



# MIAMI-DADE COUNTY **BACK BAY** COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY

**Public Webinar**

July 28, 2025

**U.S. Army Corps of Engineers**

**Miami-Dade County**

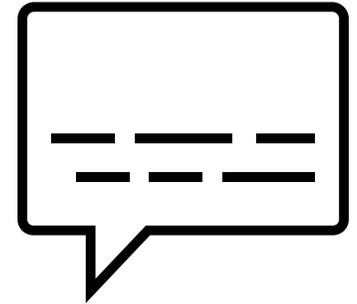


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To hear live translation of this meeting in Spanish or in Creole, please select the translation icon at the bottom of the screen and select your language of choice.

- Instructions in Spanish
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**\*This Zoom Meeting is being recorded and will be posted and shared in the coming weeks**

# ZOOM WEBINAR REMINDERS

Please enter your questions you would like answered into the Q&A Box



Chat



Raise hand

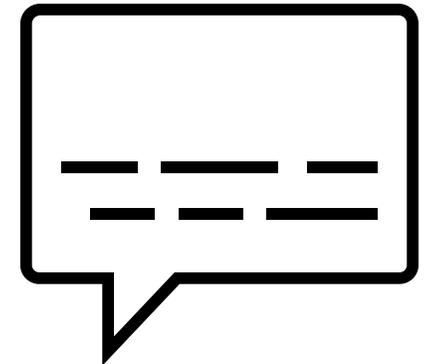


Q&A



Show captions

Other general comments can be entered into the chat



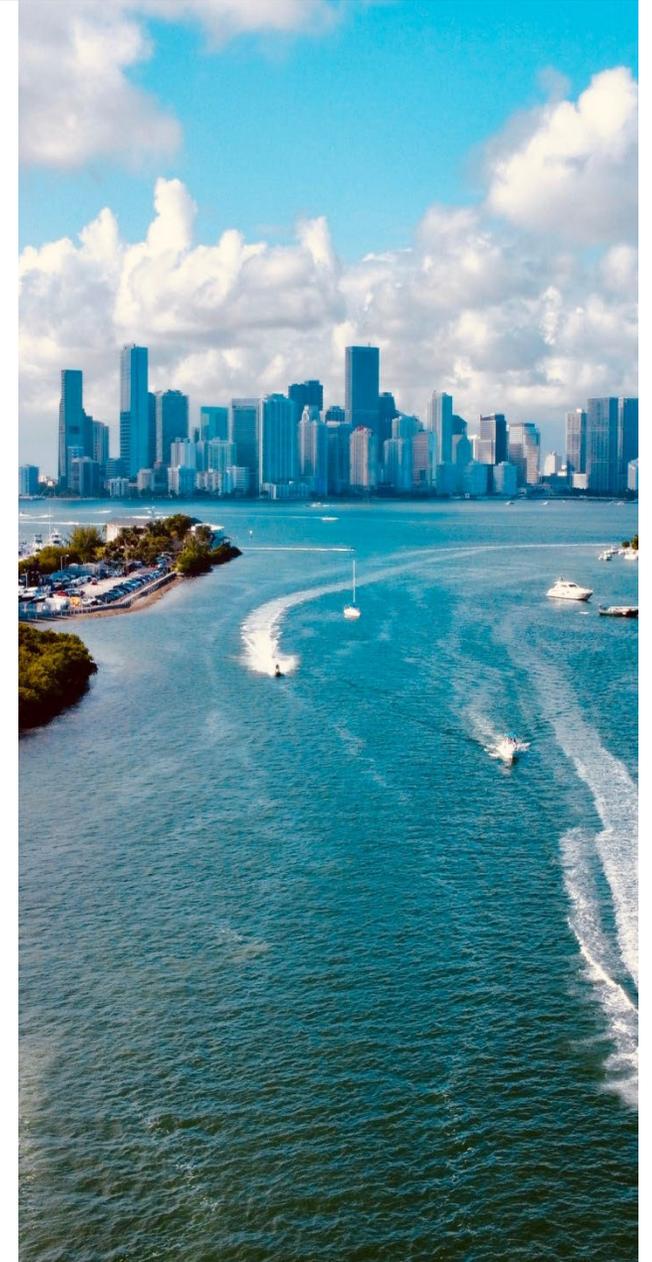


# Housekeeping

- This webinar is being recorded.
- The recording and presentations will be made available <https://www.saj.usace.army.mil/MiamiDadeBackBayCSRMeasibilityStudy/>

## For attendees:

- Your microphone is muted during this meeting.
- Please submit your questions and comments in the Q&A chat.
- Questions and comments will be addressed in the chat or during the Q&A session after the presentations.
- During the Q&A Session, you may use the Raise Hand feature to request your microphone to be enabled.



# PRESENTERS

## U.S. Army Corps of Engineers

Norfolk District

- **Abbegail Preddy**, Lead Project Manager
- **Faraz Ahmed**, Planning Technical Lead
- **Justine Woodward**, Environmental Analysis Technical Lead

## Miami-Dade County

Office of Environmental Risk and Resilience

- **Nancy Jackson**, Biscayne Bay Program Director
- **Christian Kamrath**, Resilience Program Manager



# AGENDA

- Welcome
- Background
- Phase I: 2024 Chief's Report Review
- Phase II: 2027 Report Status Update
- Q & A

Please use the chat to:

- Introduce yourself
- Ask questions
- Share ideas



# WELCOME



Miami-Dade County Mayor  
**Daniella Levine Cava**



U.S. Army Corps of Engineers  
Chief of Planning & Policy Branch, Norfolk District  
**Michelle Hamor**

