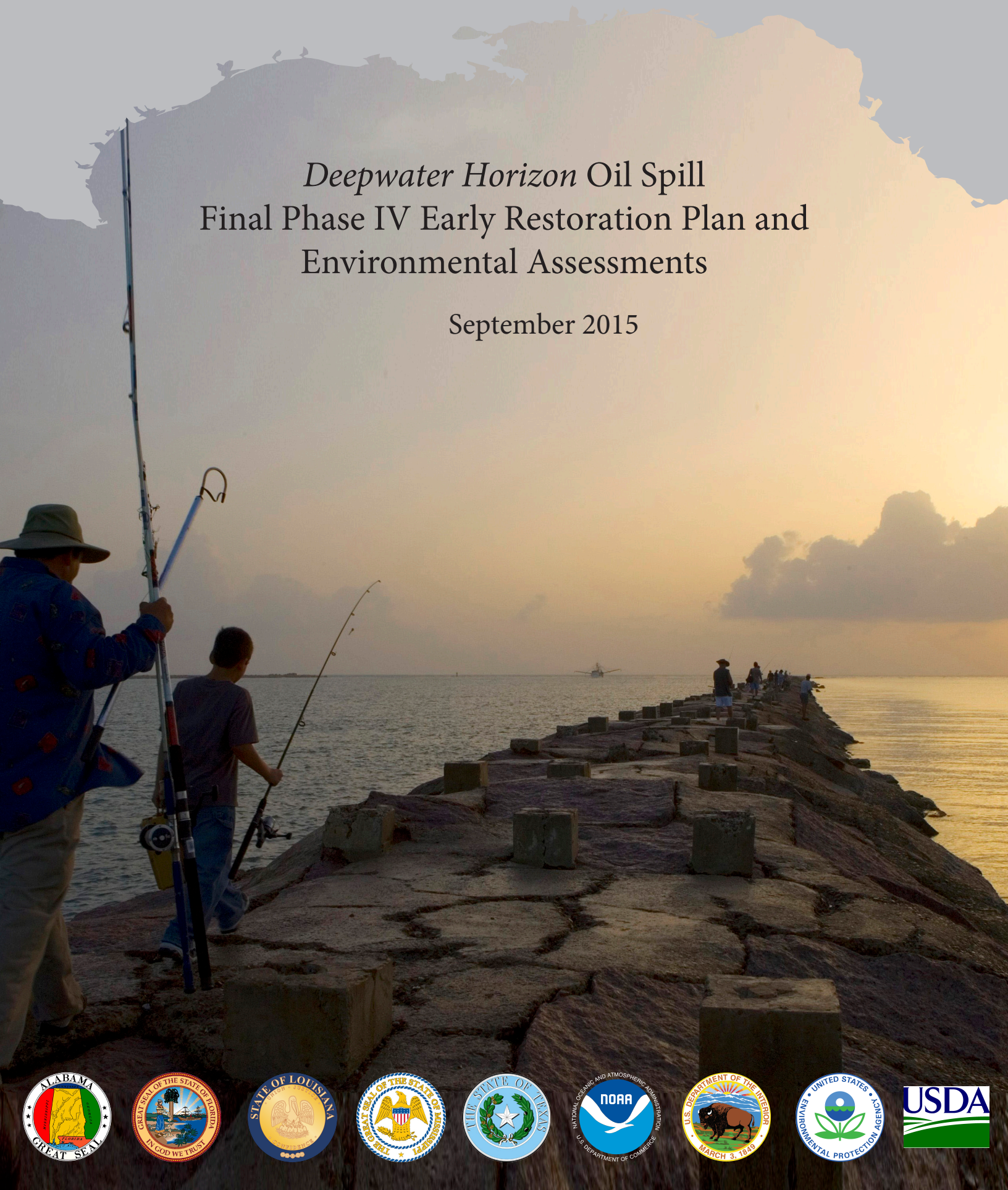
Deepwater Horizon Oil Spill Final Phase IV Early Restoration Plan and Environmental Assessments

September 2015



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ES.1.1 Introduction

In July 2015, BP announced that it reached Agreements in Principle (AIPs) with the United States and the Gulf States of Alabama, Florida, Louisiana, Mississippi, and Texas for settlement of civil claims arising from the *Deepwater Horizon* oil spill. The terms of the proposed settlements are subject to a confidentiality order and will not become final until, among other things, a consent decree is negotiated, is made available for public review and comment, and is approved by the court. The Trustees expect the Early Restoration projects described in this document to go forward regardless of whether the proposed settlement is approved and, therefore, have proceeded with the finalization of the Phase IV ERP/EA.

