

# COASTAL TX PROTECTION AND RESTORATION FEASIBILITY STUDY

## 2019 Fall Stakeholder Partnering Forum Study Update

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14 August 2019

*"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."*



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of Engineers®







# Feasibility Study

**<http://CoastalStudy.Texas.gov>**



**f CoastalTXStudy**

## Project Summary

**THE CHALLENGE** is to develop a comprehensive plan that provides multiple lines of defense against hurricanes while restoring fish and wildlife habitat system-wide to enhance overall coastal resilience.

## Scope:

## Coastal Storm Risk Management (CSRM) & Ecosystem Restoration (ER)

## Budget:

- 50:50 Cost Share with TX GLO
- \$19.8M (65% Executed)

## Schedule:

- 5.5 year study
- <2 yrs remaining

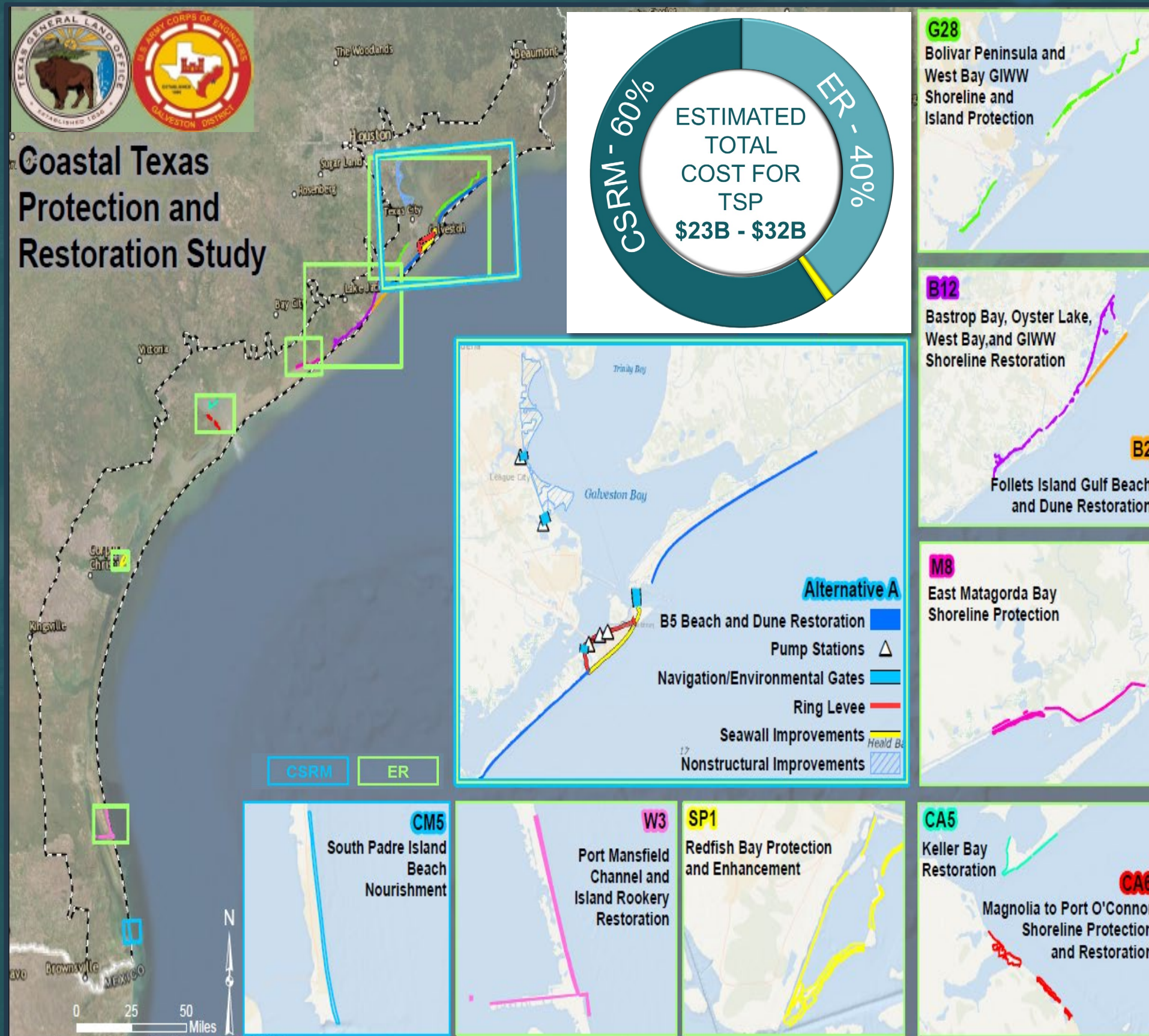
### Remaining Milestones:

ACTIVITY		DATE
Feasibility Level Analysis	2 <sup>nd</sup> DIFR-EIS	25 Sep 20
	FIFR-EIS	16 Jan 21
	SLP	22 Jan 21
	S&A Review	2 Apr 21
	Chief's Report	14 May 21

## Path Forward:

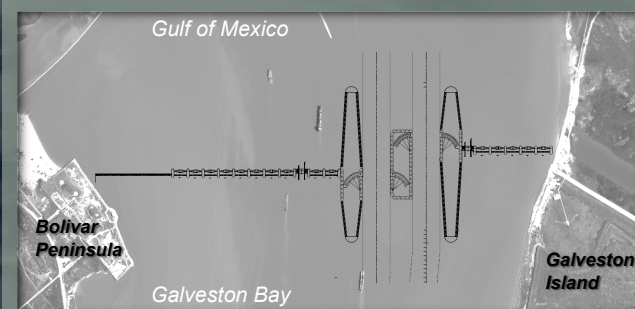
- **Quantify regional economic benefits**
- **Tiered NEPA**
- **Cost certification for LOD**
- **Simplified** report writing
- **2<sup>nd</sup> release** of revised draft report
- **Increase public** outreach

