St. Augustine, Florida Back Bay
Coastal Storm Risk Management (CSRM) Feasibility Study

MONTHLY PROGRESS MEETING
SEPTEMBER 2024

PLEASE MUTE YOUR PHONE AND COMPUTER TO AVOID BACKGROUND DISRUPTIONS.

WE WILL START PROMPTLY AT 1:05

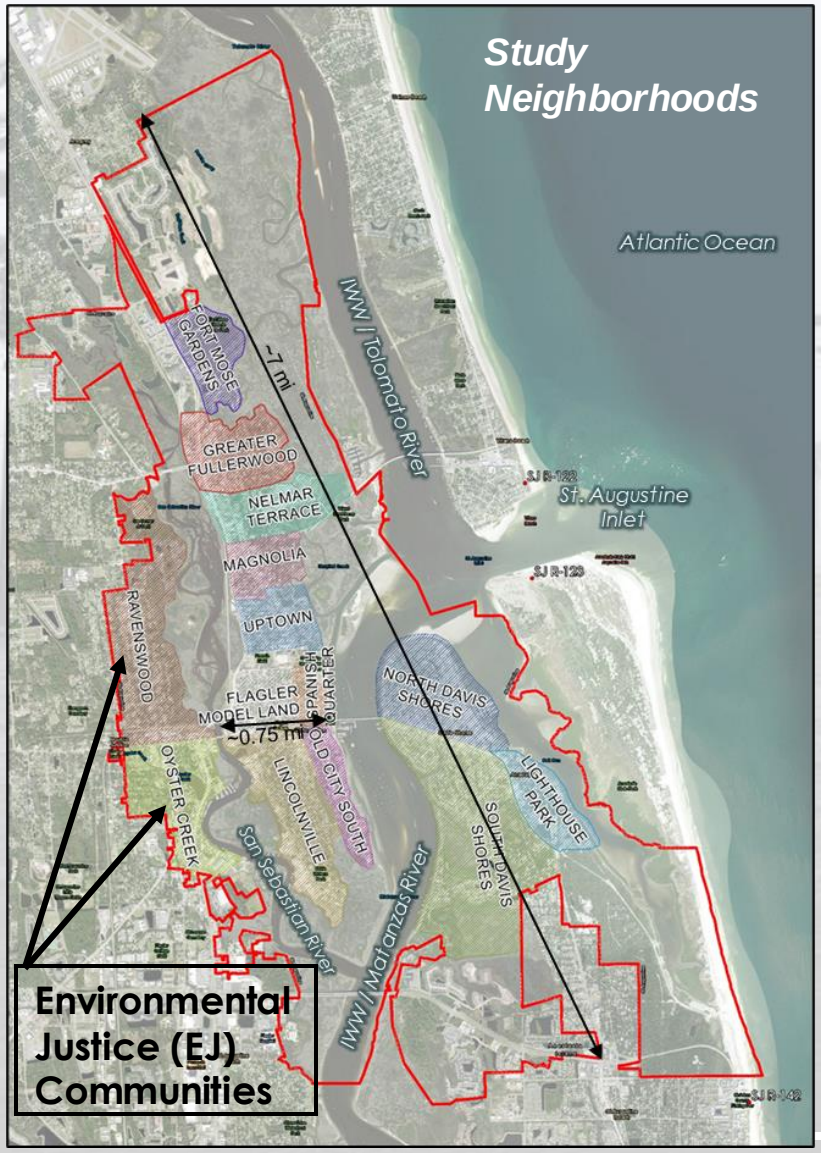
Presented by:
Jason Harrah, Senior Project Manager (Jacksonville District, USACE)
Marty Durkin, Planning Technical Lead (Jacksonville District, USACE)
Jessica Beach, Chief Resiliency Officer (City of St. Augustine)

AGENDA

- Opening Remarks
- Study Overview
- Overall Study Schedule & Budget
- Initial Alternative Features Overview
- Schedule Updates (90-Day Window)
- Discipline Specific Study Updates
- Upcoming Public Engagements
- Sponsor Remarks
- Agency Questions/Comments
- Public Comments
- Closing Remarks

STUDY OVERVIEW

BUILDING STRONG



Study Authority: House Resolution 2646 (June 21, 2000): St. Johns County, Florida

Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That in accordance with Section 110 of the River and Harbor Act of 1962, the Secretary of the Army, acting through the Chief of Engineers, is ***requested to survey the shores of St. Johns County***, Florida, with particular reference to the advisability of providing beach erosion control works in the area north of St. Augustine Inlet, the shoreline in the vicinity of Matanzas Inlet, and adjacent shorelines, as may be necessary in the interest of ***hurricane protection, storm damage reduction, beach erosion control, and other related purposes***.

Non-Federal Sponsor: City of St. Augustine (COSA)

POC: Jessica Beach, P.E., Chief Resilience Officer, jbeach@citystaug.com

Study Area

- Entire COSA Municipal Boundary
- 17 Distinct Neighborhoods
- 3 Separate Land Masses
- Interconnected Water Bodies

Objectives to be achieved within the City of St. Augustine over a 50-year period of analysis from 2035-2085 are to…

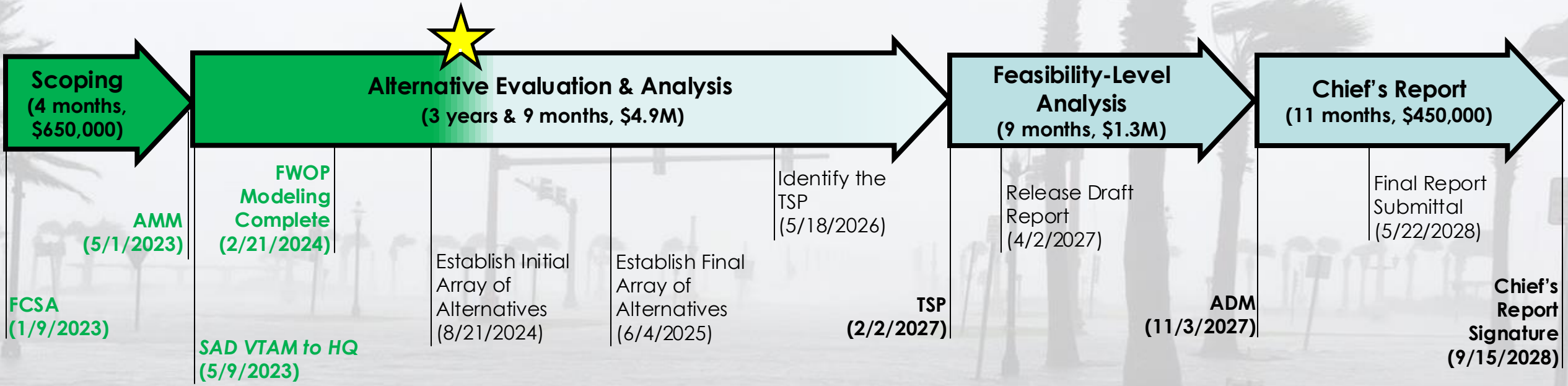
1. Manage risk of coastal flood damages.
2. Manage risk to health and life-safety.
3. Manage risk to cultural and natural resources.
4. Manage flooding impacts to the local economy.

