# Deepwater Horizon Oil Spill
# Phase I Early Restoration Plan and Environmental Assessment

Prepared by the Deepwater Horizon Natural Resource Trustees from

State of Alabama
State of Florida
State of Louisiana
State of Mississippi
State of Texas
Department of the Interior
National Oceanic and Atmospheric Administration

# Executive Summary

## Introduction

The Gulf of Mexico is a priceless national treasure. Its natural resources – water, fish, beaches, reefs, marshes, oil and gas – are the economic engine of the region. The Gulf of Mexico is likewise vitally important to the entire nation as a bountiful source of food, energy and recreation. The Gulf Coast's unique culture and natural beauty are world-renowned. There is no place like it anywhere else on Earth.

On April 20, 2010 the eyes of the world focused on an oil platform in the Gulf, approximately 50 miles off the Louisiana coast. The mobile drilling unit *Deepwater Horizon*, which was being used to drill an exploratory well for BP Exploration and Production, Inc. (BP), violently exploded, caught fire and eventually sank, tragically killing 11 workers. But that was only the beginning of the disaster. Oil and other substances from the rig and the well head immediately began flowing unabated approximately one mile below the surface. Initial efforts to cap the well were unsuccessful, and for 87 days oil spewed unabated into the Gulf. Oil eventually covered a vast area of thousands of square miles, and carried by the tides and currents reached the coast, polluting beaches, bays, estuaries and marshes from the Florida panhandle to west of the Mississippi River delta. At the height of the spill, approximately 37% of the open water in the Gulf was closed to fishing. Before the well was finally capped, an estimated 5 million barrels (210 million gallons) escaped from the well over a period of approximately 3 months. In addition, approximately 771,000 gallons of dispersants were applied to the waters of the spill area, both on the surface and at the well head one mile below. It was an environmental disaster of unprecedented proportions. It also was a devastating blow to the resource-dependent economy of the region.

While the extent of natural resources impacted by the *Deepwater Horizon* oil spill and response (collectively, "the Spill") is not yet fully evaluated, impacts were widespread and extensive. The full spectrum of the impacts from this spill, given its magnitude, duration, depth and complexity, will be difficult to determine. The trustees for the Spill, however, are working to assess every aspect of the injury, both to individual resources and lost recreational use of them, as well as the cumulative impacts of the Spill. Affected natural resources include ecologically, recreationally, and commercially important species and their habitats across a wide swath of the coastal areas of Alabama, Florida, Louisiana, Mississippi, and Texas, and a huge area of open water in the Gulf of Mexico. When injuries to migratory species such as birds, whales, tuna and turtles are considered, the impacts of the Spill could be felt across the United States and around the globe.

## The Role of the Trustees

Under the Oil Pollution Act (OPA), which became law after the 1989 Exxon Valdez oil spill, the federal government, impacted state governments, federally recognized Indian tribes and foreign governments act as "trustees" on behalf of the general public. Trustees are charged with recovering damages from the parties responsible for oil spills to restore injuries to the public's natural resources. Trustees assess the nature and extent of natural resource injury and develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the

equivalent of the injured natural resources and services those resources provide under their trusteeship. The *Deepwater Horizon* Trustees (Trustees) are:

- the United States Department of the Interior (DOI), as represented by the National Park Service, United States Fish and Wildlife Service, and Bureau of Land Management;
- the National Oceanic and Atmospheric Administration (NOAA), on behalf of the United States Department of Commerce;
- the State of Louisiana's Coastal Protection and Restoration Authority, Oil Spill Coordinator's Office, Department of Environmental Quality, Department of Wildlife and Fisheries and Department of Natural Resources;
- the State of Mississippi's Department of Environmental Quality;
- the State of Alabama's Department of Conservation and Natural Resources and Geological Survey of Alabama;
- the State of Florida's Department of Environmental Protection and Fish and Wildlife Conservation Commission; and
- for the State of Texas: Texas Parks and Wildlife Department, Texas General Land Office and Texas Commission on Environmental Quality.[1]

The Trustees began working together in the early days of the Spill. The result has been an unprecedented state-federal collaboration, with a unity of vision and purpose, and a strong desire by all the Trustees to act as quickly as possible to restore the Gulf. Trustee efforts to assess the injuries to natural resources began within hours of the explosion and continue to the present.