# U.S. ARMY CORPS OF ENGINEERS **BACK BAY STUDY**



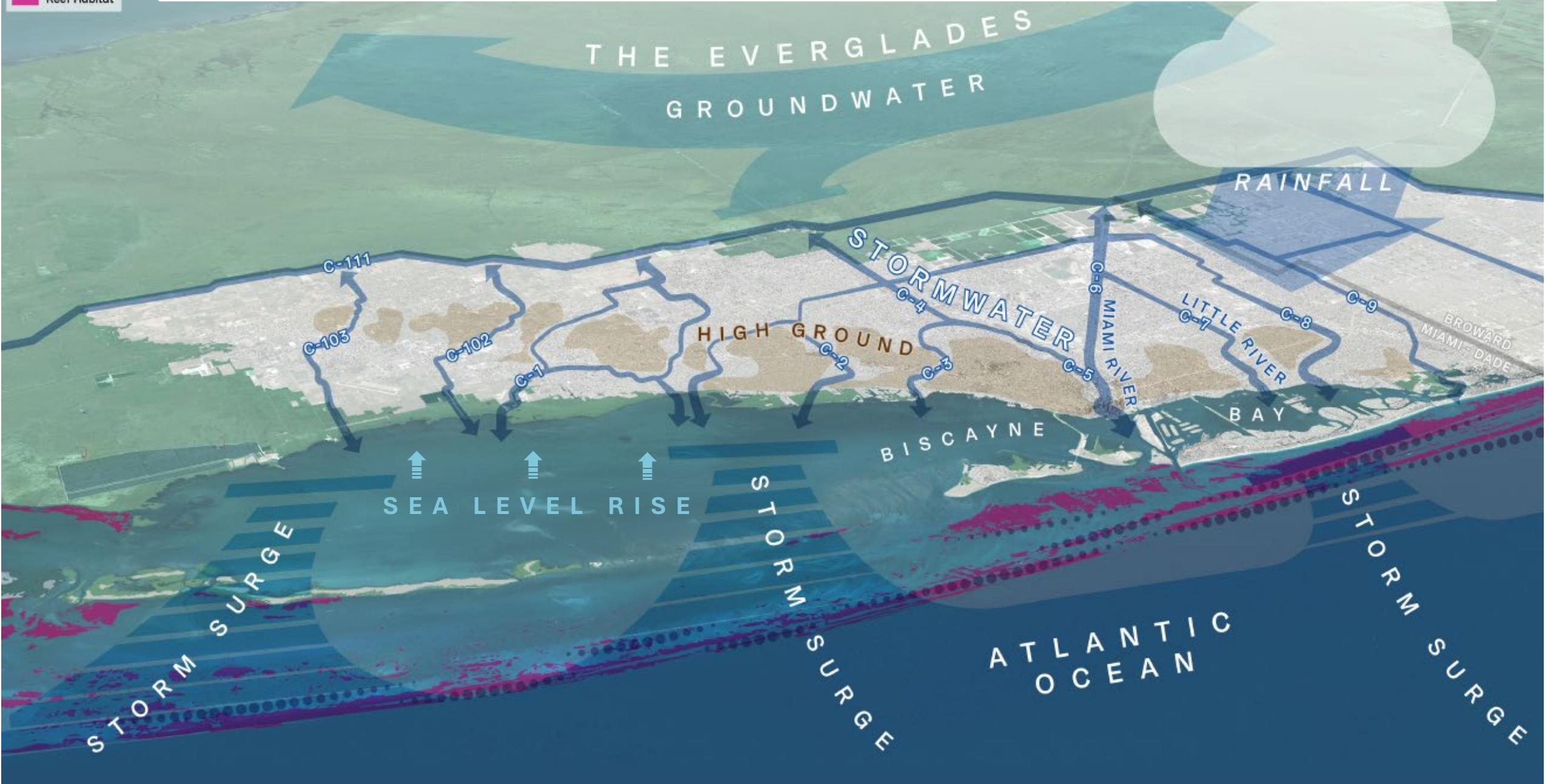
**Background + Context**  
Christian Kamrath, Miami-Dade County



**LEGEND**

- High Ground
- Canal
- Reef Habitat

# LIVING BETWEEN TWO WATERS



# Regional Integration Across Miami-Dade

## Strengthening Systems Through U.S. Army Corps Efforts



**Everglades  
(CERP & BBSEER)**

**'Back Bay' CSRM Study**

**Central and Southern Florida (C&SF) '216' Resiliency Study**  
*emphasis on canal system & salinity control structures*

**'Beach' CSRM Reauthorized  
in 2022**  
*renourishment & dune  
enhancement*

**Miami Harbor  
Navigation  
Improvement**

**Key Biscayne  
CSRM**  
*Combined ocean front  
& back bay study*



**PARKS &  
CONSERVATION  
LANDS**



**AGRICULTURE**



**WESTERN &  
SOUTHERN SUBURBS**



**SLOUGHS**



**THE RIDGE**



**MAINLAND  
BAYFRONT**



**ISLAND  
BAYFRONT**



**ISLAND  
OCEANFRONT**



**OFFSHORE**



*Mainland*

*Islands*

**Other Efforts:**      **SFWMD Level of Service (LOS)**      **County & Municipal Resilience, Stormwater Master Plans, etc.**      **Biscayne Bay Reasonable Assurance Plan**

# WAYS TO MANAGE COASTAL STORM RISK?



## OPPORTUNITY:

Explore different ways to manage risk in vulnerable communities from hurricane **storm surge flooding + waves** at different *scales* such as ...



## Adapt Individual Buildings (Non-Structural)

To reduce impacts during a flood...

- Floodproofing commercial buildings
- Elevating residential buildings

## Nature-Based Solutions

To help reduce impacts during a flood & support environment + economy year-round...

- Coral/hybrid reefs
- Dune reinforcement
- Living shorelines
- Mangrove/wetland restoration
- Human-made island enhancements

## Structural Measures

To control and keep water out...

