

Tab A, No. 7

Gulf of Mexico Restoration in Response to the Deepwater Horizon Oil Spill

**U. S. Fish and Wildlife Service
Restoration Objectives and Strategies**

**Restoration Initiatives and Potential Relevance
to Gulf of Mexico Fisheries Management
Council**

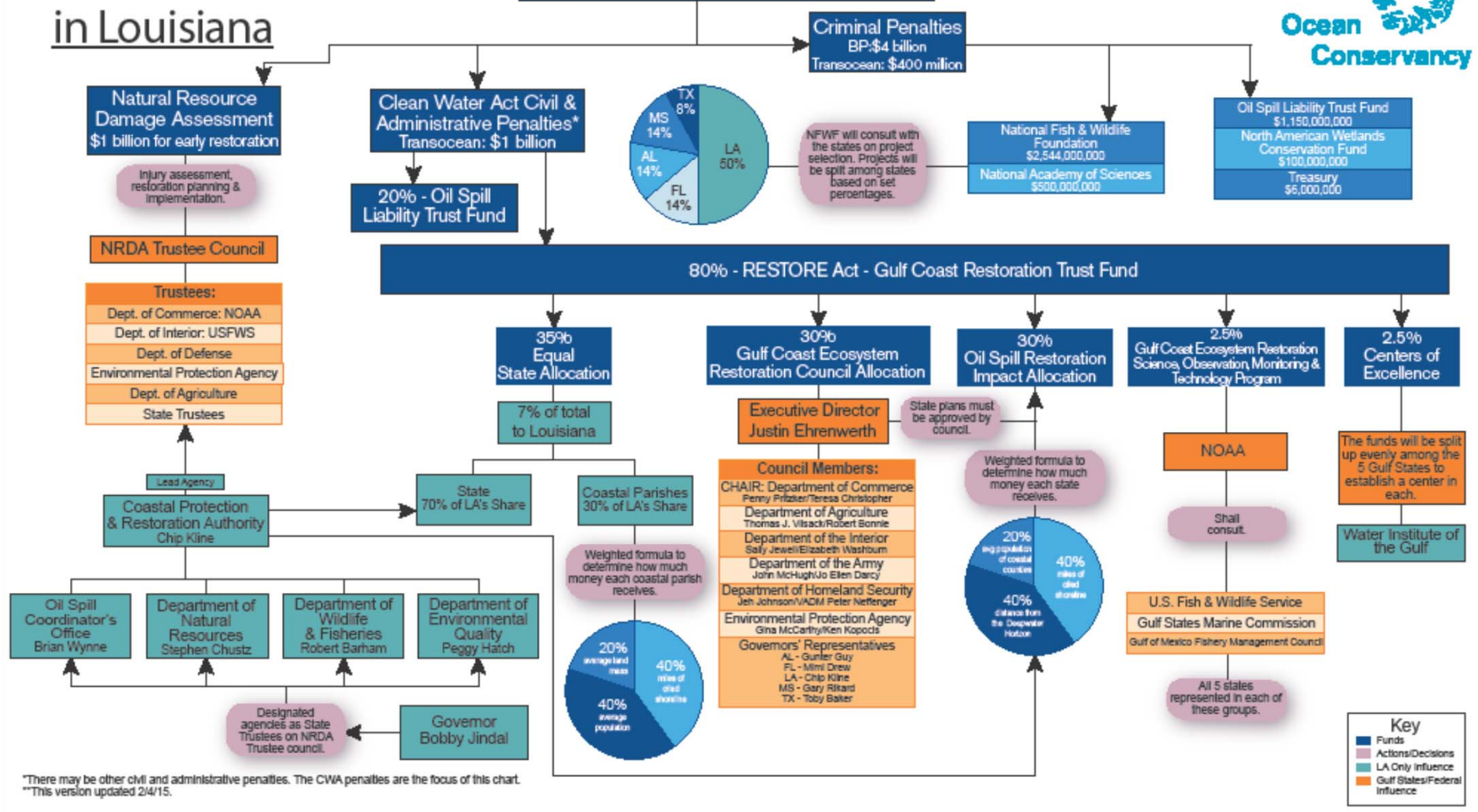


**Gulf of Mexico Fisheries Management Council
Clearwater, Florida
June 16, 2016**

Glenn Constant
U. S. Fish and Wildlife Service
Baton Rouge Fish and Wildlife Conservation Office
Gulf Coast Restoration, USFWS

