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CHAPTER 7: INTRODUCTION TO PROPOSED PHASE III EARLY RESTORATION PROJECTS

This chapter provides introductory, overview information about the Phase III Early Restoration projects that are proposed for implementation by the Trustees. The Trustees anticipate that additional projects will be proposed and approved as the Early Restoration process continues. As noted throughout this document, Early Restoration actions are not intended to provide the full extent of restoration needed to make the environment and the public whole for the injuries to natural resources caused by the Spill. Furthermore, after injury assessment activities are complete, there will be additional opportunities for consideration of restoration projects as the NRDA claim development and restoration planning processes move forward. Throughout the restoration process, public input and comment will be considered.

The remainder of this chapter provides:

- A summary of proposed Phase III projects;
- A general description of the methodologies used to estimate Offsets for the projects;
- A general description of the Trustees' approach to environmental compliance; and
- A brief overview of each proposed project.

Detailed information about each project, as well as project-specific information on affected environments and evaluations of environmental consequences, is provided in Chapters 8-12. Each chapter covers the projects proposed for implementation within each individual Gulf Coast state, including those on federally managed lands within those states.

7.1 Overview of Proposed Phase III Early Restoration Projects

Table 7-1 lists the 44 proposed Phase III projects, identifies the state in which each is located or proximate, and relates each project back to the project type(s) and programmatic alternatives described in Chapter 5.

The Trustees are proposing 44 Phase III Early Restoration projects totaling approximately $627 million in estimated project costs (including contingencies). These projects are being evaluated in the Phase III ERP/PEIS to permit the Trustees to expeditiously implement any selected projects and to avoid the delay in implementation that would be incurred by evaluating these projects under individual NRDA restoration plans and supporting individual NEPA analyses. Ecological projects comprise $396.9 million (63%) of this total, and recreational projects comprise the remaining $230 million (37%). Within the ecological project category, barrier island restoration accounts for $318.4 million of estimated project costs, followed by restoration of living shorelines ($66.6 million), oysters ($8.6 million), seagrasses ($2.7 million) and dune projects ($0.6 million). Overview information concerning all of the proposed projects is presented below. More detailed project information and environmental analyses for the proposed Phase III Early Restoration projects are included in Chapters 8-12 of this document.

In both tables, the proposed projects are organized by state, from west to east within the Gulf. The ultimate decision to select each of these projects for implementation will be a consensus decision by all Trustees, and will be made in a future Record of Decision. Based on the analysis in this document,

including consideration of public comments, the Trustees prefer the proposed action as described in the project summary for each of the 44 projects, and thus prefer the 44 projects for Phase III Early Restoration.

State Trustees will be the lead for project implementation and management of projects located in their states, except as otherwise noted in Chapters 8-12. For example, two of the proposed projects would be implemented on federally managed lands within the boundaries of Florida, but for organizational purposes are included with the Florida projects. Projects highlighted in gray below have undergone design, cost or Offset modification between the Draft Phase III ERP/PEIS and the Final Phase III ERP/PEIS; see the summary project descriptions below as well as the associated state chapters (8-12) for more details.

Table 7-1. Proposed Phase III Early Restoration Projects: Relationship to Programmatic Alternatives.

