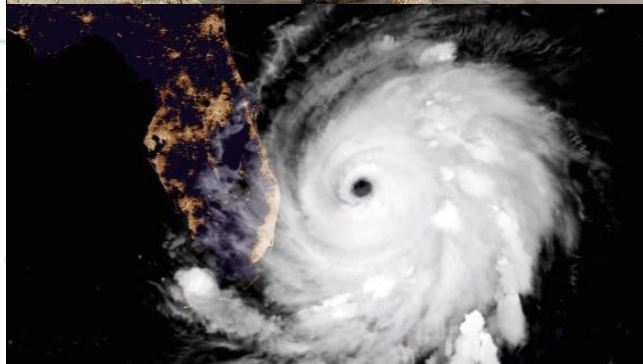


# Florida Shore & Beach Preservation Association 62<sup>nd</sup> Annual Conference Hutchinson Island, FL



## Supplemental Funding Update

September 19, 2019



US Army Corps  
of Engineers®






# AGENDA

SUPPLEMENTAL PROGRAM OVERVIEW  
BBA 2018 (2018 Supplemental)  
HR 2157 (2019 Supplemental)  
How is Supplemental Different  
Supplemental 2018 Coastal Progress Report  
FCCE  
Construction  
Investigations  
Other opportunities: RSM, Collaboration  
Outlook



# Jacksonville District Supplemental Program \$3,588,252,000

Investigations		FCCE		O&M		Construction, Florida		Construction, Puerto Rico	
Study	\$	Project	\$	Project	\$	Project	\$	Project	\$
COLLIER COUNTY BEACH EROSION CONTOL	\$3,000,000	BREVARD COUNTY, South Reach	\$11,126,000	ANCLOTE RIVER	\$3,250,000	BREVARD COUNTY	\$2,000,000	RIO DE LA PLATA	\$500,000,000
DADE COUNTY	\$2,000,000	BROWARD COUNTY, Segment II	\$29,237,000	CANAVERAL HARBOR, FL	\$4,500,000	BROWARD COUNTY	\$2,000,000	RIO GRANDE DE ARECIBO	\$82,892,000
MIAMI BACK BAY	\$3,000,000	BROWARD COUNTY, Segment III	\$66,838,000	CANAVERAL HARBOR, FL, Sand Bypass	\$3,500,000	DUVAL COUNTY	\$2,000,000	RIO GRANDE DE LOIZA	\$250,000,000
MONROE COUNTY	\$3,000,000	DUVAL COUNTY, FL	\$16,500,000	CENTRAL & SOUTHERN FLORIDA, FL	\$15,040,000	LEE COUNTY	\$2,000,000	RIO GUANAJIBO at MAYAGUEZ	\$60,000,000
PINELLAS COUNTY	\$2,000,000	LEE COUNTY, FL, Gasparilla	\$7,171,000	CHANNEL FROM NAPLES TO BIG MARCO PASS	\$400,000	NASSAU COUNTY	\$2,000,000	RIO NIGUA at SALINAS	\$60,000,000
FL Subtotal	\$13,000,000	PALM BEACH COUNTY, Jupiter	\$16,458,000	FORT MYERS BEACH	\$400,000	PALM BEACH COUNTY	\$2,000,000	RIO PUERTO NUEVO	\$1,552,453,000
SOUTH ATLANTIC COASTAL STUDY, FL, PR & USVI	\$16,000,000	PALM BEACH COUNTY, Ocean Ridge	\$8,955,000	HORSESHOE COVE	\$3,000,000	SARASOTA COUNTY (VENICE)	\$2,000,000		
PUERTO RICO COASTAL	\$3,000,000								
SAN JUAN METRO	\$3,000,000	PALM BEACH COUNTY, Delray	\$8,285,000	IWW, JACKSONVILLE TO MIAMI	\$300,000	ST. JOHN'S COUNTY	\$2,000,000		
RIO CULEBRINAS	\$400,000	PALM BEACH COUNTY, North Boca	\$13,815,000	MANATEE HARBOR, FL	\$3,250,000	DADE COUNTY	\$158,300,000		
RIO GRANDE de MANATI	\$1,200,000	RIO PUERTO NUEVO	\$8,285,000	MIAMI HARBOR, FL	\$550,000	FLAGLER COUNTY	\$17,500,000		
RIO GUAYANILLA	\$3,000,000			OKEECHOBEE	\$200,000	HERBERT HOOVER DIKE	\$514,216,000		
RIO GUANAJIBO	\$55,000			PONCE DE LEON INLET	\$200,000	KISSIMMEE RIVER	\$5,996,000		
RIO GRANDE DE LOIZA	\$55,000			SUWANNEE RIVER	\$110,000	MANATEE COUNTY	\$14,300,000		
RIO NIGUA AT SALINAS	\$55,000			TAMPA HARBOR, FL	\$5,000,000	PALM BEACH COUNTY, MID-TOWN SEGMENT	\$25,000,000		
SAVAN GUT PHASE II, ST. THOMAS	\$400,000			FL Subtotal	\$44,450,000	ST. LUCIE COUNTY, SOUTH SEGMENT	\$20,276,000		
TURPENTINE RUN, ST. THOMAS	\$400,000			ARECIBO HARBOR	\$900,000	ST. JOHN'S COUNTY, VILLANO SEGMENT	\$36,834,000		
OKALOOSA*(Mobile District)	\$3,000,000			MAYAQUEZ HARBOR	\$1,900,000				
<b>INV \$40,565,000</b>		<b>FCCE \$186,670,000</b>		<b>O&amp;M \$47,250,000</b>		<b>FL Construction \$808,422,000</b>		<b>PR Construction \$2,505,345,000</b>	
		**Subject to availability		**Subject to availability					

 FL Coastal  
 FL RSM  
 PR Coastal

# PL116-20 –Supplemental 2019

**In response to:** Hurricanes Florence and Michael, Typhoon Mangkhut, Super Typhoon Yutu, and Tropical Storm Gita.

**Includes:** Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia, Pacific territories of American Samoa, Guam, and the Northern Mariana Islands. It does NOT INCLUDE Puerto Rico nor Midwest projects.

