



COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY

<http://CoastalStudy.Texas.gov>

CoastalTXStudy

StoryMap: <https://coastal-texas-hub-usace-swg.hub.arcgis.com/>



As of 16 Sep 2021

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. We are taking a systems approach when reviewing the region's larger system context, with a focus on Critical infrastructure that emphasizes greater flexibility. This Multiple Lines of Defense strategy uses natural and nature-based solutions in combination with traditional engineering solutions and builds upon existing & proposed projects to maintain the existing landscape in the face of sea level rise and coastal erosion.

Project Schedule

ACTIVITY	DATE-
FR	S&A Review Complete 02-31 Jul 21
	Chief's Report 16 Sep 21
PED	WRDA 2022
	PED 2022-2023
CON	Construction 2024+

COASTAL TEXAS COSTS & BENEFITS BY THE NUMBERS...

~ 2.31 Billion EQUIVALENT ANNUAL BENEFITS

1.91 BCR FOR THE COMBINED CSRMS MEASURES

IN A 1% ANNUAL EXCEEDANCE PROBABILITY SURGE EVENT:

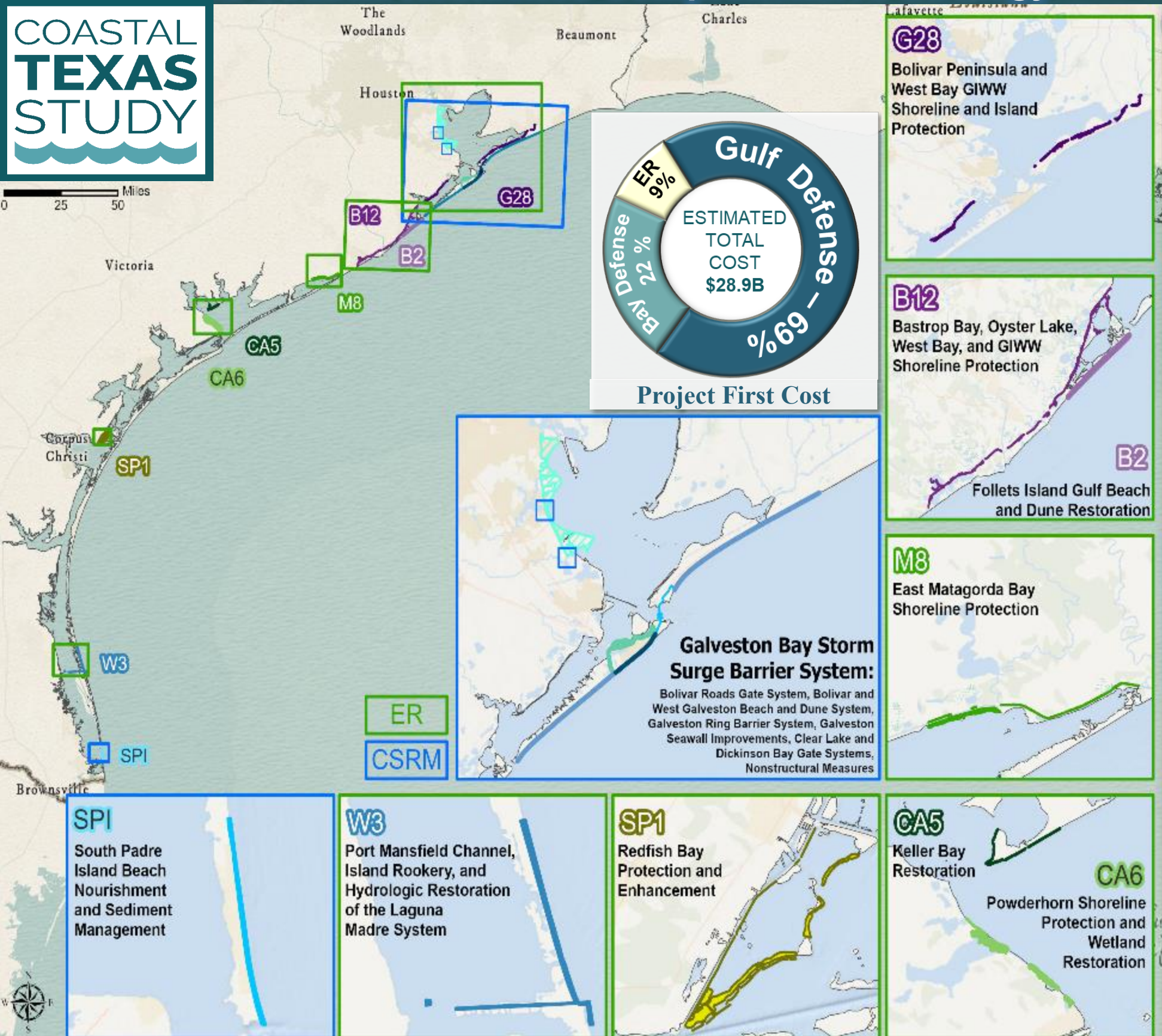
~77% REDUCTION IN DAMAGED STRUCTURES

~64% REDUCTION IN FLOODED CRITICAL INFRASTRUCTURE

6,610 ACRES HABITAT IMPROVED

\$28.87 Billion TOTAL RECOMMENDED PLAN PROJECT COST (CSRMS & ER)

Revised Coastal Resilience Comprehensive Strategy



Coastal Storm Risk Management

- 2 large & 4 small sector gates
- 15 vertical lift gates
- 16 shallow water environmental gates
- 1 mi combi-wall tie-in
- 3 mi levee tie-in
- 43 mi of gulf-side dune/beach barrier
- 21 mi of ring barrier
- 8 pumping stations
- 16+ drainage structures
- 4-ft high extension of the seawall
- 150+ gated closures (roads & rail)
- Non-structural measures anticipated
- 2 mi beach/dunes on South Padre
- 1,342 ac mitigation

