



Port Fourchon: America's Working Coast

*Leveraging Port and Economic Development for Coastal and
Environmental Sustainability*





www.portfourchon.com

America's Energy Economy

- What the Nation would lose if Port Fourchon was out of service for a 21 day period

Impact on...	
Business Sales	\$11.2 Billion lost
Household Earnings	\$3.1 Billion lost
Jobs	65,502 Jobs lost

The Economic Impacts of Port Fourchon on the National and Houma MSA Economies
prepared by Dr. Loren C. Scott and Associates





1978

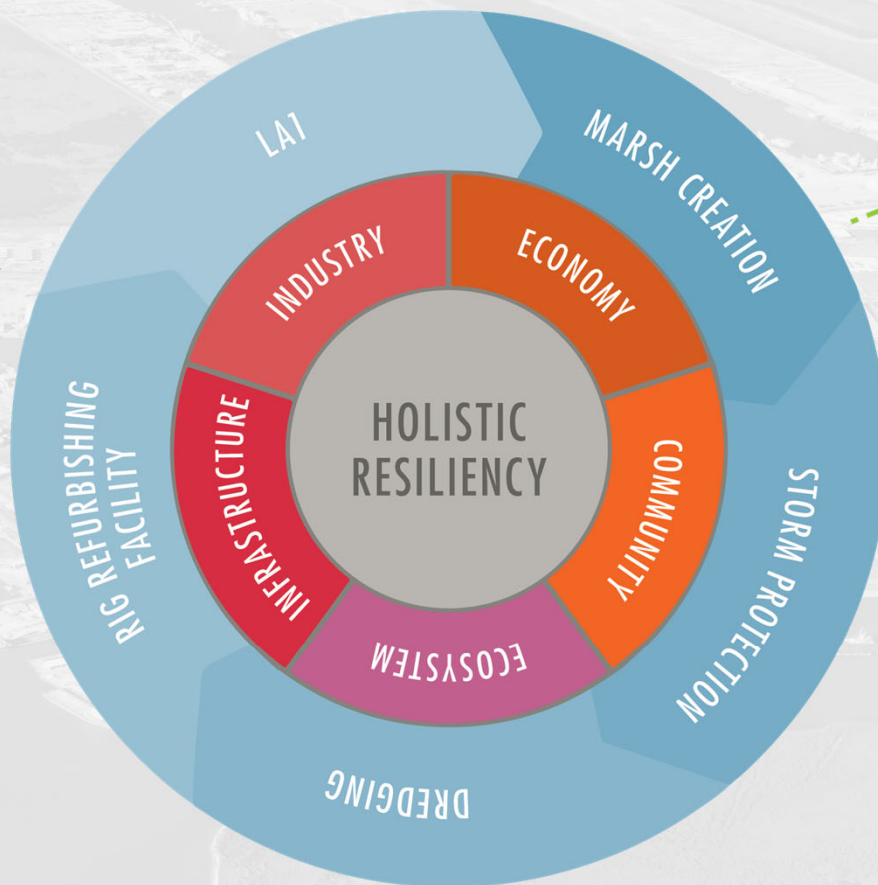


2017

Holistic Resiliency

THREATS

- STORMS
- SUBSIDENCE
- LAND LOSS
- LOSS OF NATIONAL ENERGY RESILIENCE



Mitigation and Restoration

An aerial photograph of a vast, flat landscape dominated by a large, interconnected network of water bodies. The water is a deep, dark blue, contrasting with the surrounding brownish-tan land. The water bodies are irregular in shape, with many narrow channels and small islands, creating a complex, maze-like pattern. The overall appearance is that of a restored wetland or marsh system. The sky is a pale, hazy blue, and the horizon is visible in the distance.

1999

At Port Fourchon, mitigation is done in a way which restores the historic landscape.

