

Gulf of Mexico Ecosystem Restoration: Using a Foundation of Ecological, Economic and Social Components

December 6, 2016



Important Role for Ecosystem Services

- Understanding Impact: Ecological, social, economic components are all important for understanding impact of large scale restoration
- Monitoring: Monitoring is more than "what is in the water" i.e., need to see the big picture
- Communication: An ES perspective can serve as lens to communicate results/context of successful restoration projects – helps answer the "So What?" question

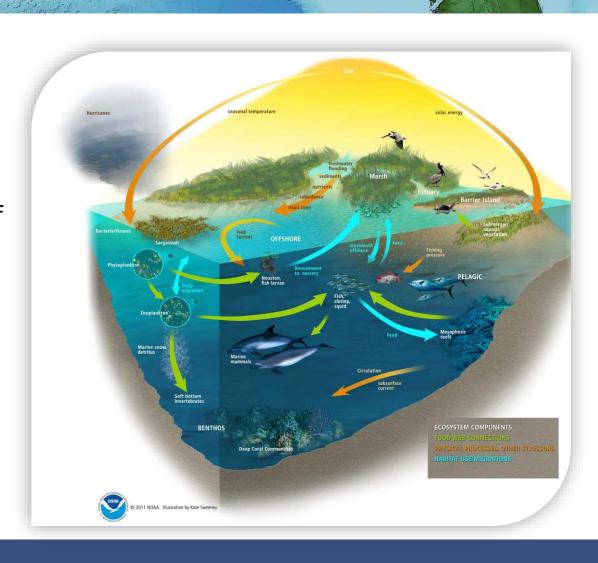
Limited ecosystem service expertise translates to opportunities

- RESTORE 5 Gulf states and 6 federal Council members
- NRDA through the Technical Implementation Groups
 - 5 state TIGS
 - Region-wide and Open Ocean TIGS
- NFWF Funds allocated by state



The Oil Spill Happened in a Vast Regional Ecosystem

- Highly diverse & ecologically rich array of resources and habitats
- Highly interactive, interdependent network of organisms and their environment.
- All these resources were threatened and many were injured, some severely, as a result of the *Deepwater* Horizon incident.





2012 RESTORE Act...

Council to... "restore the ecosystem and economy of the Gulf Coast"

4 Priority Criteria from the Act:

- Greatest contribution to restoring & protecting natural resources
- Large-scale
- Build upon existing restoration plans or programs
- Long-term resilience to areas most impacted by the DWH oil spill

...Without Regard to Geographic Location



Gulf Coast Ecosystem Restoration Council

- •GCERC is a Federal Agency with unique governance consisting of:
 - Governors of 5 Gulf states
- 6 federal agencies with USDA as chair
- As a federal agency, GCERC is must comply with the President's memorandum Incorporating Ecosystem Services into Federal Decision Making



Catherine Hibbard, USFWS

- Oil Pollution Act; 15 CFR 990
- Who: Trustees
- Responsibilities:
 - Determine amount of injury to natural resources and lost services
 - Develop and oversee implementation of restoration plan(s) to compensate the public for injuries and lost services
 - Ensure the polluters pay for assessment and restoration

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Trustees' Restoration Goals	Provide for Monitoring, Adaptive Management and Administrative Oversight to Support Restoration Implementation	Restore and Conserve Habitat	>			Wetlands, Coastal, and Nearshore Habitats Section 5.5.2	→	Restoration Approaches
				Types		Habitat Projects on Federally Managed Lands Section 5.5.3	→	Restoration Approaches
		Restore Water Quality				Nutrient Reduction Section 5.5.4	→	Restoration Approaches
			L->			Water Quality Section 5.5.5	→	Restoration Approaches
		Replenish and Protect Living Coastal and Marine Resources	┌ →			Fish and Water Column Invertebrates Section 5.5.6	→	Restoration Approaches
			-			Sturgeon Section 5.5.7	→	Restoration Approaches
				Restoration	MDM	Submerged Aquatic Vegetation Section 5.5.8	→	Restoration Approaches
			-	Rest		Oysters Section 5.5.9	→	Restoration Approaches
			-			Sea Turtles Section 5.5.10	→	Restoration Approaches
			-			Marine Mammals Section 5.5.11	→	Restoration Approaches
		Provide and Enhance Recreational Opportunities			A `	Birds Section 5.5.12	→	Restoration Approaches
			L.			Mesophotic and Deep Benthic Communities Section 5.5.13	→	Restoration Approaches
						Provide and Enhance Recreational Opportunities Section 5.5.14	→	Restoration Approaches
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Governance

