



GIWW, Matagorda Bay

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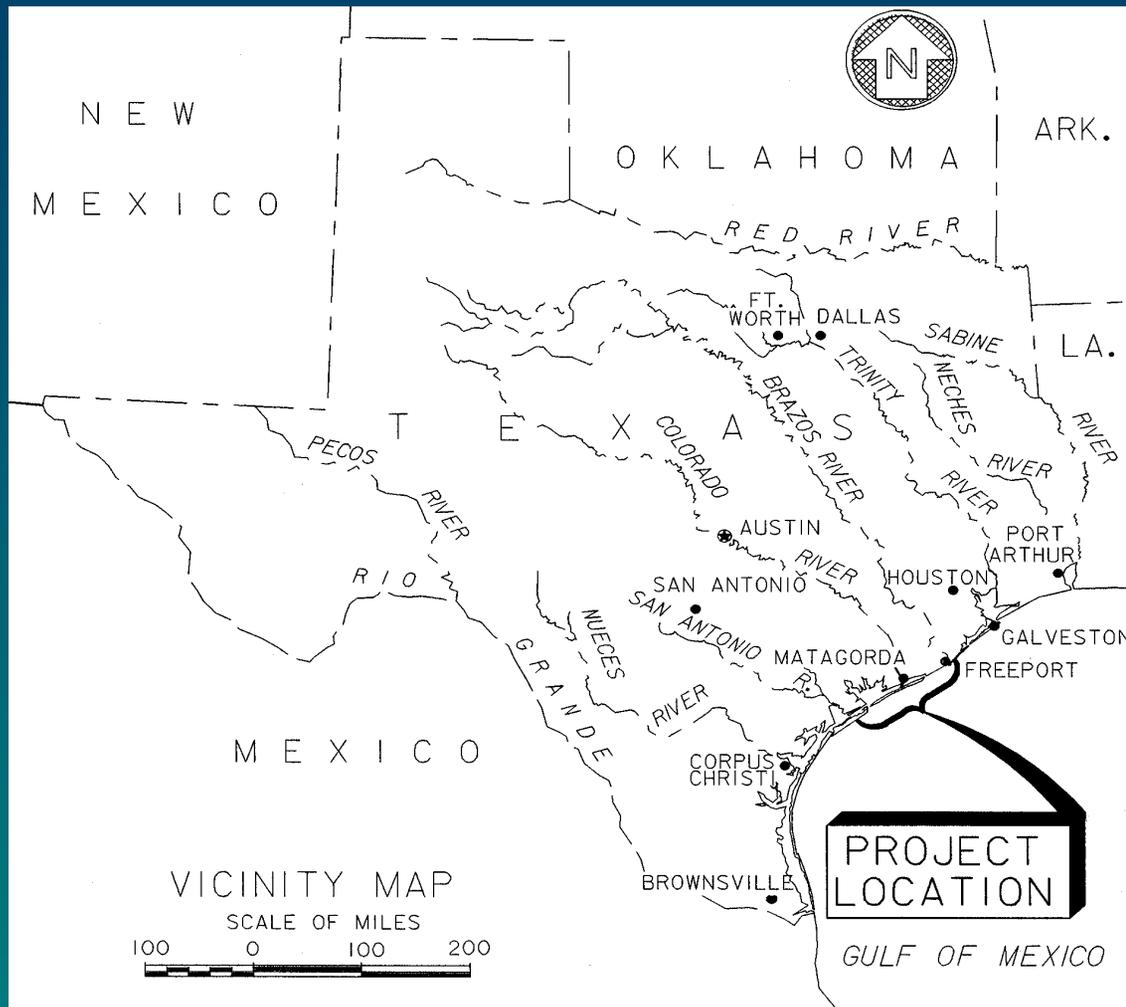
Galveston District

