

Making the Texas Coast More Resilient:

Threading the needle between restoration, infrastructure, and resilience

AMANDA FULLER - DIRECTOR, TEXAS COAST AND WATER PROGRAM

Outline

- Gulf restoration and recovery after Deepwater Horizon
- Coastal resilience planning efforts in Texas
- New direction after Hurricane Harvey
- Infrastructure/nature-based solutions & community equity
- The funding landscape



Gulf Restoration & Recovery After 2010 Deepwater Horizon Oil Spill

JUMP START OF COMPREHENSIVE COASTAL PLANNING IN TEXAS

Restoration Funds in the Gulf Region After the 2010 Deepwater Horizon Oil Spill

Gulf Environmental Benefit Fund \$2.544 billion (Transocean + BP criminal

TX = \$203.52 million

LA = \$1.272 billion

MS = \$356.16 million

AL = \$356.16 million

FL = \$356.16 million

Texas breakdown

2013 = \$12.64 million

2014 = \$28.24 million

2015 = \$27.12 million

2016 = \$24 million

2017 = \$40 million

2018 = \$71.52 million

Deepwater Horizon Oil Spill Criminal and Civil Fines and Penalties

(Transocean + BP + Anadarko)

RESTORE Act

settlements)

\$5.3 billion (Transocean + BP + Anadarko Clean Water Act settlements)

TX = \$520 million

LA = \$952 million

MS = \$704 million

AL = \$725 million

FL = \$692 million

RESTORE Council = \$1.6 billion

NOAA = \$133 million

Texas breakdown

Equal State/Direct Component Allocation (Pot 1) = \$373 million

Oil Spill Impact Allocation (Pot 3) = \$121 million

Centers of Excellence (Pot 5) = \$26 million

TOTALS available for ecological restoration from theses sources:

Texas = \$961 million

Louisiana = \$7.224 billion Mississippi = \$1.356 billion Alabama = \$1.377 billion Florida = \$1.728 billion RESTORE Council = \$1.6 billion NOAA = \$133 million Additional & Future NRDA = \$2.29 billion

\$16.669 billion

*Totals only reflect the 3 listed funding sources.

Natural Resource Damage Assessment

\$8.1 billion (BP agreement + BP Oil Pollution Act settlement)