- Elevated berm or levee
- System of flood gates and walls

# MIAMI-DADE COUNTY **BACK BAY** COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY



## Phase I – 2024 Chief's Report

Justine Woodward, USACE

# 2024 Chief's Report Recommendations

Authorized in Water Resources and Development Act (WRDA) of 2024

## Seeking appropriations to begin PED/Design phase

Across six initial focus areas at highest flood risk + lower capacity communities:

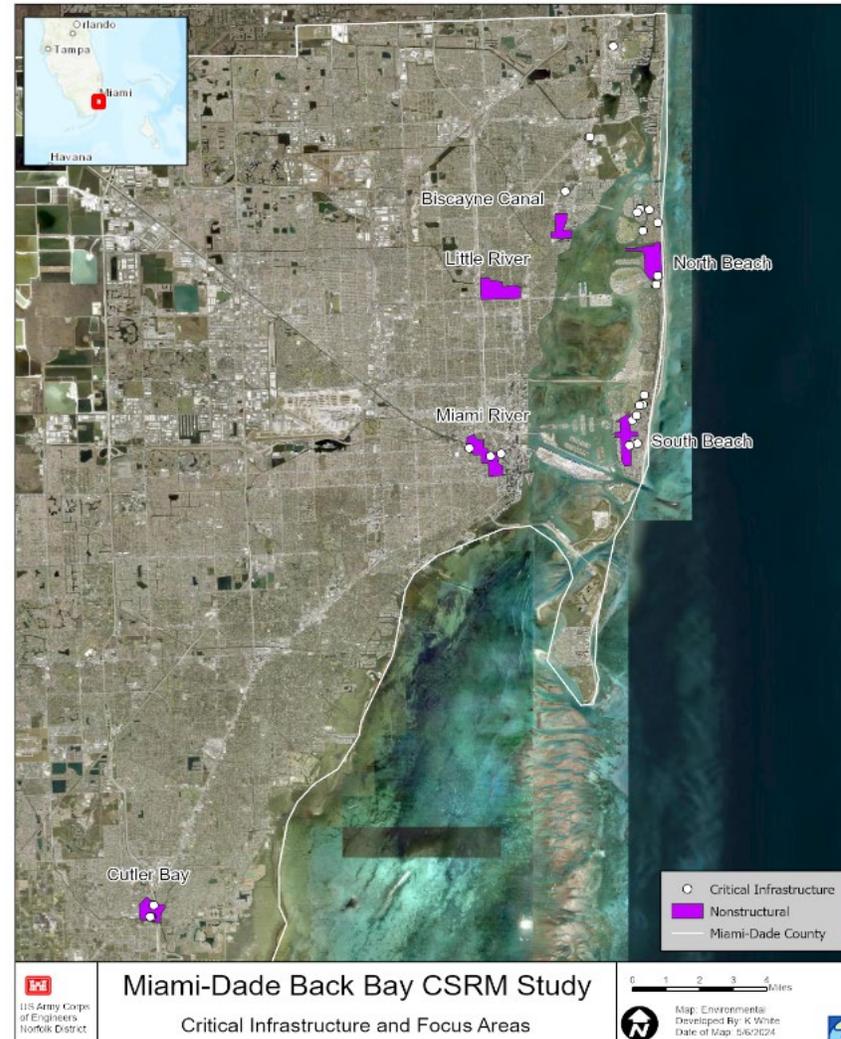
- Up to 27 critical infrastructure buildings floodproofing
- Up to 2,052 elevations of residential buildings
- Up to 403 floodproofing of nonresidential buildings



Photo Credit: Flood Control America, LLC

\* No significant environmental or in-water impacts

## 2024 Focus Areas



## Seeking appropriations to start



**Nature-Based Solutions (NBS) Pilot Program**  
Authorized Amount: \$180 million



**Nonstructural Study**  
Authorized Amount: \$6 million

# BACK BAY CSRM STUDY OVERVIEW

As of July 2025

## Typical Project Phases



Study Phase	Item	USACE District Lead	Feasibility Study	Design (PED)	Construction	Operations & Maintenance
Phase I 2024 Report (Complete)	A. Floodproof critical infrastructure (27) <span>Actionable</span>	Jacksonville	✓	Pending appropriations		
	B. Elevate homes (~2100)	Jacksonville	✓			
	C. Floodproof commercial (~400)	Jacksonville	✓			
	D. Nature-based Solutions (NBS) Pilot Program	Jacksonville	*Pending appropriations to begin. Recommended \$180 million will cover all federal costs for variety of NBS projects			
	E. Programmatic Non-Structural Study	Jacksonville	*Pending appropriation to begin. Proposed \$6 million will cover all federal costs			
Phase II 2027 Report (Ongoing)	A. Floodproof critical infrastructure (TBD) <span>Actionable</span>	Norfolk	Tentatively Selected Plan (TSP) anticipated February 2026			
	B. Elevate homes (TBD)	Norfolk				
	C. Floodproof commercial (TBD)	Norfolk				
	D. Scope comprehensive study	Jacksonville	In-progress			
	E. Furthering NBS	Jacksonville	In-progress			

# PRINCIPLES FOR SUCCESS

BASED ON COMMUNITY INPUT

WHAT



MULTIPLE LINES  
OF DEFENSE

WHY



COMPREHENSIVE  
BENEFITS

WHO +  
WHERE



LOW-CAPACITY +  
VULNERABLE  
COMMUNITIES

HOW



INTEGRATION

# BACK BAY CSRM STUDY OVERVIEW

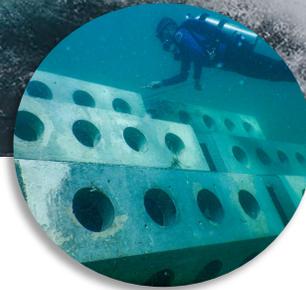
As of July 2025

## Typical Project Phases



Study Phase	Item	USACE District Lead	Feasibility Study	Design (PED)	Construction	Operations & Maintenance
<b>Phase I 2024 Report (Complete)</b>  <span style="border: 1px solid black; border-radius: 10px; padding: 2px 5px;">Actionable</span>	A. Floodproof critical infrastructure (27)	Jacksonville	✓	Pending appropriations		
	B. Elevate homes (~2100)	Jacksonville	✓			
	C. Floodproof commercial (~400)	Jacksonville	✓			
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# MIAMI-DADE COUNTY **BACK BAY** COASTAL STORM RISK MANAGEMENT FEASIBILITY STUDY



## Phase II – 2027 Study

Justine Woodward and Faraz Ahmed, USACE

# PHASE 2 STUDY – SCOPE OVERVIEW



To reduce impacts during a flood...