**\$3.258 B**

Investigations: \$35M

Construction:\$740M

MR&T: \$575M

O&M: \$900M

FCCE:\$1B

No geographical  
constraint

INVESTIGATIONS: 100% Federal

CONSTRUCTION ongoing projects are 100% fed; 902 is waived; repayment over 30 years is allowed, etc. Projects that received funding in BBA 2018 are not eligible. The Construction account has a carve-out of \$25M for CAP projects that address flooding.

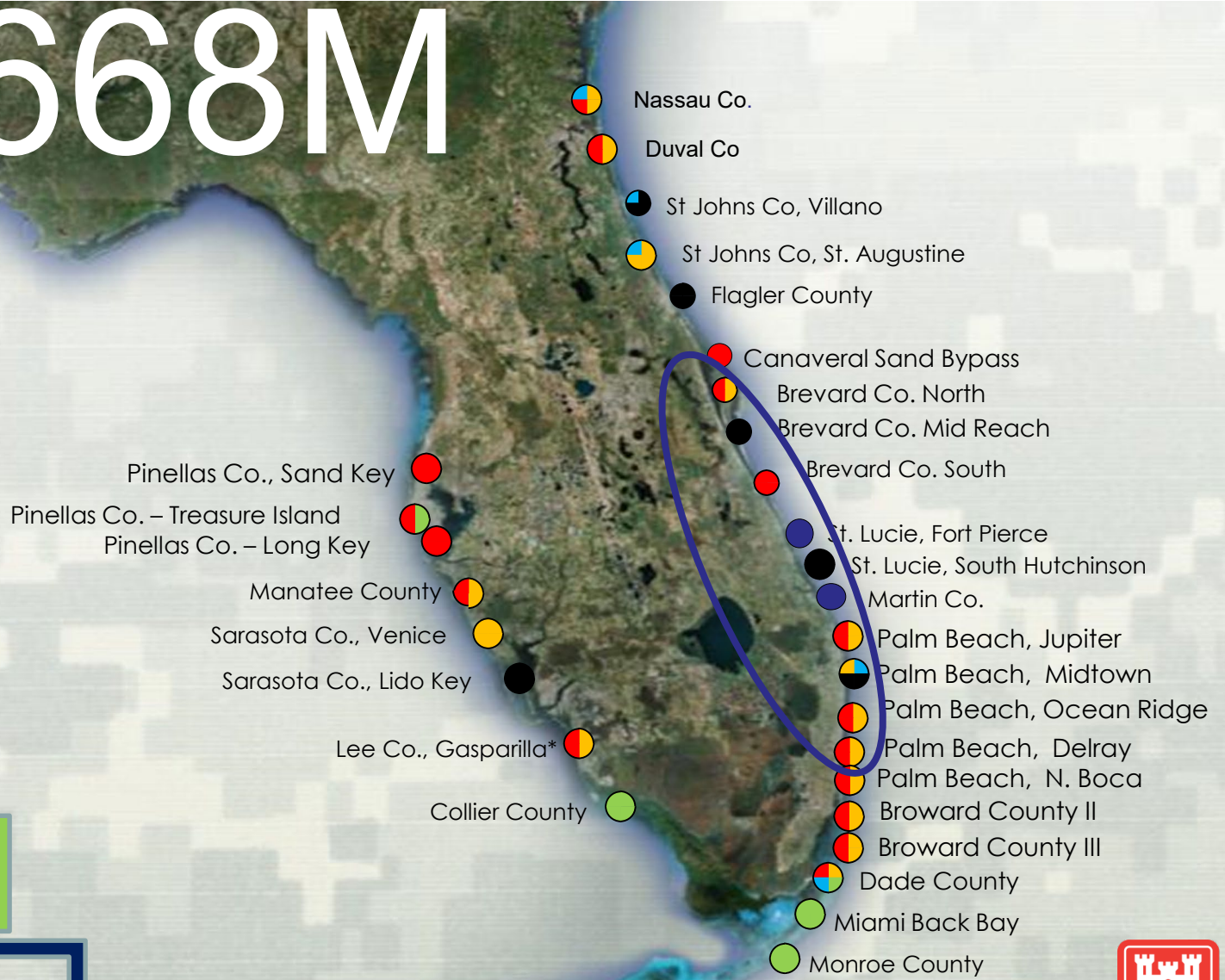
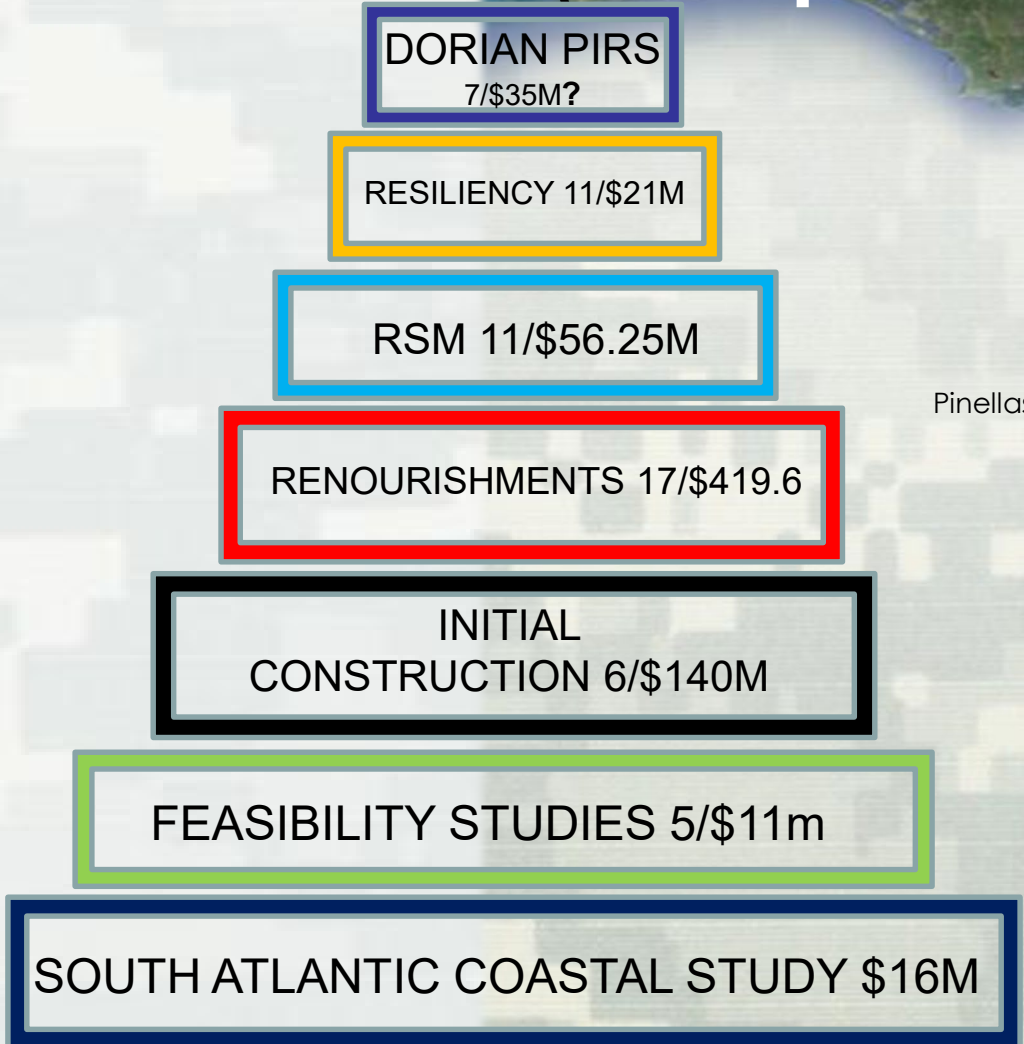
FCCE amount is likely to only represent a down payment on addressing the most critical damages that have been incurred in the Missouri and Mississippi River basins, since the beginning of this year.