On or about April 20, 2010, BP Exploration and Production Inc. (BP) was using Transocean's mobile offshore drilling unit *Deepwater Horizon* to drill a well in the Macondo prospect (Mississippi Canyon 252 – MC252) when the well blew out, and the drilling unit exploded, caught fire and subsequently sank in the Gulf of Mexico (the Gulf). This incident resulted in an unprecedented volume of oil and other discharges from the rig and from the wellhead on the seabed. Tragically, 11 workers were killed and 19 injured. The *Deepwater Horizon* oil spill is the largest maritime oil spill in U.S. history, discharging millions of barrels of oil over a period of 87 days (hereafter referred to as "the Spill," which includes activities in response to the spilled oil). In addition, well over one million gallons of dispersants[1] were applied to the waters of the spill area in an attempt to disperse the spilled oil. An undetermined amount of natural gas was also released to the environment as a result of the Spill (National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, 2011)[2].

The U.S. Coast Guard responded and directed federal efforts to contain and clean up the Spill. At one point nearly 50,000 responders were involved in cleanup activities in open water, beach and marsh habitats. The scope, nature and magnitude of the Spill caused impacts to coastal and oceanic ecosystems ranging from the deep ocean floor, through the oceanic water column, to the highly productive coastal habitats of the northern Gulf, including estuaries, shorelines and coastal marshes. Affected resources include ecologically, recreationally, and commercially important species and their habitats in the Gulf and along the coastal areas of Texas, Louisiana, Mississippi, Alabama, and Florida. These fish and wildlife species and their supporting habitats provide a number of important ecological and recreational use services.

Pursuant to the Oil Pollution Act (OPA), Title 33 United States Code (U.S.C.) § 2701 *et seq*. and the laws of individual affected states, federal and state agencies, Indian tribes and foreign governments act as

[1] Dispersants means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column (40 C.F.R. 300 Subpart A).

[2] National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. 2011. Deep Water: The Gulf Oil Disaster And The Future Of Offshore Drilling. Available at: http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf

trustees on behalf of the public to assess injuries to natural resources and their services[3] that result from an oil spill incident, and to plan for restoration to compensate for those injuries. OPA further instructs the designated trustees to develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent of the injured natural resources under their trusteeship (hereafter collectively referred to as "restoration"). This process of injury assessment and restoration planning is referred to as natural resource damage assessment (NRDA). OPA defines "natural resources" to include land, fish, wildlife, biota, air, water, ground water, drinking water supplies and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the Exclusive Economic Zone), any State or local government or Indian tribe, or any foreign government (33 U.S.C. § 2701(20)).

The Federal Trustees are designated pursuant to section 1006(b)(2) of OPA (33 U.S.C. § 2706(b)(2)) and Executive Orders 12777 and 13626. The following federal agencies are the designated natural resource Trustees under OPA for this Spill:[4]

- The United States Department of the Interior (DOI), as represented by the National Park Service (NPS), United States Fish and Wildlife Service (USFWS), and Bureau of Land Management;
- The National Oceanic and Atmospheric Administration (NOAA), on behalf of the United States Department of Commerce;
- The United States Department of Agriculture (USDA); and
- The United States Environmental Protection Agency (EPA).

State Trustees are designated by the governors of each state pursuant to section 1006(b)(3) of OPA (U.S.C. § 2706(b)(3)). The following state agencies are designated natural resources Trustees under OPA and are currently acting as Trustees for the Spill:

- Texas Parks and Wildlife Department (TPWD), Texas General Land Office (TGLO) and Texas Commission on Environmental Quality (TCEQ);
- The State of Louisiana's Coastal Protection and Restoration Authority (CPRA), Oil Spill Coordinator's Office (LOSCO), Department of Environmental Quality (LDEQ), Department of Wildlife and Fisheries (LDWF) and Department of Natural Resources (LDNR);
- The State of Mississippi's Department of Environmental Quality (MDEQ);
- The State of Alabama's Department of Conservation and Natural Resources (ADCNR) and Geological Survey of Alabama (GSA); and
- The State of Florida's Department of Environmental Protection (FDEP) and Fish and Wildlife Conservation Commission (FWC).

This document (Final Phase IV ERP/EA), prepared jointly by State and Federal Trustees, serves as a Final Phase IV Early Restoration Plan under OPA, and also contains the associated assessment for each project

[3] Services (or natural resource services) means the functions performed by a natural resource for the benefit of another natural resource and/or the public (15 C.F.R. § 990.30).

[4] The U.S. Department of Defense is a trustee under OPA of natural resources at its Gulf Coast facilities potentially affected by the Spill but is not a member of the Trustee Council and did not participate in the preparation of this document.

under the National Environmental Policy Act (NEPA). Consistent with the Final Programmatic and Phase III Early Restoration Plan and Early Restoration Programmatic Environmental Impact Statement (Final Phase III ERP/PEIS), the DOI is the lead federal agency for preparing the Final Phase IV ERP/EA. The Federal co-Trustees are cooperating agencies pursuant to NEPA (40 C.F.R. §1508.5). These cooperating agencies intend to adopt these EAs, once completed. This document is prepared in accordance with 40 C.F.R. Parts1500-1508, "CEQ's Regulations for Implementing NEPA", and DOI NEPA implementing regulations (43 C.F.R. Part46).