# Revised Coastal Resilience Comprehensive Strategy



## Coastal Storm Risk Management

- 2 large & 2 small sector gates
- 15 vertical lift gates & 16 monoliths
- 42 mi of Gulf-side dune/beach barrier
- 18 mi of ring barrier
- 4-ft high extension of the seawall
- Gated closures at four locations
- Non-structural measures on the mainland
- 2 mi beach/dunes on South Padre



## Ecosystem Restoration (6,000+ ac)

- 737 ac of breakwaters
- 838 ac of bird islands
- 1,985 ac of marshes
- 44 ac of oyster reefs
- 2,519 ac of dunes/beaches





# Storm Surge Gates (Design in Progress)

**Deep Section  
Sector Gates  
(2 Large)**



**Recreation  
Sector Gates  
(2 Small)**

**Bolivar  
Peninsula**



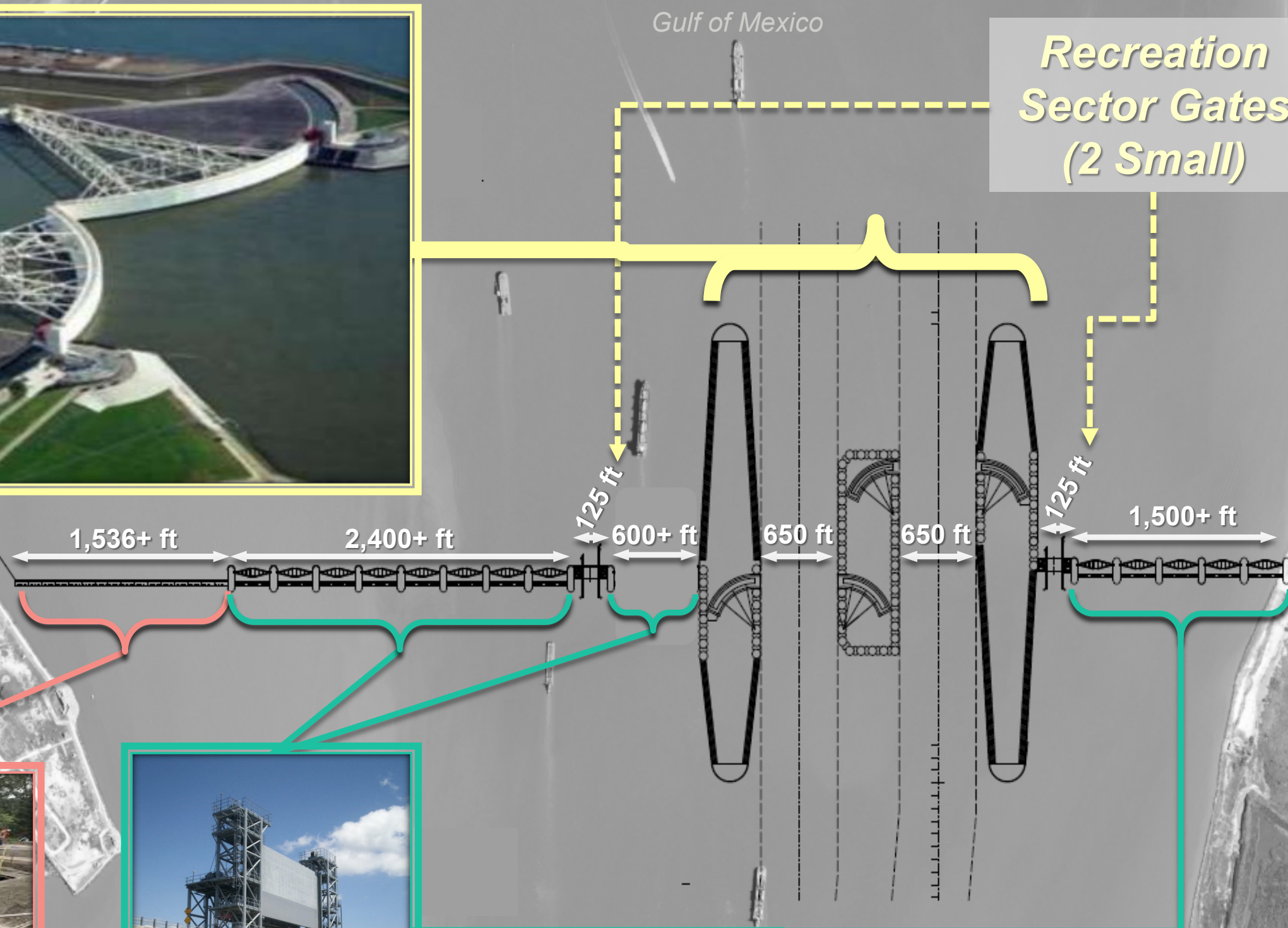
**Shallow Section  
(16 Pre-cast monoliths)**