STUDY OVERVIEW

We Are Here

BUILDING STRONG

Schedule & Budget Overview: **5 years & 9 months, $7.3M, Cost Share ~50% Fed, 50% Sponsor**



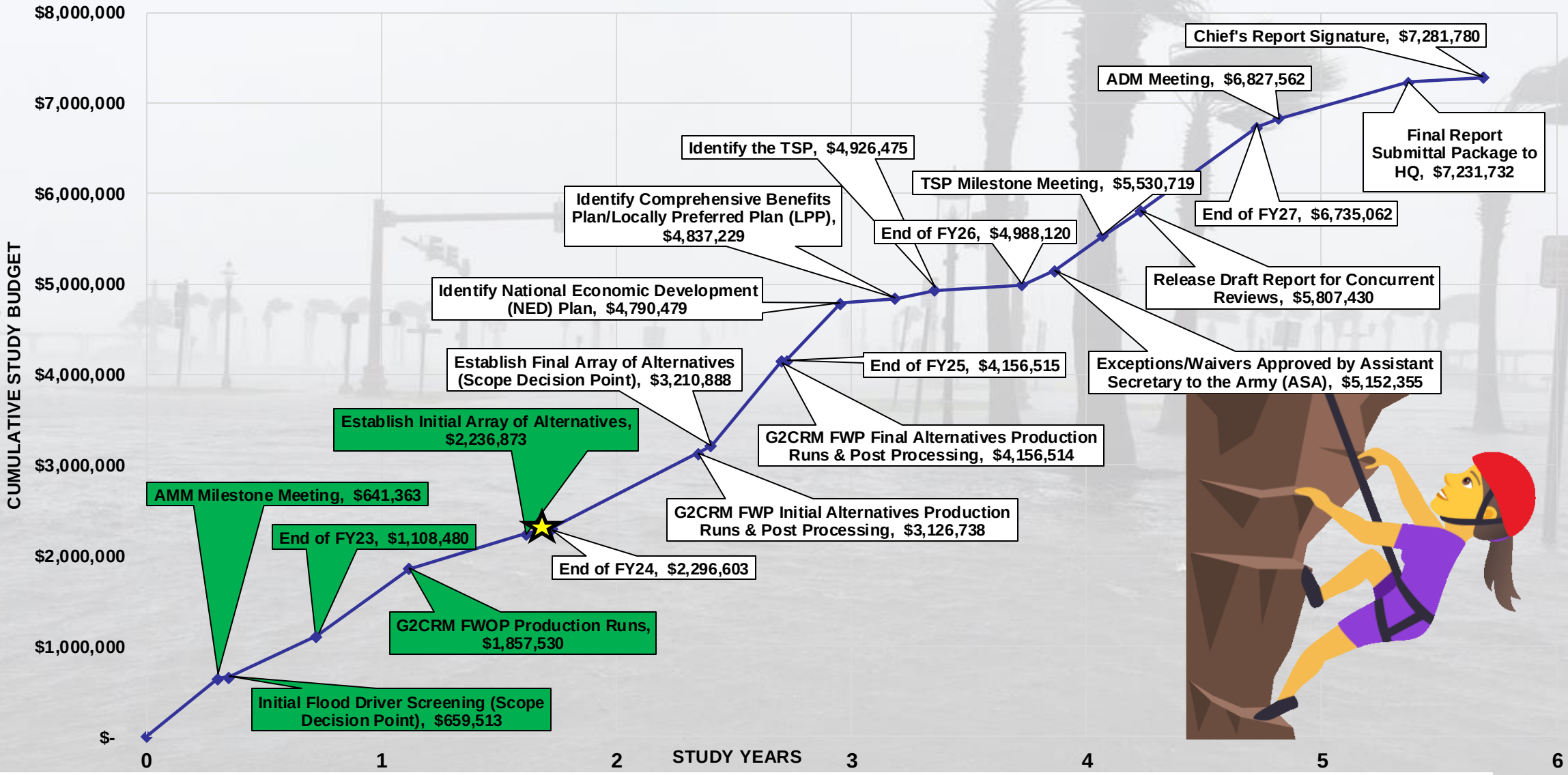
Key Components of the Study Scope:

- Entire City of St. Augustine (COSA)
- Compound Flooding
- Full Array of Alternatives & Comprehensive Benefits
- Environmental Impact Statement (EIS) Likely
- Robust Community Outreach

Acronyms:
FCSA = Feasibility Cost Share Agreement
AMM = Alternatives Milestone Meeting
FWOP = Future Without Project
SAD = South Atlantic Division
VTAM = Vertical Team Alignment Memo
HQ = Headquarters
TSP = Tentatively Selected Plan
ADM = Agency Decision Milestone

STUDY SCHEDULE & BUDGET

BUILDING STRONG



Trusted Partners Delivering Value Today for a Better Tomorrow

Initial Alternative Features Overview

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Measure Category & Function	Feature Type & Description	Design Elevation (feet NAVD88)
Wall / Levee features stop flooding at the back bay shoreline.	- Walls would be used in areas where walls currently exist or where deep open water exists along the shoreline. - Levees would be used in areas where enough footprint exists to support the width of a levee and where it could be combined with saltwater marsh features.	5-13
Surge Barrier Systems including various surge gates in combination with walls/levees/dunes stop flooding before it gets into the back bay waters.	- Surge Barrier Systems would combine gates across inlets and/or rivers that would close during storms along with walls, levees, and/or dunes to tie the system into high ground.	13-15
Nonstructural features reduce flood risk without directly effecting flooding processes.	- Elevation of up to approximately 4,700 single family residential structures. - Floodproofing of up to approximately 3,200 commercial, public, or multifamily structures up to 3 feet above the ground elevation. - Critical infrastructure could be elevated or floodproofed. - Buyout and relocation could be used in certain locations.	5-15
NNBFs can reduce wave energy before it gets to the back bay shoreline.	Approximately 2,904 acres where salt marsh could be maintained or enhanced through thin layer placement, grass planting, and oyster reef creation along the western shoreline of the San Sebastian River.	N/A