The Trustees uniformly believe that restoration of the natural resources in the Gulf must begin as soon as possible. This Phase I Early Restoration Plan and Environmental Assessment (ERP/EA) contains the initial plan for the first of a long series of restoration actions that will be undertaken by the Trustees, paid for by those responsible for injuries to natural resources and the services they provide, representing the first step on the road to a full recovery for the region. The ultimate goal of the Trustees is comprehensive and long lasting repairs to the Gulf ecosystem, and the communities that depend on it, to the condition they would have been in if there had never been a spill, as well as to compensate the public for its lost use of the resources during the time they were injured.

From the outset, the Trustees expected that the restoration of resources injured by the Spill would be a massive undertaking, and that during the assessment, injuries would continue to accrue. The Trustees decided that because of the pervasive and ongoing nature of the damages to natural resources in the region, it would be in the best interest of the public to accelerate restoration and begin implementing projects, if possible, even before completion of the full damage assessment. The Trustees approached BP in the fall of 2010, and negotiations on an early restoration fund commenced. Exactly one year after the explosion on the *Deepwater Horizon* rig, the Trustees and BP entered into an unprecedented agreement whereby BP set aside one billion dollars to fund early restoration projects agreed to by BP and the Trustees, incorporating public review.

[1] The Department of Defense (DOD) is also a trustee of natural resources associated with DOD-managed land on the Gulf Coast, which is included in the ongoing NRDA, but DOD is not a signatory of the Framework Agreement nor a participant in this Phase 1 Early Restoration Plan.

This early restoration agreement, known as the "Framework Agreement"[2], represents the initial step toward the restoration of natural resources injured by the *Deepwater Horizon* spill. It is a down payment against the ultimate claim for damages from the Spill. The Trustees expect to be able to fund more early restoration projects in addition to this initial set. The Trustees continue to assess the injuries to natural resources and services resulting from the Spill and pursue the ultimate claim for damages. Restoration work will take many years to complete, and long term monitoring and adaptive management of the Gulf ecosystem will likely continue for decades until the Trustees can be certain that the public has been fully compensated for its losses.

### Early Restoration Project Selection

Following signature of the Framework Agreement, the Trustees invited the public to provide early restoration project ideas and proposals. The Trustees received hundreds of proposals, which were made publicly available at http://www.gulfspillrestoration.noaa.gov/restoration/give-us-your-ideas/view-submitted-projects/. The Trustees implemented a project selection process to evaluate proposals and ensure that restoration would begin as soon as possible. Figure ES-1 depicts the general selection process, which included project solicitation, project screening and identification, negotiation, public review and comment, and final selection.

The Trustees evaluated potential early restoration projects using criteria included in applicable damage assessment and restoration regulations and programs, the Framework Agreement, and factors that are otherwise key components in planning early restoration. Under OPA regulations, restoration alternatives are evaluated with regard to:

- The cost to carry out the alternative;
- The extent to which each alternative is expected to meet the Trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses (the ability of the restoration project to provide comparable resources and services, that is, the nexus between the project and the injury);
- The likelihood of success of each alternative;
- The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative;
- The extent to which each alternative benefits more than one natural resource and/or service; and
- The effect of each alternative on public health and safety.

Under OPA regulations, if the Trustees conclude that two or more alternatives are equally preferable, the most cost-effective alternative must be chosen.

In addition, the Framework Agreement provides that projects:

- Contribute to making the environment and the public whole by restoring, rehabilitating, replacing, or acquiring the equivalent of natural resources or services injured as a result of the Spill, or compensating for interim losses resulting from the incident;

[2] http://www.restorethegulf.gov/sites/default/files/documents/pdf/framework-for-early-restoration-04212011.pdf.

- Address one or more specific injuries to natural resources or services associated with the incident;
- Seek to restore natural resources, habitats, or natural resource services of the same type, quality, and of comparable ecological and/or human-use value to compensate for identified resource and service losses resulting from the incident;
- Are not inconsistent with the anticipated long-term restoration needs and anticipated final restoration plan; and
- Are feasible and cost-effective.