# UNPRECEDENTED COASTAL PROGRAM

# \$668M



2020 Work plan & 2019 Supplemental?



# Workload Management- Next 5 years



Brokering: Approximately \$400M

Brokering to other USACE Districts:

- Coastal: Philadelphia and Norfolk Utilizing National subject matter experts
- Coastal: through out USACE

Contracting: 60% of Design

AE and Service Contracts

Majority is non-coastal

Still Hiring!



# BBA Coastal Progress Report - \$501,095,000

Type	Approved Amount <sup>1</sup>	Type	Approved Amount <sup>1</sup>	Type	Approved Amount <sup>1</sup>
<b>FCCE</b>	<b>\$178,385,000</b>	<b>Construction</b>	<b>\$287,210,000</b>	<b>Studies</b>	<b>\$32,000,000</b>
BREVARD COUNTY, FL, South Reach	\$11,126,000	RESILIENCY	\$21,000,000	DADE COUNTY, FL, FEASIBILITY	\$2,000,000
BROWARD COUNTY, FL (Segment II)	\$29,237,000	DADE COUNTY, FL	\$156,300,000	PINELLAS COUNTY, FL, FEASIBILITY	\$2,000,000
BROWARD COUNTY, FL (Segment III)	\$66,838,000	FLAGLER COUNTY, FL	\$17,500,000	COLLIER COUNTY, FL, FEASIBILITY	\$3,000,000
DUVAL COUNTY, FL	\$16,500,000	MANATEE COUNTY, FL	\$12,300,000	MONROE COUNTY, FL, FEASIBILITY	\$3,000,000
LEE COUNTY, FL	\$7,171,000	Palm Beach County, FL	\$23,000,000	MIAMI-DADE COUNTY, FL, BACKBAY FEASIBILITY	\$3,000,000
PALM BEACH COUNTY, FL (Jupiter Carlin)	\$16,458,000	ST LUCIE COUNTY BEACHES, FL (South Segment)	\$20,276,000	OKALOOSAS COUNTY, FEASIBILITY	\$3,000,000
PALM BEACH COUNTY, FL (Delray Beach)	\$8,285,000	St. John's County (Vilano Segment), FL	\$36,834,000	SOUTH ATLANTIC COASTAL STUDY, FL	\$16,000,000
PALM BEACH COUNTY, FL (North Boca)	\$13,815,000	<b>O&amp;M</b>	<b>\$3,500,000</b>		
PALM BEACH COUNTY, FL (Ocean Ridge)	\$8,955,000	CANAVERAL HARBOR, FL (SAND BYPASS)	\$3,500,000		

**C**

**B+**

**A**

**A**

## Comments:

- Needs improvement on shovel ready FCCE projects- South Florida timelines for permitting/NEPA/borrow sources
- Keep pushing on resiliency, new subjects take time to master. Good job moving many initial construction quickly.
- Concerns moving forward with cost constraints and dredge costs/availability in turtle window
- Excellent progress and innovation to meet study budget and schedule constraints. \*Extra credit for SACS, be ready for more collaboration. Team work is a must!

FCCE

SUPP2018

**\$186,670,000**

- DUVAL
- BREVARD SOUTH
- PALM BEACH JUPITER
- PALM BEACH DELRAY
- PALM BEACH OCEAN RIDGE
- **PALM BEACH NORTH BOCA**
- **BROWARD II**
- **BROWARD III**
- LEE, GASPARILLA

**\$109,890,000**

**Up for grabs**

FCCE

SUPP2019

?

- BREVARD NORTH
- BREVARD SOUTH
- ST LUCIE, FT PIERCE
- MARTIN COUNTY
- PALM BEACH JUPITER
- PALM BEACH DELRAY
- PALM BEACH OCEAN RIDGE