In addition to acting as Trustees for this incident under OPA, the States of Texas, Louisiana, Mississippi, Alabama, and Florida are also acting pursuant to their applicable state laws and authorities, including but not limited to:

- The Texas Oil Spill Prevention and Response Act of 1991, Tex. Nat. Res. Code, Chapter 40;
- The Louisiana Oil Spill Prevention and Response Act of 1991, La. R.S. §§ 30:2451 *et seq.*, and accompanying regulations, La. Admin. Code 43:101 *et seq.*;
- The Mississippi Air and Water Pollution Control Law, Miss. Code Ann. §§ 49-17-1 through 49-17-43;
- Alabama Code §§ 9-2-1 *et seq.* and§§ 9-4-1 *et seq.*;
- The Florida Pollutant Discharge Prevention and Removal Act, Fla. Stat., Section 376.011 *et seq*.

This Final Phase IV ERP/EA serves as an Early Restoration Plan and Environmental Assessments for an additional 10 Early Restoration projects, with a total estimated cost of approximately $134 million. Any additional projects that are proposed for and selected will be included in subsequent Restoration plans to be released at a future date.

ES.1.2 Early Restoration Framework Agreement

The Early Restoration planning process is designed to be a cooperative endeavor between the Trustees and parties responsible for oil spills. On April 20, 2011, BP agreed to provide up to $1 billion toward Early Restoration projects in the Gulf of Mexico to address injuries to natural resources caused by the Spill. This Early Restoration agreement, entitled "Framework for Early Restoration Addressing Injuries Resulting from the *Deepwater Horizon* Oil Spill" (Framework Agreement), represents a preliminary step toward the restoration of injured natural resources. The Framework Agreement is intended to expedite the start of restoration in the Gulf in advance of the completion of the injury assessment process. The Framework Agreement provides a mechanism through which the Trustees and BP can work together "to commence implementation of Early Restoration projects that will provide meaningful benefits to accelerate restoration in the Gulf as quickly as practicable" prior to the resolution of the Trustees' natural resource damages claim. Early Restoration is not intended to, and does not fully address all injuries caused by the Spill.

The early restoration planning process is part of the NRDA, but is also shaped in part by the Framework Agreement with BP. The Framework Agreement is a partial, interim settlement under which BP is making up to $1 billion available for Early Restoration, in return for agreed offsets ("NRD Offsets" explained later in this document) to be applied by the Trustees in the future as credit against the Trustees' final assessment of total injury to resources impacted by the Spill. This provides an opportunity

for the Trustees to make progress towards restoration while the steps needed to determine the full amount of injury and natural resource damage unfold. At the same time, under the Framework Agreement, a proposed Early Restoration project may be funded only if all of the Trustees, the U.S. Department of Justice, and BP agree on, among other things, the amount of funding to be provided by BP and the Offsets against injury or service losses attributable to that project. The need for project-specific agreements inevitably affects which projects are practical to pursue in the Early Restoration process.

By its nature, the Early Restoration process is not intended to accomplish full restoration. Because final determinations of injury will not be completed for some time, it would be premature to say now what proportion of any particular type of injury would be addressed by the projects in this Phase IV ERP/EA. Early restoration projects represent an initial step toward fulfilling the responsible parties' obligation to pay for restoration of injured natural resources. Ultimately, the responsible parties are obligated to compensate the public for the full scope of natural resource injuries caused by the Spill, including the cost of assessment and restoration planning.

ES.1.3 Relationship of Phase IV ERP/EA to the Final Phase III ERP/PEIS

The Trustees are selecting, in this Final Phase IV ERP/EA, 10 projects in accordance with OPA and under the Framework Agreement that are meant to continue implementation of Early Restoration for the purpose of accelerating meaningful restoration of injured natural resources and their services resulting from the Spill. Given the potential magnitude and breadth of further Early Restoration, the Trustees previously prepared a Programmatic Early Restoration Plan and Programmatic Environmental Impact Statement (Final Phase III ERP/PEIS) under OPA and NEPA to analyze alternative approaches to continuing Early Restoration and to consistently guide remaining Early Restoration decisions.

The regulations that guide NRDAs under OPA require that restoration planning actions undertaken by Federal Trustees comply with NEPA, 42 U.S.C. §§ 4321 *et seq.*, and the regulations guiding its implementation at 40 C.F.R. Parts 1500-1508 (15 C.F.R. § 990.23). NEPA and its implementing regulations outline the responsibilities of federal agencies, including the preparation of environmental impact analysis such as an environmental impact statement.

When a federal agency prepares a programmatic NEPA analysis, such as a programmatic EIS, the agency may "tier" subsequent narrower environmental analyses on site-specific plans or projects from the programmatic analysis (40 C.F.R. §§ 1502.20, 1508.28). Federal agencies are encouraged to tier subsequent narrower analyses from a programmatic NEPA analysis to eliminate repetitive discussions of the same issues and to focus on the issues ripe for decision at each level of environmental review (40 C.F.R. § 1502.20).