Flow of Oil Spill Funds in Louisiana

Resolution of Criminal, Civil, Administrative & Natural Resource Claims

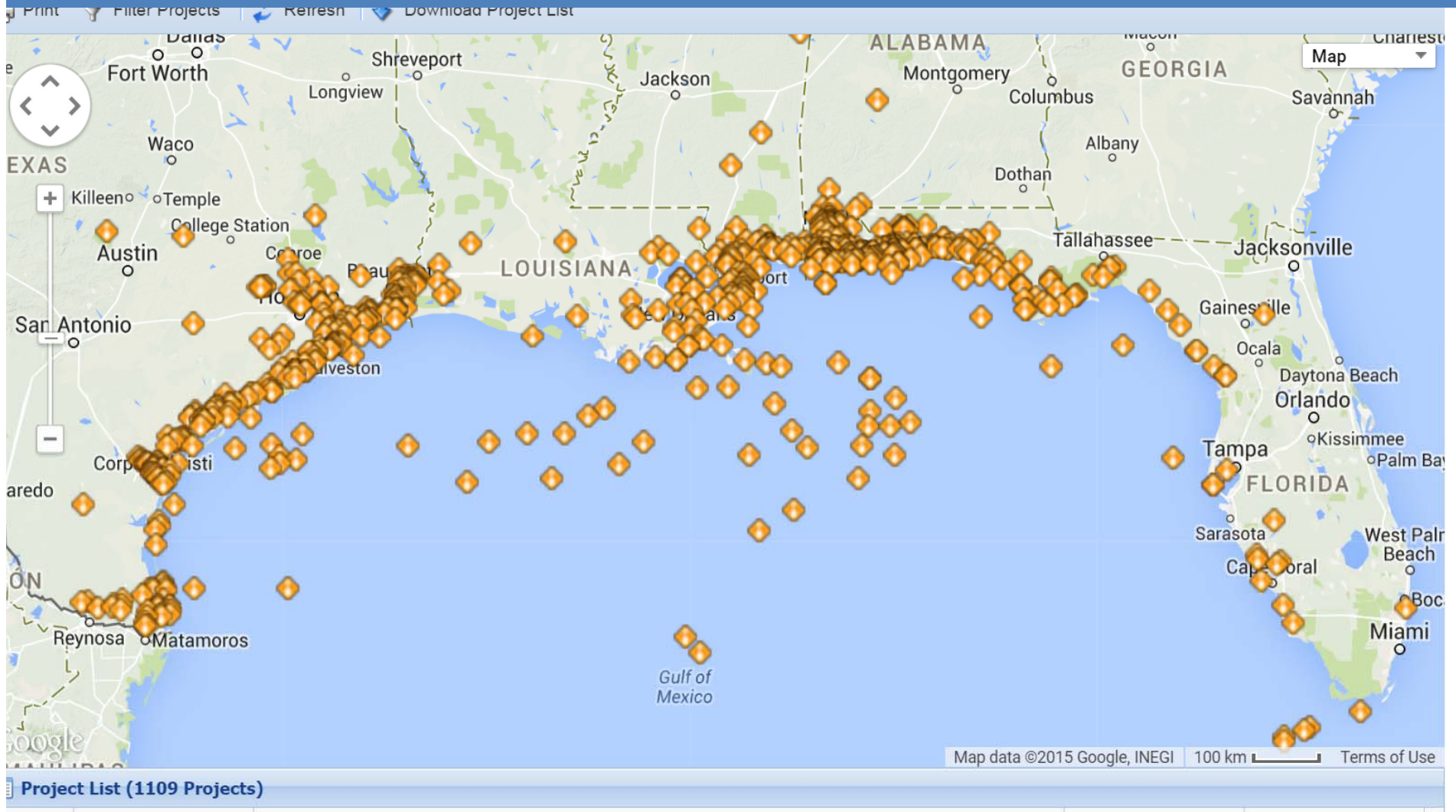


*There may be other civil and administrative penalties. The CWA penalties are the focus of this chart.
 **This version updated 2/4/15.

