

# PLANNING FOR BENEFICIAL USE

Robert W Heinly

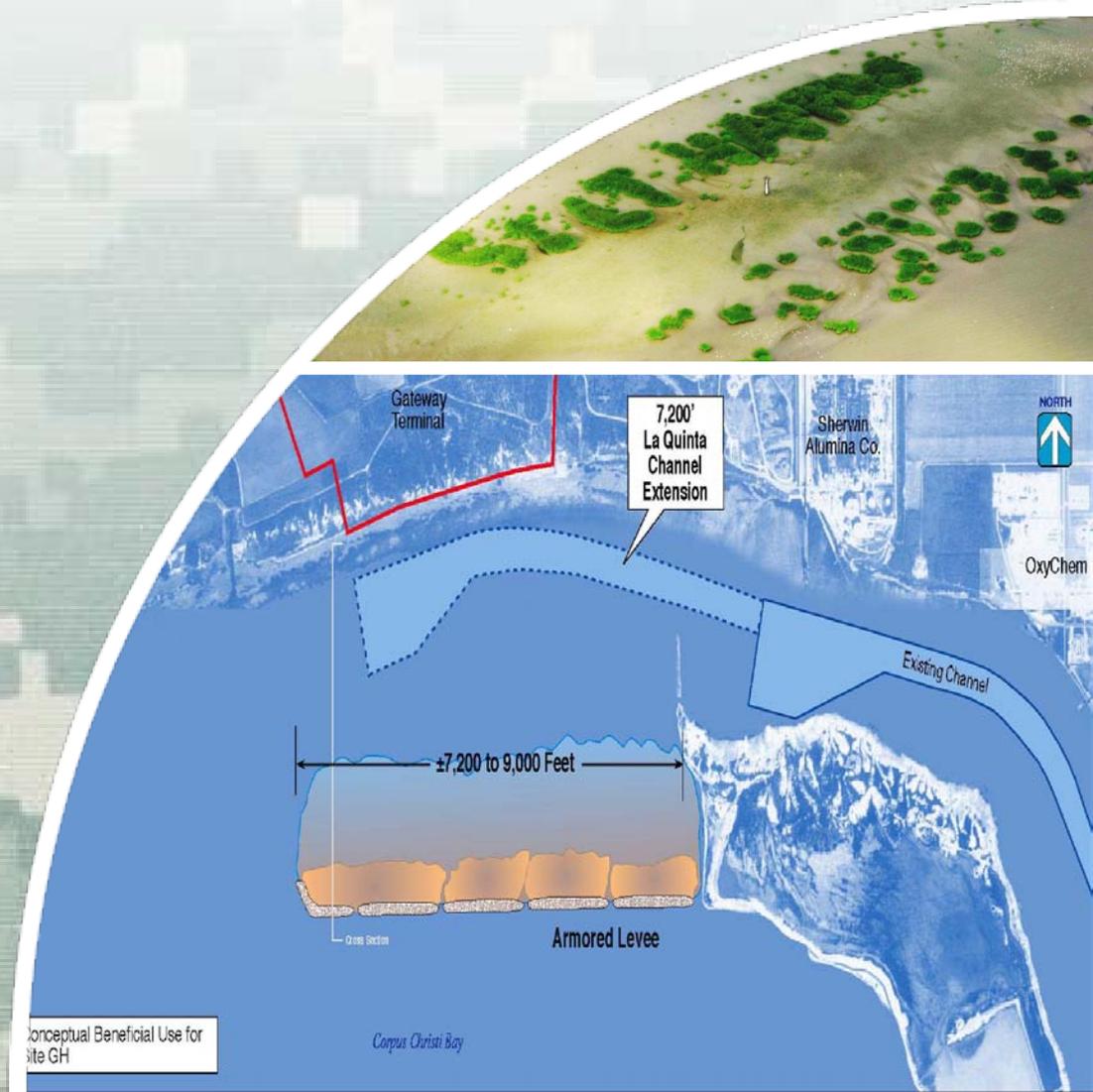
Planning

Galveston District

30 August 2011



US Army Corps of Engineers  
**BUILDING STRONG**<sup>®</sup>



# Objectives

- Past experience with BU in Galveston District
- Discussion of Policies and Procedures
- Examples of BU, both constructed and proposed
- Challenges facing us in considering use of BU