This Phase IV ERP/EA is tiered from the programmatic portions of the Phase III ERP/PEIS (40 C.F.R. § 1508.28) which is incorporated here by reference (40 C.F.R. § 1502.21).[5] The programmatic analyses included in the Final Phase III ERP/PEIS streamline Early Restoration planning by evaluating broad issues

[5] The Final Phase III ERP/PEIS is available at: http://www.gulfspillrestoration.noaa.gov/restoration/early-restoration/phase-iii/.

and impacts associated with all project types included in the programmatic plan, thereby allowing the Trustees to tier project-specific analyses from the programmatic analyses. Tiering project-specific analyses reduces or eliminates duplicative documentation by focusing project analyses on project-specific issues and incorporating by reference the issues evaluated in the broad programmatic analyses. For proposed Phase IV Early Restoration projects, the Trustees have considered the extent to which additional NEPA analyses may be necessary for the projects that tier from the PEIS. These considerations include whether the analyses of relevant conditions and environmental effects described in the PEIS are still valid or whether projects have been considered in separate analyses under NEPA for purposes of other federal processes. These considerations are addressed in the project-specific environmental reviews included in this document (see Chapters 5-14).

ES.1.4 Natural Resource Damage Assessment Restoration Planning

Restoration activities are intended to restore or replace habitats, species, and services to their baseline condition (primary restoration) and to compensate the public for interim losses from the time natural resources are injured until they recover to baseline conditions (compensatory restoration). NRDA restoration planning has two basic components: (1) injury assessment and (2) restoration selection. Given its expansive geographic scale and complexity, the *Deepwater Horizon* NRDA process may continue for several more years. Therefore, for the purpose of accelerating meaningful restoration of injured natural resources and their services resulting from the Spill, the Trustees propose to continue implementation of Early Restoration in accordance with OPA and the Final Phase III ERP/PEIS, using funds made available in the Framework Agreement. Having completed three emergency restoration projects as well as three previous phases of Early Restoration, with 54 projects totaling $698 million, the Trustees are herein proposing an additional 10 Early Restoration projects worth approximately $134 million for Phase IV of Early Restoration. Early Restoration is being initiated prior to completion of the full NRDA, and is not intended to fully address all injuries caused by the Spill. Additional projects will continue to be proposed in other Restoration plans.

ES.1.5 Early Restoration Project Selection Process

The Early Restoration selection process was developed by the Trustees to be responsive to the purpose and need for conducting Early Restoration. In summary, Early Restoration project selection is a step-wise process comprised of: (1) project solicitation; (2) project screening; (3) negotiation with BP; and (4) evaluation and environmental review of proposed projects under OPA and NEPA, including public review and comment.

The Trustees' Early Restoration project selection process initially results in a set of potential projects that, consistent with the Framework Agreement, are submitted to BP for review and discussion. The Framework Agreement requires the Trustees and BP to agree on: (1) the funding amount for a proposed project; and (2) Offsets. If the Trustees and BP reach agreement in principle on project terms, those projects are incorporated into a draft Early Restoration Plan and are subject to NEPA review. Projects can be considered ready for implementation only after consideration of comments submitted during the public review process, finalization of the Early Restoration Plan, completion of all required permits and environmental compliance reviews including NEPA, and execution and filing of the project stipulations.

With respect to the 10 projects in this Phase IV ERP/EA, as with previous phases of Early Restoration, the Trustees identified potential projects from many sources, including but not limited to: submissions from the public; Gulf restoration reports, research, management plans and related efforts; and Trustee information collection activities. The Trustees applied a screening process to be responsive to the purpose and need for conducting Early Restoration based on specified evaluation criteria and practical considerations that, while not legally mandated, are nonetheless useful and permissible to help screen potential projects.

The Trustees also established websites to provide the public information about injury and restoration processes,[6] and public solicitation of restoration projects has been ongoing since publication of the Notice of Intent to Conduct Restoration Planning for the *Deepwater Horizon* Oil Spill (2010 NOI), which was published in the Federal Register on October 1, 2010 and announced publicly by the Trustees (Discharge of Oil from Deepwater Horizon/Macondo Well, Gulf of Mexico (Intent to Conduct Restoration Planning, 75 Fed. Reg. 60,800 (October 1, 2010)). The Trustees have received hundreds of proposals, all of which can be viewed at several web pages (see footnote 6). The public provided ideas and comments at public scoping meetings focused on the PEIS for the final, comprehensive damage assessment and restoration plan[7] as well as during public meetings held during each phase of Early Restoration.

ES.1.6 Previous Phases of Early Restoration

The Trustees previously selected 54 Early Restoration projects for implementation, including: eight projects documented in the April 2012 final "*Deepwater Horizon* Oil Spill Phase I Early Restoration Plan and Environmental Assessment"; two projects documented in the December 2012 final "*Deepwater Horizon* Oil Spill Phase II Early Restoration Plan and Environmental Review"; and 44 projects documented in the June 2014 final "*Deepwater Horizon* Oil Spill: Programmatic and Phase III Early Restoration Plan and Early Restoration Programmatic Environmental Impact Statement".