# Dade County \$158M

**Issue: Controversial: Schedule Risk**

Requirement: 2MCY

Available within Miami Dade: TBD

**First and Second contract:** Truck Haul at Surfside (under construction) and Miami Beach Hotspots (just awarded).

**Next contract:** Bal Harbour from inlet 250KCY with some truck haul as needed

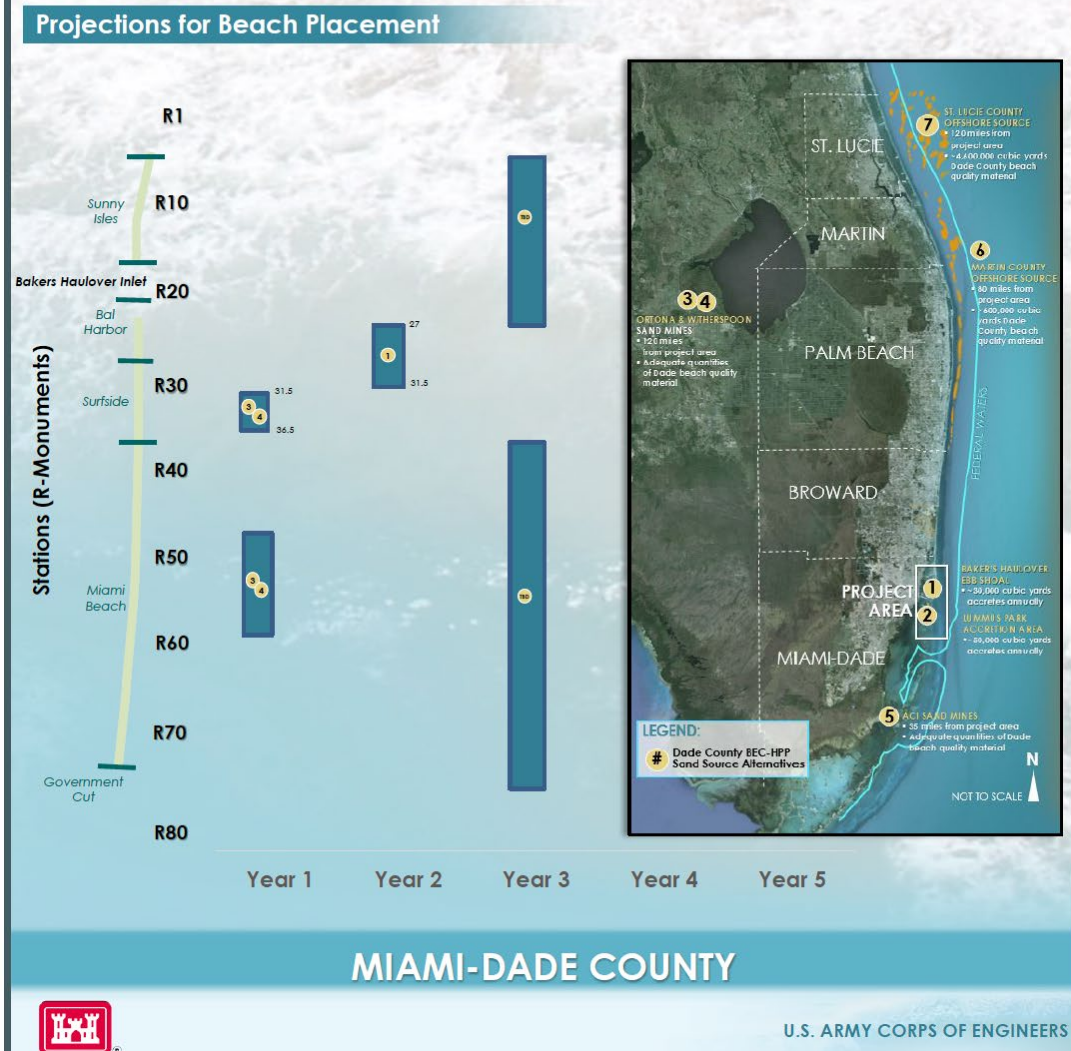
**Final contract:** 1.5MCY from St. Lucie and Martin Counties (2016 LRR) or alternative that can meet the July 2021 completion date, analyses and plan development underway.

## Industry Day Potential in May 2020:

- What other options are available?
- Potential for multiple final contracts depending on material; back passing and nearshore sources might be option for some reaches.
- Looking into creation of nearshore berms and other features to address erosional hotspots.



Construction Schedule				
CONTRACTS	VOLUME (cy)	ADVERTISE	AWARD	CONSTRUCTION COMPLETE
Truck Haul Surfside	330K	UNDERWAY	UNDERWAY	Spring 2020
Truck Haul Hotspots (27, 44, 55, 63)	300K	July 2019	Sept 2019	Summer 2020
Bal Harbour	250K	March 2020	May 2020	Winter 2020
Sunny Isles/Miami Bch	~1.5M	July 2020	Sept 2020	July 2021



# DUNES FOR INCREASED RESILIENCE 11 PROJECTS \$21M



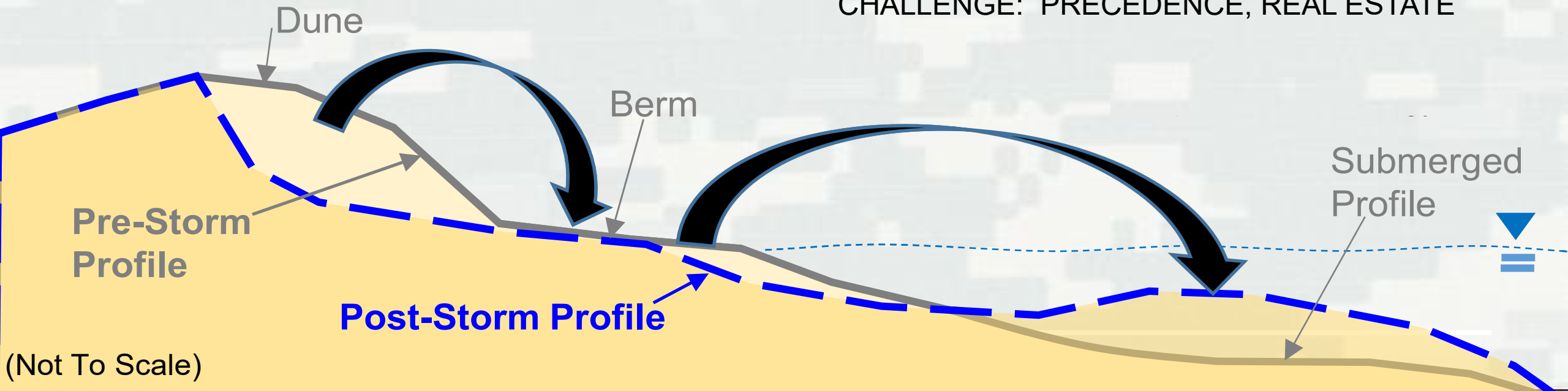
1979

*"Stabilization of the beaches and adjacent dunes with vegetation is, for the most part, not applicable in the present situation. Dunes will not be constructed and beach grassing would be unsightly, unnecessary, and deprive the area of a recreational beach."* – 1979 Feasibility Report for Beach Erosion Control, St. Johns County, Florida

2013

*"Dunes can provide protection for a relatively small volume of sand both on the ocean and bay shorelines. Conventionally, dunes should be constructed along with a protective beach. At the time of construction, dunes should be actively vegetated to reduce loss from wind-blown sand transport and increase their resistance to erosion."* – 2013 Hurricane Sandy Coastal Projects Performance Evaluation Study.