**Intermediate Sections  
(15 Vertical Lift Gates)**

Galveston Bay

**Galveston  
Island**





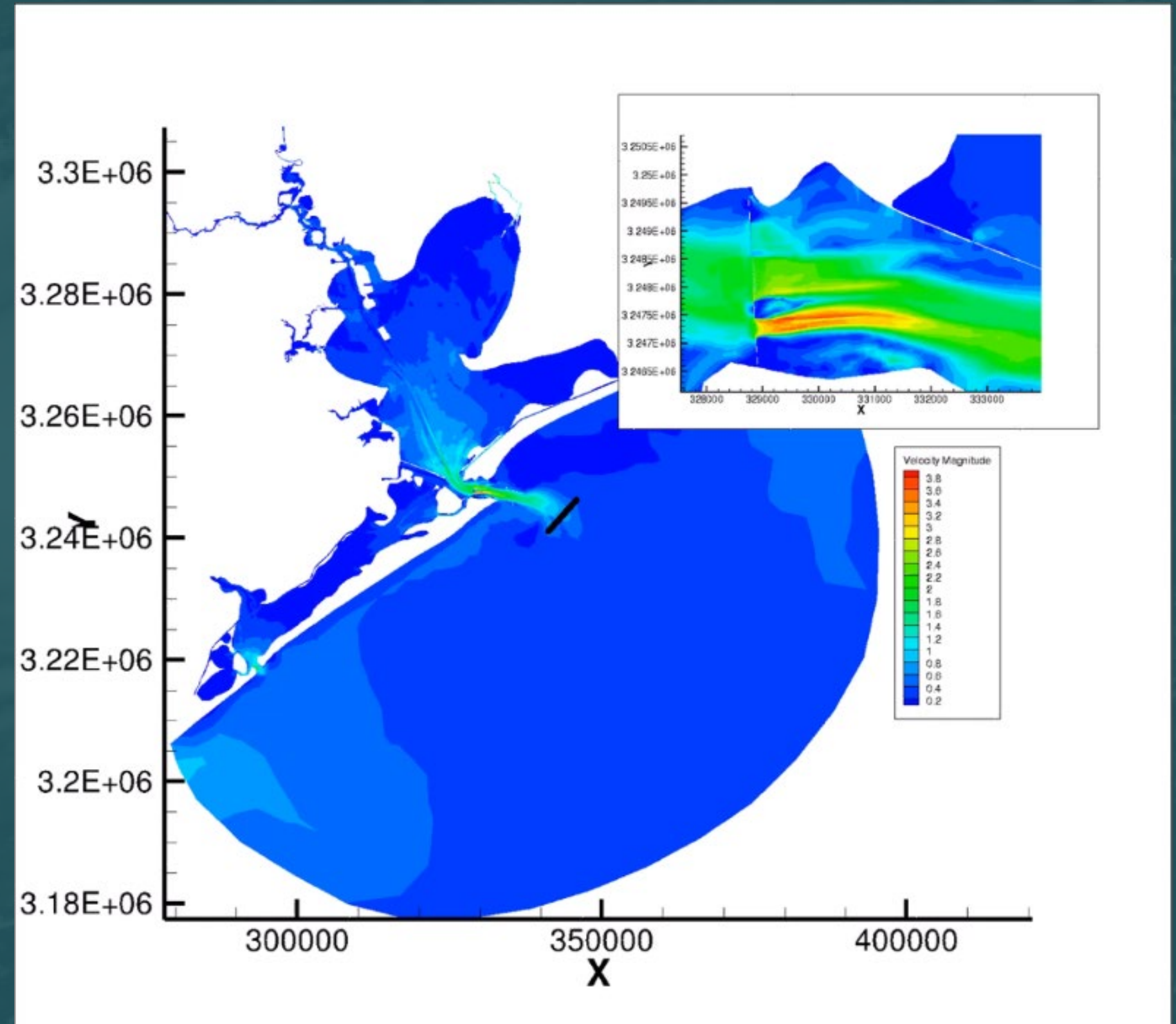
# Species Response Modeling (Analysis Underway)