The Trustees also took into account several practical considerations that, while not legally mandated, were useful and permissible to help screen the large number of potential qualifying projects. For example, Trustees:

- took into account how quickly a given project could begin producing environmental benefits;
- sought a diverse set of projects providing benefits to an array of greatly injured resources;
- focused on types of projects with which they have significant experience, allowing them to predict costs and likely success with a relatively high degree of confidence and making it easier to reach agreement with BP on the restoration benefits estimated to be provided by each project (referred to as "Offsets"); and
- gave preference to projects that were closer to being ready to implement.

The Trustees acted promptly to identify project proposals that met the selection criteria, and then narrowed the potential project list down to an initial group to move forward into discussion with BP on cost and Offsets. The Trustees and BP came to preliminary agreement on a set of proposals, which the Trustees proposed as Phase I projects in a Draft Phase I ERP/EA released for public comment in December, 2011.

### Selected Projects

Consistent with OPA and the National Environmental Policy Act, the Trustees considered public comment prior to final selection of Phase I projects. A summary of comments on the Draft Phase I ERP/EA, Trustee responses to comments, the final selected list of Phase I projects, as well as environmental assessments of potential impacts from those projects are included in this ERP/EA. In addition, this ERP/EA includes a description and quantification of the Offsets preliminarily agreed to by BP and the Trustees.

This ERP/EA consists of eight projects listed in Table ES-1 and more fully described in this document. They address an array of injuries and are located throughout the Gulf (Figure ES-2). Specifically, this plan includes two oyster projects, two marsh projects, a nearshore artificial reef project, two dune projects, and a boat ramp enhancement project. These projects address injuries in four of the five impacted states, on the coast and offshore, to mammals and marine organisms, and/or compensate for lost recreational opportunities for the public. While this plan includes a suite of projects, each project was viewed and evaluated as independent from the others. This ERP/EA does not attempt to quantify the injury to natural resources; instead it outlines a set of

projects which will accelerate meaningful restoration in the Gulf while the full assessment and restoration planning process continues.

### Next Steps

This ERP/EA serves as the Trustees' final selection of Phase I early restoration projects, taking into account the suite of potential projects proposed, the NRDA and Framework Agreement process, and public comment on the Draft Phase I ERP/EA. Per the Framework Agreement, the Trustees will move forward with agreements with BP to fund projects and commence implementation, as described in more detail throughout this document. Updates on the progress of project implementation will be available at http://www.gulfspillrestoration.noaa.gov.

Projects selected in this ERP/EA represent only the first phase of the early restoration process. The Trustees continue to evaluate additional projects already submitted by the public for consideration, as well as any new projects as they are received, with the intent of proposing additional projects until funds made available under the Framework Agreement are exhausted. It is important to emphasize that restoration proposals developed pursuant to the Framework Agreement are not intended to provide the full extent of restoration needed to satisfy the Trustees' claims against BP. At the end of the NRDA process, the Trustees will credit all the Offsets identified for approved early restoration projects against their assessment of the **total** injury for the Spill. Restoration beyond early restoration projects will be required to fully compensate the public for natural resource losses from the Spill and will continue until the public is fully compensated for the natural resources and services that were lost as a result of the Spill.