			ALTERNATIVE 4											
			ALTERNATIVE 2									ALTERNATIVE 3		
	PROPOSED PROJECT	LOCATION	CREATE AND IMPROVE WETLANDS	PROTECT SHORELINES AND REDUCE EROSION	RESTORE BARRIER ISLANDS AND BEACHES	RESTORE AND PROTECT SUBMERGED AQUATIC VEGETATION	CONSERVE HABITAT	RESTORE OYSTERS	RESTORE AND PROTECT FINFISH	RESTORE AND PROTECT BIRDS	RESTORE AND PROTECT SEA TURTLES	ENHANCE PUBLIC ACCESS TO NATURAL RESOURCES FOR RECREATIONAL USE	ENHANCE RECREATIONAL EXPERIENCES	PROMOTE ENVIRONMENTAL AND CULTURAL STEWARDSHIP, EDUCATION, AND OUTREACH
1	Freeport Artificial Reef	TX											X	
2	Matagorda Artificial Reef	TX											X	
3	Mid/Upper Texas Coast Artificial Reef - Ship Reef[1]	TX											X	
4	Sea Rim State Park Improvements	TX										X	X	
5	Galveston Island State Park Beach Redevelopment	TX										X	X	
6	Louisiana Outer Coast Restoration	LA[2]			X									
7	Louisiana Marine Fisheries Enhancement, Research, and Science Center	LA											X	X
8	Hancock County Marsh Living Shoreline Project	MS	X	X										
9	Restoration Initiatives at the INFINITY Science Center	MS										X	X	X
10	Popp's Ferry Causeway Park	MS										X	X	X
11	Pascagoula Beach Front Promenade	MS										X	X	
12	Alabama Swift Tract Living Shoreline	AL		X										
13	Gulf State Park Enhancement Project	AL										X	X	X
14	Alabama Oyster Cultch	AL						X						

	PROPOSED PROJECT	LOCATION	ALTERNATIVE 4											
			ALTERNATIVE 2									ALTERNATIVE 3		
			CREATE AND IMPROVE WETLANDS	PROTECT SHORELINES AND REDUCE EROSION	RESTORE BARRIER ISLANDS AND BEACHES	RESTORE AND PROTECT SUBMERGED AQUATIC VEGETATION	CONSERVE HABITAT	RESTORE OYSTERS	RESTORE AND PROTECT FINFISH	RESTORE AND PROTECT BIRDS	RESTORE AND PROTECT SEA TURTLES	ENHANCE PUBLIC ACCESS TO NATURAL RESOURCES FOR RECREATIONAL USE	ENHANCE RECREATIONAL EXPERIENCES	PROMOTE ENVIRONMENTAL AND CULTURAL STEWARDSHIP, EDUCATION, AND OUTREACH
	Restoration													
15	Beach Enhancement Project at Gulf Islands National Seashore	FL[3]											X	
16	Gulf Islands National Seashore Ferry Project	FL[3]										X		
17	Florida Cat Point Living Shoreline Project	FL	X	X										
18	Florida Pensacola Bay Living Shoreline Project	FL	X	X										
19	Florida Seagrass Recovery Project	FL				X								
20	Perdido Key State Park Beach Boardwalk Improvements	FL										X	X	
21	Big Lagoon State Park Boat Ramp Improvement	FL										X	X	
22	Bob Sikes Pier Parking and Trail Restoration	FL										X	X	
23	Florida Artificial Reefs	FL										X	X	
24	Florida Fish Hatchery	FL										X	X	
25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle	FL										X	X	
26	Shell Point Beach Nourishment	FL											X	
27	Perdido Key Dune Restoration Project	FL			X									
28	Florida Oyster Cultch Placement Project	FL						X						
29	Strategically Provided Boat Access Along Florida's Gulf Coast	FL										X	X	
30	Walton County Boardwalks and Dune Crossovers	FL										X	X	
31	Gulf County Recreation Projects	FL										X	X	
32	Bald Point State Park Recreation Areas	FL										X	X	
33	Enhancements of Franklin County Parks and Boat Ramps	FL										X	X	X
34	Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access	FL										X	X	