Continue investigating actionable non-structural measures for inclusion in August 2027 Chief's Report

- Floodproof critical facilities
- Floodproof commercial buildings
- Elevate homes

To help reduce impacts during a flood & support environment + economy year-round...



Advancing Nature-Based Solutions (NBS)

- Develop screening criteria to evaluate future Nature-Based Solutions (NBS)-focused projects proposed in Miami-Dade County

To control and keep water out...



Scoping of future Comprehensive Framework Study

- What might be needed in a future feasibility study to investigate large structures as part of the multiple lines of defense concept

# THE FEASIBILITY STUDY PROCESS



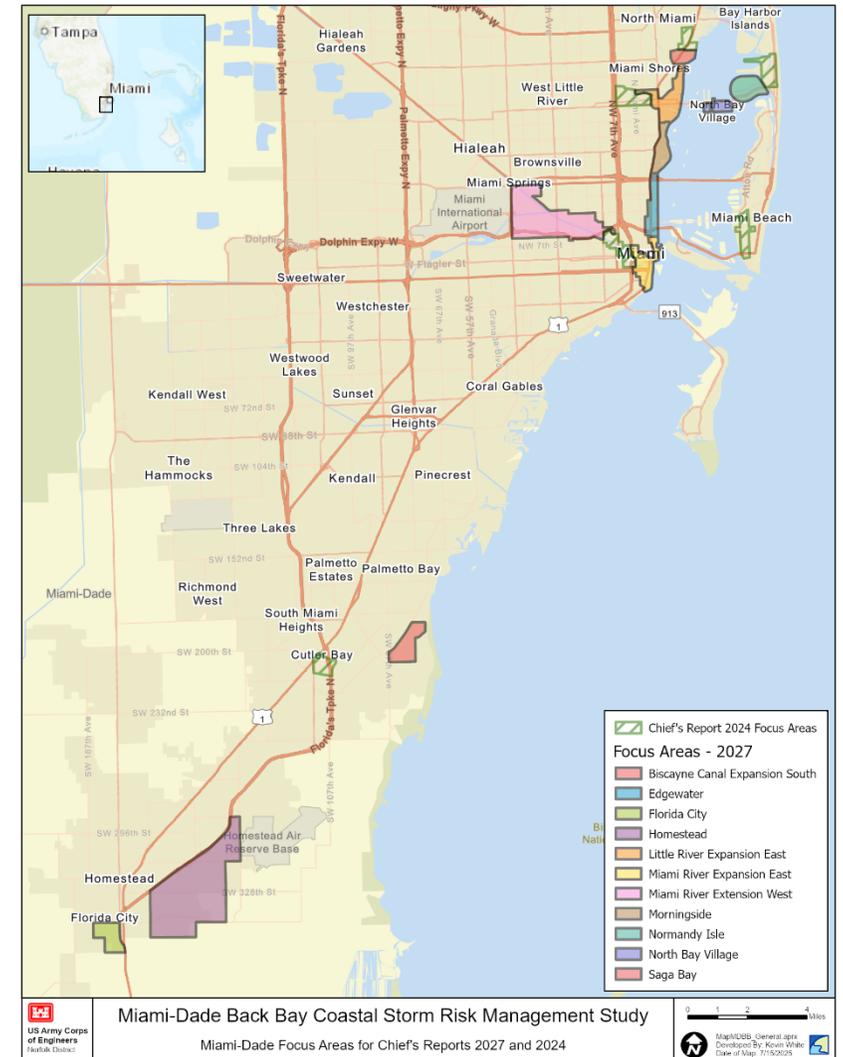
Milestone	Tentative Date
Continuing Study Kick-off	Aug. 2024
Virtual Webinar	Oct. 28, 2024
In-person Public Scoping Meeting	Nov. 13, 2024
Alternatives Milestone Meeting	Jan. 17, 2025
<b>USACE Site Visits + Public Meetings</b>	<b>July 21-28, 2025</b>
<b>Tentatively Selected Plan Meeting</b>	<b>Feb. 26, 2026</b>
Public Release of Draft Report	April 22, 2026
Command Validation Milestone Meeting	Aug. 20, 2026
Final Report Submittal	Apr. 3, 2027
Signed Chief's Report	Aug. 2, 2027

- Key**
- Decision Milestone
  - Product Milestone
  - Opportunities for NEPA Public Input
  - Opportunities for Informal Public Engagement