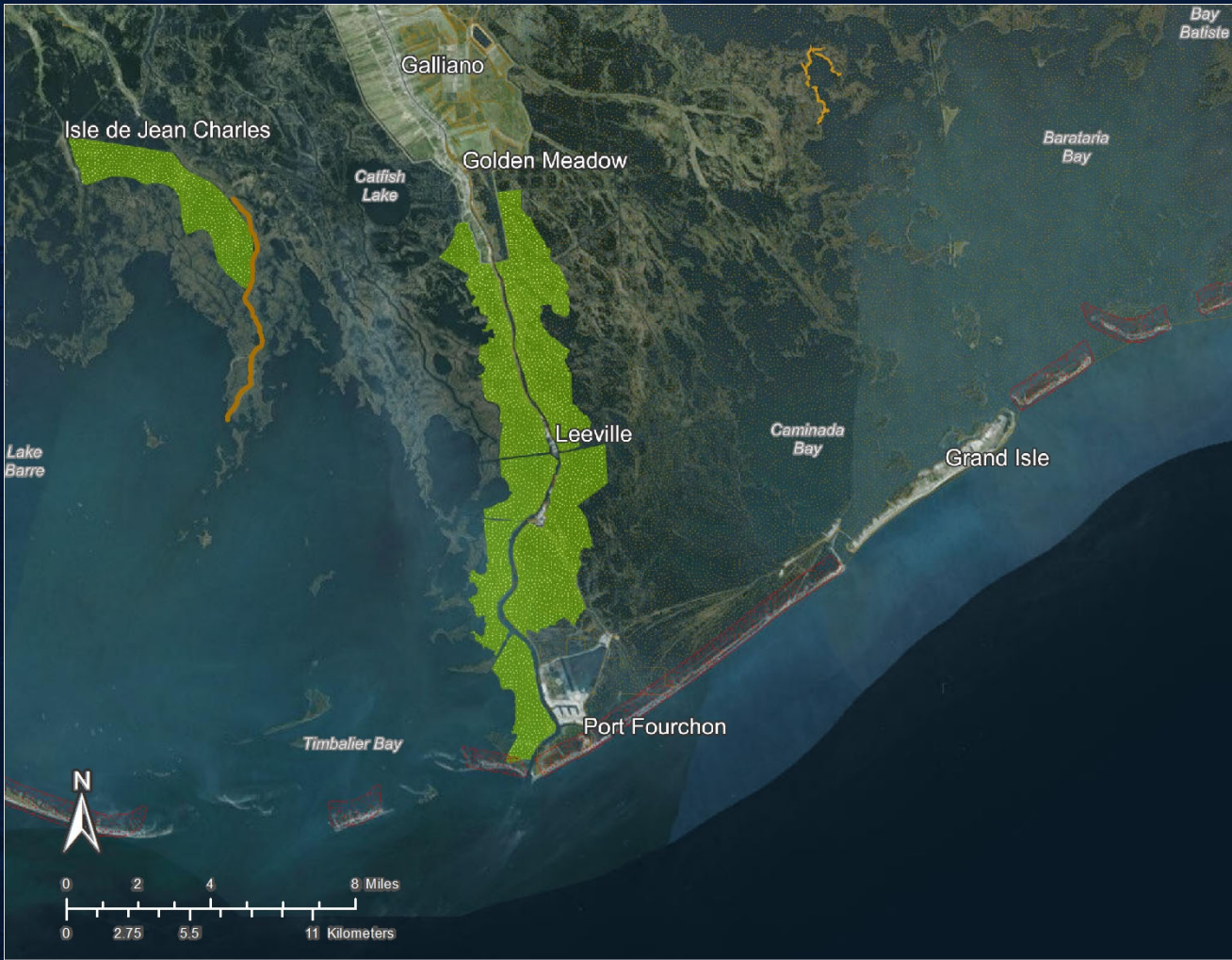
Green Infrastructure = Resiliency

An aerial photograph showing a port facility on the left with several large white industrial buildings and a dock with several ships. To the right of the port is a vast, flat landscape of restored wetlands, characterized by a complex network of narrow, winding water channels and patches of green vegetation interspersed with sandy or light-colored soil. The horizon shows a clear blue sky and the open ocean.

This once vibrant marsh and cheniere ridge platform had degraded in to open water, and through the mitigation works completed in conjunction with the expansion of the Port, nearly 1,000 acres of wetlands have been restored to the landscape to date.