TX = \$238 million

LA = \$5 billion

MS= \$296 million

AL = \$296 million

FL = \$680 million

"Region-wide Projects" = \$350 million

"Open Ocean" = \$1.24 billion

"Unknown Conditions = \$700 million

Texas breakdown

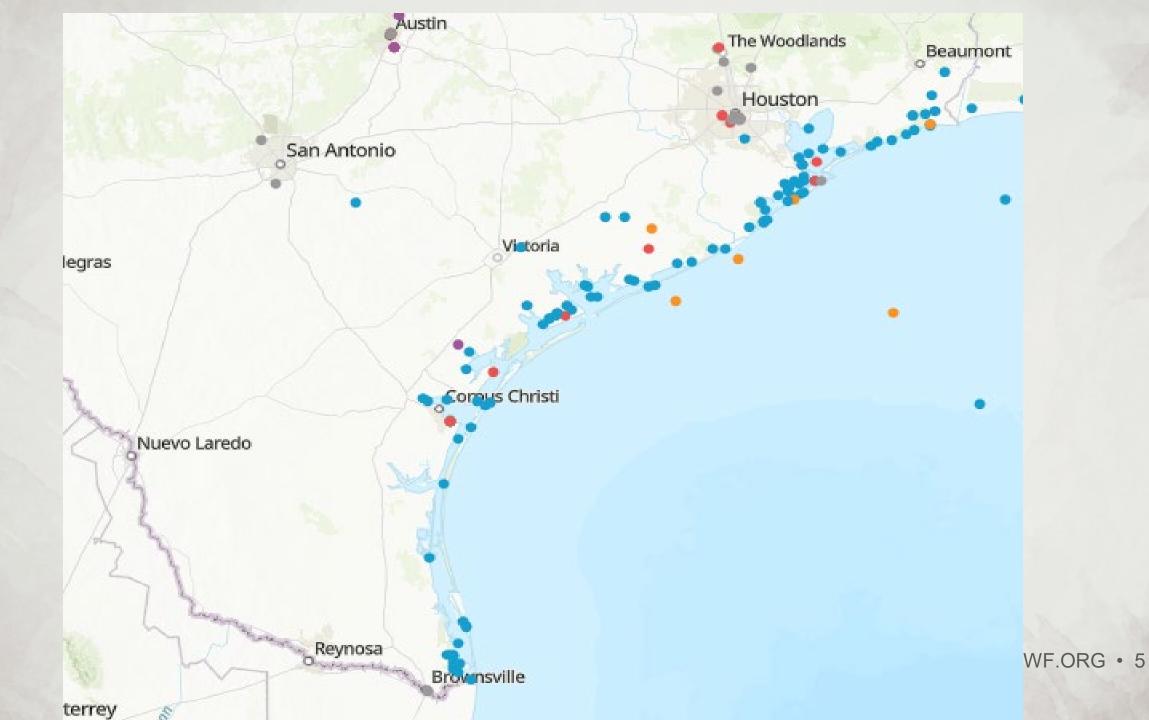
Habitat = \$100 million

Water Quality = 22.5 million

Living Coastal/Marine Resources = \$90.5 million

Recreation = \$18.5 million

Monitoring/Administration = \$6.5 million





Ongoing Coastal Planning Efforts

Texas Coastal Resiliency Master Plan (GLO) – 2017, 2019, next iteration in progress

Coastal Texas Protection & Restoration Feasibility Study (USACE & GLO)

RESTORE Council's Comprehensive Plan

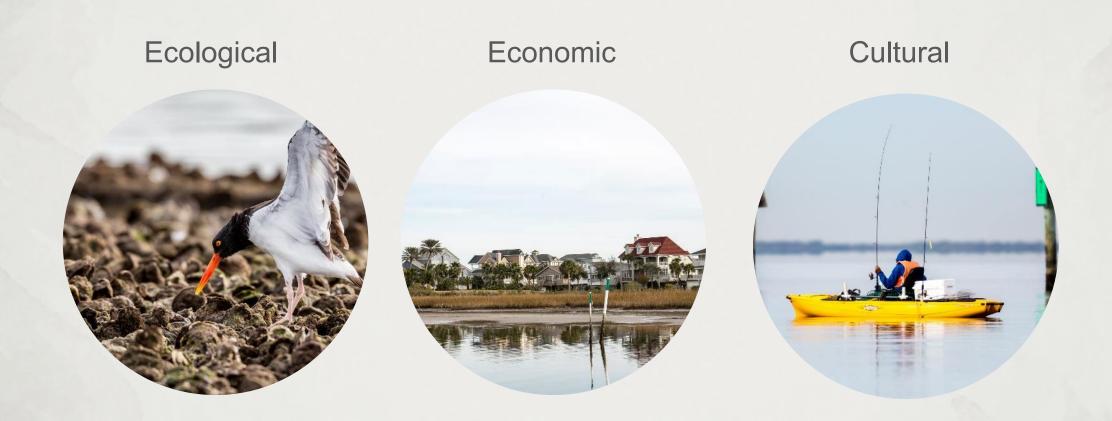
Texas RESTORE Act Multi-year Implementation Plan + State Expenditure Plan



Rethinking Project Efficacy

THE PURSUIT OF "THE MOST BANG FOR YOUR BUCK"

Resiliency Co-benefits





Land Acquisition/Conservation

Protect habitat for the benefit of particular species, AND:

- Improved water quality in bays and estuaries
- Reduced storm wave heights
- Multiple lines of defense
- Valued ecosystem services
- Enhance outdoor industry/economy
- Flood insurance discounts



Restoring Freshwater Inflows to Bays/Estuaries

The restoration of freshwater inflows to coastal bays and estuaries will help improve the overall health and functioning of coastal wetlands and their ability to withstand the effects of future sea level rise, storms, and droughts.

- Protecting oysters and oyster reef habitat
- Benefits to blue crab population
- High productive commercial and recreational fisheries
- Maintain estuary health and salinity levels



Broadening Our Understanding of Infrastructure

THE PROTECTIVE VALUE OF NATURE & THE CENTERING OF COMMUNITY EQUITY

Growing Interest in Alternatives to Conventional Approaches

Conventional "gray" infrastructure

- Costly
- Aging
- Increasingly unreliable

Healthy natural ecosystems

- Cost-effective
- Adaptive to disturbances
- Co-benefits
- Shore up conventional infrastructure