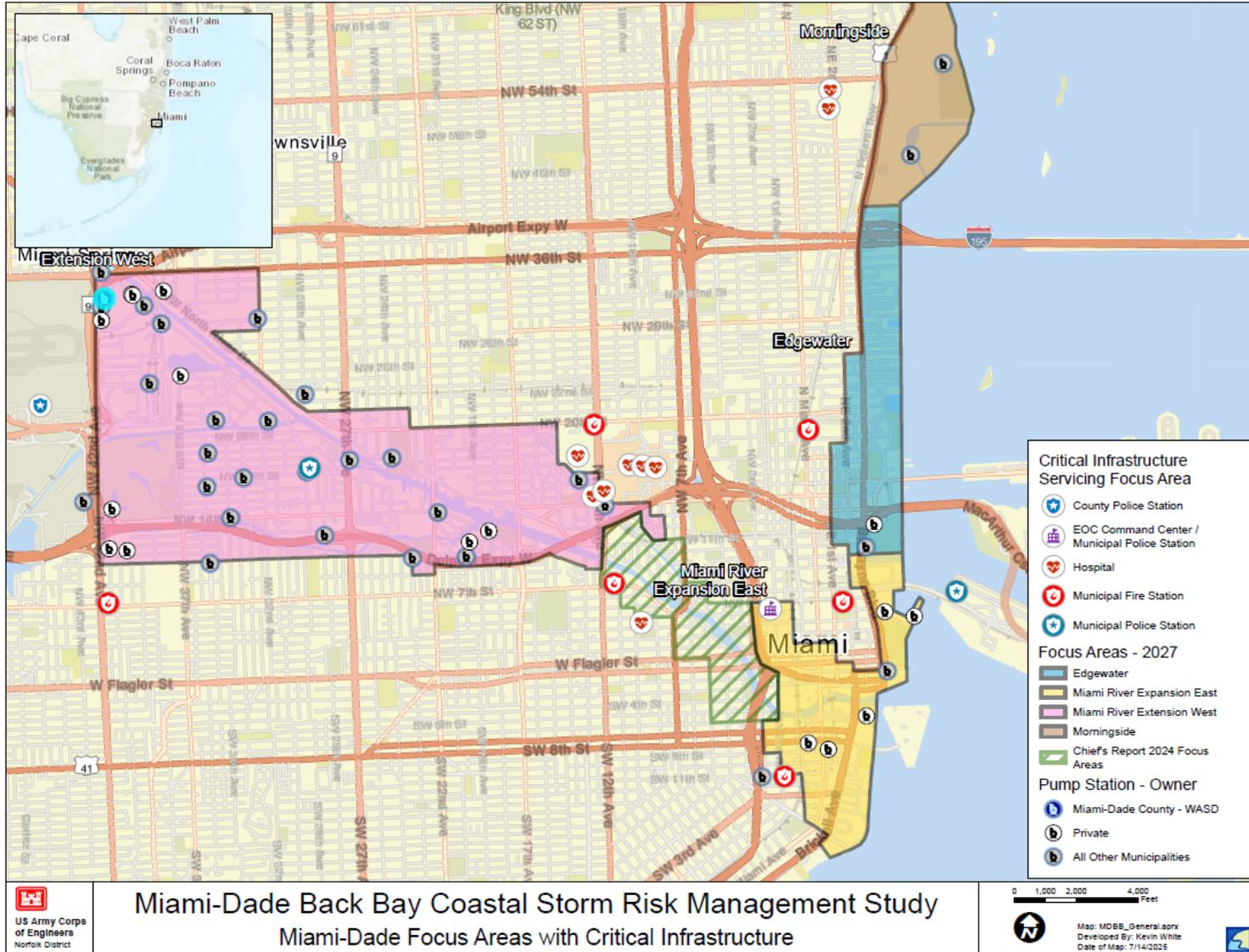
# IDENTIFYING NEW FOCUS AREAS

The current study effort identifies high-frequency inundation areas for coastal storm surge. These areas were identified using the 10-percent annual exceedance probability (AEP) or 10-year floodplain based on data developed for USACE's South Atlantic Coastal Study. The modeled flood extents consider sea level change out to the year 2095 which is the end of the period of analysis. Focus areas also consider:

- **Capital Project Synergy** – MDC and other stakeholders pursuing complimentary capital projects, such as septic to sewer conversion
- **Area of Important Economic Development** – Areas that represent current or future centers of economic development and include critical infrastructure
- **Area with Lower Disaster Preparedness/Recovery Capacity** – Communities with lower household incomes are less able to prepare for and recover from coastal storms
- **Areas with Potential for Future NBS** – To support multiple lines of defense and planning integration strategies, risk can be mitigated by combinations of nonstructural and possible NBS through future resilience efforts