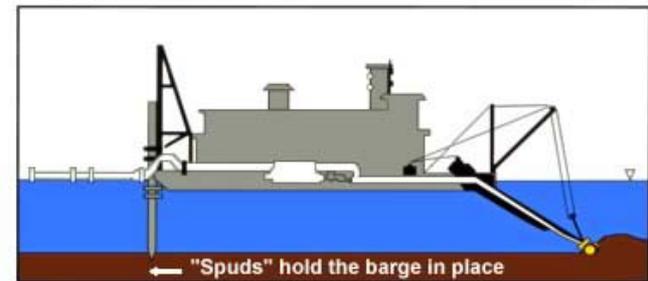


# Disposal Methods

- Upland Confined Placement Areas
- Sidecast of material
- Offshore Disposal



Hydraulic Cutterhead Dredge



Hydraulic Dredge in  
Corpus Christi Ship Channel



Hydraulic  
Cutterhead

Dredge Thompson (St. Paul District)



# Local Change in Focus

- 1987 GBANS Report detailed plans for both confined and unconfined placement
- Interagency Coordination Team template began in 1990
- Ended with authorization of HGNC project in 1997 with significant BU



# National Change in Focus

- **Environmental Operating Principles –**
  - **Environmental sustainability, interdependence, balance.....**
- **Use of multiple existing authorities (204, 207, etc.) to facilitate beneficial use**
  - **The Role of the Federal Standard in the Beneficial Use of Dredged Material from U.S. Army Corps of Engineers New and Maintenance Navigation Projects**
- **Regional Sediment Management**
  - **Section 2037 of WRDA 2007**



# Federal Standard

- Least costly disposal alternative
  - Meets environmental requirements
  - Consistent with sound engineering practices
- 
- ▶ General Navigation Feature (GNF)
- vs
- ▶ Ecosystem Restoration



# GNF vs Eco Res Cost Share Comparison

- Deep-Draft Navigation
  - ▶ < 20 feet 90% Fed/10% Non-Fed
  - ▶ 20 feet to 45 feet 75%/25%
  - ▶ >45 feet 50%/50%
- Ecosystem Restoration
  - ▶ 65% Fed/35% Non-Fed



# Potential Changes to Guidance

- Principles & Guidelines
  - ▶ Foundation for Planning Guidance
  - ▶ Currently identifies economics as primary driver
- Evaluating changes to elevate environment to equal status