WALL/LEVEE FEATURES

*Design elevations in reference to NAVD 88

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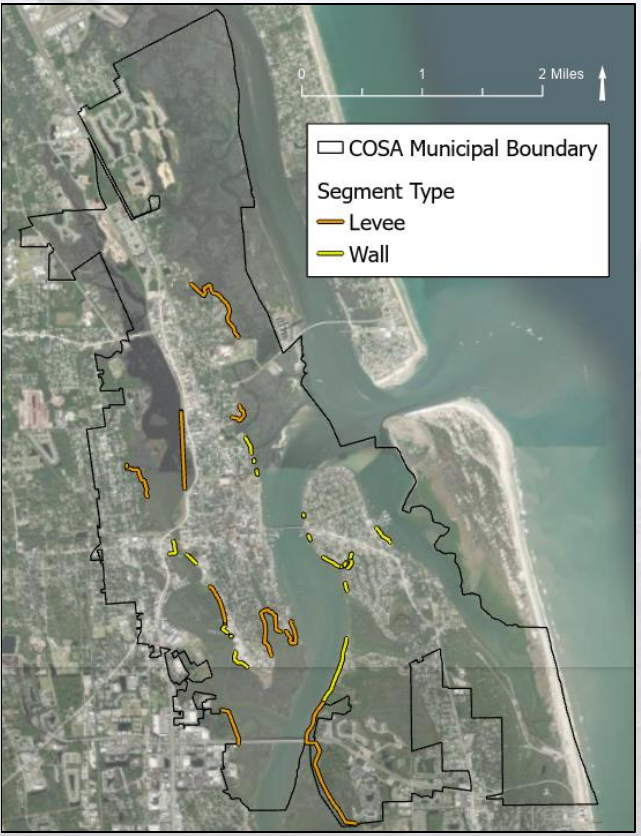
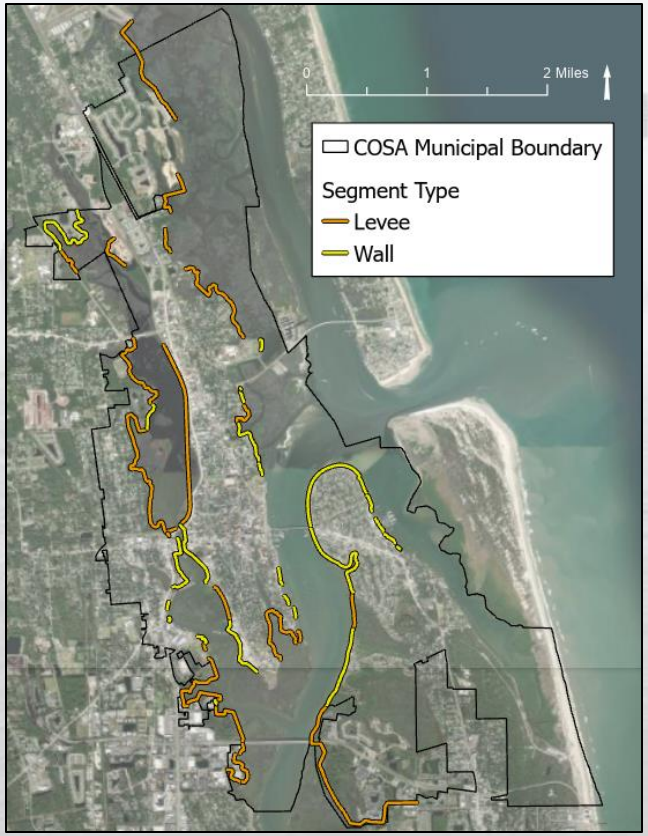
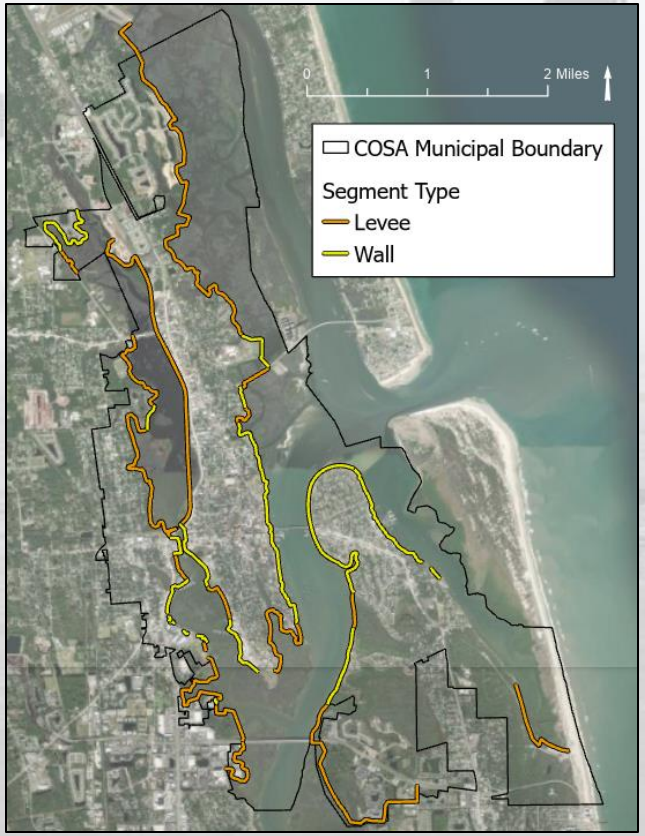
5' Design Elevation
~2.0 miles of wall
~5.1 miles of levee



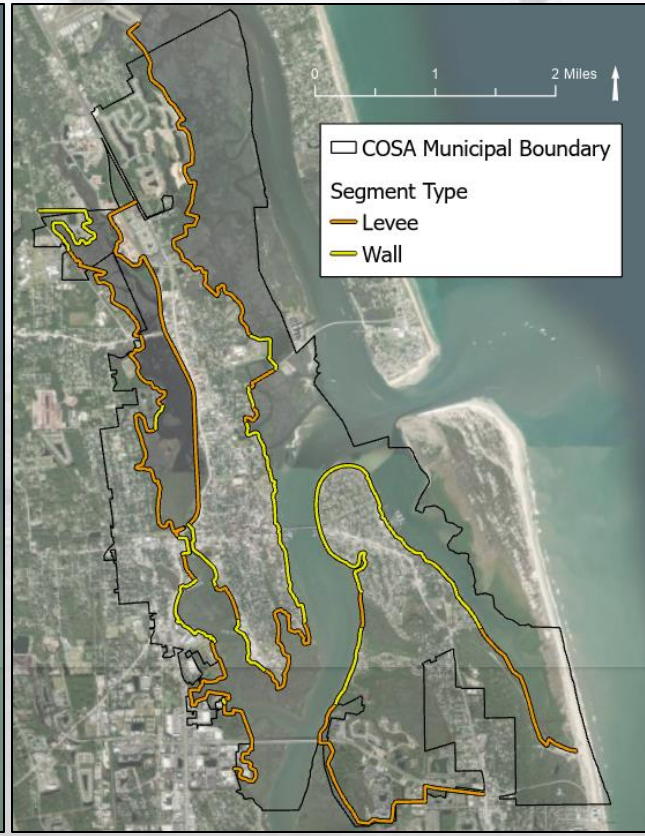
7' Design Elevation
~7.5 miles of wall
~13.6 miles of levee