CHALLENGE: PRECEDENCE, REAL ESTATE



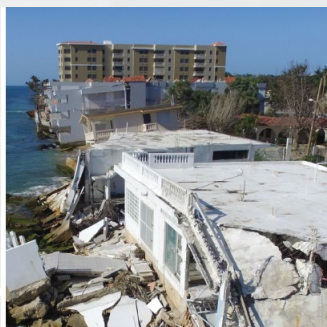
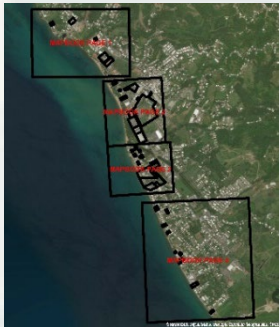
# PUERTO RICO COASTAL CSRM STUDY

&

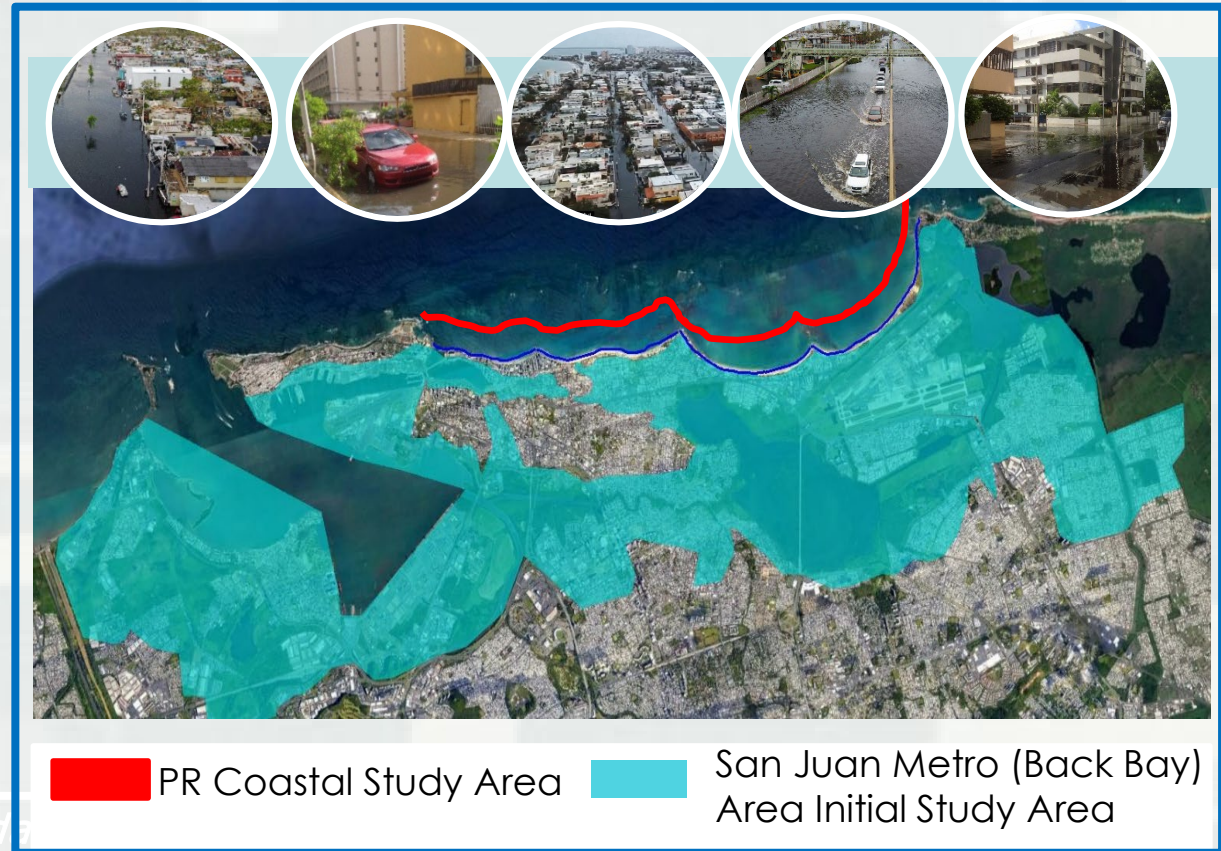
# SAN JUAN METRO CSRM STUDY



- **PRIMARY OBJECTIVE:** Reduce the risk of damages from coastal storms in the study area while maintaining environmental quality and recreational opportunities.
- **MANAGEMENT MEASURES:** Specific to every reach (Rincon, Condado, Ocean Park, Isla Verde, Carolina). Breakwater/reef, Beach/Dune nourishment, Perched beach, Revetment, Groins, and combination of several measures.



- **PROBLEMS:** Study area experiences back bay flooding, which results from storm surge, tide, and wave contributions.
- **PRIMARY OBJECTIVE:** Reduce economic damages from coastal storm risk to businesses, residents and infrastructure in the study area

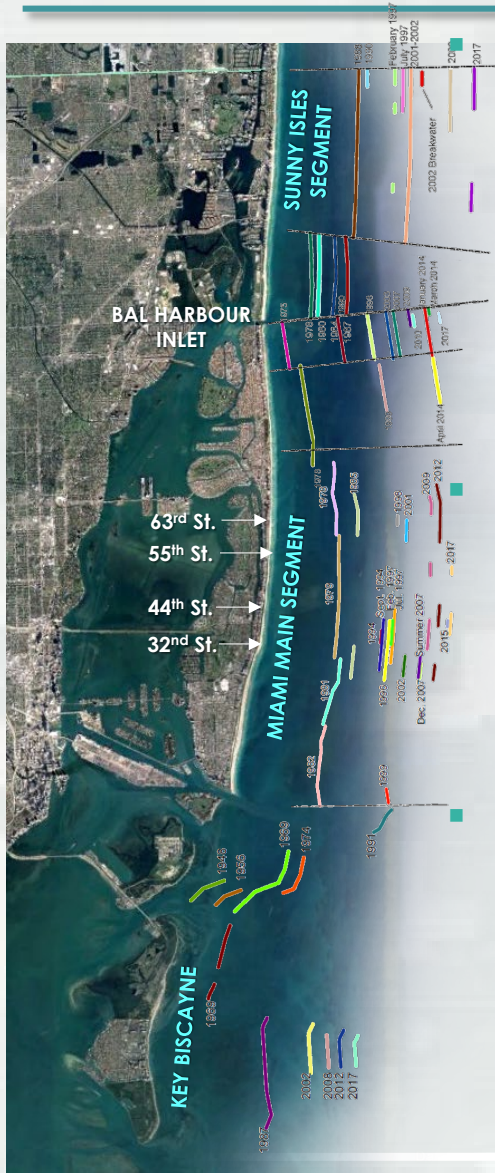


PR Coastal Study Area

San Juan Metro (Back Bay) Area Initial Study Area

# MIAMI-DADE COUNTY CSRM

# MIAMI-DADE BACK BAY CSRM



**PROBLEMS:** In the absence of continued Federal participation there is increased vulnerability for storm damages due to erosion, inundation, and waves threatening infrastructure, recreational opportunities, and loss of habitat. (Main Segment expires in 2025)