# Examples of BU



---

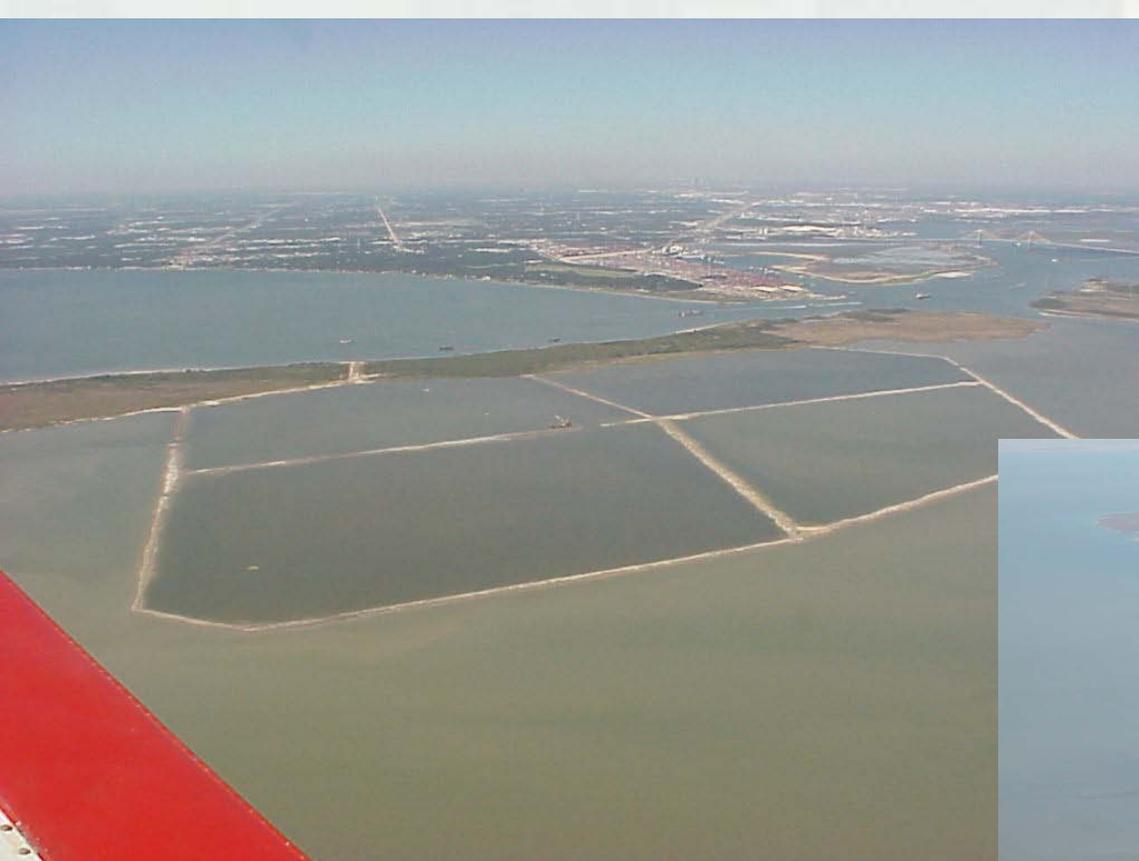
**BUILDING STRONG®**

# Houston/Galveston Navigation Channels

- Report completed in 1995
- Facilitated development of ICT/BUG
- Deepening to 45 feet completed in 2005 on Houston Ship Channel
- Deepening to 45 feet on Galveston Channel completed in 2010
- BU (marsh creation) authorized as Environmental Restoration