9' Design Elevation
~9.5 miles of wall
~17.8 miles of levee

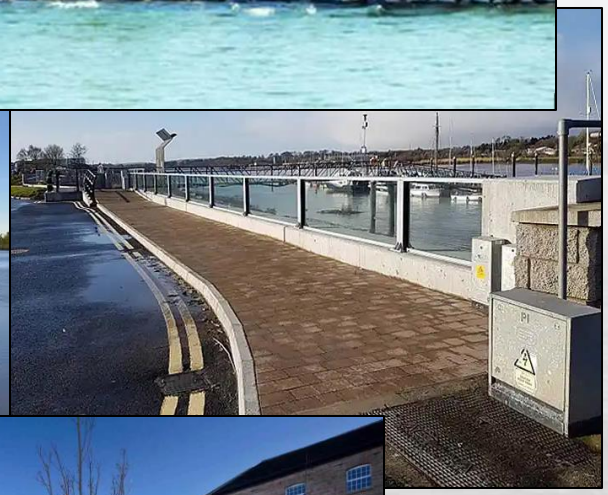


11/13' Design Elevation
~10.9 miles of wall
~20.9 miles of levee

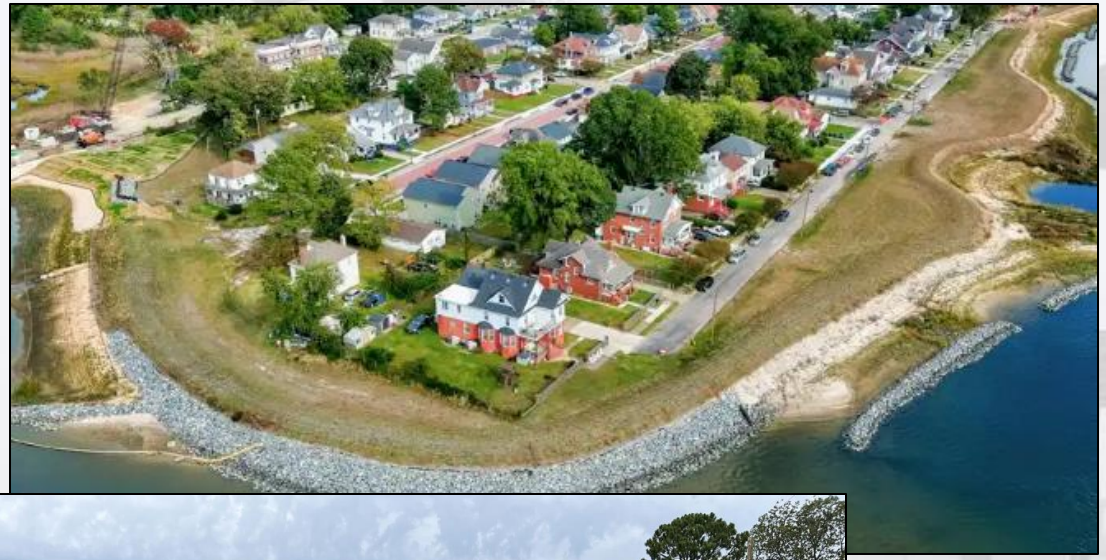


WALL/LEVEE FEATURES

Various Wall Examples

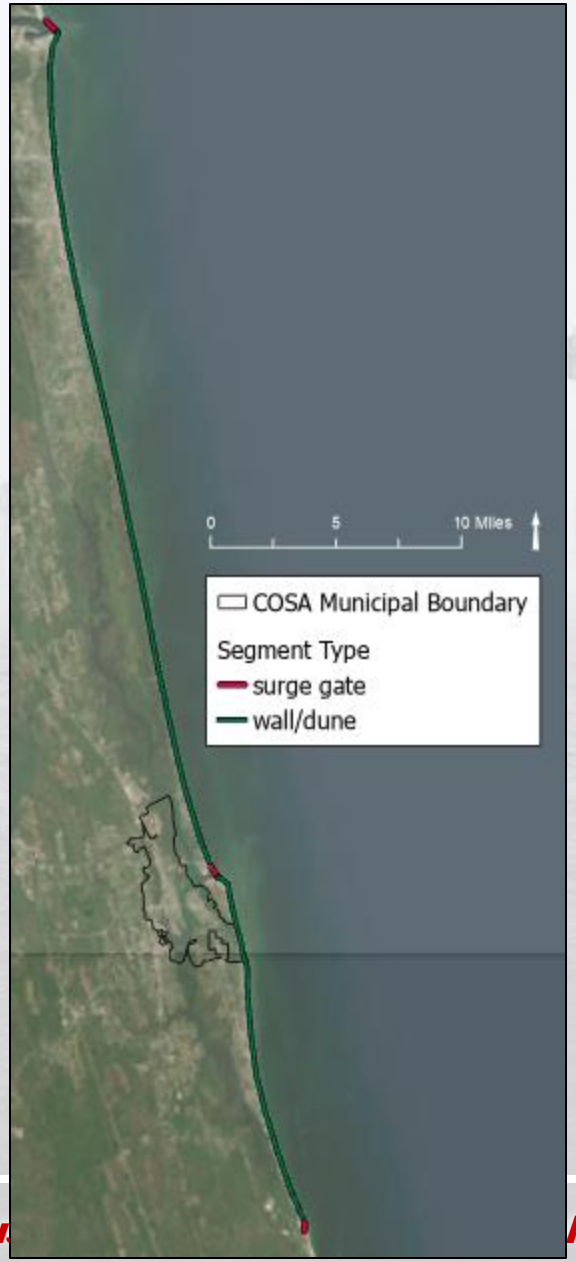


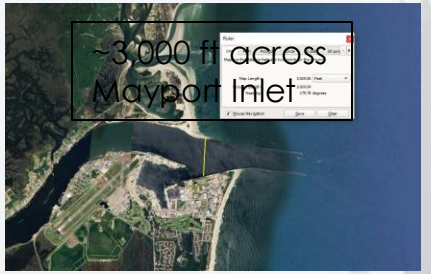
Ohio Creek Levee, Virginia



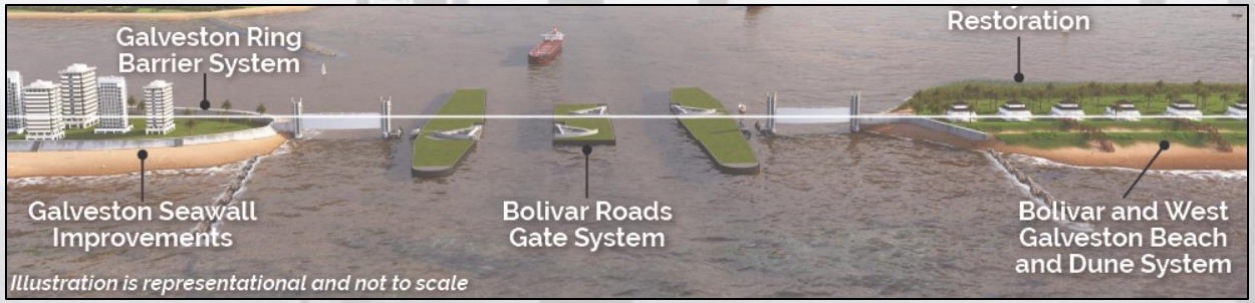
SURGE BARRIER SYSTEM

Atlantic Coast Surge Barrier:
Gates at Mayport, St. Augustine, Matanzas inlets.
1.5 miles of surge gates across 3 inlets and 48.4 miles of wall/dune barrier along coastline between the gates and tying into high ground.