<http://CoastalStudy.Texas.gov>

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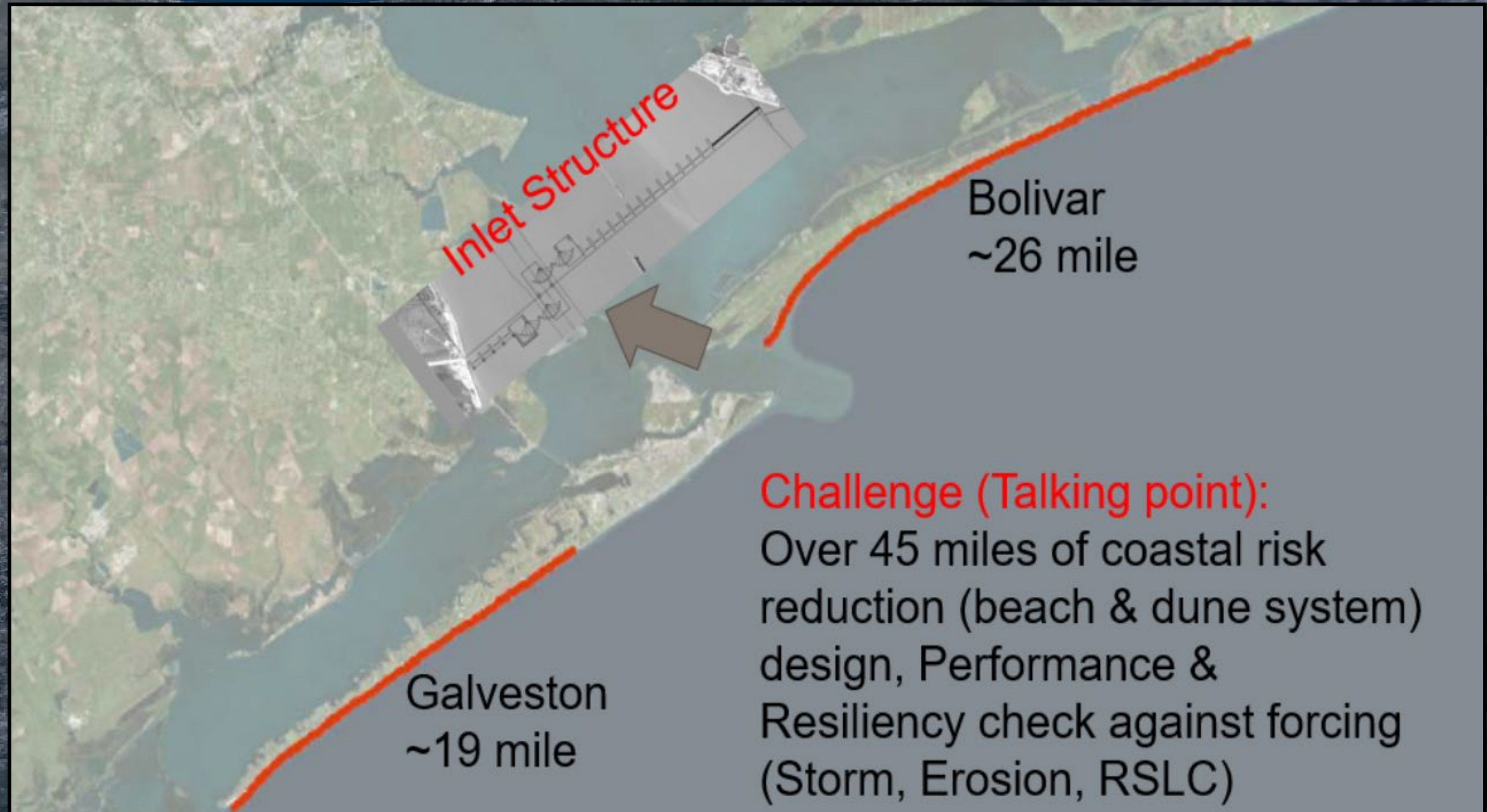


- ADaptive Hydraulics Modeling (ADH)
  - Salinity
  - Velocity
  - Sediment
- Particle Track Modeling
  - Larval movement through the barrier
- Results coming in Fall 2019