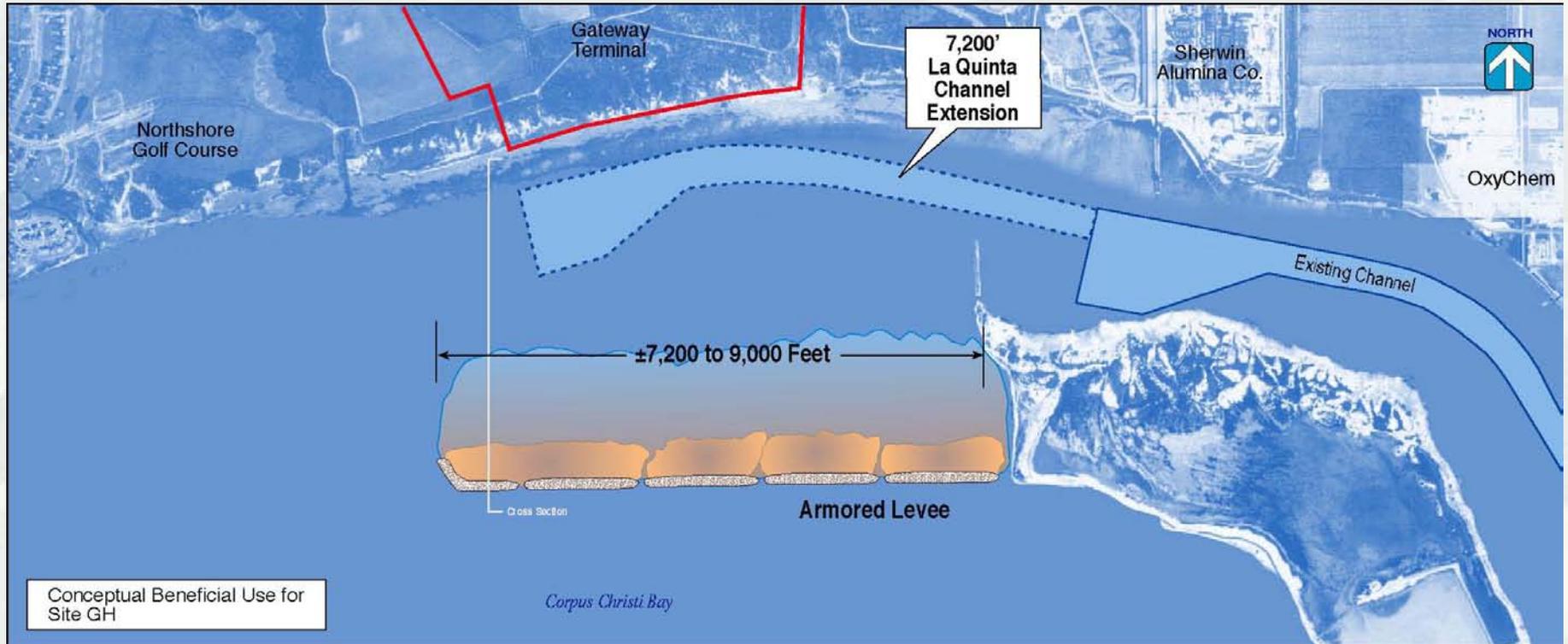
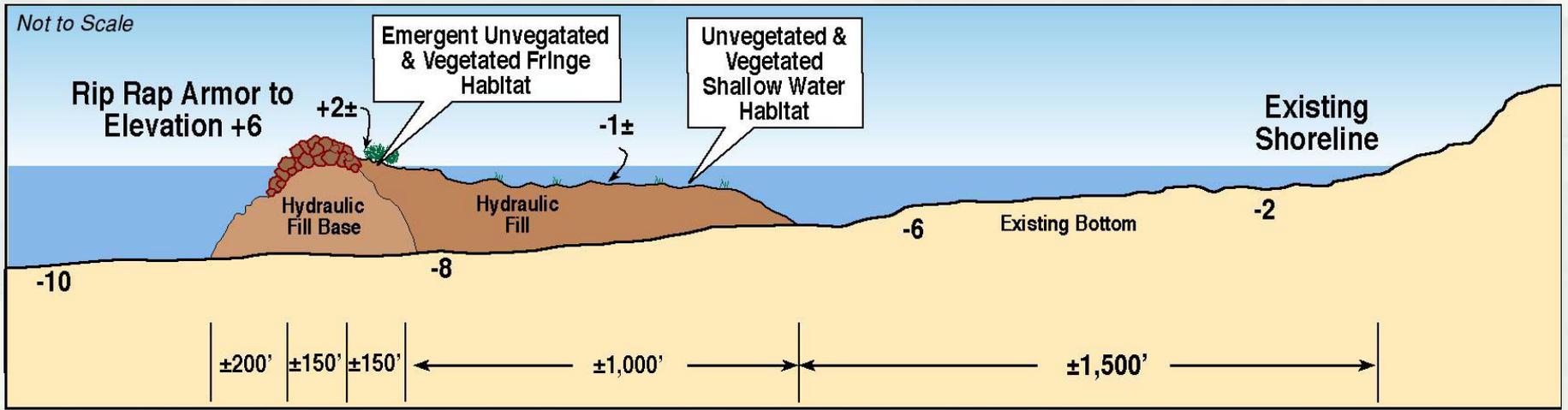
# Houston Ship Channel