Key	
■	Funds
○	Actions/Decisions
■	LA Only Influence
■	Gulf States/Federal Influence

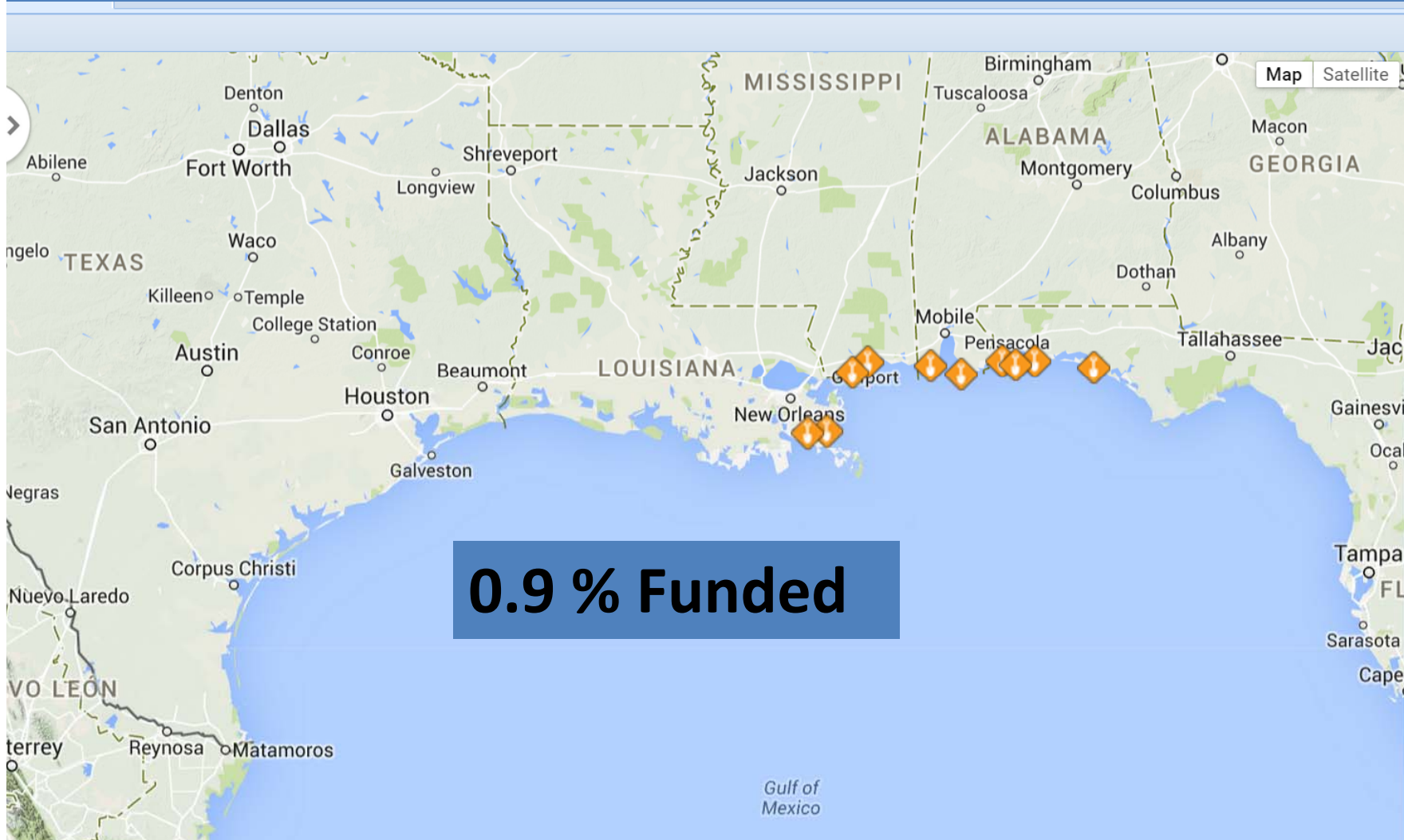
Proposed Deepwater Horizon Early Restoration Proposals