# Dune & Beaches (Design in Progress)

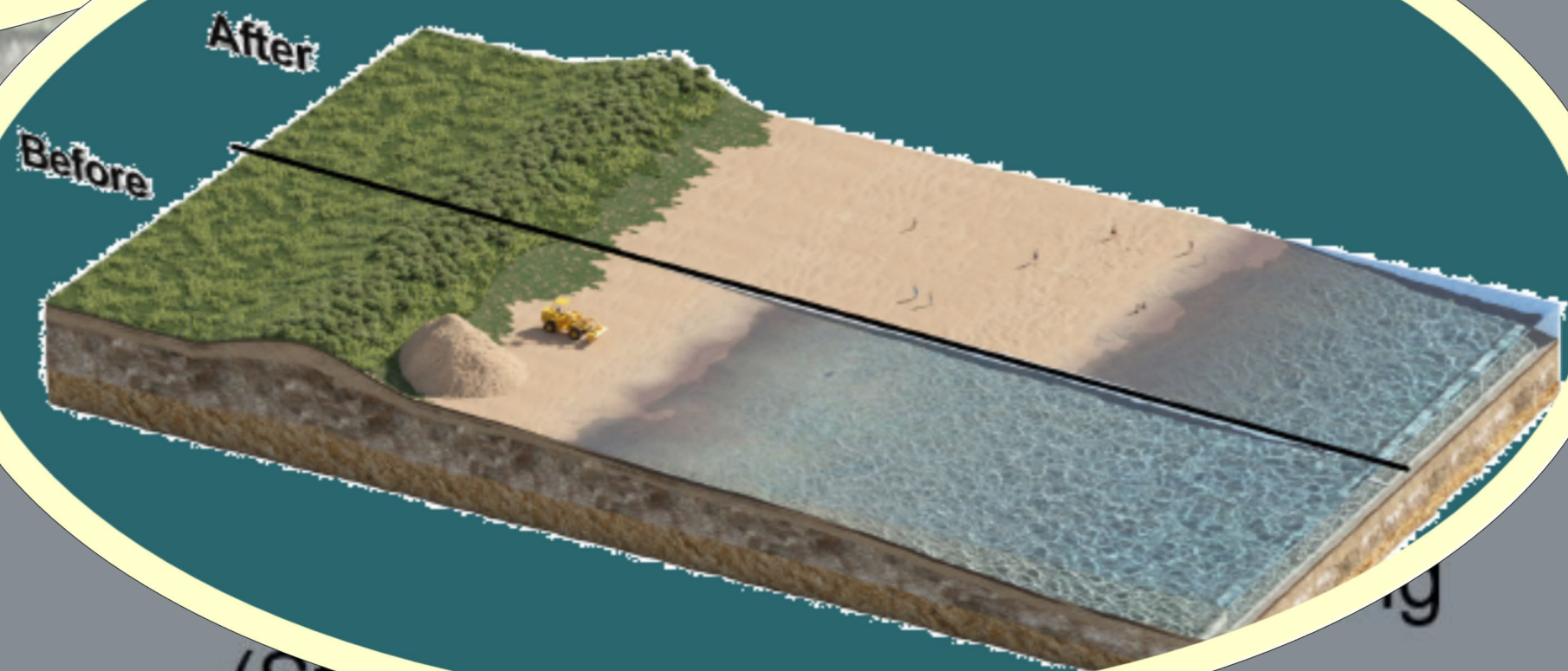




# Dune & Beaches (Design in Progress)



Bolivar  