2017

Landscape Level Restoration: *LA Coastal Master Plan*



Louisiana's State Coastal Master Plan

- 50 year, \$50 Billion Ecosystem Level
- Over \$300 M committed or constructed in vicinity of Port Fourchon under existing plans
- Redrawn every 6 years
- Approved by Legislature
- All LA enviro \$ from Deepwater Horizon are dedicated to Master Plan projects

Deepwater Draft s203 Feasibility Study

- Deepen Belle Pass to -50'
- Deepen Bayou Lafourche, Flotation Canal, Northern Expansion to -30'
- Purpose-built Deepwater Rig Repair and Refurbishment
- Initial construction - 20M cu yds
- Life of project - 86M cu yds



Fourchon Island: Deepwater's Ultimate Destination

- Purpose-built development for decommissioning, repair, refurbishment
 - Proximity to Gulf <2mi
 - -50' deep channel
 - +1,750' wide slip
 - Port Fourchon is already the service base for +90% of US GoM Deepwater rigs
- Capture +\$90M/yr of work



Benefit Cost Analysis & Tentatively Selected Plan (TSP)

- All the alternatives considered have positive Benefit-Cost Ratios (BCR).
- Net economic benefits increase from Alternative 2 through Alternative 6.
- Environmental benefits increase Alternative 2 through Alternative 6.

Action Alternative	Dredged Material Removed ¹ (cubic yards)	Marsh Creation (cubic yards)	Shoreline Nourishment (cubic yards)	Net Acres of Marsh Creation
2a	26,380,893	25,174,751	1,206,142	1,189
2b	37,142,456	32,169,787	4,972,669	1,520
3	49,904,882	35,705,854	14,199,028	1,687
4	57,579,985	38,029,259	19,550,636	1,797
5	63,702,321	39,667,517	24,034,804	1,874
6a	72,586,098	43,428,093	29,158,005	2,052
6b	81,796,621	47,793,197	34,003,424	2,258
6c TSP	86,401,932	49,975,734	36,426,198	2,361

¹Dredged material removed includes new work and 50 years of annual maintenance (includes additional quantities required for navigational safety and advanced maintenance depths)



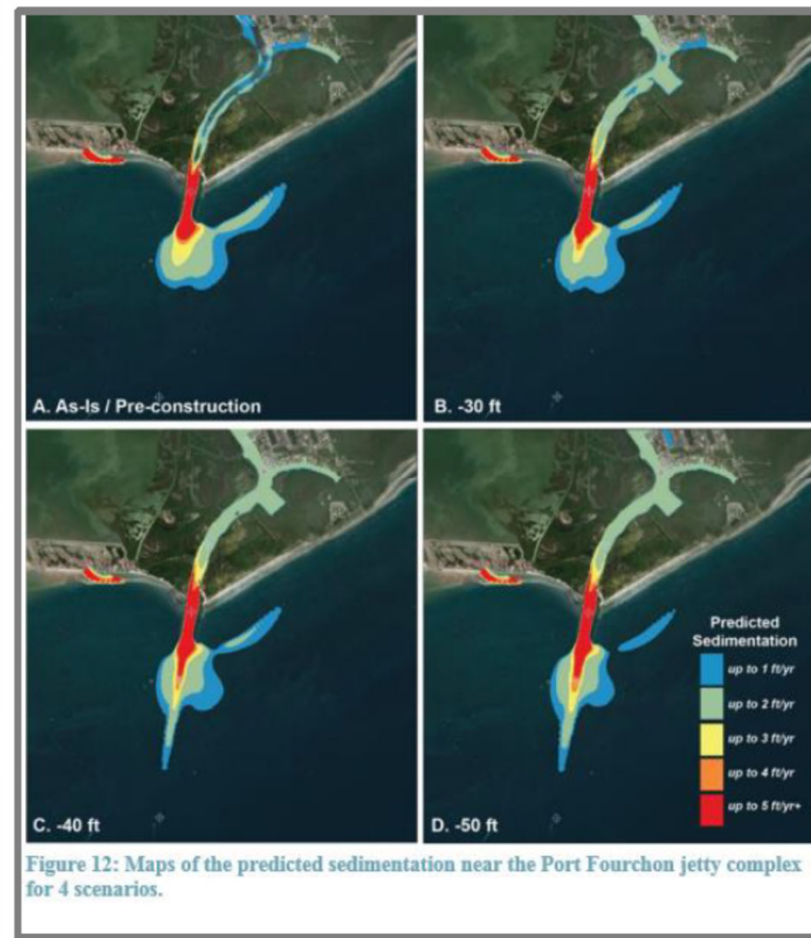
- Sea level rise and subsidence factors are incorporated into the estimation of the net acres of 2,361 marsh.
- 36 million cubic yards of dredged material – Unrealized shoreline nourishment benefits.