1109 total Submissions



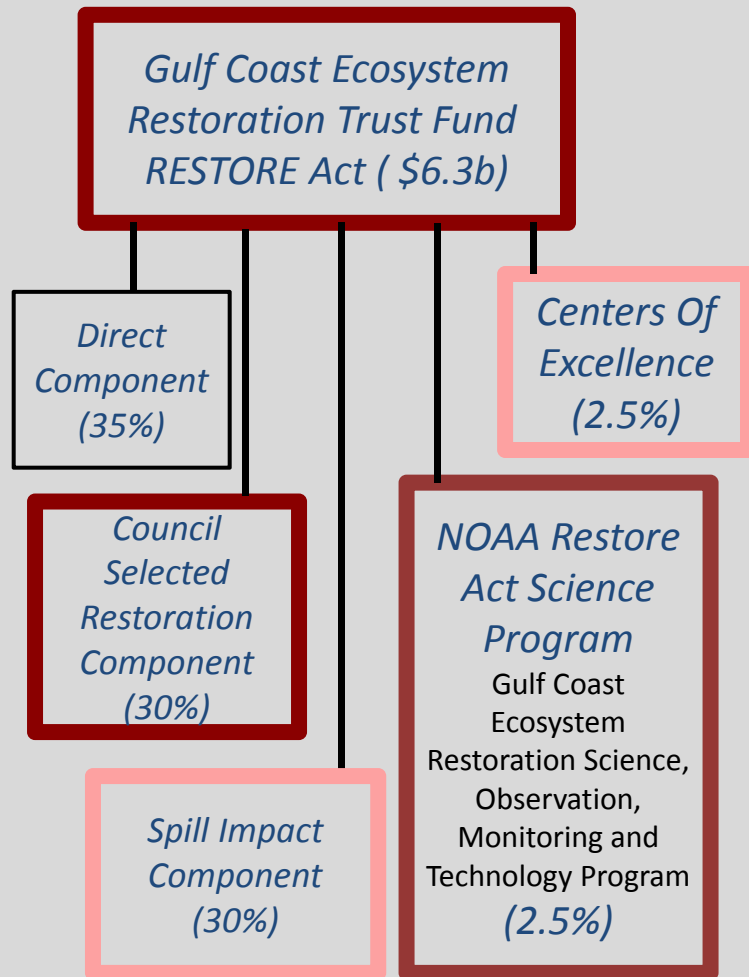
Funded Deepwater Horizon Early Restoration Projects

10 Funded Projects

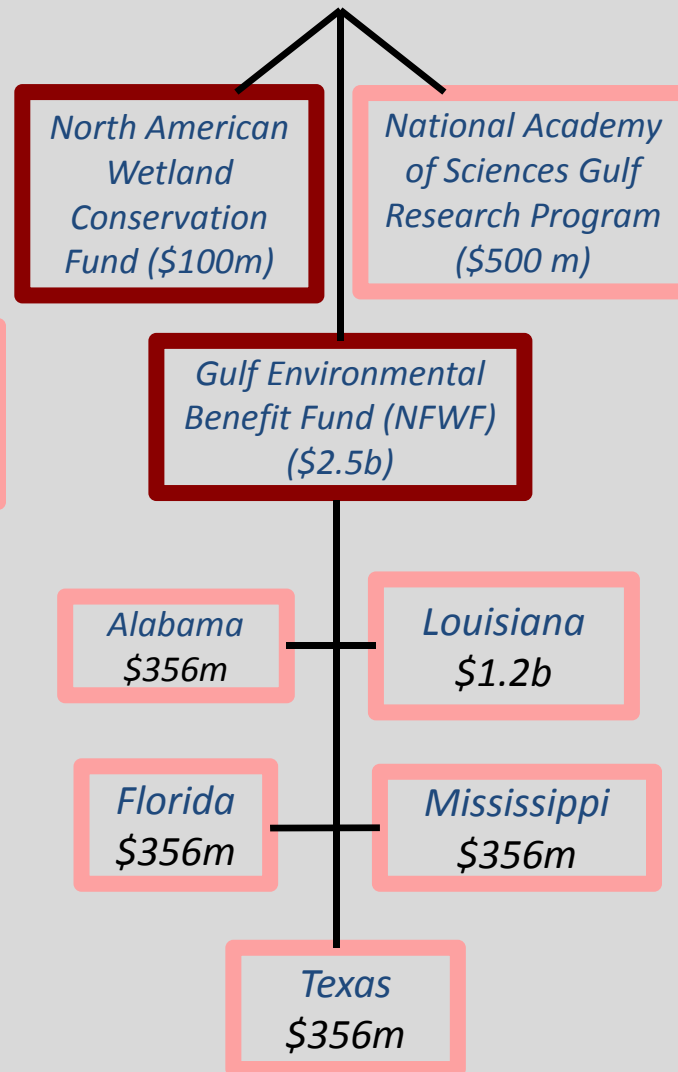


Deepwater Horizon Gulf Science and Restoration Initiatives

Civil Penalties



Criminal Penalties



Natural Resource Damage Assessment



Vision for a Healthy Gulf of Mexico Watershed

(USFWS July 2013)