As summarized in Table ES- 1, the total estimated cost of Early Restoration projects selected for implementation to date is approximately $698 million (including contingencies). Ecological projects

[6] The Trustees established the following websites:

- NOAA, Gulf Spill Restoration, available at http://www.gulfspillrestoration.noaa.gov/;
- NOAA, DIVER, available at https://dwhdiver.orr.noaa.gov/
- DOI, *Deepwater Horizon* Oil Spill Response, available at http://www.fws.gov/home/dhoilspill/;
- Texas Parks and Wildlife Department, *Deepwater Horizon* Oil Spill, available at http://www.tpwd.state.tx.us/landwater/water/environconcerns/damage_assessment/deep_water_horizon.phtml/;
- Louisiana, *Deepwater Horizon* Oil Spill Natural Resource Damage Assessment, available at http://la-dwh.com/;
- Mississippi Department of Environmental Quality, Natural Resource Damage Assessment, available at http://www.restore.ms/;
- Alabama Department of Conservation and Natural Resources, NRDA Projects, available at http://www.alabamacoastalrestoration.org; and
- Florida Department of Environmental Protection, *Deepwater Horizon* Oil Spill Response and Restoration, available at www.deepwaterhorizonflorida.com.

[7] A final Damage Assessment and Restoration Plan will outline the total injury that occurred as a result of the Spill and the plan to fully compensate the public for those losses; it will be the result of the comprehensive NRDA effort currently in process.

comprise $460 million (66%) of this total, and recreational projects comprise the remaining $238 million (34%). Within the ecological project category, barrier island restoration and dune projects account for $321 million of estimated project costs, followed by marsh living shoreline projects ($92 million), oyster projects ($35 million), sea turtle and bird habitat enhancement projects ($9 million), and seagrass projects ($3 million).

Table ES- 1. Summary of Funds Spent on Phase I, II, and III Early Restoration Project Categories

PROJECT CATEGORY	ESTIMATED COST FOR ALL PROJECTS IN THAT CATEGORY
Barrier Islands and Dunes	$321,098,721
Recreational	$237,628,642
Marsh and Living Shoreline	$92,283,748
Oyster	$35,192,681
Sea Turtle and Bird Habitat Enhancement	$8,979,283
Seagrasses	$2,691,867
Total	**$697,874,942**

ES.1.7 Notice of Change to Phase III Early Restoration Project

The Phase IV ERP/EA also includes a notice of change and supporting analysis for one Phase III Early Restoration Project, "Enhancement of Franklin County Parks and Boat Ramps – Eastpoint Fishing Pier Improvements." This is discussed in more detail in Chapter 1, section 1.7.

ES.1.8 Phase IV Projects

Table ES-2 lists the 10 Phase IV projects, identifies the state(s) in which each is located, identifies the implementing Trustee(s), lists the project cost, and relates each project back to the programmatic Early Restoration project type(s) from the Final Phase III ERP/PEIS.

shows the locations of the projects. Detailed discussions of the projects, their benefits, and associated environmental assessments are included in Chapters 5-14 of this document. Brief summaries of each project follow the table.

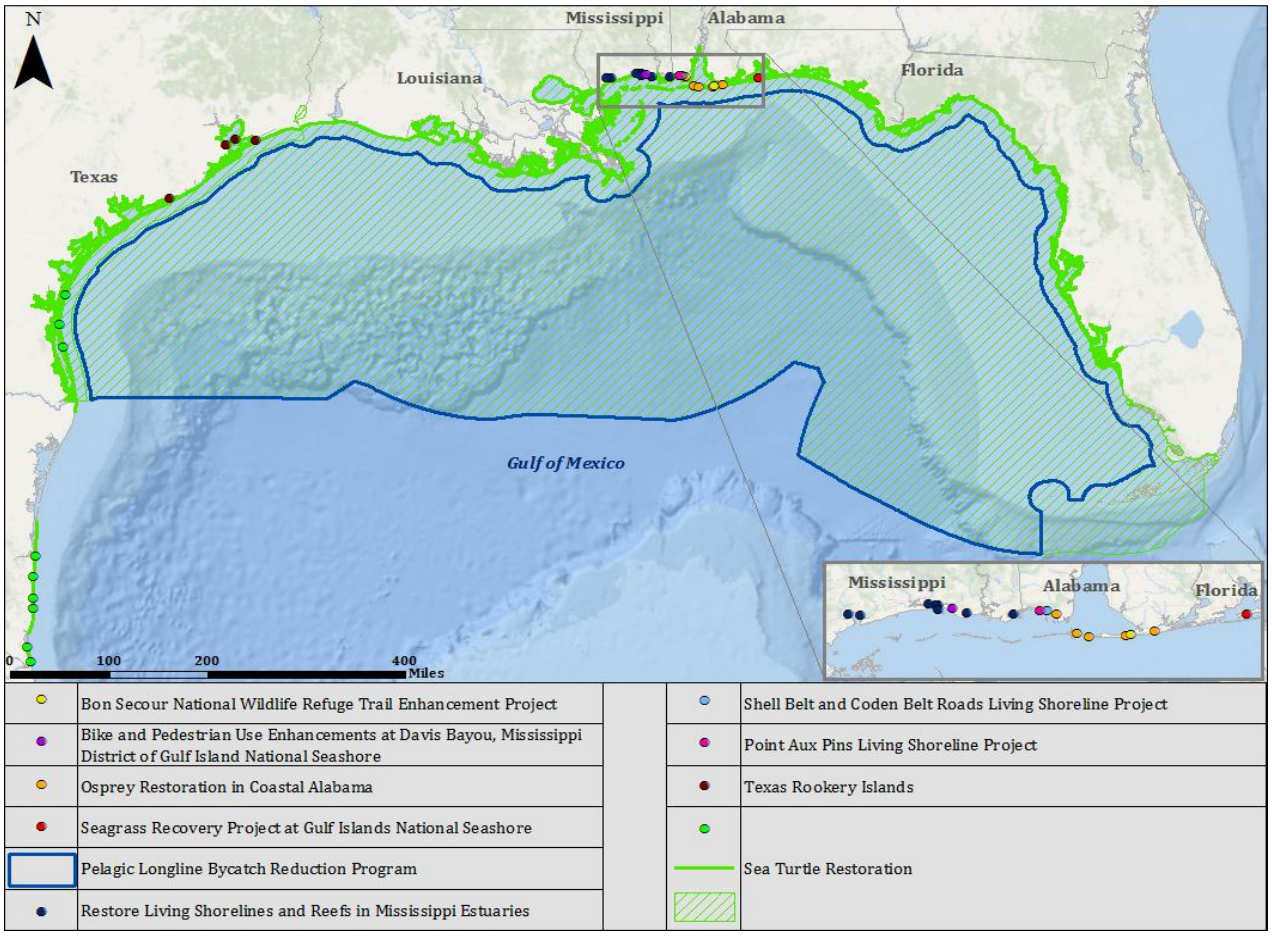
Table ES-2. Phase IV Early Restoration Projects