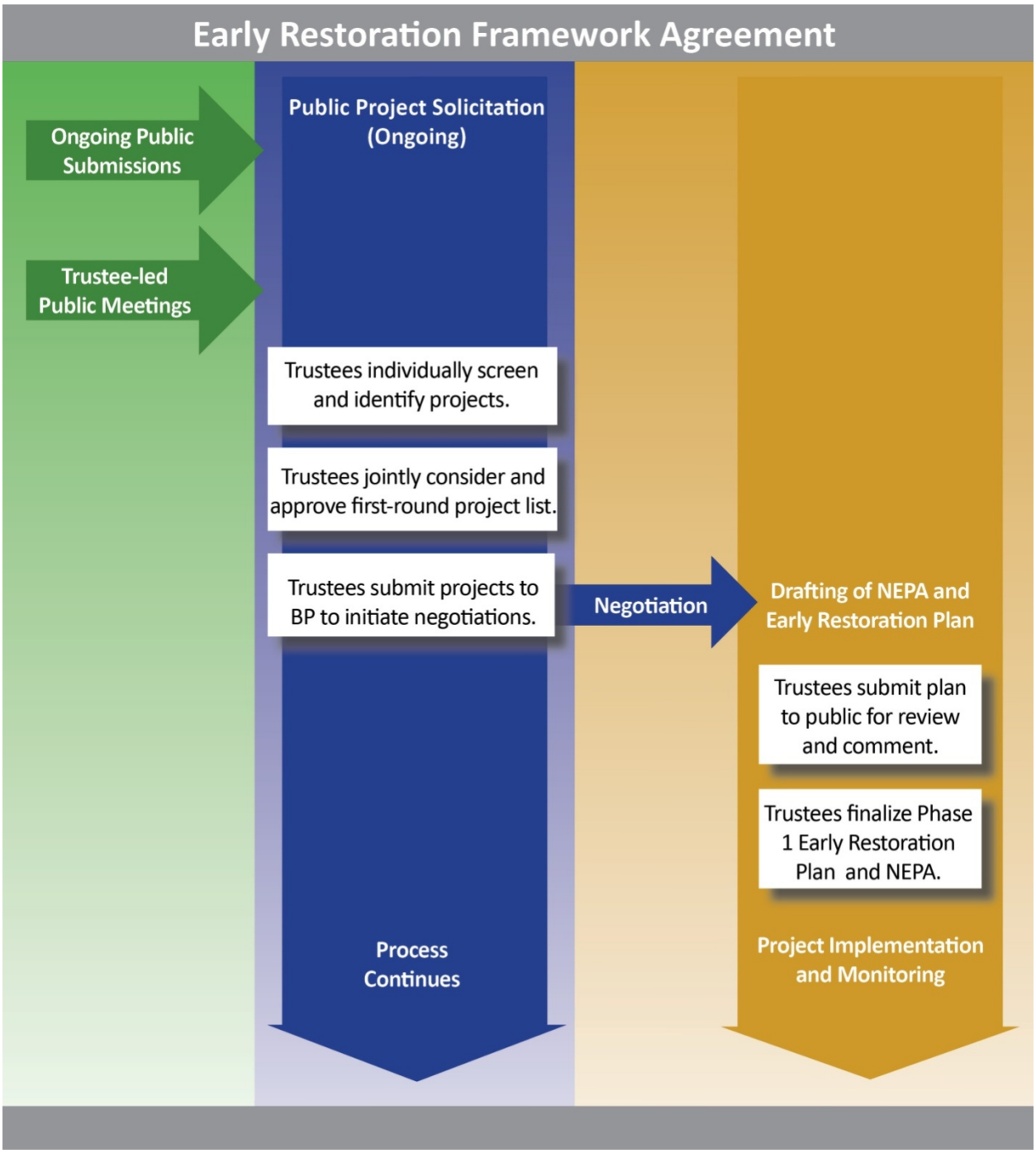


Figure ES-1. General Early Restoration project selection process.