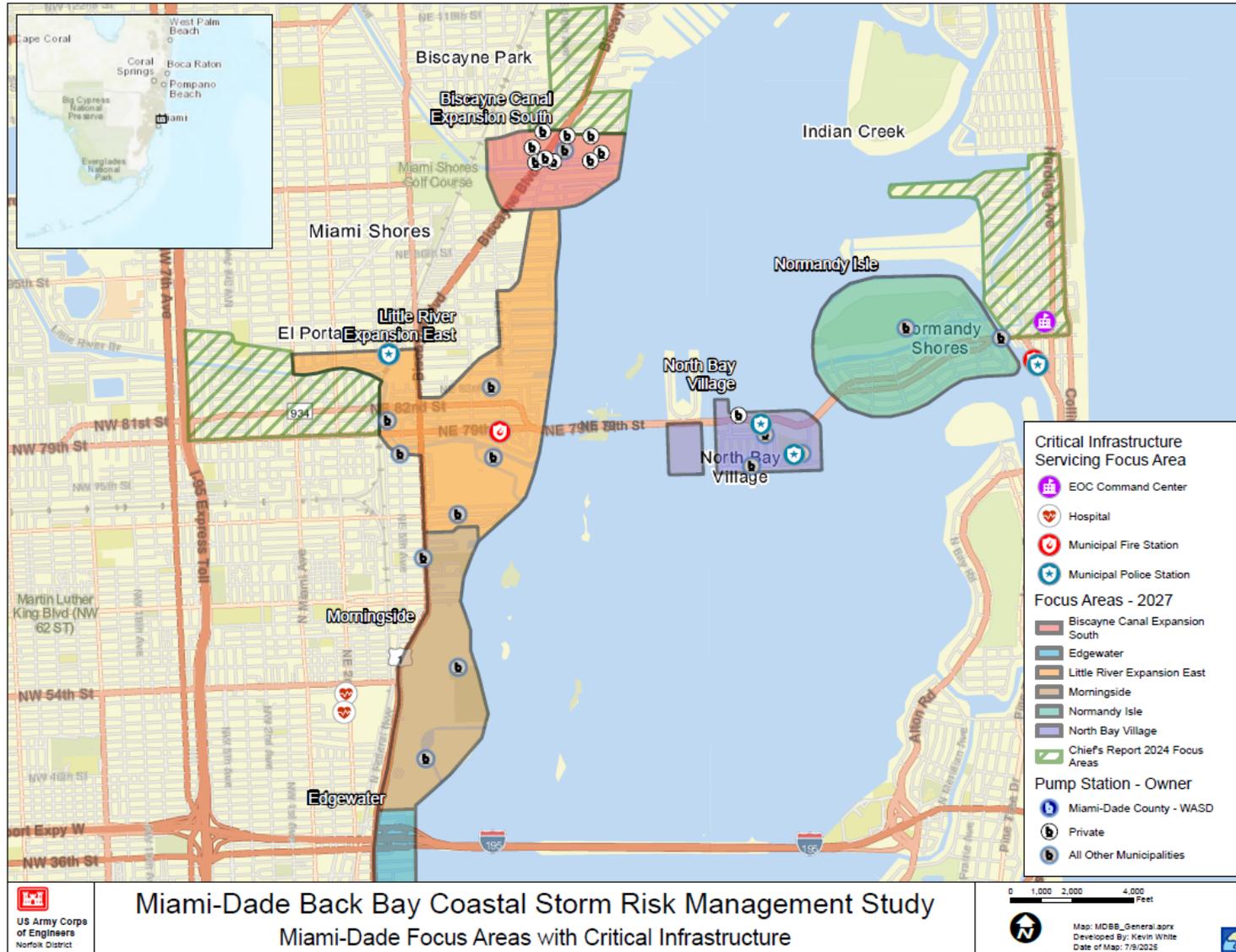


# IDENTIFYING NEW FOCUS AREAS



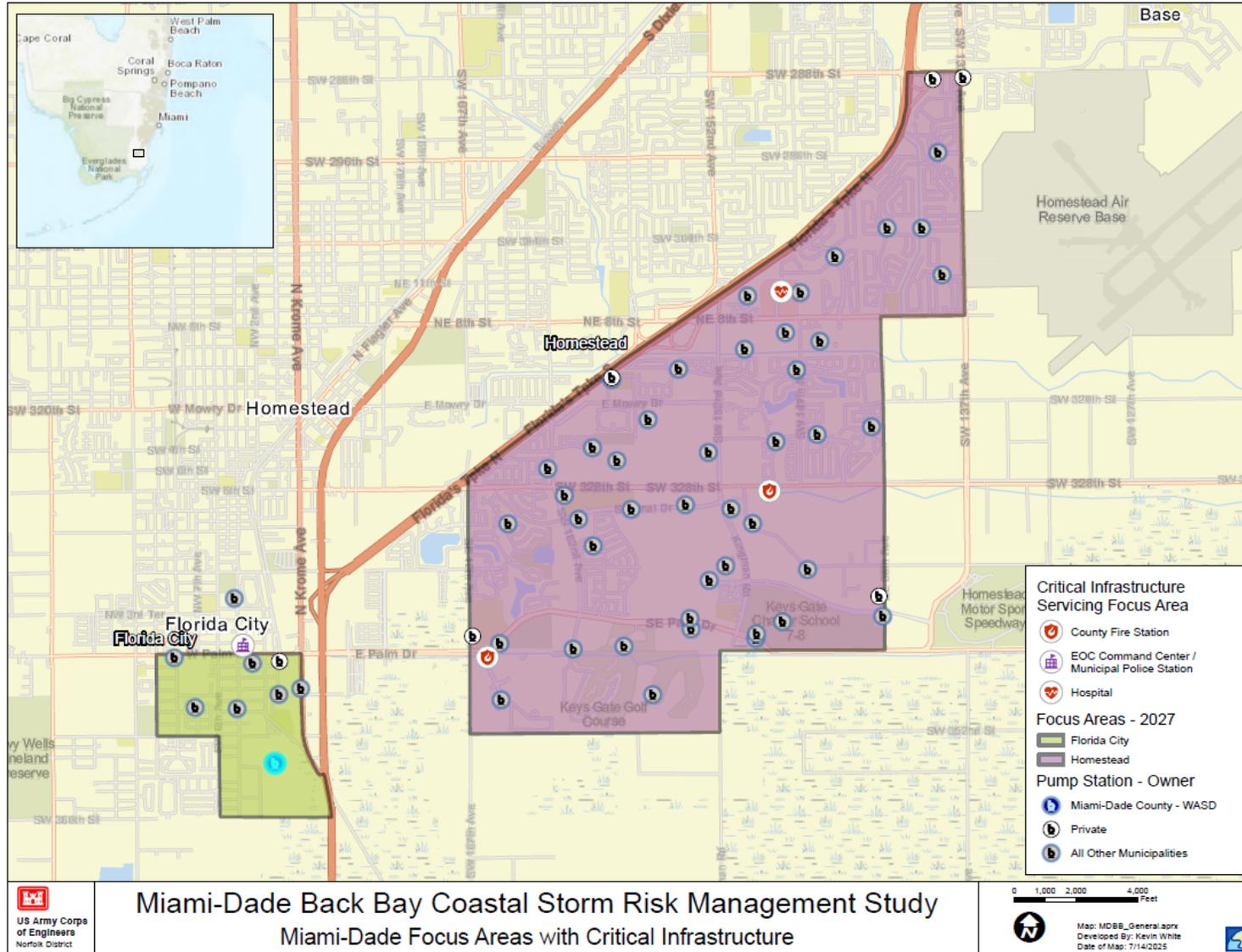
Miami River Expansion East  
Miami River Expansion West  
Edgewater