Gulf Restoration Program Team

Representatives from all of the Service's programs

Migratory Birds

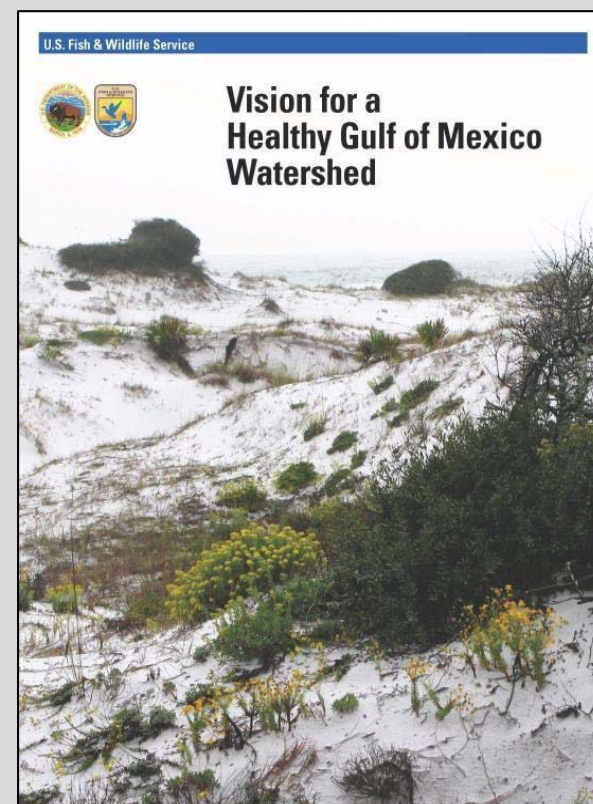
National Wildlife Refuge System

Fish and Aquatic Conservation

Ecological Services

Science Applications

Independent State Lead for each state

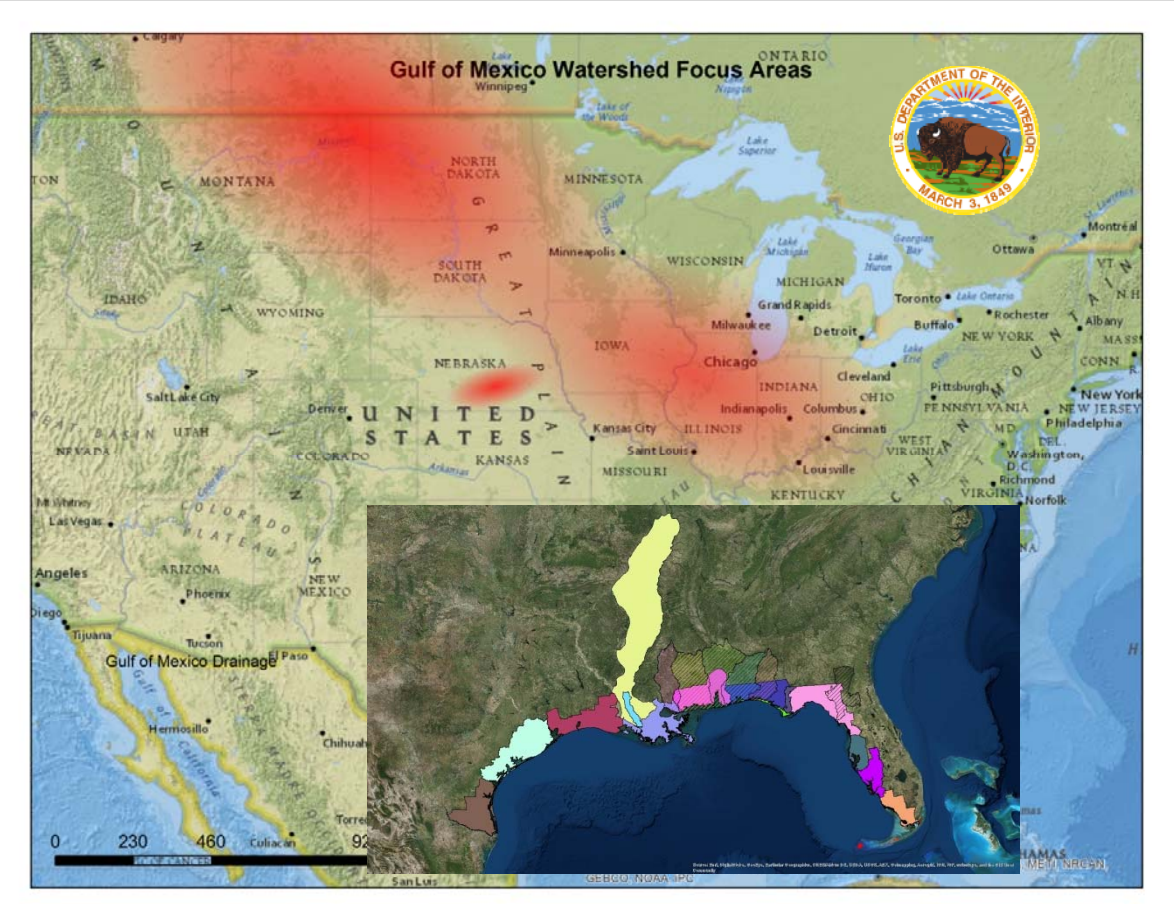


<http://www.fws.gov/gulfrestoration/pdf/VisionDocument.pdf>



Vision for a Healthy Gulf of Mexico Watershed

(USFWS July 2013)