21 November 2002

Overview

- Background
- Problem
- Recommended Plan
- Current Status and Funding

State Map and Project Location



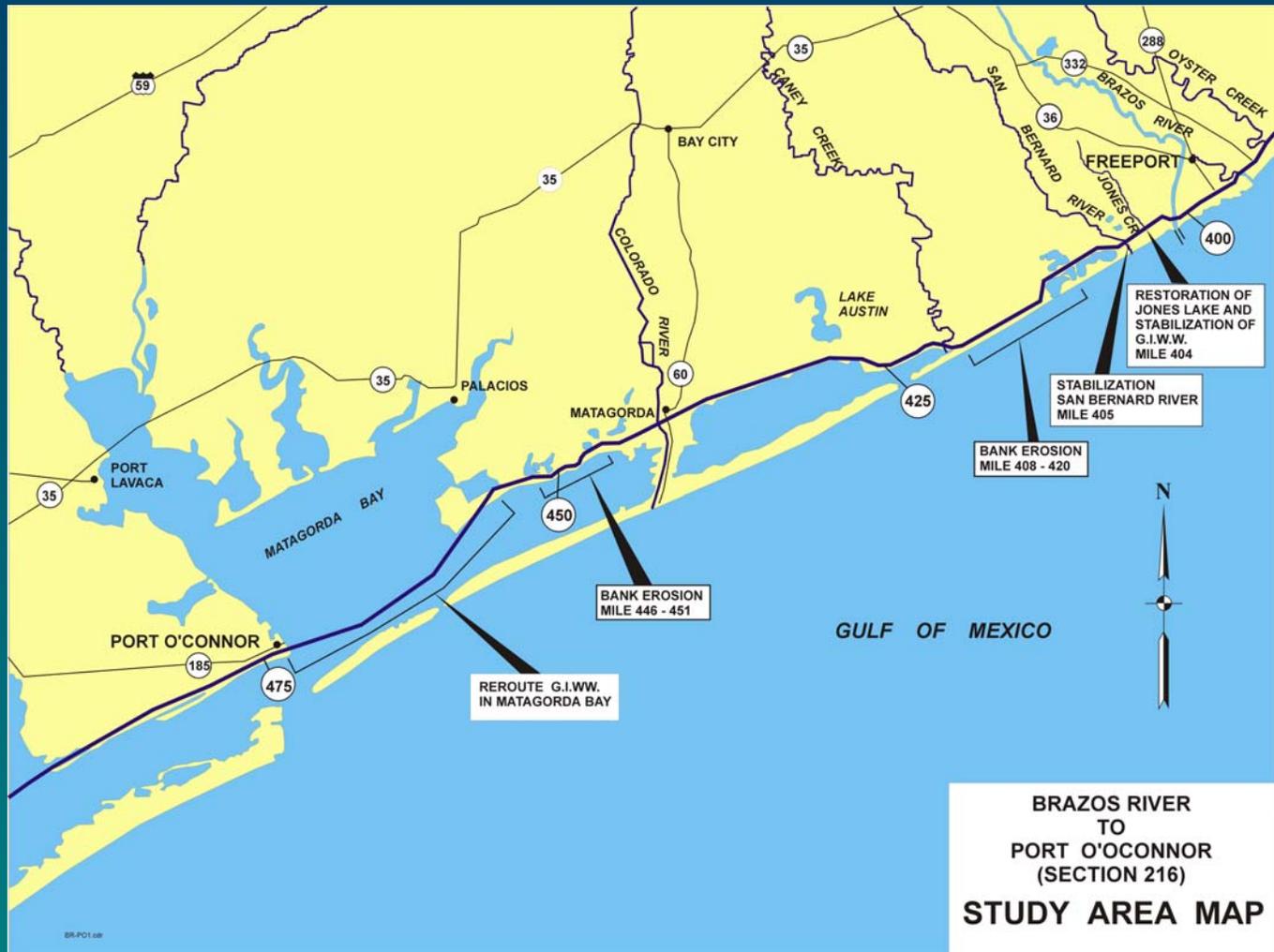
Legislative Authority

- **Section 216 of the 1970 Flood Control Act**
 - *"The Secretary of the Army, acting through the Chief of Engineers, is authorized to review the operation of projects the construction of which has been completed and which were constructed by the Corps of Engineers in the interest of navigation, flood control, water supply, and related purposes, when found advisable due to significant changed physical or economic conditions, and to report thereon to Congress with recommendations on the advisability of modifying the structures or their operation, and for improving the quality of the environment in the overall public interest."*