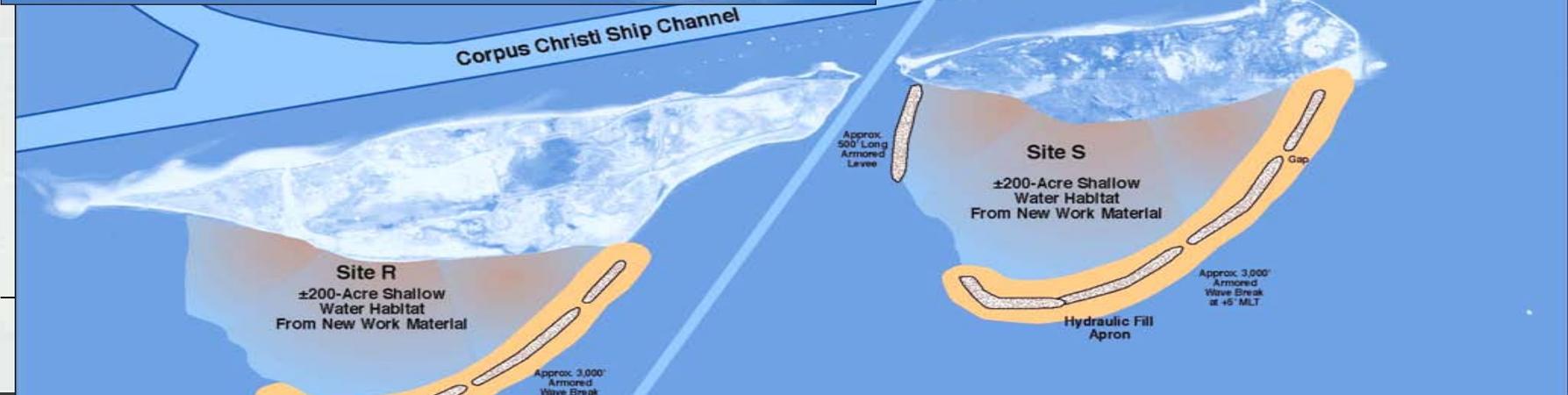
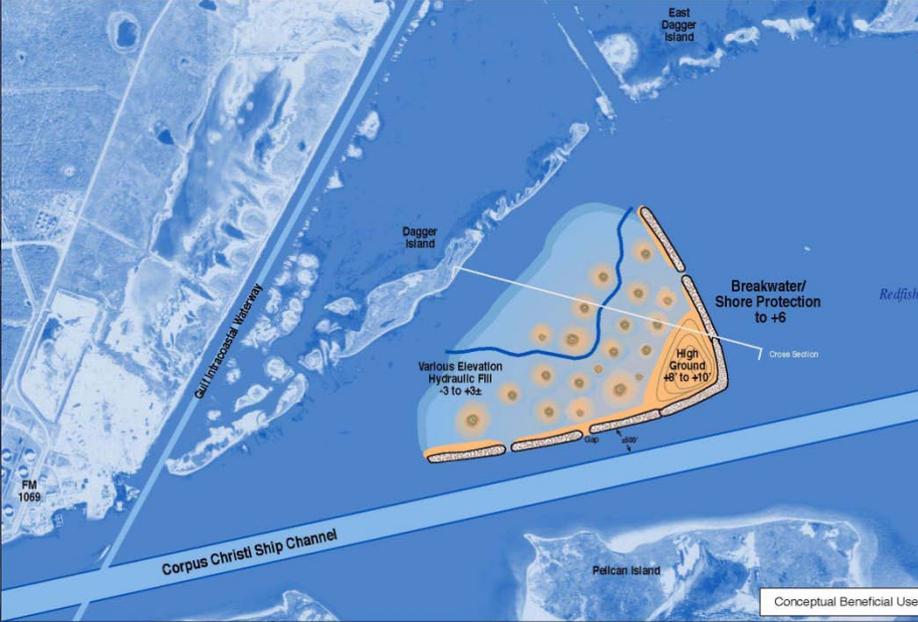
# Corpus Christi Ship Channel

- Feasibility Study completed in 2003 recommending 52-foot channel
- Included in WRDA 2007
- BU\* (seagrass habitat) was identified as least cost
- Currently preparing economic update with potential to begin construction in 2011