# IDENTIFYING NEW FOCUS AREAS



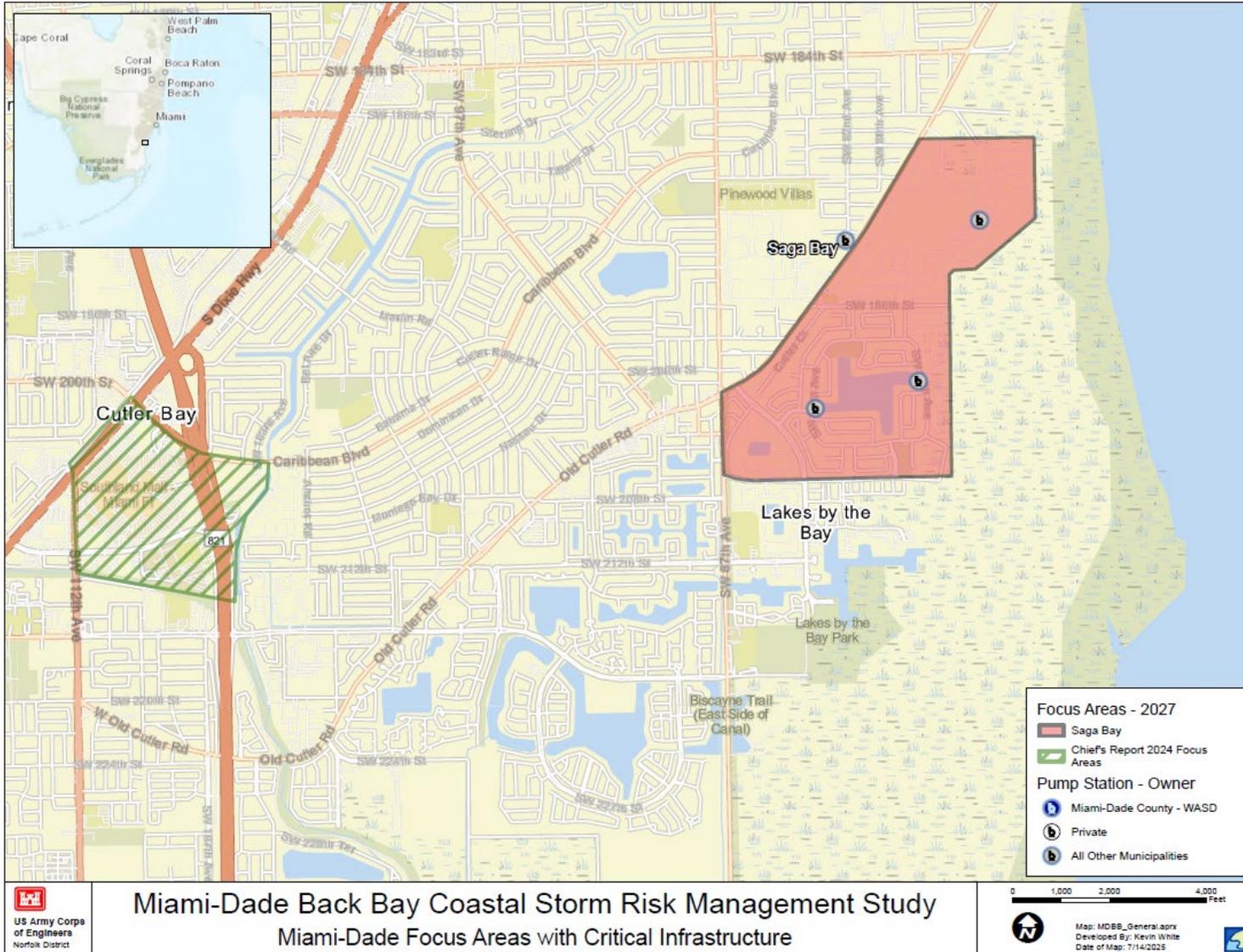
**Biscayne Canal Expansion South**  
**Little River Expansion East**  
**Morningside**  
**Normandy Isle**  
**North Bay Village**