Background

- GIWW, Brazos River to Port O'Connor
 - Five major concerns in 216 study
 - Jones Creek
 - Jones Lake
 - San Bernard
 - Bank Erosion (Miles 404-420 and 446-451)
 - Matagorda Bay
- Interim Feasibility Report for Matagorda Bay

Brazos River to Port O'Connor Reach



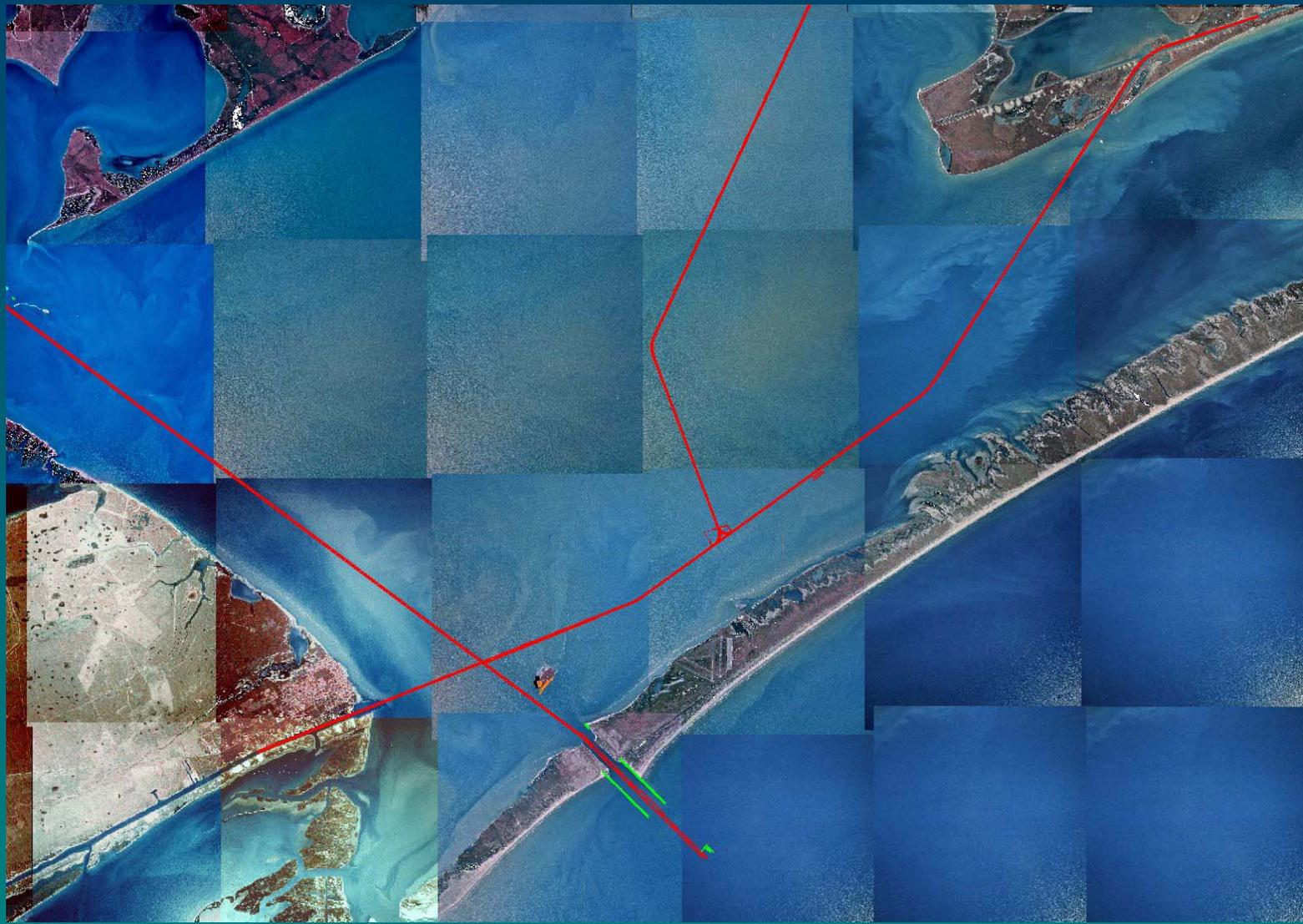
Existing Project Condition

- Characterized by strong prevailing winds and dangerous cross currents combined with high shoaling rates.
- Proximity of the GIWW to the natural pass of Pass Cavallo and construction of the jettied entrance channel and deep-draft Matagorda Ship Channel have created a maintenance dredging and navigation extreme hazard.
- Difficult for Coast Guard to keep the channel marked.
- One-way traffic has been self imposed along the GIWW across Matagorda Bay (Miles 469-471).

Matagorda Bay



Matagorda Bay



Matagorda Ship Channel Jetties



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PLAY



Matagorda Bay at Port O'Connor



Study Alternatives Considered

- No-Action Plan
- Non-Structural Plans
 - Ocean Going Barge
 - Railway
 - Truck
 - Additional Tugs
- Structural Plans
 - Dredging of Pass Cavallo
 - Dredging of Old Green's Bayou Cut
 - Northern Realignment of existing channel.
 - ***Southern Realignment of existing channel.***