Galveston Surge Barrier Design Rendering, Texas



Rotterdam Surge Barrier, Netherlands

SURGE BARRIER SYSTEM

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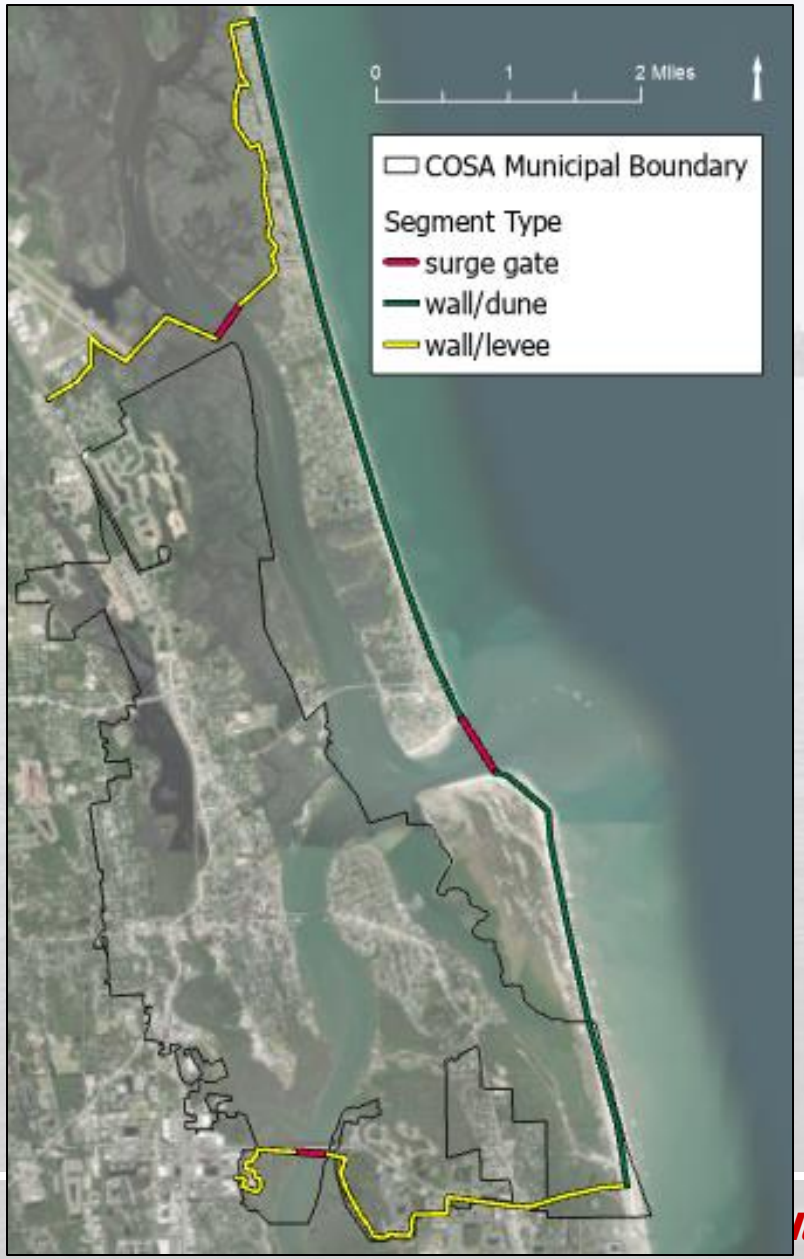
City Surge Barrier:
Gates at the St. Augustine Inlet and IWW north and south of the city.
1.1 miles of surge gates across waterways and 17.4 miles of wall/levee/dune barrier between the gates and tying into high ground.