PROJECT TITLE	LOCATION	IMPLEMENTING TRUSTEE(S)	COST	PROJECT TYPE[1]
Texas Rookery Islands	TX	TX Trustees, DOI	$20,603,770	Restore and Protect Birds
Restore Living Shorelines and Reefs in Mississippi Estuaries	MS	MS	$30,000,000	Restore Oysters Protect Shorelines and Reduce Erosion
Bike and Pedestrian Use Enhancements at Davis Bayou, Mississippi District, Gulf Islands National Seashore	MS[2]	DOI	$6,996,751	Enhance Public Access to Natural Resources for Recreational Use; Enhance Recreational Experiences
Bon Secour National Wildlife Refuge Trail Enhancement	AL[2]	DOI	$545,110	Enhance Public Access to Natural Resources for Recreational Use; Enhance Recreational

PROJECT TITLE	LOCATION	IMPLEMENTING TRUSTEE(S)	COST	PROJECT TYPE[1]
Project , Alabama				Experiences; Promote Environmental and Cultural Stewardship, Education and Outreach
Osprey Restoration In Coastal Alabama	AL	AL	$45,000	Restore and Protect Birds
Point aux Pins Living Shoreline	AL	AL	$2,300,000	Protect Shorelines and Reduce Erosion
Shell Belt and Coden Belt Roads Living Shoreline	AL	AL	$8,050,000	Protect Shorelines and Reduce Erosion
Seagrass Recovery Project at Gulf Islands National Seashore, Florida District	FL[2]	DOI	$136,700	Restore and Protect Submerged Aquatic Vegetation
Sea Turtle Early Restoration	Gulf-wide	NOAA, TX Trustees, DOI	$45,000,000	Restore and Protect Sea Turtles
Pelagic Longline Bycatch Reduction Project	Gulf-wide	NOAA	$20,000,000	Restore and Protect Finfish and Shellfish
		Total	**$133,677,331**	

[1] Relevant project type from the Trustees' preferred programmatic alternative (see Chapter 5 of the Final Phase III ERP/PEIS).
[2] These projects will be implemented on federally managed lands and managed by DOI.

Figure ES- 1. Location of Phase IV Projects



ES.1.9 Brief Project Descriptions

ES.1.9.1 Texas Rookery Islands

The Texas Rookery Islands project will restore and protect three rookery islands in Galveston Bay and one rookery island in East Matagorda Bay using coastal engineering techniques. The primary goal of the project is to increase nesting of colonial waterbirds, including brown pelicans, gulls, terns (royal and sandwich terns), and wading birds (great blue herons, roseate spoonbills, reddish egrets, great egrets, snowy egrets, tricolored herons, and black-crowned night herons). Restoration actions at each rookery island will increase the amount of available nesting habitat by expanding the size of the island and enhancing the quality of habitat for nesting birds. Habitat longevity will be increased by raising the island elevation and constructing protective features, such as breakwaters or armoring levees. These restoration actions will result in an increase in the numbers of nesting colonial waterbirds. Rookery islands in Galveston Bay include Dickinson Bay Island II, located within Dickinson Bay; Rollover Bay Island, located in East (Galveston) Bay; and Smith Point Island, located west of the Smith Point Peninsula. Dressing Point Island lies in East Matagorda Bay, and is part of the Big Boggy National Wildlife Refuge.