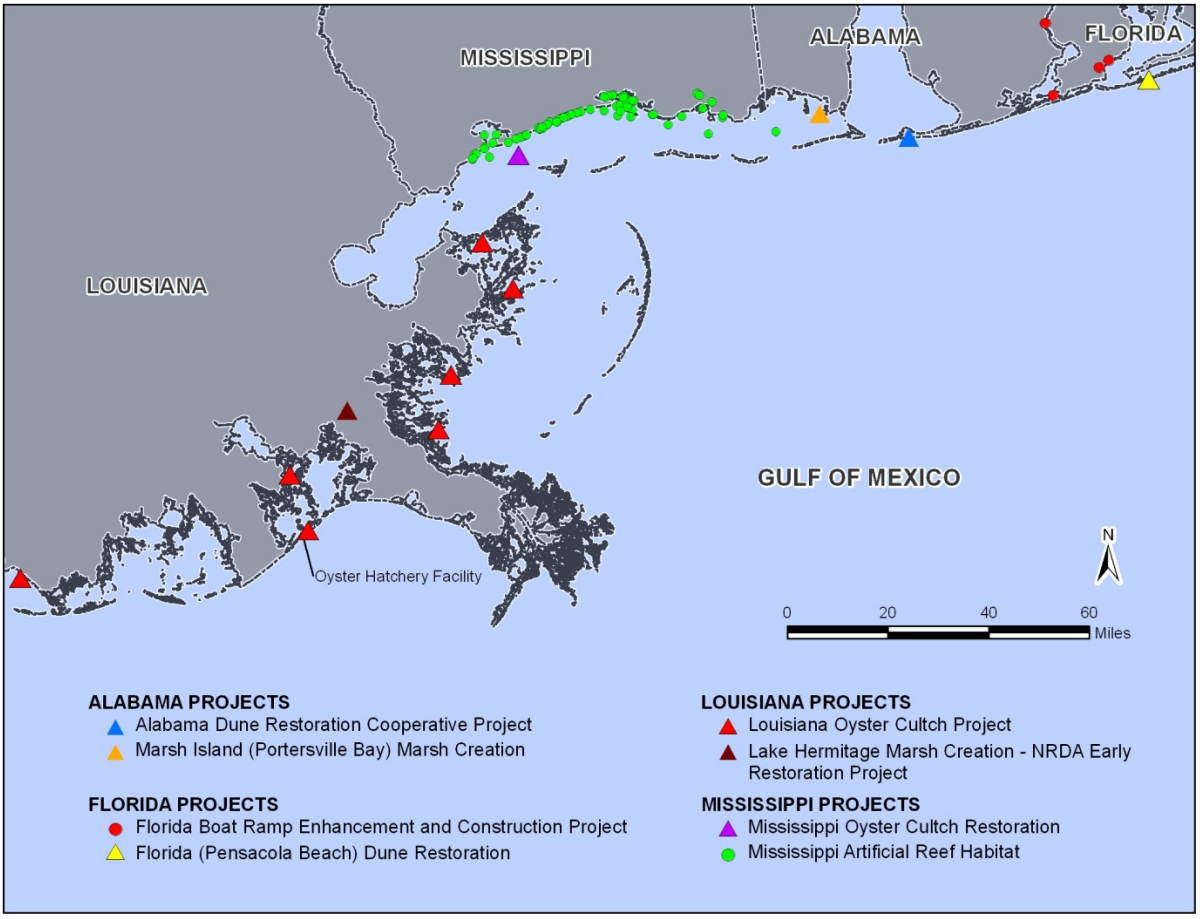


Figure ES-2: Location of Phase I Early Restoration projects.

Table ES-1. Phase I Early Restoration projects included in the selected action.

| **Project Title** | **Location (Parish/County and State)** | **Selected Restoration** | **Estimated Cost[3]** | **Resources Benefitted** |
|---|---|---|---|---|
| Lake Hermitage Marsh Creation – NRDA Early Restoration Project | Plaquemines Parish, Louisiana | Approximately 104 acres of marsh creation | $14,400,000 | Brackish Marsh in the Barataria Hydrologic Basin |
| Louisiana Oyster Cultch Project | St. Bernard, Plaquemines, Lafourche, Jefferson, and Terrebonne Parishes, Louisiana | Approximately 850 acres of cultch placement on public oyster seed grounds; construction of improvements to an existing oyster hatchery | $15,582,600 | Oysters in Coastal Louisiana |
| Mississippi Oyster Cultch Restoration | Hancock and Harrison Counties, Mississippi | 1,430 acres of cultch restoration | $11,000,000 | Oysters in Mississippi Sound |
| Mississippi Artificial Reef Habitat | Hancock, Harrison, and Jackson Counties, Mississippi | 100 acres of nearshore artificial reef | $2,600,000 | Nearshore Habitat in Mississippi Sound |
| Marsh Island (Portersville Bay) Marsh Creation | Mobile County, Alabama | protecting 24 existing acres of salt marsh; creating 50 acres of salt marsh; 5,000 linear feet of tidal creeks | $11,280,000 | Coastal Salt Marsh in Alabama |
| Alabama Dune Restoration Cooperative Project | Baldwin County, Alabama | 55 acres of primary dune habitat | $1,480,000 | Coastal Dune and Beach Mouse Habitat in Alabama |
| Florida Boat Ramp Enhancement and Construction Project | Escambia County, Florida | Four boat ramp facilities | $5,067,255 | Human Use in Escambia County, FL |
| Florida (Pensacola Beach) Dune Restoration | Escambia County, Florida | 20 acres of coastal dune habitat | $644,487 | Coastal Dune Habitat in Escambia County, FL |

[3] Estimated costs for some of the projects were updated from those provided in the DERP/EA.