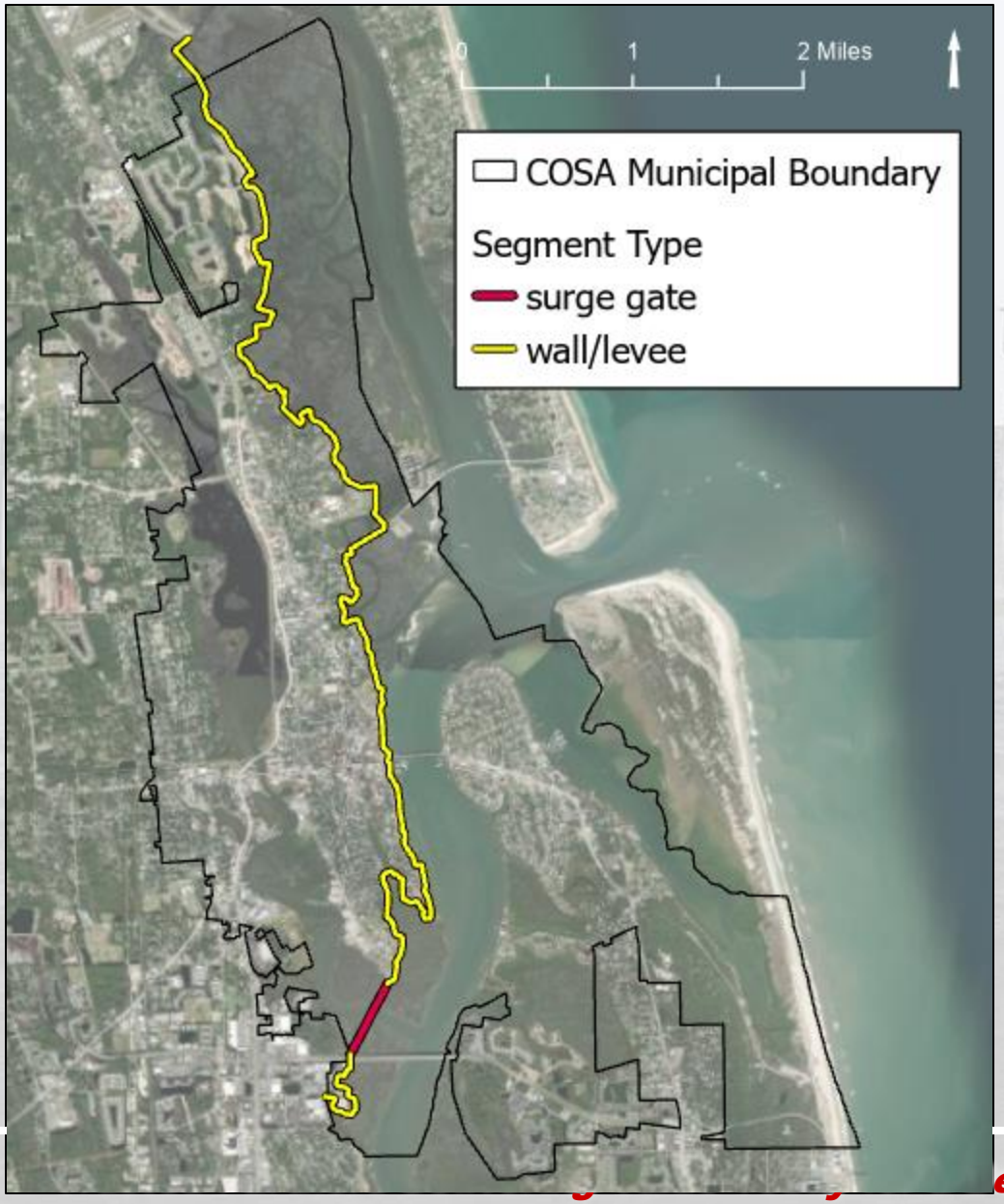


Galveston Surge Barrier Design Rendering, Texas

New Orleans Sector Gate

SURGE BARRIER SYSTEM

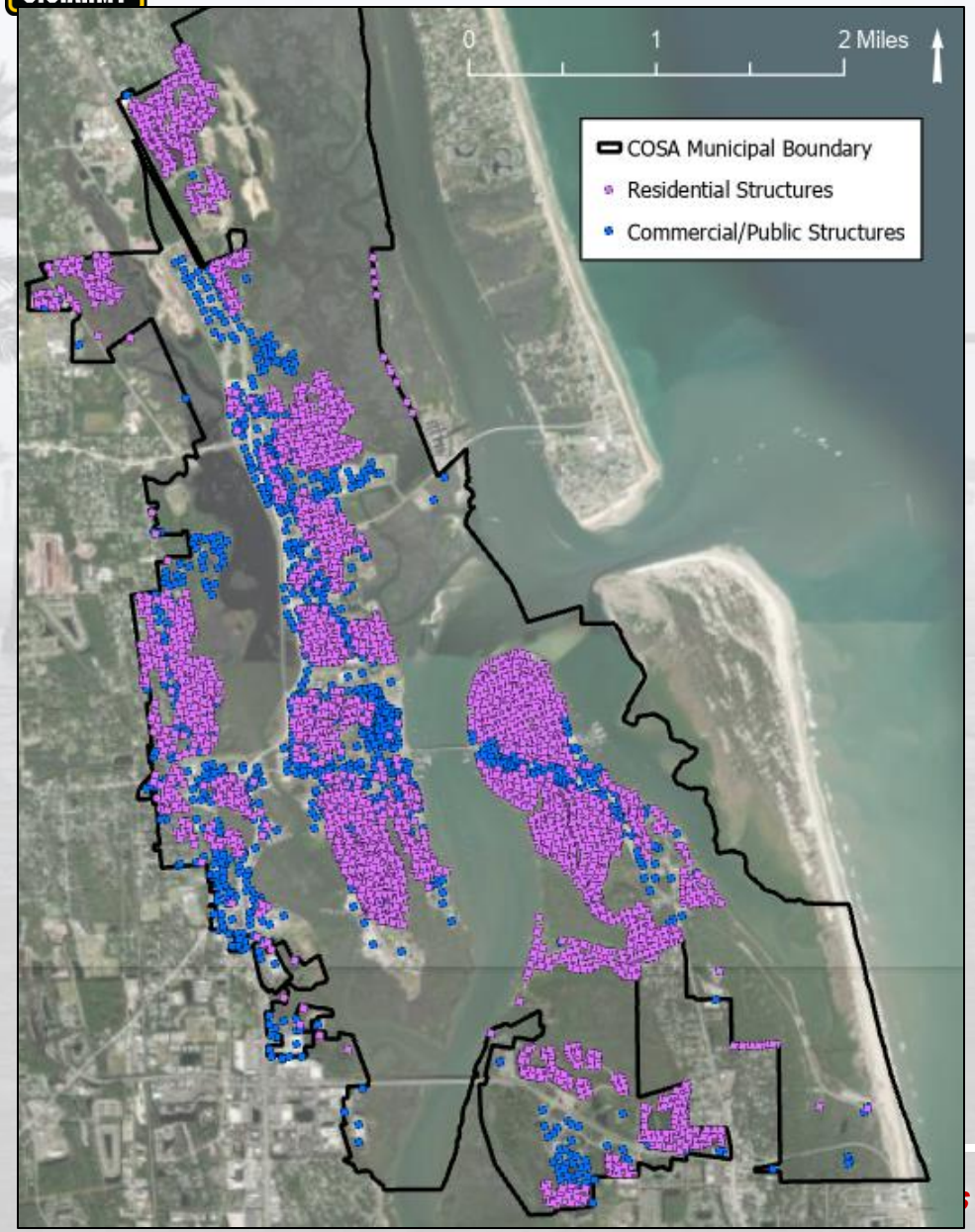
San Sebastian River Surge Barrier:
Gate at entrance of San Sebastian Rive combined with wall/levee around rest of the Downtown Peninsula and Wester San Sebastian model areas.
0.5 miles of gate(s) across San Sebastian River and 9.1 miles of wall/levee/dune barrier tying into high ground.



New Orleans Sector Gate

NONSTRUCTURAL FEATURES

BUILDING STRONG



~4,700 residential structures that could be elevated.