16 Conservation Focal Areas

Laguna Madre and Lower Rio Grande River Valley
 Texas Coastal Bend
 Austin's Woods and Prairies
 Chenier Plain
 Mississippi River Delta, Coastal Wetlands and Barrier Islands
 Atchafalaya River Basin
 Mississippi Alluvial Valley

Northern Gulf Coast
 Alabama and Florida Panhandle Beaches
 Florida Panhandle
 Apalachicola River Watershed
 Big Bend Springs Conservation
 Southwest Florida
 Upper Mississippi River Watershed
 Rainwater Basin
 Prairie Pothole Region



Draft Focal Areas

Next Steps

Restoration Targets (Trust Resources)



Threatened and Endangered Species

Species Proposed as Candidates for Protection Under ESA
(Candidate Species)

National Wildlife Refuge System

Migratory Birds

Interjurisdictional Fish Species / Sportfish Restoration



Next Steps

Types of Funded and Proposed Projects

Marsh Creation / Wetland Enhancement

Oyster Reef Development

Land Acquisition

Improved Hydrology / Sustainable Freshwater Flows

Living Shorelines

Science and Monitoring

Barrier Island Enhancement and Protection

Submerged Aquatic Vegetation

Improve Water Quality

Conservation Agreements

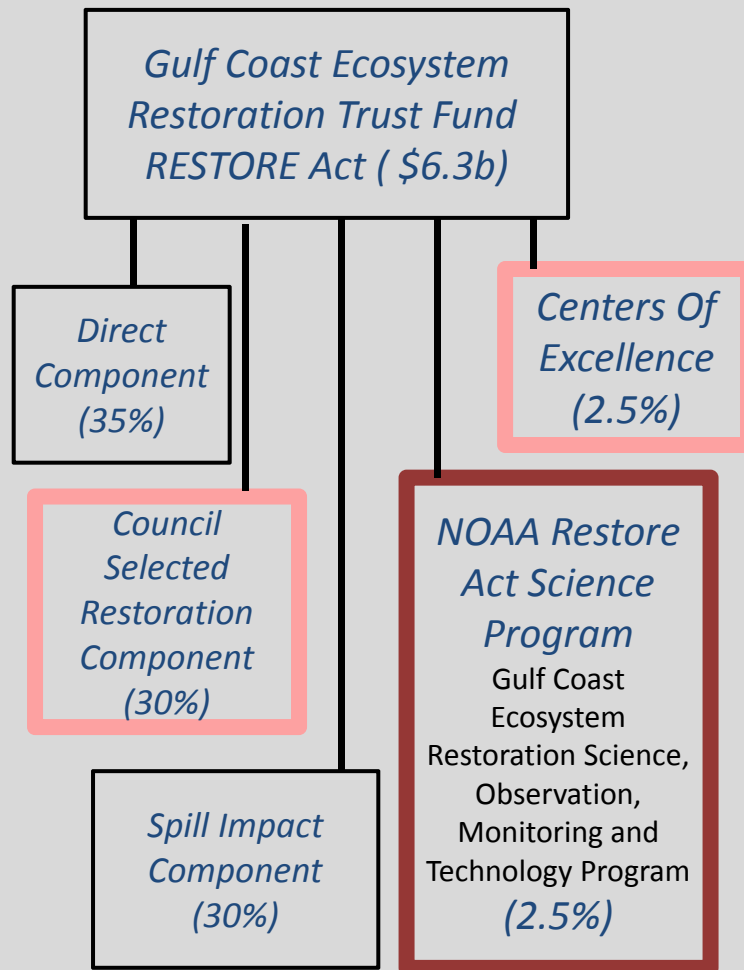
Stocking to Support Sustainable Populations