# Corpus Christi Ship Channel



# Sabine Neches Waterway

## Neches River BU Marsh Restoration Acres

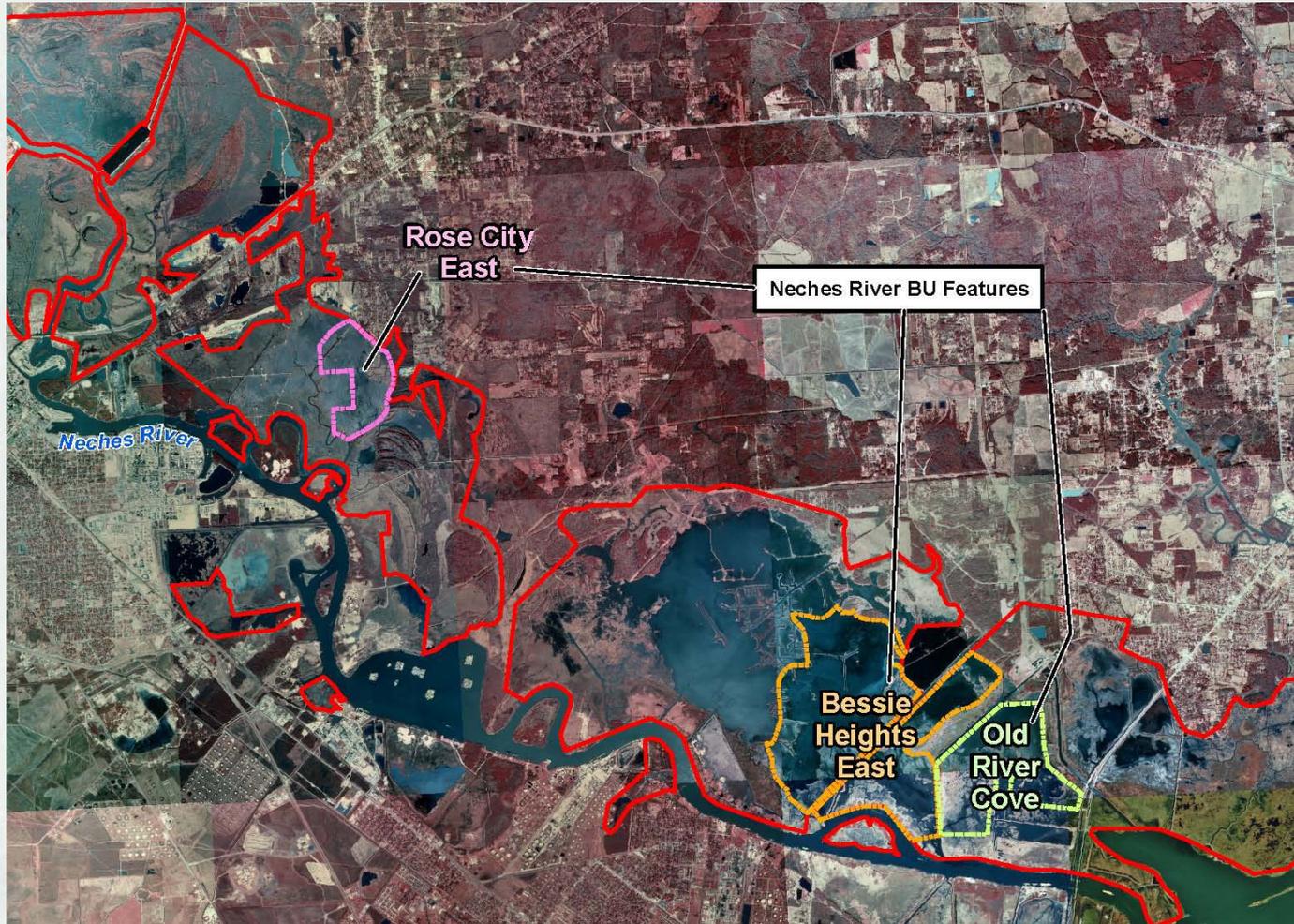
▶ Rose City East (modified)	345
▶ Bessie Heights East	1,869
▶ Old River Cove	<u>639</u>
▶ Total	2,853