~3,200 commercial & public structures that could be floodproofed.

y for a Better Tomorrow

NATURE BASED SOLUTIONS

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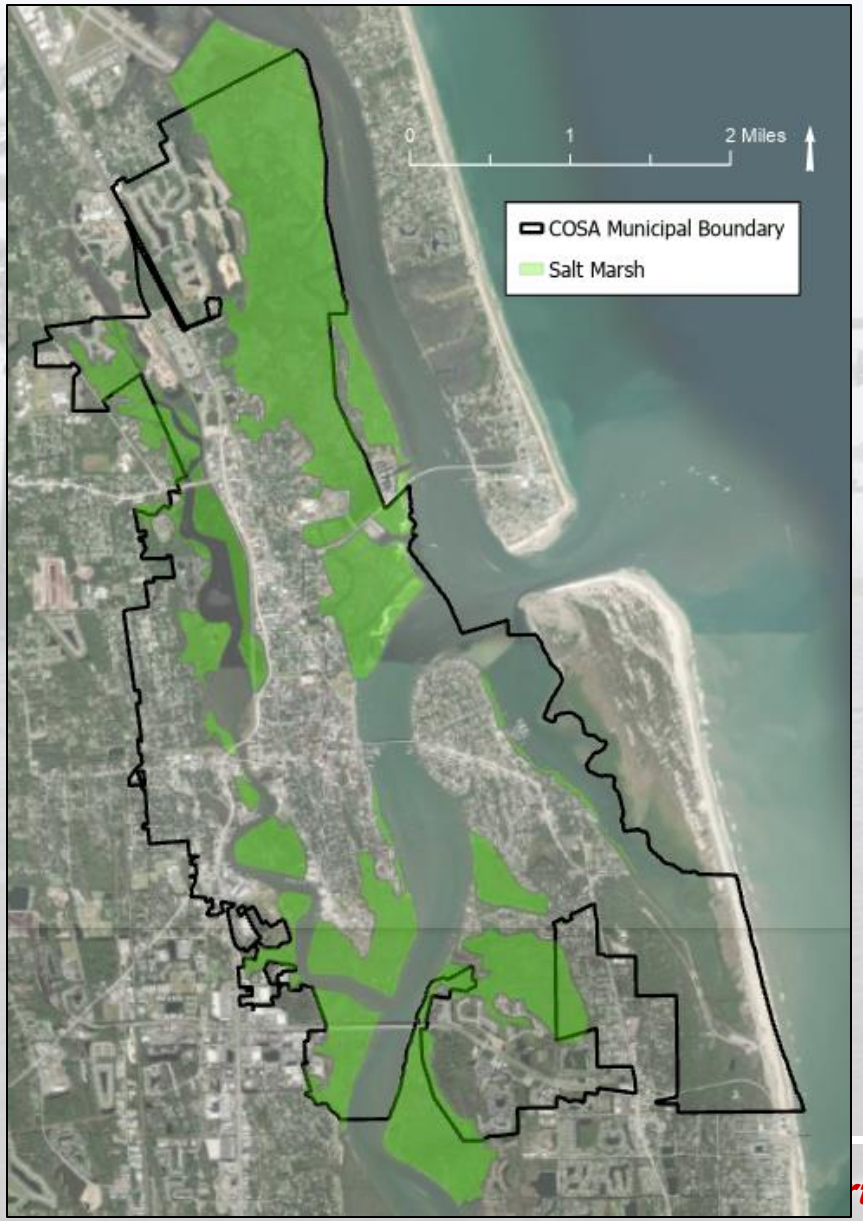
~3,000 acres where salt marsh could be maintained or enhanced.



Potential Features:

- Spartina Marsh
- Juncus Marsh
- Mangroves
- Oyster Reef
- Oyster Shells
- Seagrass Planting
- Living Shoreline
- Sand Placement (such as dunes or berms)
- Breakwaters
- Seawalls
- Etc.

Above & Below: Renderings showing NBSs used in combination with wall/levee features.

PATH FORWARD

KEY SCHEDULE ACTIVITIES - LOOK AHEAD

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Key Activities	Finish Date
FCSA Executed	1/9/2023
AMM Milestone Meeting	5/1/2023
Initial Flood Driver Screening (Scope Decision Point)	5/17/2023
End of FY23	9/30/2023
G2CRM FWOP Production Runs	2/21/2024
Establish Initial Array of Alternatives	8/21/2024
End of FY24	9/30/2024
G2CRM FWP Initial Alternatives Production Runs & Post Processing	5/15/2025
Establish Final Array of Alternatives (Scope Decision Point)	6/4/2025
G2CRM FWP Final Alternatives Production Runs & Post Processing	9/22/2025
End of FY25	9/30/2025
Identify National Economic Development (NED) Plan	12/22/2025
Identify Comprehensive Benefits Plan/Locally Preferred Plan (LPP)	3/17/2026
Identify the TSP	5/18/2026
End of FY26	9/30/2026
Exceptions/Waivers Approved by Assistant Secretary to the Army (ASA)	11/20/2026
TSP Milestone Meeting	2/2/2027
Release Draft Report for Concurrent Reviews	4/2/2027
End of FY27	9/30/2027
ADM Meeting	11/3/2027
Final Report Submittal Package to HQ	5/22/2028
Chief's Report Signature	9/15/2028

Complete

Ongoing

UPCOMING PUBLIC ENGAGEMENT

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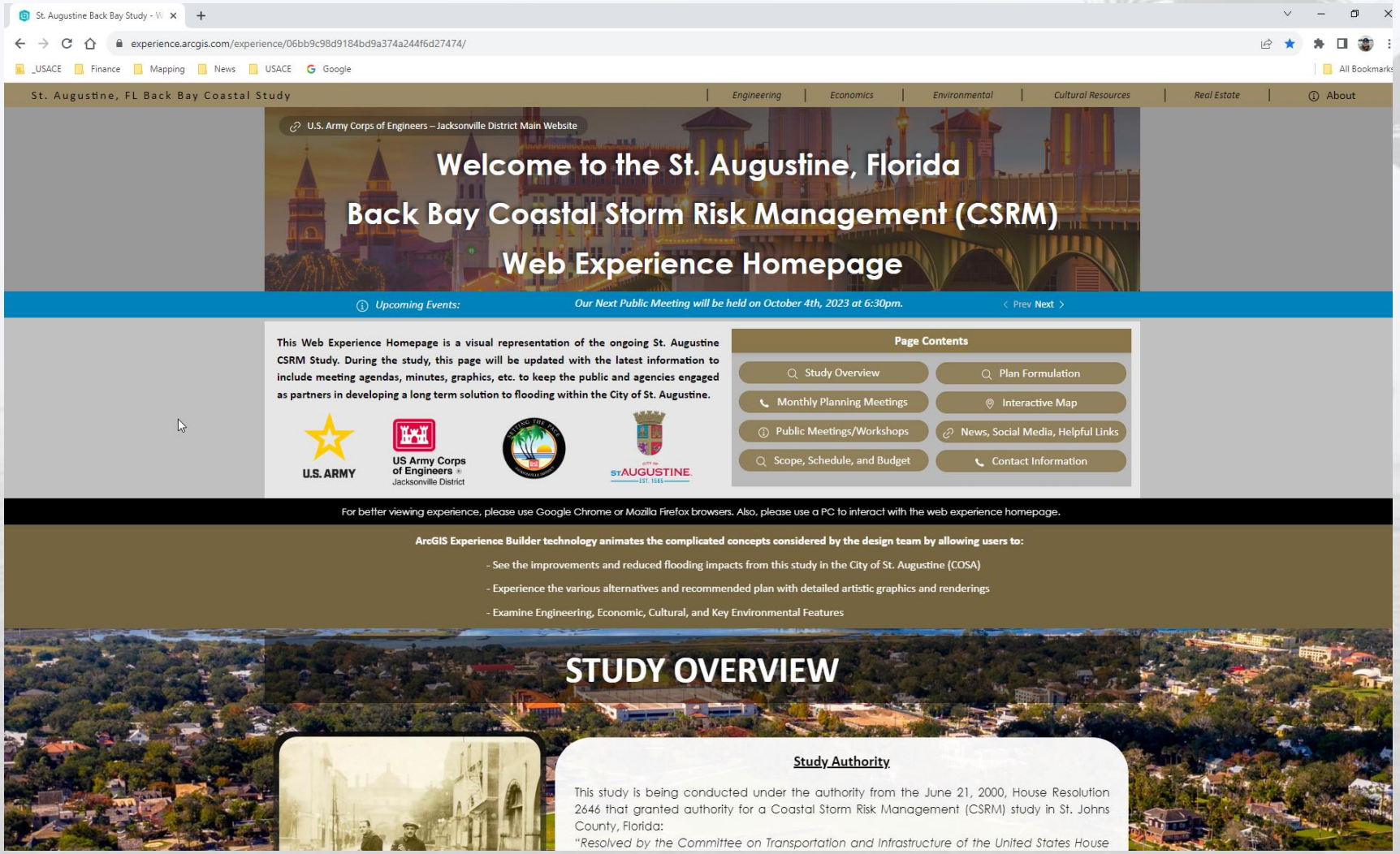
Dates	Events
September 19th, 2024 @ 1:00pm	Monthly Webinar
October 23rd, 2024	**In Person Public Workshop Lightner Museum (Alcazar Room) 75 King St.**
November 21st, 2024 @ 1:00pm	Monthly Webinar
December 19th, 2024 @ 1:00pm	Monthly Webinar
January 16th, 2025 @ 1:00pm	Monthly Webinar