~26 mile

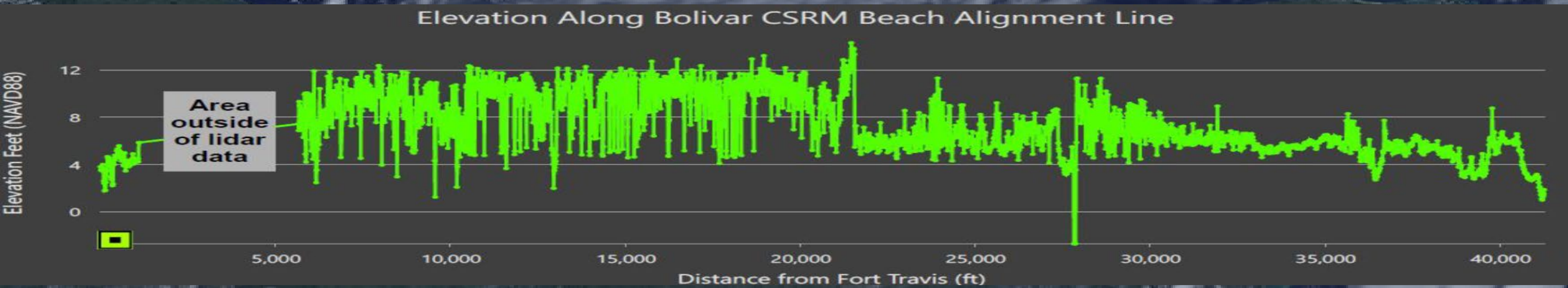
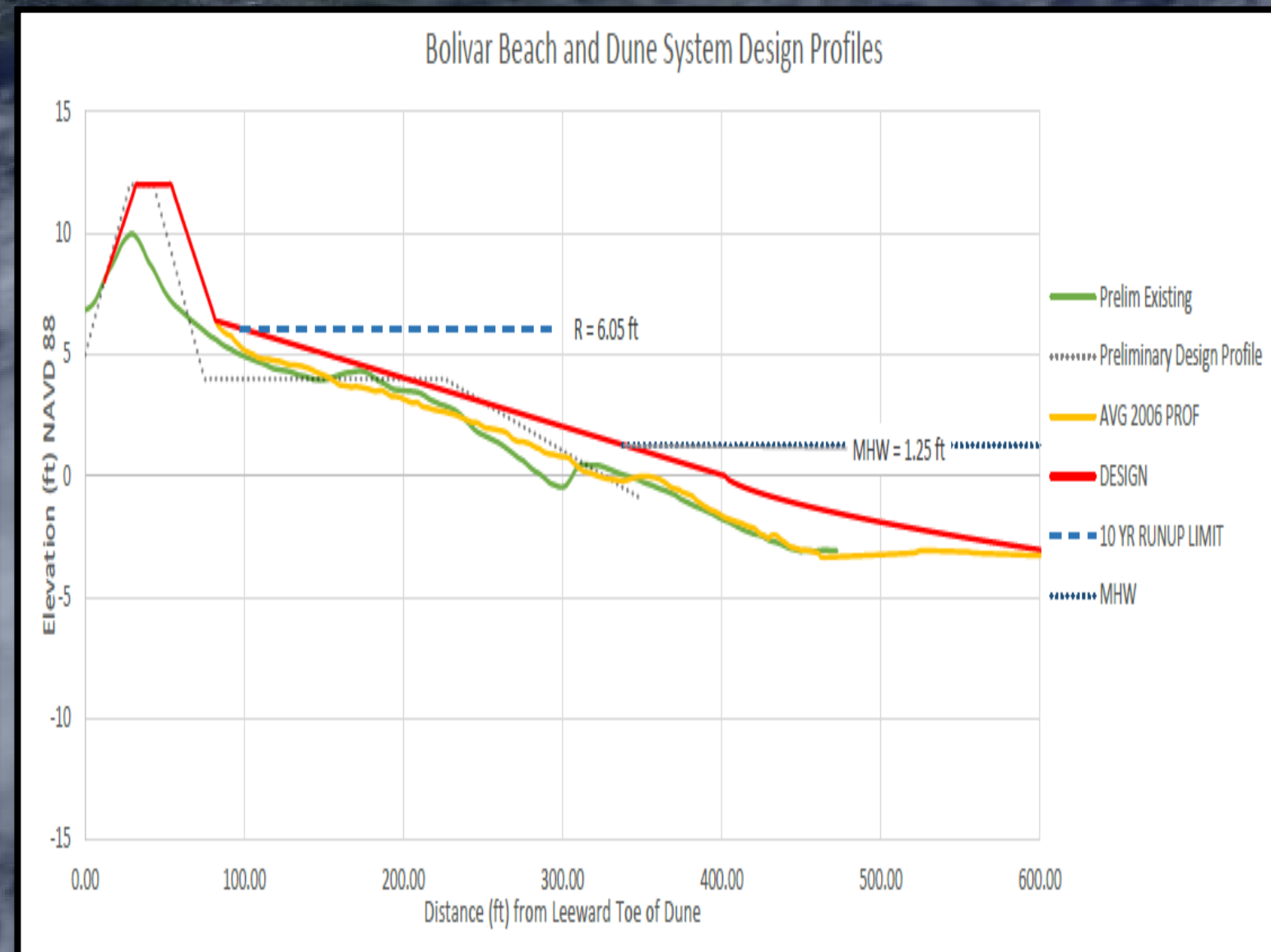
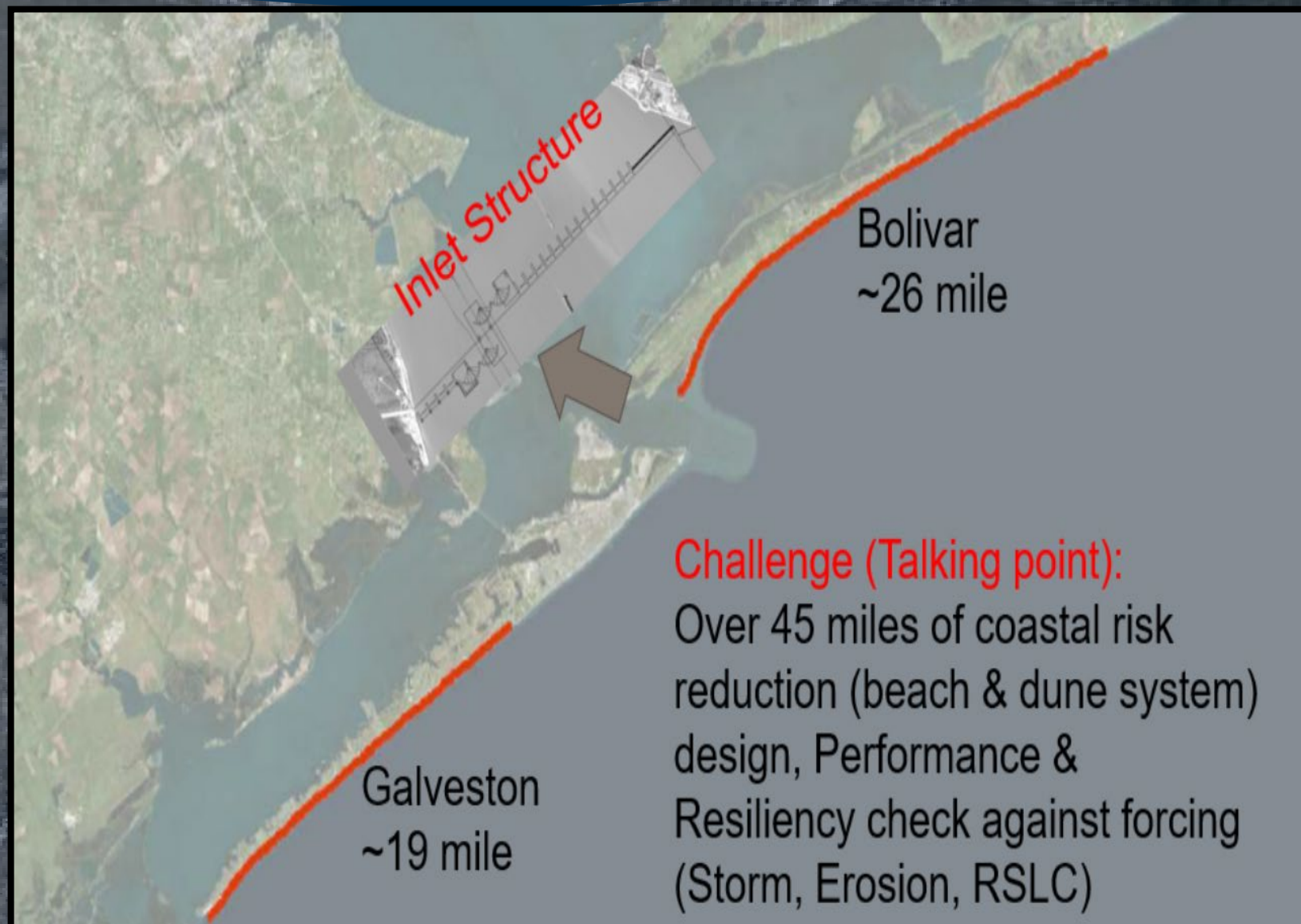