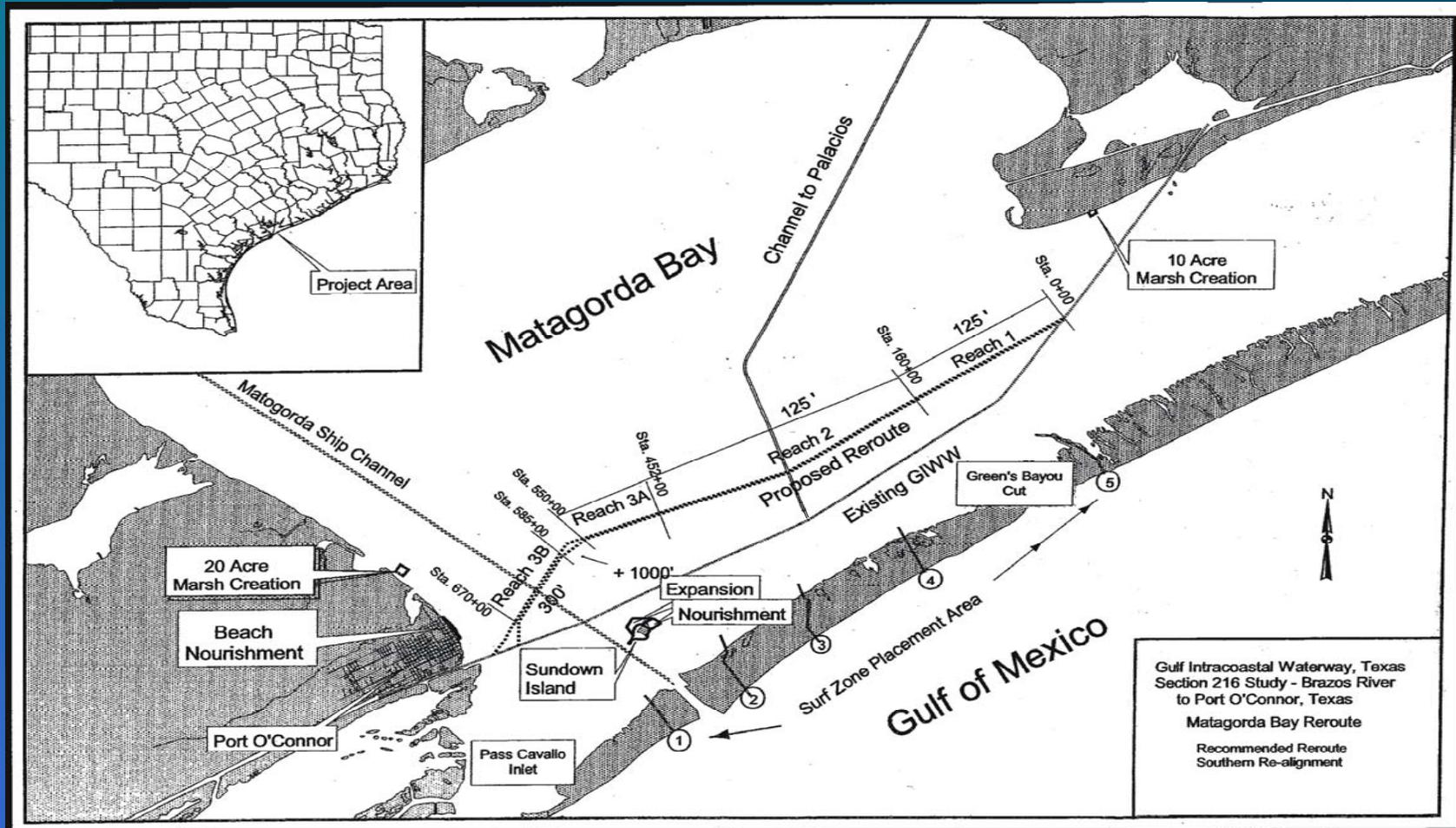
Recommended Plan

- Rerouting the portion of the GIWW across Matagorda Bay using the southern re-alignment
 - Approximately 6,000 feet north of and parallel to the existing alignment
 - Approximately 13 miles
 - 12 foot depth
 - 125 foot bottom width except in the vicinity of the bends

Recommended Plan- Cont

- Minimizes surf zone placement and maximizes ecosystem restoration and beneficial use options
- New Work Material
 - 10 acre marsh creation at Palacios Point
 - 20 acre marsh creation at Port O'Connor
 - Nourish Port O'Connor Beach
 - Nourish and expand Sundown Island
- Maintenance Material
 - Additional 25 acre marsh at Palacios Point
 - Additional 20 acre marsh at Port O'Connor

Project Map and Plan Features



Sundown Island



Sundown Island Geotube



Economic Summary

Project Alternative	First Cost	Equivalent Annual Cost 6 1/8%
Plan 1: Beneficial Use Plan	\$14,508,000	\$936,549
Plan 2: Gulf Placement Plan	\$14,230,000	\$918,603
Plan 3: Upland Placement Plan	\$18,831,000	\$1,215,616

	Equivalent Annual Cost	Benefits from Reductions in Current and Vessel Delays	Benefits from Reductions in Annual O&M Cost	Total Equivalent Annual Benefits	Net Excess Benefits	B/C Ratio
Base Condition Summary a/						
Plan 1	\$936,549	\$1,102,945	\$370,772	\$1,473,717	\$537,168	1.57
Plan 2	\$918,603	\$1,102,945	\$142,041	\$1,244,986	\$326,383	1.36
Plan 3	\$1,215,616	\$1,102,945	\$349,755	\$1,452,700	\$237,084	1.20

a/ Calculated using the towboat operating cost of \$.788 per gallon presented in EGM 00-05.

Status of Interim Report

- Interim Feasibility Report and Environmental Assessment for Matagorda Bay completed in Jun 02
- Division Engineer's Notice published on 28 Jun 02
- Chief's Report package in coordination at HQ USACE
- Value Engineering Study underway

Funding

- Initiated Design Phase in October 2002
- Potential FY04 construction new start
- Total construction first cost is \$14,508,000 based on October 2000 price levels

Summary

- Interim Study initiated for Matagorda Bay to address navigation problems due to high shoaling rates, groundings, dangerous cross currents and one-way traffic restrictions
- Feasibility Report recommends 13 miles of channel re-alignment
- First Cost \$14,508,000
 - Recommend Construction Cost shared between the General Fund of the Treasury and the Inland Waterways Trust Fund