# IDENTIFYING NEW FOCUS AREAS



Florida City  
Homestead

# IDENTIFYING NEW FOCUS AREAS



Saga Bay



# ADVANCING NATURE-BASED SOLUTIONS

**South Atlantic Division  
USACE Jacksonville District  
USACE Norfolk District**

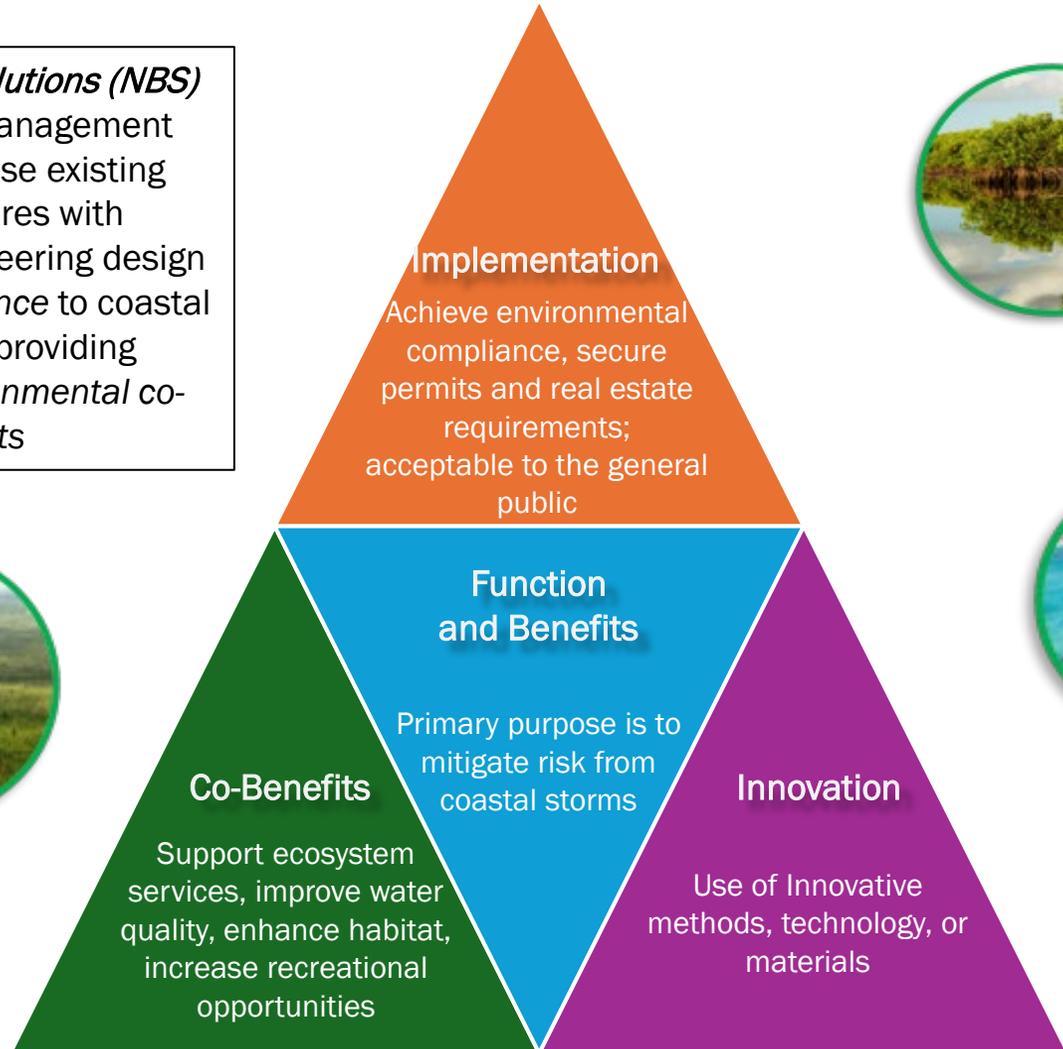


# ADVANCING NATURE-BASED SOLUTIONS

- A collaborative effort between Miami-Dade County and the U.S. Army Corps of Engineers to develop screening criteria to evaluate future Nature-Based Solutions (NBS)-focused projects proposed in Miami-Dade County
- The team is currently developing and refining screening criteria which contains scoring metrics and methodology to allow the comparison of future proposed NBS projects

**Next Steps:** This effort will culminate in a report to be included as an appendix in the Draft Integrated Feasibility Report / Environmental Assessment that will be released for public review and comment in **Spring 2026**

*Nature-Based Solutions (NBS)* are flood risk management solutions that use existing natural features with sustainable engineering design to *enhance resilience* to coastal storms while providing additional *environmental co-benefits*



\*Grouped criteria in draft form



# ENGINEER RESEARCH + DEVELOPMENT CENTER (ERDC)

## USACE MODELING SCOPE OVERVIEW

### Purpose:

Numerical modeling to determine the impacts of the proposed storm surge barriers with alternative alignments.

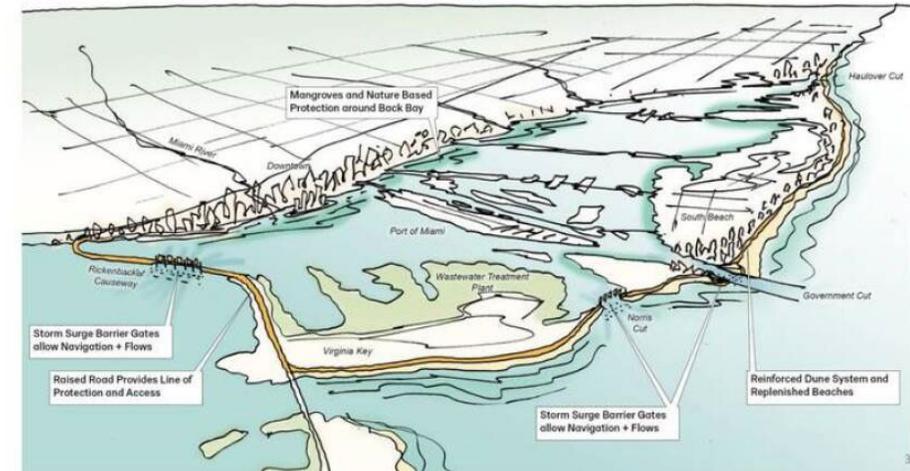
- Storm surge/wave modeling using refined SACS grid
- Compare futures without and with hypothetical projects (FWOP and FWP)
- Regional model for hydrodynamics and water quality to understand the impacts to the Biscayne Bay.

### In Progress:

- **Technical report** outlining model results including peak water levels, wave results, and water quality results
- **Presentations** on the progress and the final analysis are expected throughout the next year.

### B) Barrier Island Defense System (Aerial View)

Diagram of storm surge protection for Back Bay, Miami Beach, Fisher Island and Virginia Key



*Example alignment of surge barriers + gates*

# Next Steps



- All presentation materials and public meeting materials will be available online
- Stay tuned to the project website for additional engagement opportunities
- Lookout for Draft Report Release in April 2026 which coincides with public comment period

**Study Website:**

<https://www.saj.usace.army.mil/MiamiDadeBackBayCSRMFeasibilityStudy>

**Your continued support and collaboration is critical**

Miami-Dade Office of Resilience  
Newsletter Sign-Up:  
<https://miamidade.gov/resilience>

For additional inquires and questions,  
please email:  
[MDBB-CSRMStudy@usace.army.mil](mailto:MDBB-CSRMStudy@usace.army.mil)  
or  
[resilience@miamidade.gov](mailto:resilience@miamidade.gov)