Galveston  
~19 mile

(Storm)

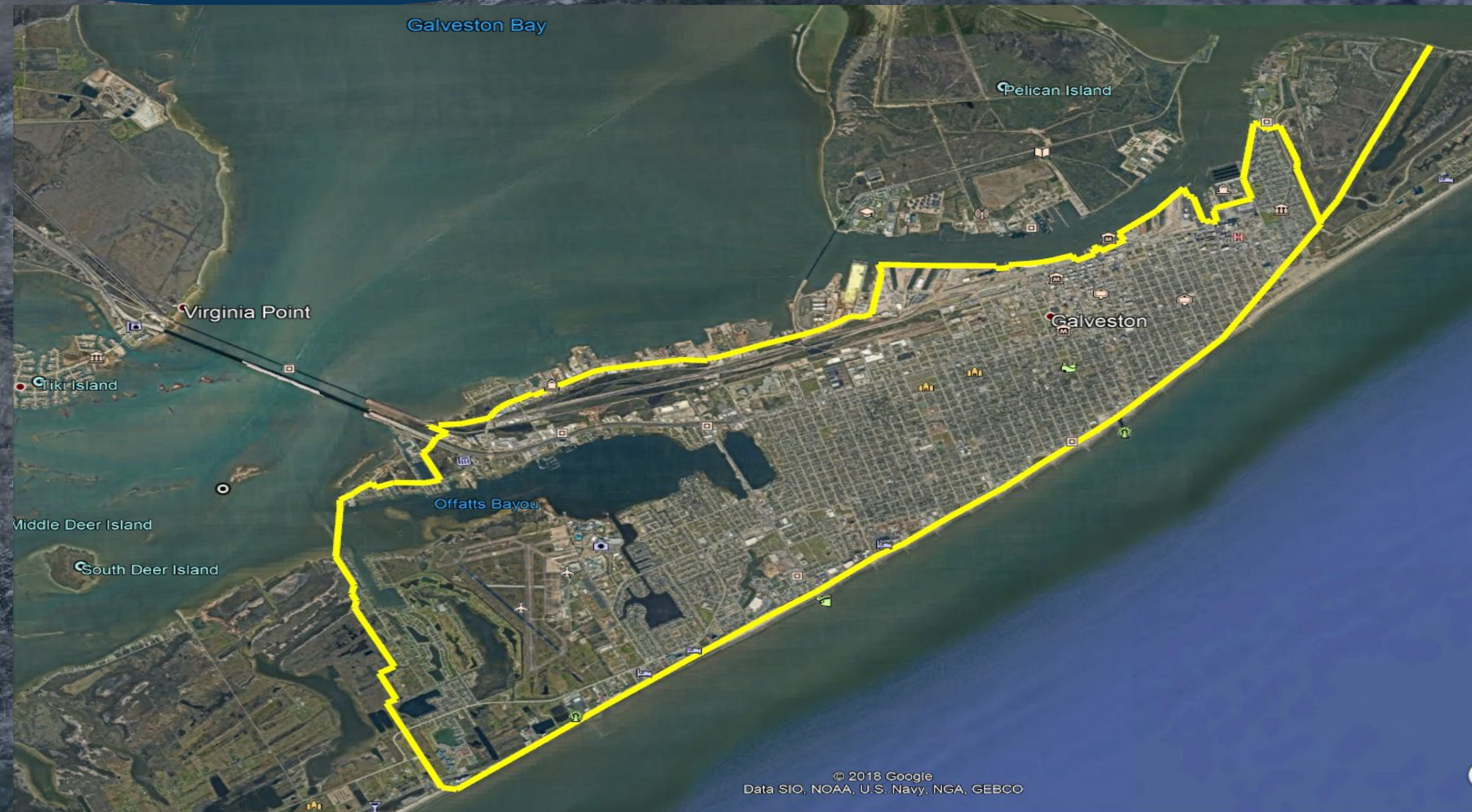


# Dune & Beaches (Design in Progress)





# Galveston Ring Barrier (Design in Progress)





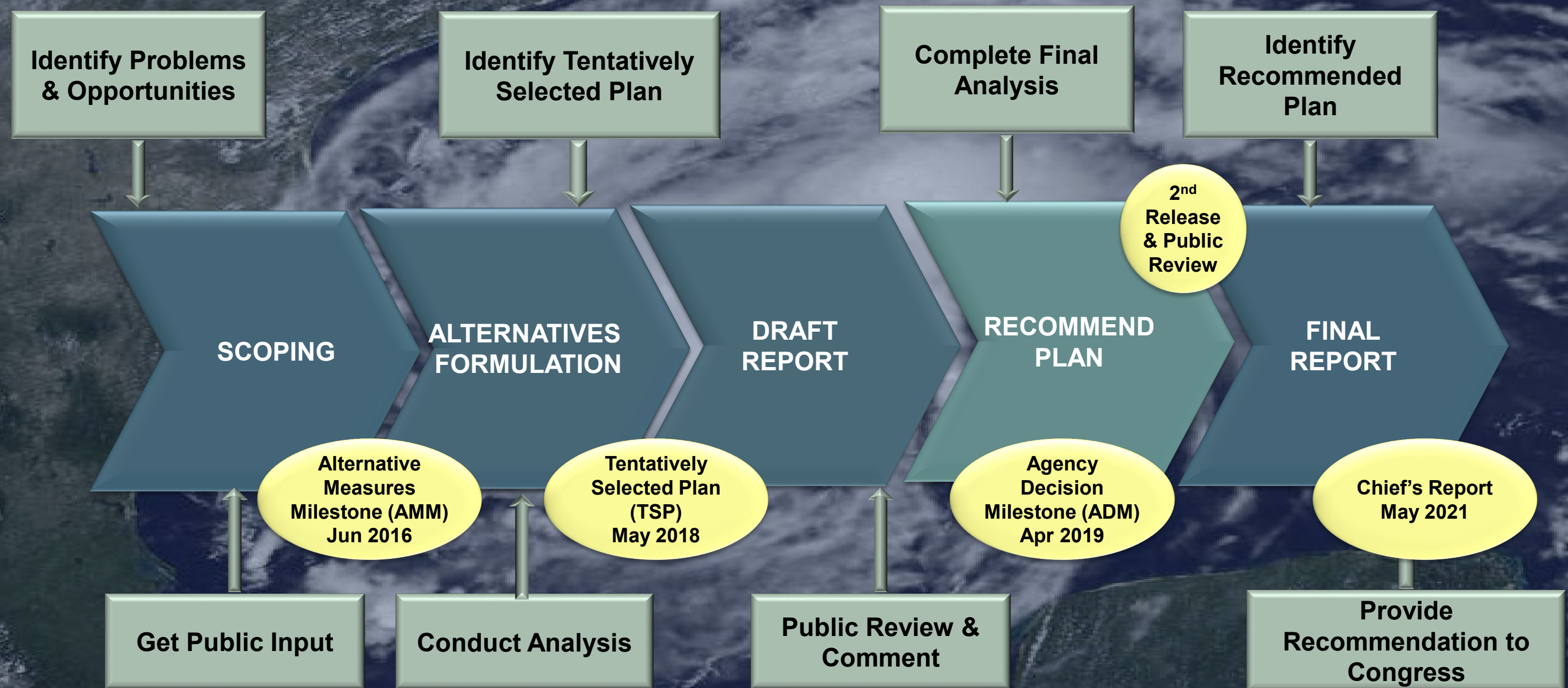
- 4 Groups
  - Mainland
  - Galveston
  - Bolivar
  - South Padre
  