ES.1.9.2 Restore Living Shorelines and Reefs in Mississippi Estuaries

The Restoring Living Shorelines and Reefs in Mississippi Estuaries project will restore intertidal and subtidal reefs and use living shoreline techniques in four bays. Project actions will take place in Grand Bay, Graveline Bay, Back Bay of Biloxi and vicinity, and St. Louis Bay, all located in Jackson, Harrison, and Hancock counties. The project will provide for the construction of more than four miles of breakwaters, five acres of intertidal reef habitat and 267 acres of subtidal reef habitat across the Mississippi Gulf Coast.

ES.1.9.3 Bike and Pedestrian Use Enhancements at Davis Bayou, Mississippi District, Gulf Islands National Seashore

This project will involve implementing roadway improvements for pedestrians and bicyclists in the Davis Bayou Area of Gulf Islands National Seashore. In response to prior public scoping meetings conducted outside of the Early Restoration process, NPS developed two action alternatives for this project. The NPS Preferred Alternative will widen the existing road surface on Park Road and Robert McGhee Road to accommodate multiple-use bicycle-pedestrian lanes. The other alternative would reduce the amount of automobile traffic in the park by limiting access to VFW Road during certain times of the day. Both alternatives would include two traffic-calming medians on Park Road.

ES.1.9.4 Bon Secour National Wildlife Refuge Trail Enhancement, Alabama

This project will involve repairing and improving, to an American with Disabilities Act (ADA) standard, an existing trail (Jeff Friend Trail) on Bon Secour National Wildlife Refuge (BSNWR). The BSNWR is located on the Gulf Coast, 8 miles west of the city of Gulf Shores, Alabama, in Baldwin and Mobile counties. This aged boardwalk and gravel trail will be repaired and improved to ensure safe public access and to enhance the quality of visitor experience. An observation platform will also be constructed along the trail, and two handicapped parking spaces will be widened to better accommodate visitors. The project

is not expected to significantly increase visitation, but rather to provide a safe and enhanced experience for visitors to the Refuge.

ES.1.9.5 Osprey Restoration in Coastal Alabama

The restoration project will install five osprey nesting platforms along the coast in Mobile and Baldwin Counties, Alabama in order to provide enhanced nesting opportunities for pisciverous (fish-eating) raptors.

ES.1.9.6 Point aux Pins Living Shoreline

The Point aux Pins Living Shoreline project will employ living shoreline techniques that utilize natural and/or artificial breakwater materials to stabilize shorelines along an area in Portersville Bay in the Mississippi Sound near Point aux Pins in Mobile County, Alabama. The project will be located adjacent to an existing living shoreline project previously constructed by the ADCNR utilizing other funding sources.

Construction activities will include placement of breakwater materials along the shoreline to dampen wave energy and reduce shoreline erosion while also providing habitat and increasing benthic secondary productivity. The specific breakwater elevations, construction techniques and design will be developed to maximize project success and meet regulatory requirements. Over time, the breakwaters are expected to provide habitat that supports benthic secondary productivity, including, but not limited to, bivalve mollusks, annelid worms, shrimp, crabs, and small forage fishes.

ES.1.9.7 Shell Belt and Coden Belt Roads Living Shoreline

The Shell Belt and Coden Belt Roads Living Shoreline project will employ shoreline restoration techniques to increase benthic productivity and enhance the growth of planted native marsh vegetation. The project will be located in the Portersville Bay portion of Mississippi Sound, seaward of the southernmost portions of Shell Belt and Coden Belt Roads in Coden, Alabama. This project will be constructed to dampen wave energy and protect newly planted emergent vegetation while also providing habitat and increasing benthic secondary productivity. The specific breakwater elevations, construction techniques and design will be developed to maximize project success and meet regulatory requirements. Over time, the breakwaters are expected to develop into reefs that support benthic secondary productivity, including, but not limited to, bivalve mollusks, annelid worms, shrimp, and crabs. Marsh vegetation is expected to become established further enhancing both primary and secondary productivity adjacent to the breakwaters.

ES.1.9.8 Seagrass Recovery Project at Gulf Islands National Seashore, Florida District

The Seagrass Recovery project at Gulf Islands National Seashore's Florida District will restore shallow seagrass beds in the Florida panhandle. It will restore 0.02 acres of seagrass injured by propeller scars, blow holes and human foot traffic, primarily in turtle grass (*Thallassia testudinum*) on DOI-managed lands located along the south side of the Naval Live Oaks Preserve in Santa Rosa Sound, in Santa Rosa County, Florida. Project activities will include harvesting and transplanting seagrass, installing bird stakes

to condition sediments to promote seagrass survival, and installing signage to educate visitors about the restoration project and the ecological importance of seagrass.