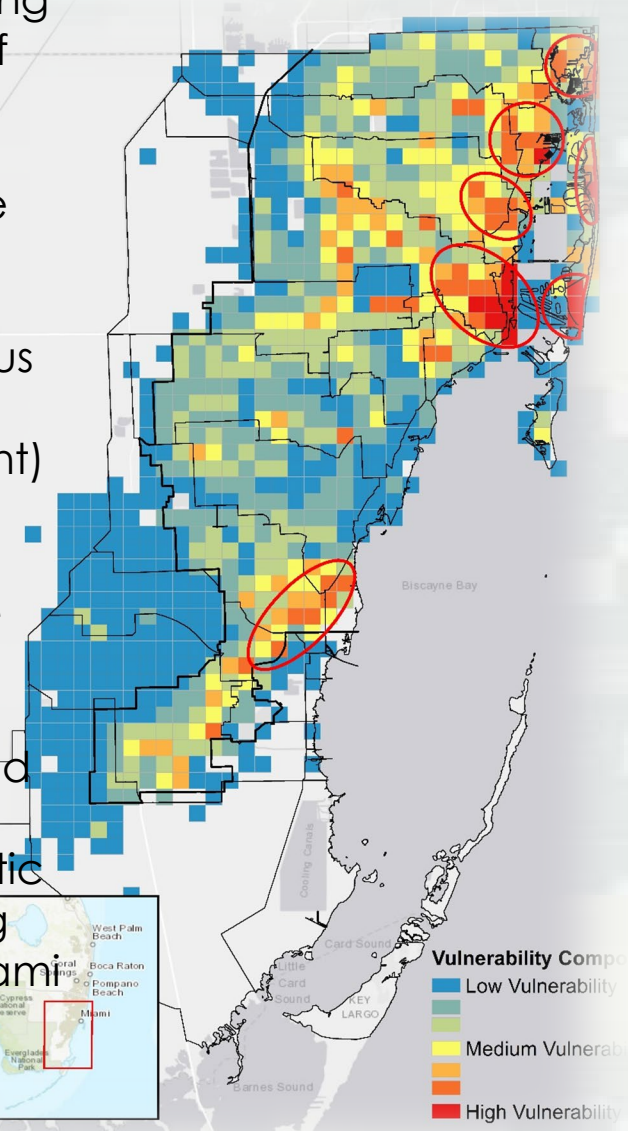
**PRIMARY OBJECTIVE:** Reduce storm damages to property and infrastructure within the project area over a 50-year period of analysis. (Secondary objectives include maintaining environmental quality and recreational opportunities)

**STUDY FOCUS:** 9.3 mile stretch from Bakers Haulover Inlet to Government Cut. Focused array of alternatives include continued beach/dune nourishment along with structures to address erosional hot spots.

**PROBLEMS:** Study area is facing increase risks from impacts of sea level rise and coastal storms.

**PRIMARY OBJECTIVE:** Reduce risk to property and infrastructure due to coastal storms. The study will focus primarily on the urban and coastal areas (not beachfront) of the county

**STUDY FOCUS:** The study will focus on critical infrastructure on a county-wide basis and the most vulnerable areas to storm surge flooding. It should be noted, however, that this study will NOT result in a holistic recommendation for dealing with Coastal Storm Risk in Miami Dade County.

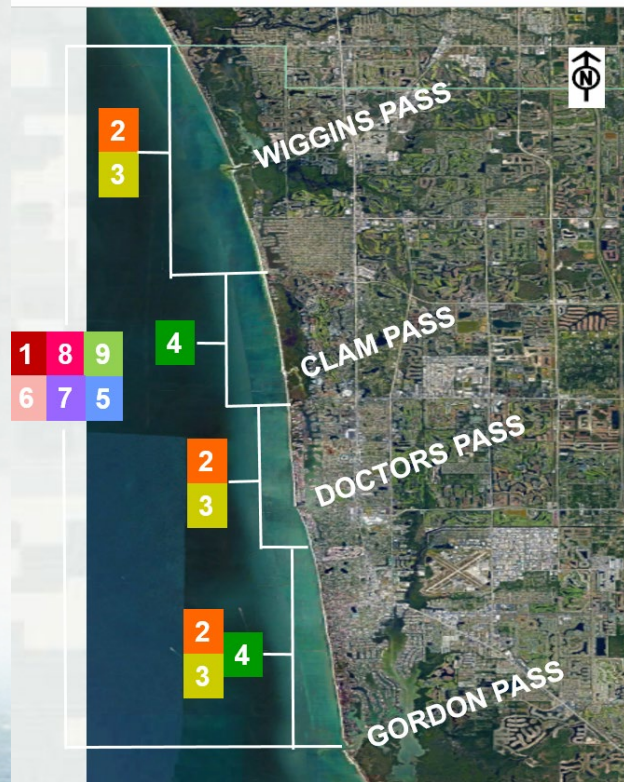


# COLLIER COUNTY CSRM

**PROBLEM:** Risk of coastal storms and their damage mechanisms like beach erosion, wave action, and storm surge threaten damage to and loss of residential and commercial structures, critical infrastructure, environmental resources, and economic livelihood.