- Primary Goals =>
  - Two-way Communication
  - Transparency
  - Fact-based Information
  - Quicker Dissemination of New Plan Details





# Coastal Texas Protection and Restoration Feasibility Study

## S C H E D U L E

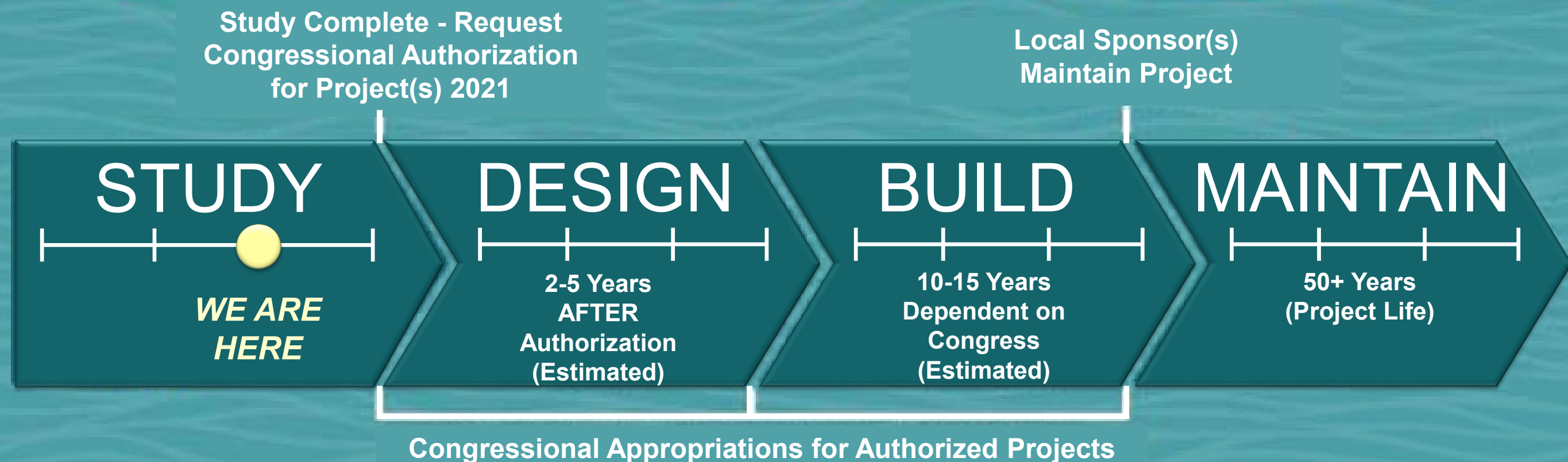




# Coastal Texas Protection and Restoration Feasibility Study




## ESTIMATED PROJECT SCHEDULE





COASTAL TEXAS STUDY

Overview Alternatives Get Involved Resources Contacts




## Coastal Texas Protection & Restoration Feasibility Study

**Planning and Environmental Documents for Public Review:**  
**Draft Integrated Feasibility Report and Environmental Impact Statement**

The community is invited to review the plans and participate in a series of public meetings:


LEARN MORE



The U.S. Army Corps of Engineers, in partnership with the Texas General Land Office, began an examination in November 2015 of the feasibility of constructing projects for coastal storm risk management and ecosystem restoration along the Texas coast.

The Coastal Texas Protection and Restoration Feasibility Study, also known as the Coastal Texas Study, will involve engineering, economic and environmental analyses on large-scale projects, which may be considered by Congress for authorization and funding.


The feasibility study and report will be complete in 2021. The Coastal Texas Study recommendations will enhance resiliency in coastal communities and improve our capabilities to prepare for, resist, recover and adapt to coastal hazards.



### Coastal Storm Risk Management

Develop and evaluate coastal storm risk management solutions to reduce the damage from tropical storms and hurricanes incurred by coastal communities and industries.


MORE



### Ecosystem Restoration

Increase the net quality and quantity of coastal ecosystem resources by maintaining, protecting and restoring coastal Texas ecosystems, and fish and wildlife habitat.

MORE




### Environmental Impact Analyses

An environmental impact statement will be completed under the procedures of the National Environmental Policy Act (NEPA).

MORE

Coastal Texas Study

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**Coastal Texas Study**  
July 30 at 12:10 PM

MISCONCEPTION: Rice University's SSPEED Center has proposed a less costly plan called the "Bay Park Plan" that can be built in less time and will have the same (or greater) level of protection with little or no environmental impacts.

While we believe the Bay Park Plan and our own Coastal Barrier Plan complement one another, more information is needed in order to make direct comparisons between them. Some key concerns include:


1) The Bay Park Plan is still in the concept pha... [See More](#)

You, Sharon Manzella Tirpak and 2 others

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**Coastal Texas Study**  
July 29 at 10:33 AM


We are utilizing a "multiple lines of defense" approach to develop a system of comprehensive, resilient, and sustainable coastal storm risk management solutions. For more information, please visit <http://coastalstudy.texas.gov/>.






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Pub

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Public Figure

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**Texas Southern Colleg...**  
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