- Trustee Council (4 federal, 5 state trustees)
 - Coordinates among TIGs, summarizes and communicates restoration progress to public
 - Develops Standard Operating Procedures
- Trustee Implementation Groups
 - Propose and finalize all decisions on restoration planning within the associated funding allocation by restoration type; public comment and environmental compliance
- Individual Trustee Agencies
 - Perform restoration planning, implementation, and monitoring

Trustee Implementation Groups (TIGs)

Texas

Trustees for Texas Federal Trustees

Louisiana

Trustees for Louisiana Federal Trustees

Mississippi

Trustees for Mississippi Federal Trustees

Alabama

Trustees for Alabama Federal Trustees

Florida

Trustees for Florida Federal Trustees

Regionwide

All Trustees

Open Ocean

Federal Trustees

Unknown Conditions and Adaptive Management

All Trustees



DWH Funding Streams for Restoration

Civil Settlements: ~\$6.7 billion

80% to RESTORE Act: ~\$5.3 billion

Criminal Penalties: ~\$2.5 billion

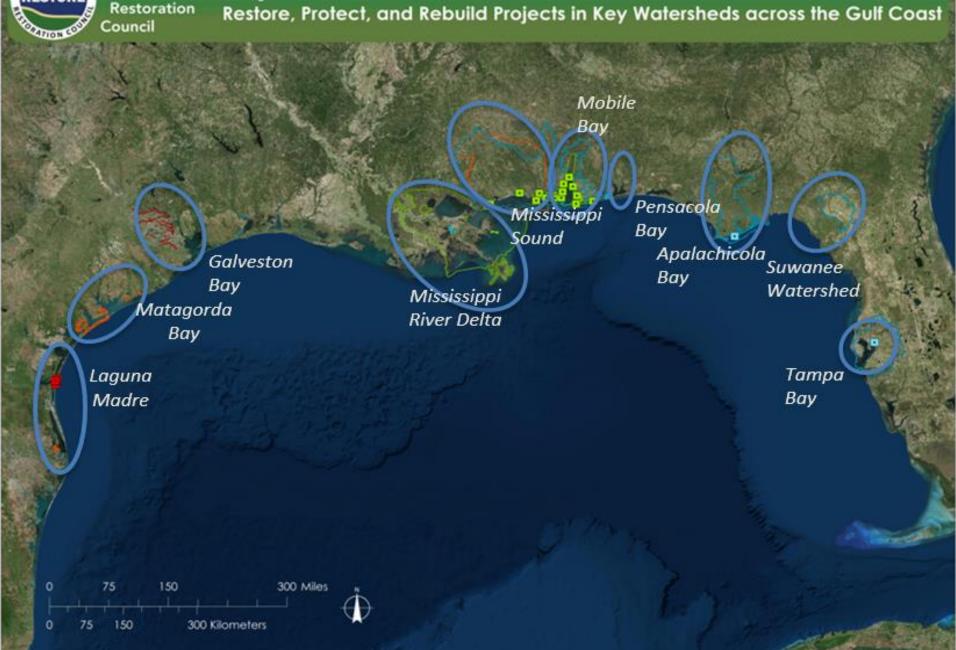
National Fish and Wildlife Foundation

Natural Resource Damages: ~\$8.1 billion Trustee Council

Total: up to ~\$16 billion available for restoration



Projects on the FPL:





Setting the focus for next 10 years...

2016 Comprehensive Plan Update Foundational Concept:

"Healthy and sustainable ecosystems are essential for thriving and resilient coastal communities, cultures, economies, and societies which are built upon, and sustained by, natural ecosystem services"



Challenges Ahead

- Strong collaboration/synergies with NFWF, NRDA, States, and other federal programs
- Measuring "success"...
 - Scale of challenge needs vs. available resources
 - Indicators and metrics to determine if we are making a difference
 - Outcome focus what difference have we made
- Strong ecological, social and economic science underpinning are key



Role of Ecosystem Services

- Monitoring is more than "what is in the water" i.e., need to see the big picture
- Can serve as lens to communicate results/context of successful restoration projects – helps answer the "So What?" question
- Limited ecosystem service expertise translates to opportunities

Thank You

For More Information Visit: www.RestoreTheGulf.gov