DISCIPLINE SPECIFIC UPDATES/ACTIONS

- **Planning Technical Lead**: Marty Durkin
- **Engineering Technical Lead**: Patrick Snyder
- **Economics Lead**: Vongmony Var
- **Environmental Lead**: Katie Lebow
- **Cultural Resources Lead**: Zuzana Chovanec
- **Real Estate Lead**: Chris Bukolt
- **Office of Counsel**: Katie Gwin
- **Landscape Architecture Lead:** Sabrina Collins

PUBLIC OUTREACH (STUDY WEBSITE)

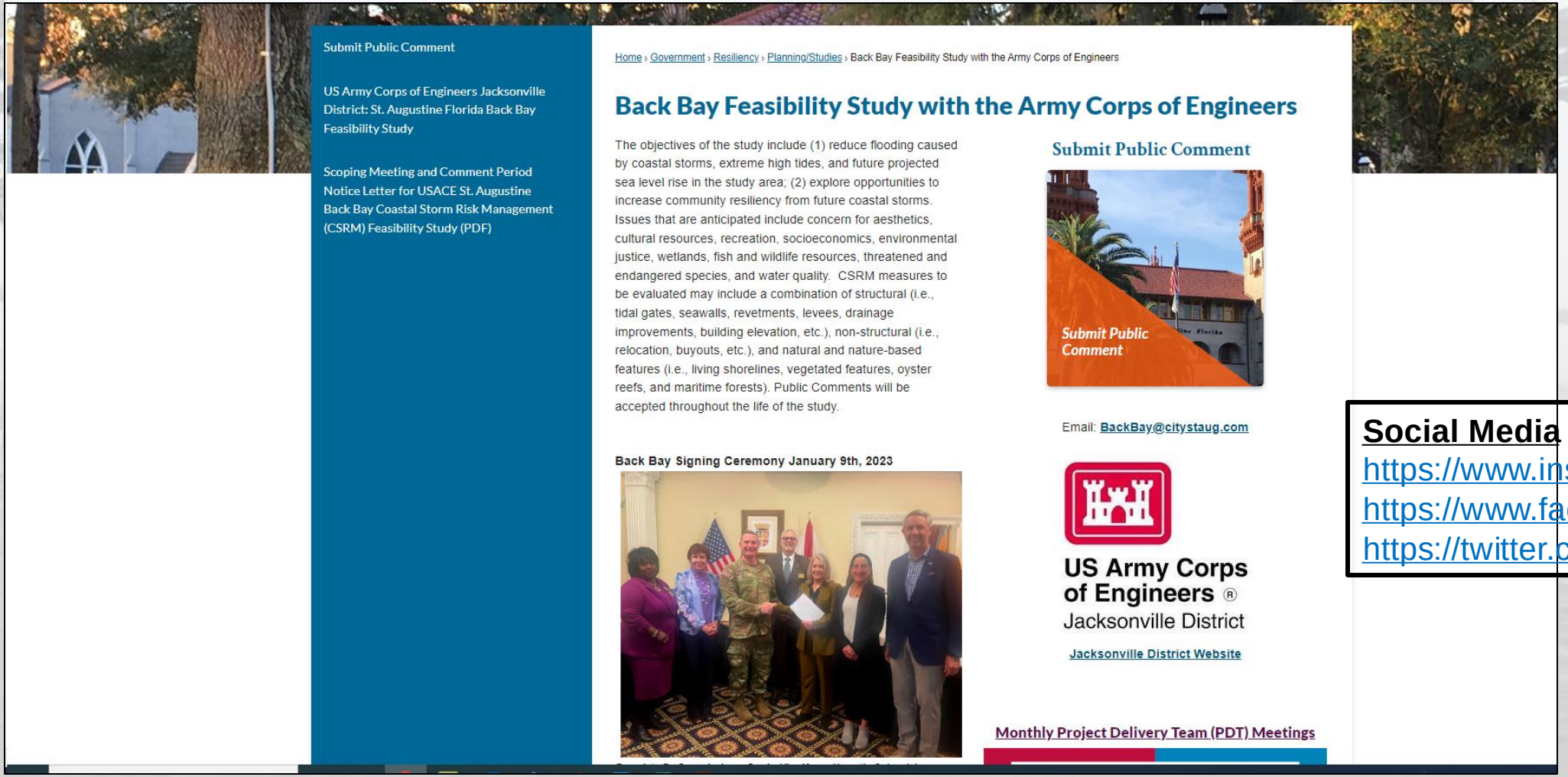
BUILDING STRONG



https://experience.arcgis.com/experience/06bb9c98d9184bd9a374a244f6d27474/

PUBLIC OUTREACH (SPONSOR SITES)

BUILDING STRONG



Social Media

https://www.instagram.com/citystaug/
https://www.facebook.com/citystaug
https://twitter.com/citystaug

PUBLIC OUTREACH

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CLOSING REMARKS/QUESTIONS

- Sponsor Remarks
- Federal Agency Questions/Comments
- State Agency Questions/Comments
- Local Agency Questions/Comments
- Public Comments