- Public-private partnership brings together industry and port with *The Water Institute of the Gulf*
- Driven by industry partners with the vision of protecting and growing America's Energy Infrastructure by beneficially using dredge materials
- Science expertise at the Institute used to plan for best placement of dredge material to provide maximum protection for critical infrastructure using world-class science

Cutting Edge Science

- TWI is utilizing Delft3D and other modeling to assist s203 project team with:
 - Sedimentation modeling
 - Beneficial use of dredge materials placement
 - WVA analysis



Maximizing Benefits

- ~86,000,000 cubic yards of fill over 50 year life of project
- Fourchon is in the most sediment starved area of coast, making BUDM critical opportunity
- 4,717 acres of marsh creation in 50 yrs
- 2,361 acres of which remain in 50 yrs
- Creating a renewable sediment resource in heart of B-T basins

PORT FOURCHON CHANNEL DEEPENING BY THE NUMBERS

\$90,000,000

Dollar value of the amount of rig repair work currently being lost to other countries which would be captured by a rig repair facility on Fourchon Island and spent in LA and the US



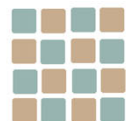
1,300

Number of permanent, high-paying skilled jobs this amount of work would generate in Port Fourchon for American workers



86,000,000

Number of cubic yards of sediments to be dredged and used to rebuild our coast over the 50-year life of the project (including the initial construction dredging of approximately 20M cubic yards)



4,717

Total number of acres of coastal wetlands to be built by using this material beneficially in total over the 50-year life of the project



2,361

Number of these acres of coastal wetlands constructed through this project which will remain in 50 years



10 TO 1

Minimum Benefit to Cost Ratio (BCR) of the project, assuming 7% discount rate, and excluding some economic benefits. (This means that for every \$1 of taxpayer funds spent on the project, AT LEAST \$10 will be returned to taxpayers in economic benefits)