## Gulf Shoreline BU Shoreline Nourishment

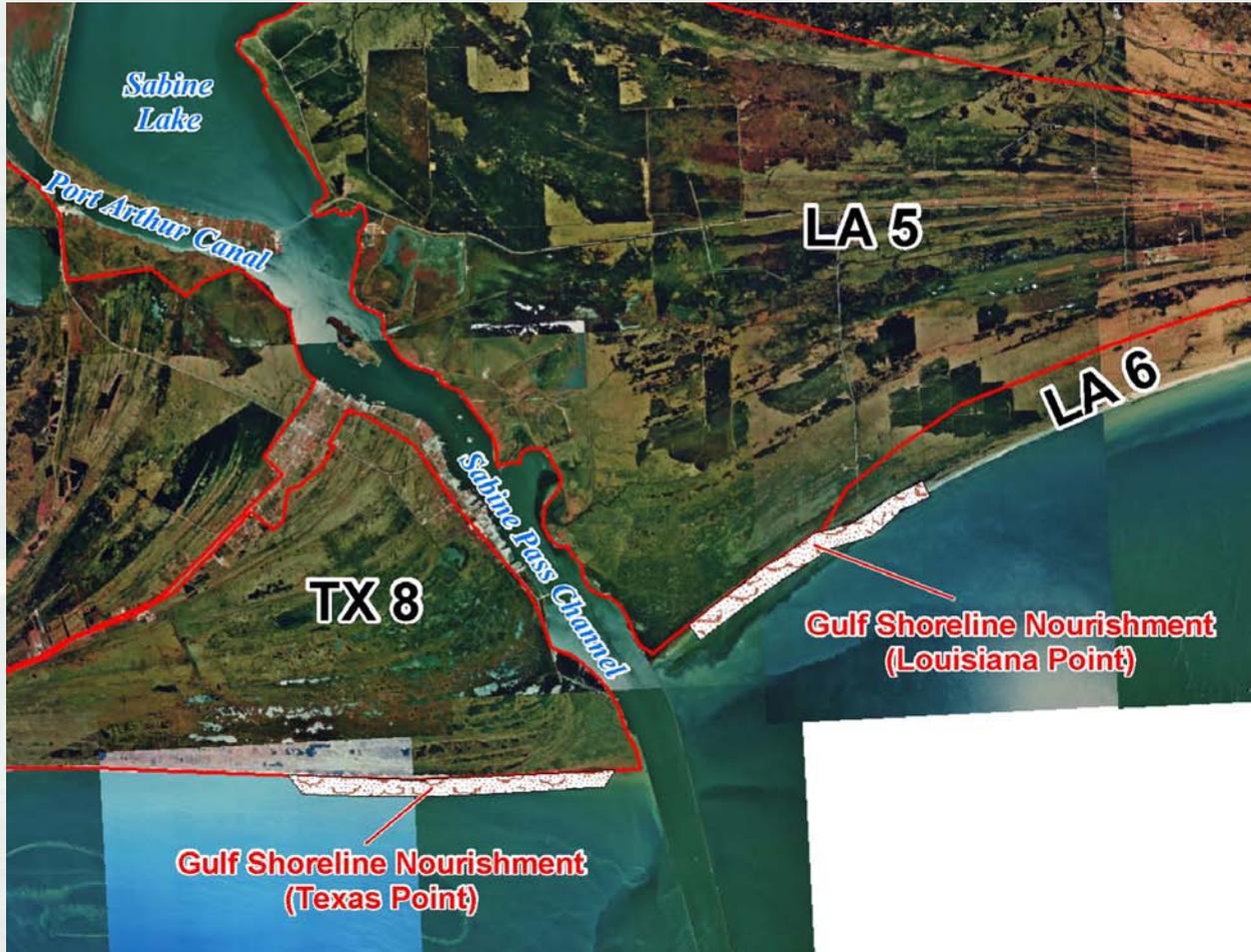
▶ Texas Point	3 mi
▶ Louisiana Point	3 mi



# Sabine Neches Waterway



# Sabine Neches Waterway



# South Padre Island

- Beach quality sand shoals at mouth of Brazos Island Harbor
- Material placed on beach when sponsor able to pay incremental increase



**BUILDING STRONG®**

# Challenges

- Funding
- Review Process (HEP, CE/ICA, ATR, IEPR, Model Cert, etc)
- Funding
- Site considerations while evaluating least cost
- Funding



# Questions?

Bob Heinly  
Chief, Planning Section  
Galveston District  
409-766-3992



---

**BUILDING STRONG®**