## Management Measures

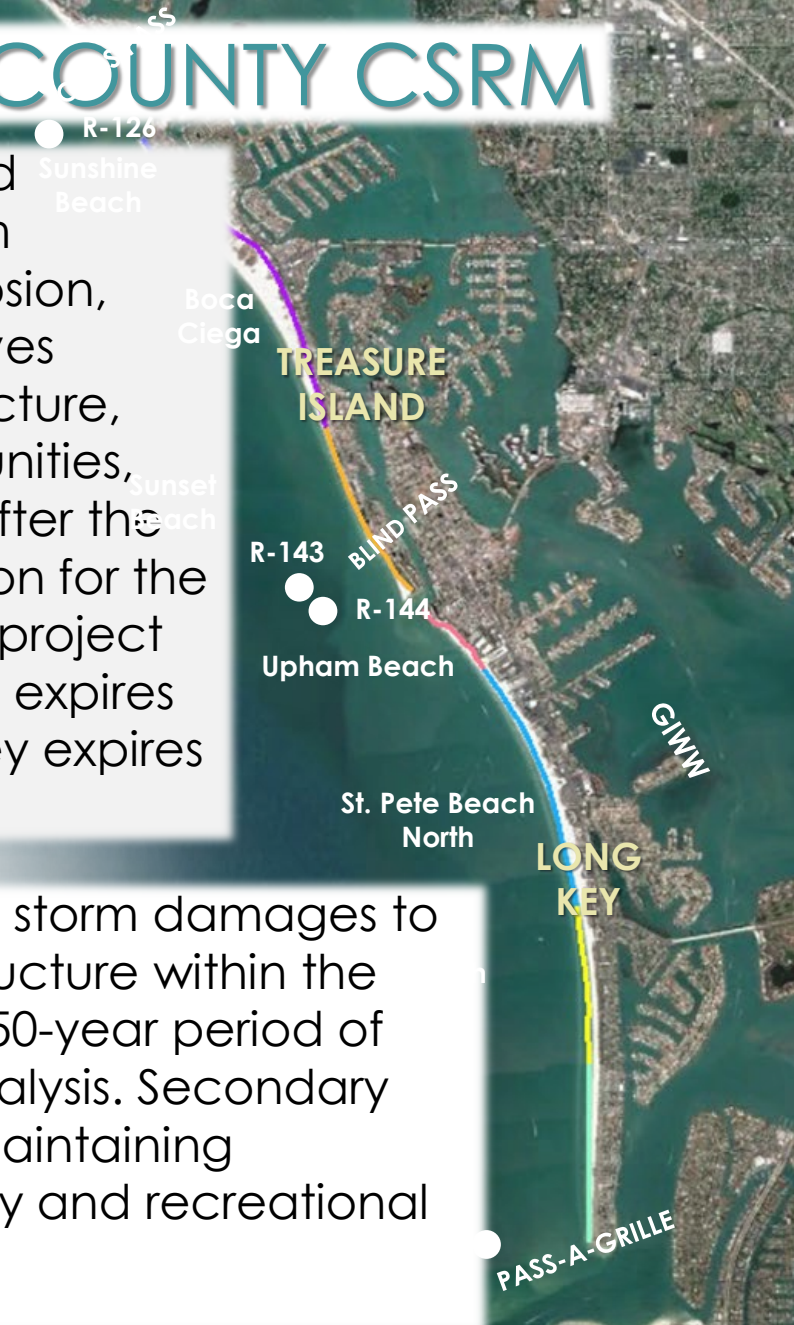
- 1 Beach Berm and Dune
- 2 Floodwall w/ Gate
- 3 Storm Surge Barrier
- 4 Mangrove Restoration
- 5 Non-S. (Buyouts/Elevations)
- 6 Breakwaters
- 7 Groins
- 8 Seawalls
- 9 Vegetative Dune Plantings
- 10 Oyster Restoration
- 11 Non-S. (Flood Proofing)



# PINELLAS COUNTY CSRM

**PROBLEMS:** Increased vulnerability for storm damages due to erosion, inundation, and waves threatening infrastructure, recreational opportunities, and loss of habitat after the period of participation for the currently authorized project ends. Treasure Island expires in 2025, and Long Key expires in 2030.

**OBJECTIVES:** Reduce storm damages to property and infrastructure within the project area over a 50-year period of analysis period of analysis. Secondary objectives include maintaining environmental quality and recreational opportunities



**CHALLENGE:** Maintain viability of beach restoration project considering magnitude of back bay flooding

# MONROE COUNTY, CSR

**PROBLEMS:** Critical Infrastructure at risk from coastal storms, specifically US 1, Commercial and residential structures and utilities. Rich environmental resources at risk from the effects of coastal storms – these natural features provide a reduction in the effects of coastal storms on the study area and their loss increases the risk to the built environment and life safety

**OPPORTUNITIES:** Opportunities include actions that could be completed by others to complement a USACE recommended plan, so these may not be all an opportunity for the USACE implementation

**OBJECTIVES:** Reduce economic damages from coastal storms and coastal flooding to the natural and built environment. Reduce the coastal storm risk to human life, health and safety to the population, Improve the resilience of the Florida keys to the impacts of coastal storms

**CONSTRAINTS:** Avoid creating or exacerbating flooding within or adjacent to the project area and/or on military installations. Minimize impacts to environmental and cultural resources. Avoid impacts to federal lands .



# REGIONAL SEDIMENT MANAGEMENT

Project	Value
<b>SAJ O&amp;M</b>	
Anclote	\$ 1,000,000
Canaveral Harbor	\$ 2,200,000
Naples to Big Marco Pass	\$ 2,400,000
Fort Myers Beach	\$ 1,600,000
IWW Jax to Miami	\$ 3,700,000
Manatee Harbor	\$ 500,000
IWW/Ponce	\$ 6,750,000
Suwannee	\$ 500,000
Tampa/Egmont	\$ 19,600,000
Kings Bay/Nassau	\$ 21,000,000
	<b>\$ 59,250,000</b>

Studies Supporting SAJ Efforts	Budget
SACS SAND & Optimization	\$ 1,125,000
SAJ Sand Search	\$ 1,000,000
BOEM Fate of Fines	\$ 500,000
SE Florida Morphodynamics	\$ 5,000,000
Kings Bay P617 Support	\$ 250,000
Kings Bay Long-Term DMMA Study	\$ 1,800,000
Miami O&M Monitoring Support	TBD
	<b>\$ 9,675,000</b>