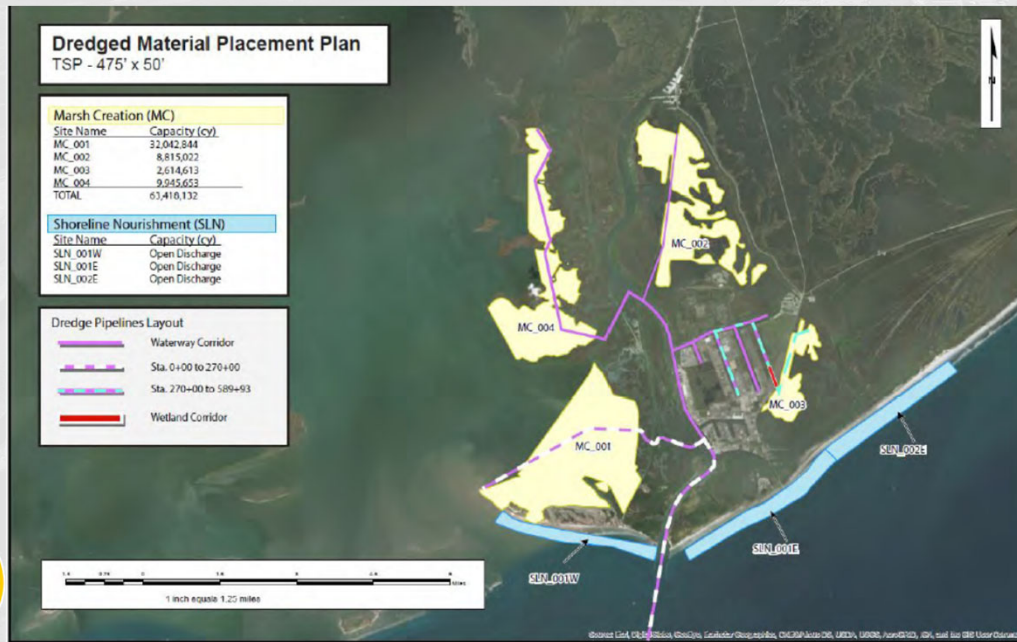


More info: www.portfourchon.com

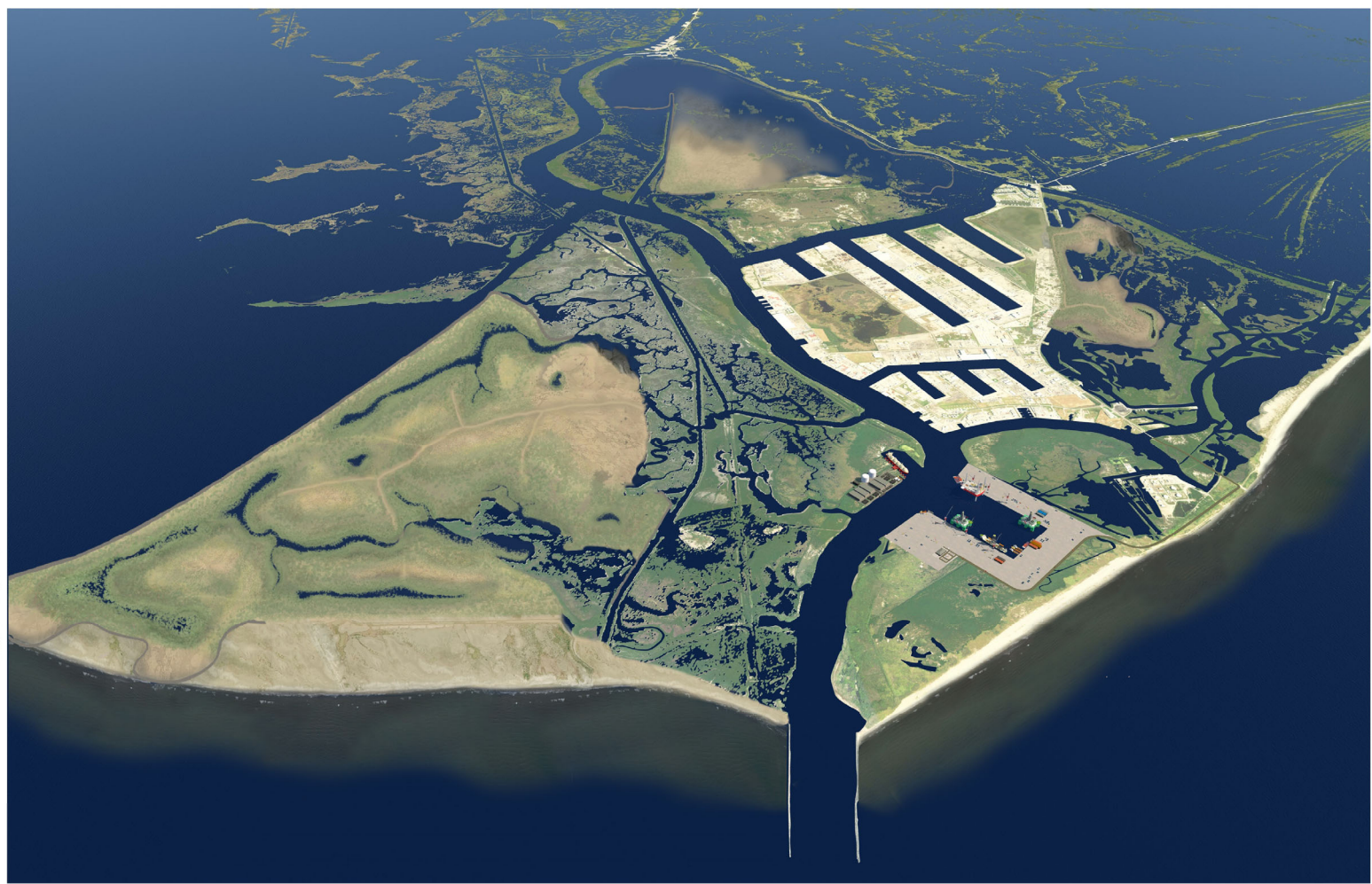


Recurring Sediment Source

- Opportunity to align sediment availability with priority restoration in B-T basins



Future With Project (mid-project YR36-40)





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