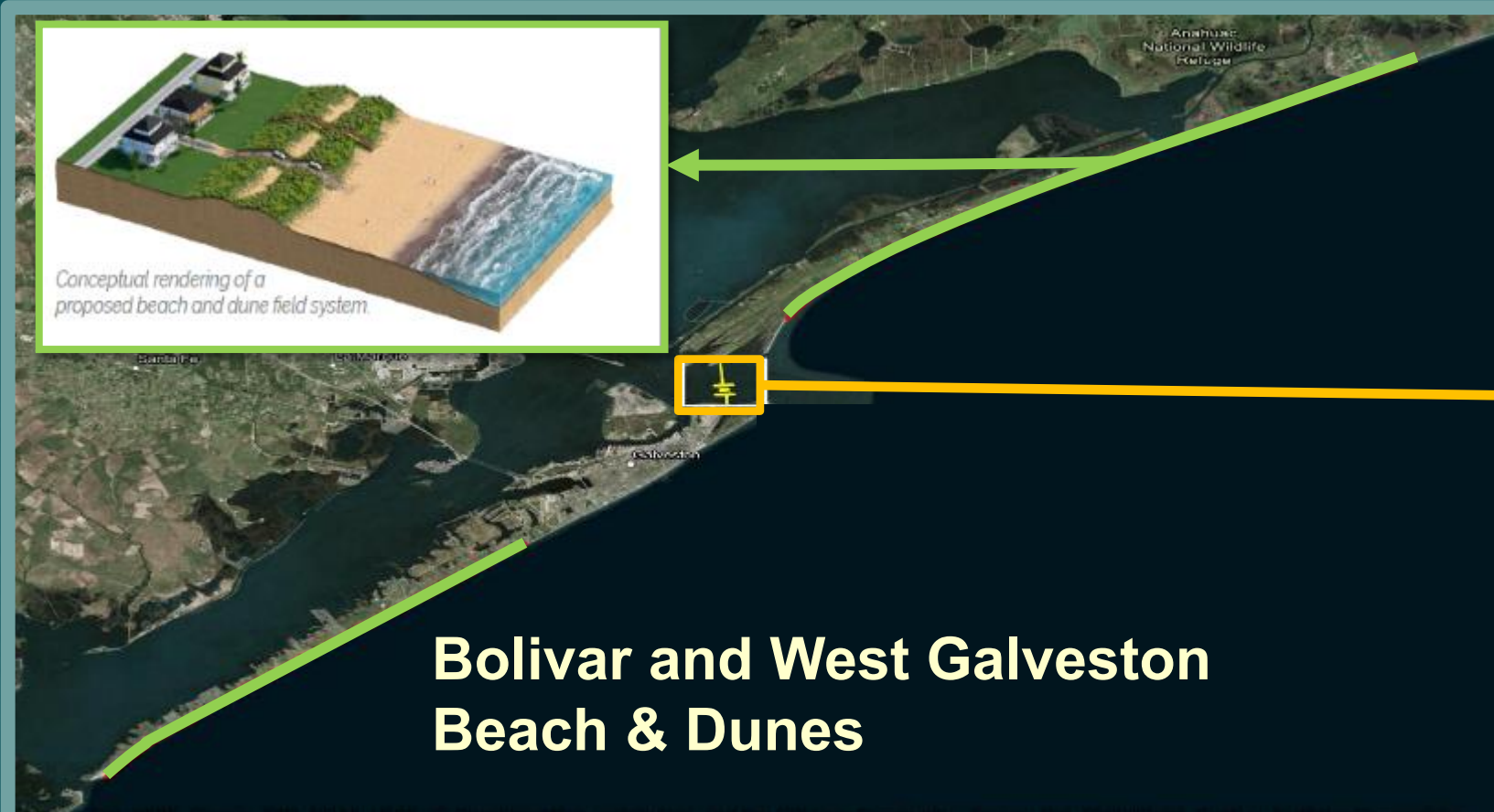


Ecosystem Restoration (6,600+ ac)