ES.1.9.9 Sea Turtle Early Restoration

The Sea Turtle Early Restoration project is a multi-faceted approach to restoration that collectively addresses identified needs for a variety of species and life stages of sea turtles, consistent with long-term recovery plans and plan objectives for sea turtles in the Gulf of Mexico. The Sea Turtle Early Restoration project consists of four complementary project components:

- The Kemp's Ridley Sea Turtle Nest Detection and Enhancement project component will provide needed additional staff, infrastructure, training, education activities, equipment, supplies, and vehicles over a 10-year period in both Texas and Mexico for Kemp's ridley sea turtle nest detection and protection.
- The Enhancement of the Sea Turtle Stranding and Salvage Network (STSSN) and Development of an Emergency Response Program project component will enhance the existing STSSN beyond current capacities for 10 years in Texas and across the Gulf, as well as develop a formal Emergency Response Program within the Gulf of Mexico.
- The Gulf of Mexico Shrimp Trawl Bycatch Reduction component will enhance two existing NOAA programs which will work to reduce the bycatch of sea turtles in shrimp trawls in the Gulf of Mexico. The two programs are the Gear Monitoring Team (GMT) and the Southeast Shrimp Trawl Fisheries Observer Program (Observer Program).
- The Texas Enhanced Fisheries Bycatch Enforcement component will enhance TPWD enforcement activities for fisheries that incidentally catch sea turtles while they operate primarily in Texas State waters within the Gulf of Mexico, for a 10-year period.

ES.1.9.10 Pelagic Longline Bycatch Reduction Project

The Pelagic Longline Bycatch Reduction Project will restore open-ocean (pelagic) fish that were affected by the Spill. The Gulf pelagic longline (PLL) fishery primarily targets yellowfin tuna and swordfish, but incidentally catches and discards other fish, including marlin, sharks, bluefin tuna, and smaller individuals of the target species. The project aims to reduce the number of fish accidentally caught and killed in fishing gear by compensating PLL fishermen who agree to voluntarily refrain from PLL fishing in the Gulf during an annual six-month repose period that coincides with the bluefin tuna spawning season. The project will also provide participating fishermen with two alternative gear types to allow for the continued harvest of yellowfin tuna and swordfish during the repose period when PLL gear is not used.

ES.1.10 Severability of Phase IV Early Restoration Projects

In this Final Phase IV ERP/EA, the Trustees are selecting 10 specific Early Restoration projects expected to cost approximately $134 million. The Phase IV projects presented in this Final Phase IV ERP/EA are independent of each other and may be selected independently by the Trustees. A decision not to select one or more of the proposed projects in the Final Phase IV ERP/EA will not affect the Trustees' selection of the remaining Phase IV Early Restoration projects.

ES.1.11 Public Participation

The public comment period for the Draft Phase IV ERP/EA opened on May 20, 2015 (80 FR 29019), was extended for 17 days (80 FR 35393, June 19, 2015), and closed on July 6, 2015. During that time, the Trustees hosted six public meetings in Texas, Louisiana, Mississippi, Alabama, and Florida:

- June 2, 2015: Pensacola, Florida
- June 3, 2015: Mobile, Alabama
- June 4, 2015: Long Beach, Mississippi
- June 8, 2015: Belle Chasse, Louisiana
- June 10, 2015: Galveston, Texas
- June 11, 2015: Corpus Christi, Texas

At the public meetings, the Trustees accepted written comments, as well as verbal comments that were recorded by court reporters. In addition, the Trustees hosted a web-based comment submission site, and provided a P.O. Box and email address as other means for the public to provide comments. As a result, the Trustees received approximately 2,600 submissions from private citizens; businesses; federal, state, and local agencies; non-governmental organizations; and others.

Chapter 15 of this document provides further detail on the public comment process and includes a summary of all relevant public comments received on the Draft Phase IV ERP/EA and Trustee responses. This Final Phase IV ERP/EA reflects revisions to the Draft Phase IV ERP/EA arising from public comments; progress on compliance with other laws, regulations and Executive Orders; and continuing Trustee project development and consideration of potentially relevant information.

ES.1.12 Administrative Record

Pursuant to 15 C.F.R. § 990.45, the Trustees opened a publicly available Administrative Record for the NRDA for the Spill, including restoration planning activities, concurrently with the publication of the 2010 Notice of Intent to Conduct Restoration Planning. DOI is the lead Federal Trustee for maintaining the Administrative Record, which can be found at http://www.doi.gov/deepwaterhorizon/adminrecord.[8] Information about Early Restoration project implementation is being provided to the public through the Administrative Record and other outreach efforts, including http://www.gulfspillrestoration.noaa.gov.

ES.1.13 Remaining Milestones

The following is a list of milestones that will occur prior to implementation of Phase IV projects.

- File Stipulation Agreements with the Court

Should future substantial changes or significant new circumstances arise, the Trustees would consider the need to supplement the relevant analyses.

[8] Additionally, Louisiana is also maintaining an Administrative Record (see http://la-dwh.com/AdminRecord.aspx) in accordance with state regulations (La. Admin. Code 43:127).

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