Natural and Nature-based Infrastructure

Natural Defenses for Coastal Hazards

Coastal habitat restoration

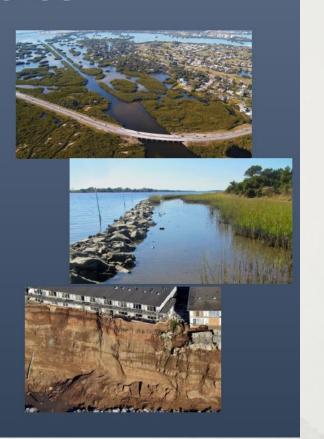
 Coastal wetlands, beaches and dunes, coral and oyster reefs

Living shorelines

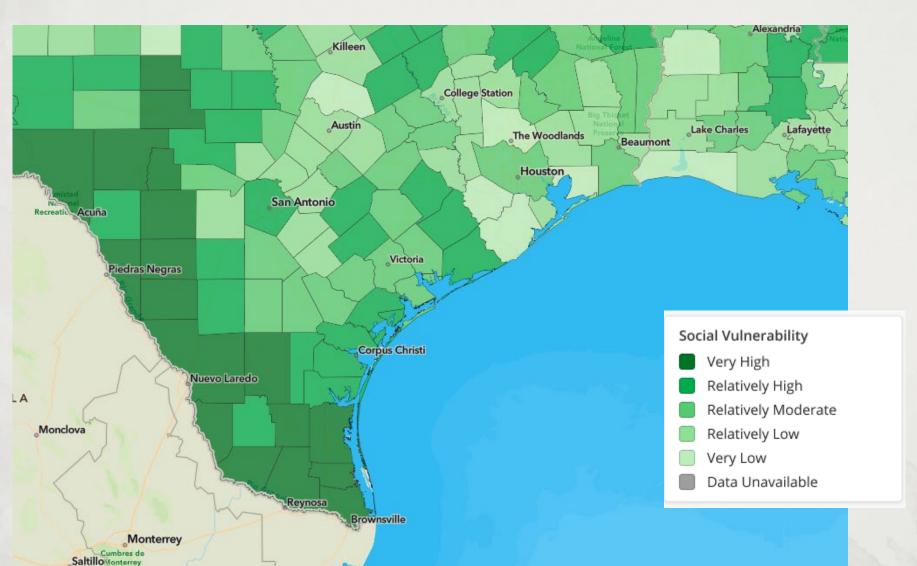
 Vegetation only, combined vegetation and structural

Protecting coastal areas from development

 Open space protection, voluntary buyouts



Centering Equity



Myriad Funding Programs

Also see:

- Deepwater Horizon-related funding streams
- Community Development Block Grant – Mitigation program
- Matagorda Bay Mitigation
 Trust
- Incoming infrastructure funds – Clean Water and Drinking Water SRFs

	Name	Funding Agency	Brief Description
	Community-Based Restoration Program	NOAA	Wetlands, coral reef restoration, and bivalve shellfish habitat restoration
	National Coastal Resilience Fund	NOAA	Living shoreline, floodplain-habitat restoration design, marsh and wetland habitat restoration
	Hazard Mitigation Assistance	DHS - FEMA	Drought and flood risk reduction projects, such as aquifer storage and recovery, floodplain and stream restoration
	Building Resilient Infrastructure and Communities (BRIC) grant program	FEMA	Hazard mitigation planning, conventional and nature-based infrastructure, and research- oriented, proactive investment in community resilience
Federal	Community Development Block Grant Disaster Recovery (CDBG-DR) grants	HUD	Disaster relief and recovery, infrastructure restoration and economic revitalization
	Section 319 Nonpoint Source Management Program	US EPA	Nature-based solutions demonstration projects related to water quality improvements
	Gulf of Mexico Energy Security Act	BOEM/GLO	Coastal projects targeting the restoration of coastal damage from Hurricane's Ike and Harvey and enhancing resiliency of the Texas shoreline to prevent future threats
	Flood Infrastructure Fund (FIF)	TWDB	Flood control, flood mitigation, and drainage projects, including nature-based approaches
	Texas Coastal Management Program (CMP)	NOAA/GLO	Coastal natural hazards response, critical areas enhancement, and ecotourism development
State	Coastal Erosion Planning and Response Act (CEPRA)	GLO	Coastal erosion response projects and related studies to reduce the effects of and to understand the processes of coastal erosion

Final Thoughts

- ✓ We are on a strong path (plans are improving)
- ✓ Funding is flowing for the next decade, but a more certain and longterm source of funds is needed
- ✓ Slow acceptance of nature as infrastructure
- ✓ More public discourse on the future of our coast is needed
- Equitable processes and outcomes are musts