Improved Forest Conditions

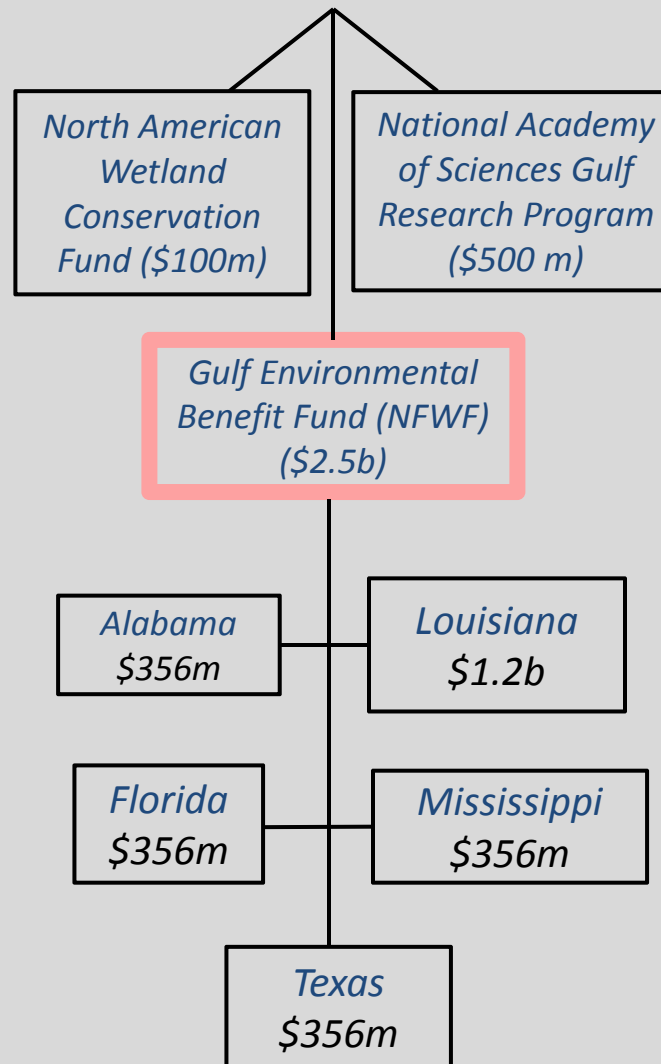
Fire

Deepwater Horizon Gulf Science and Restoration Initiatives

Civil Penalties



Criminal Penalties



Natural Resource Damage Assessment



Deepwater Horizon Oil Spill
Final Programmatic Damage Assessment
and Restoration Plan and Final Programmatic
Environmental Impact Statement

FEBRUARY 2016



Chapter 5. Restoring Natural Resources

Table 5.10-1. Settlement of NRD claims; NRD final allocation (\$ dollars).

Major Restoration Categories	Unknown Conditions	Regionwide	Open Ocean	Alabama	Florida	Louisiana	Mississippi	Texas	Total Restoration Funding*
1. Restore and Conserve Habitat									
Wetlands, Coastal, and Nearshore Habitats				65,000,000	5,000,000	4,009,062,700	55,500,000	100,000,000	4,234,562,700
Habitat Projects on Federally Managed Lands				3,000,000	17,500,000	50,000,000	5,000,000		75,500,000
Early Restoration (through Phase IV)				28,110,000	15,629,367	259,625,700	80,000,000		383,365,067
2. Restore Water Quality									
Nutrient Reduction (Nonpoint Source)				5,000,000	35,000,000	20,000,000	27,500,000	22,500,000	110,000,000
Water Quality (e.g., Stormwater Treatments, Hydrologic Restoration, Reduction of Sedimentation, etc.)					300,000,000				300,000,000
3. Restore and Enhance Biological Resources									
Fish and Water Column Invertebrates			380,000,000						380,000,000
Early Restoration Fish and Water Column Invertebrates			20,000,000						20,000,000
Sturgeon			15,000,000						15,000,000
Sea Turtles		60,000,000	55,000,000	5,500,000	20,000,000	10,000,000	5,000,000	7,500,000	163,000,000
Early Restoration Turtles		29,296,169						29,296,000	49,221,169
Submerged Aquatic Vegetation						22,000,000			22,000,000
Marine Mammals		19,000,000	55,000,000	5,000,000	5,000,000	50,000,000	10,000,000		144,000,000
Birds		70,400,000	70,000,000	30,000,000	40,000,000	148,500,000	25,000,000	20,000,000	403,900,000
Early Restoration Birds		1,823,100		145,000	2,835,000	71,937,300		20,603,770	97,344,170
Mesophotic and Deep Benthic Communities			273,300,000						273,300,000
Oysters		64,372,419		10,000,000	20,000,000	20,000,000	20,000,000	22,300,000	162,872,419
Early Restoration Oysters				3,329,000	5,370,596	14,874,300	13,600,000		37,173,896
4. Provide and Enhance Recreational Opportunities									
Provide and Enhance Recreational Opportunities				25,000,000	63,274,513	38,000,000	5,000,000		131,274,513
Early Restoration Recreational Opportunities			22,397,916	85,505,305	120,543,167	22,000,000	18,957,000	18,582,688	287,986,076
5. Monitoring, Adaptive Management, Administrative Oversight									
Monitoring and Adaptive Management		65,000,000	200,000,000	10,000,000	10,000,000	225,000,000	7,500,000	2,500,000	520,000,000
Administrative Oversight and Comprehensive Planning		40,000,000	150,000,000	20,000,000	20,000,000	33,000,000	22,500,000	4,000,000	289,500,000
Adaptive Management NRD Payment for Unknown Conditions	700,000,000								700,000,000
Total NRD Funding	\$700,000,000	\$349,851,678	\$1,240,697,916	\$295,589,305	\$680,152,643	\$5,000,000,000	\$295,557,000	\$238,151,458	