- RSM-RCX is funded \$700,000 annually by South Atlantic Division
- Created over \$59M in SAJ alone FY19 (>\$38M FY18)
- Bring in funding from other agencies to help solve our challenges
- \$8.3M in RSM studies contracted out! 86%
- Also leveraging Universities for support

# REVOLUTIONARY PROJECT DELIVERY SOUTH FLORIDA COASTAL LANDSCAPE

>\$450M

## Appropriations

Investigations

FCCE

O&M Navigation

Construction

RSM/SACS

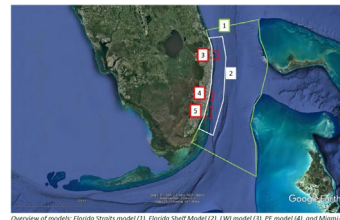
## Business Lines

Navigation

Coastal Storm Risk Mgmt

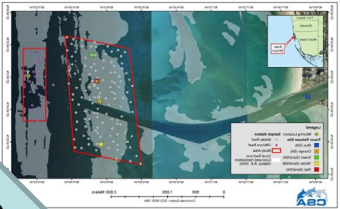
CAP

Ecosystem



Overview of models: Florida Straits model (1), Florida Shelf Model (2), LWI model (3), PE model (4), and Miami-Dade beach model (5).

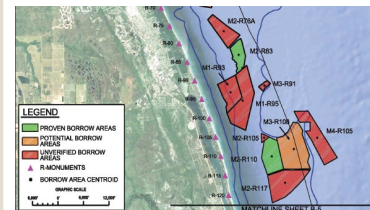
SEDIMENT  
MORPHODYNAMICS



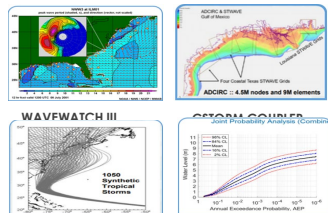
MIAMI SEDIMENT  
TRACER ANALYSIS



FATE OF FINES

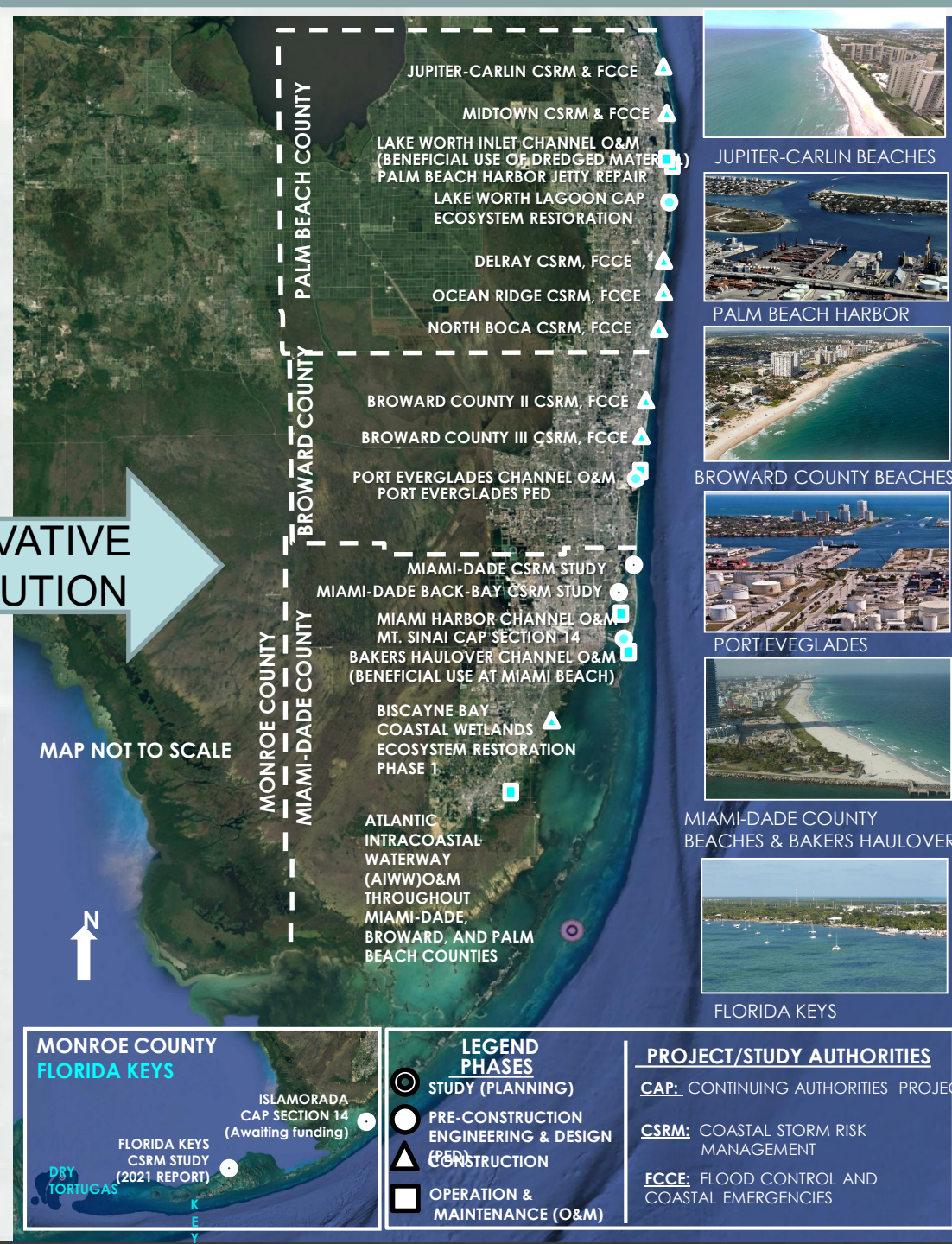


SEDIMENT  
AVAILABILITY &  
NEEDS  
DETERMINATION  
(SAND)



COASTAL HAZARDS  
SYSTEM (CHS)

INNOVATIVE  
EXECUTION





# IN SUMMARY

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- The Federal Government is providing all funding up front in order to provide **EMERGENCY** storm damage benefits
  - Florida should not get used to that.
- Program is GROWING AND CHANGING which increases future funding requirements
- The way we look at Coastal Storm Risk Management and studies is evolving
- We have flexibility and funding to modify existing projects
- We have to move swiftly
  - We must choose to move smartly
- Reputation and future funding is at stake
- You need to deliver as much as we do

THANK YOU