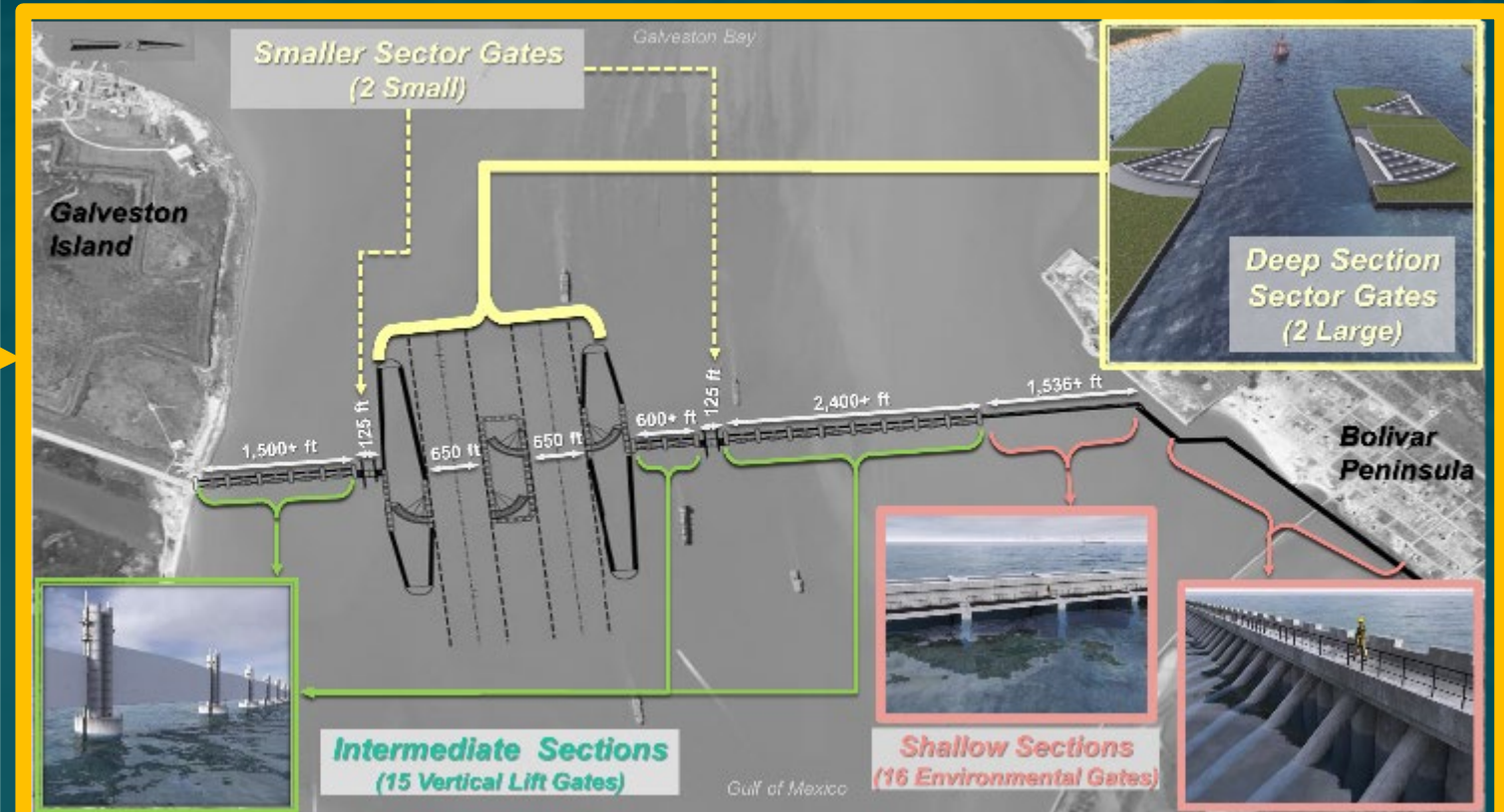
- 114 mi of breakwaters
- 15.2 mi of bird rookeries
- 2,052 ac of marshes
- 12.32 mi of oyster reefs
- 19.5 mi of dunes/beaches



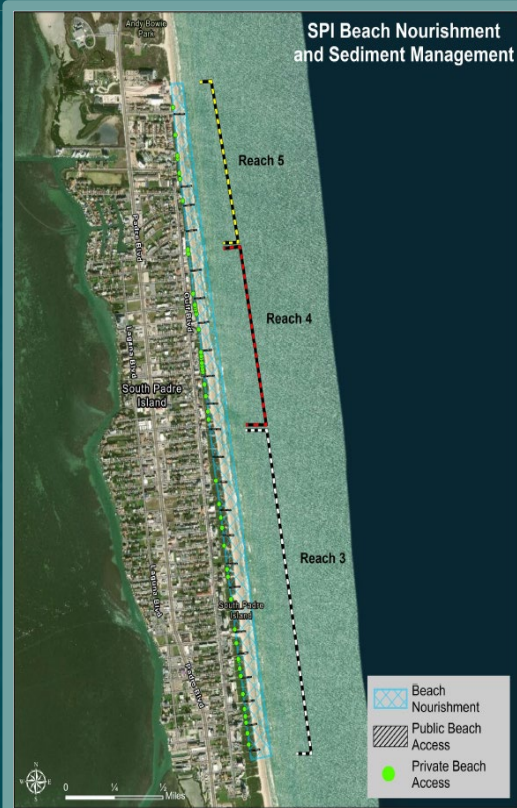
Gulf Defenses



Bolivar Roads Gate System



South Padre Island



Bay Defenses

Galveston Ring Barrier



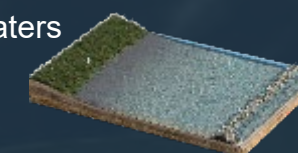
Clear Lake



Dickinson

Ecosystem Restoration

Breakwaters



Marshes



Beaches



Oyster Reefs