* The total restoration funding allocation for the Early Restoration work, each Restoration Type; and monitoring, adaptive management, and administrative oversight is 8.1 billion dollars (plus up to an additional 700 million dollars for adaptive management and unknown conditions).

Fish and Invertebrates

- A vast volume of open water across the northern Gulf of Mexico was exposed to DWH oil, injuring water column resources. The surface slick alone covered a cumulative area of at least 43,300 square miles (112,000 square kilometers) across 113 days in 2010. The estimated average daily volume of contaminated water under surface oil slicks was 57 billion cubic meters. As a comparison, this volume is approximately 40 times the average daily discharge of the Mississippi River at New Orleans.
- Water-column resources injured by the spill include species from all levels in the food chain, from bacteria to estuarine-dependent species, such as red drum, shrimp, and sea trout, to large predatory fish, such as bluefin tuna, that migrate from the Gulf of Mexico into the Atlantic and as far as the Mediterranean Sea.
- The Trustees estimate that 2 to 5 trillion larval fish and 37 to 68 trillion invertebrates were killed in the surface waters, and between 86 million and 26 billion fish larvae and between 10million and 7 billion planktonic invertebrates in deeper waters. Of these totals, 0.4 to 1 billion larval fish and 2 to 6 trillion invertebrates were killed in estuarine surface waters. The larval loss likely translated into millions to billions of fish that would have reached a year old. Larval fish that were killed but would not have survived to age 1 are also a significant loss; they are an energy source for other components of the ecosystem.

5.5.6 Restoration Type: Fish and Water Column Invertebrates

This Restoration Type addresses the overall goal of **Replenish and Protect Living Coastal and Marine Resources**.

The restoration will need to address injuries to the species at different life stages and across their geographic ranges. In accordance with the ecosystem approach to restoration, the Trustees will implement a portfolio of restoration approaches for the water column injury that is three-fold:

1. Coastal and nearshore habitat restoration, discussed and implemented under the Wetlands, Coastal, and Nearshore Habitats Restoration Type (Section 5.5.2), SAV Restoration Type (Section 5.5.8) and Oysters Restoration Type (Section 5.5.9).
2. Offshore habitat restoration, discussed and implemented under the Mesophotic and Deep Benthic Communities Restoration Type (Section 5.5.13).
3. Mortality reduction, accomplished by addressing known sources of mortality to fish and invertebrates by reducing bycatch and fisheries interactions discussed and implemented under this Restoration Type (Section 5.5.6).



Gulf Coast Ecosystem Restoration Science, Observation, Monitoring, and Technology Program

NOAA RESTORE Act Science Program

Science Plan



NOAA RESTORE Act Science Program

Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program

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NOAA RESTORE Act Science Program Announces Next Funding Opportunity

by [Julien Lartigue](#) on [June 1, 2016](#) in [Funding Announcements](#), [General Information](#)

The NOAA RESTORE Act Science Program has released its next federal funding opportunity (FFO-2017), which is focused on living coastal and marine resources and their habitats (click here for [full announcement](#)). This funding competition continues the Science Program's commitment to producing timely and high-quality scientific findings and products to support the management and sustainability of the Gulf of Mexico ecosystem, including its fisheries.



The funding competition has two priorities. A research priority directed at six specific areas of living coastal and marine resource research and a decision-support tool priority directed at improving the tools available for resource management.

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- [Deepwater Horizon Assessment Samples Available to Scientific Community May 23, 2016](#)
- [NOAA RESTORE Act Science Program Updates Next Funding Opportunity April 20, 2016](#)
- [NOAA RESTORE Act Science Program Updates Consent Decree April 20, 2016](#)
- [NOAA RESTORE Act Science Program's Next Funding Competition January 28, 2016](#)

ANNOUNCEMENT CATEGORIES