	PROPOSED PROJECT	LOCATION	ALTERNATIVE 4											
			ALTERNATIVE 2									ALTERNATIVE 3		
			CREATE AND IMPROVE WETLANDS	PROTECT SHORELINES AND REDUCE EROSION	RESTORE BARRIER ISLANDS AND BEACHES	RESTORE AND PROTECT SUBMERGED AQUATIC VEGETATION	CONSERVE HABITAT	RESTORE OYSTERS	RESTORE AND PROTECT FINFISH	RESTORE AND PROTECT BIRDS	RESTORE AND PROTECT SEA TURTLES	ENHANCE PUBLIC ACCESS TO NATURAL RESOURCES FOR RECREATIONAL USE	ENHANCE RECREATIONAL EXPERIENCES	PROMOTE ENVIRONMENTAL AND CULTURAL STEWARDSHIP, EDUCATION, AND OUTREACH
	Improvements													
35	Navarre Beach Park Gulfside Walkover Complex	FL										X	X	
36	Navarre Beach Park Coastal Access	FL										X	X	
37	Gulf Breeze Wayside Park Boat Ramp	FL										X	X	
38	Developing Enhanced Recreational Opportunities at the Escribano Point Portion of the Yellow River Wildlife Management Area	FL										X	X	X
39	Norriego Point Restoration and Recreation Project	FL										X	X	X
40	Deer Lake State Park Development	FL										X	X	
41	City of Parker – Oak Shore Drive Pier	FL										X	X	
42	Panama City Marina Fishing Pier, Boat Ramp and Staging Docks	FL										X	X	
43	Wakulla Marshes Sands Park Improvements	FL										X	X	
44	Northwest Florida Estuarine Habitat Restoration, Protection and Education – Fort Walton Beach	FL										X	X	X

[1] As described in more detail in Chapter 8, the Trustees include an alternative (the Corpus Artificial Reef Project) to the Mid/Upper Texas Coast Artificial Reef Ship Reef Project, to be implemented in the event the Ship Reef Project becomes technically infeasible (e.g., an appropriate ship cannot be acquired with available funding). The Corpus Artificial Reef Project 'Alternative' has its own project description, description of Affected Environment and analysis of environmental consequences in Chapter 8; is categorized within the same Programmatic Alternative as the Ship Reef Project; and would provide similar Offsets.

[2] One component of this proposed project would be implemented on federally-managed lands and managed by DOI.

[3] These proposed projects would be implemented on federally-managed lands and managed by DOI.

7.2 Offsets Estimation Methodologies

The Trustees used three primary methods to estimate Offsets for Early Restoration projects: Habitat Equivalency Analysis ("HEA"), Resource Equivalency Analysis ("REA"), and monetized estimates of project benefits. A general overview of each of these methods is provided below. Table 7-2 provides the

estimated cost (including contingencies) of each project and information about the type(s) of Offsets negotiated with BP for each project. More detailed information about estimated Offsets for each proposed project can be found in Chapters 8-12 of this document.

The methods used to estimate Offsets for Early Restoration projects were implemented pursuant to the Framework Agreement and are based on the expected benefits for each project. In the context of Early Restoration under the Framework Agreement, the Trustees used the best information and methodologies available to judge the adequacy of proposed Early Restoration actions relative to OPA regulatory evaluation standards (see 15 C.F.R. § 990.54(a)), while determining that the agreements reached with BP under the Framework Agreement were also fair, reasonable, and in the public interest. It is important to note that, under the Framework Agreement, neither the amount of the Offsets nor the methods of estimation used in analyzing any project are a precedent for assessing the gains provided by any other projects either during the Early Restoration process or in the assessment of total injury.

In the future, the Trustees will credit these Early Restoration Offsets against the Trustees' total assessment of BP's NRD liability, consistent with the project stipulations and the Framework Agreement.

7.2.1 Habitat Equivalency Analysis (HEA) and Resource Equivalency Analysis (REA)

HEA and REA are methods commonly used in natural resource damage assessments. HEA is used to quantify changes in ecological services on a habitat basis (e.g., acres of marsh habitat) whereas REA is used to quantify changes in ecological services[1] in resource specific units (e.g., birds, oysters, etc.). When HEA or REA is used to estimate restoration credits, anticipated ecological benefits resulting from the proposed activity often are expressed in units that reflect the present (current) value over a project's lifespan. For purposes of the proposed Early Restoration projects included in this document, the Trustees expressed HEA-estimated Offsets as "discounted service acre years" ("DSAYs")[2] of the specific habitat types to be restored. For example, the Trustees estimated the present value of Offsets associated with a proposed Early Restoration project focused on primary dune restoration in terms of "primary dune DSAYs".

[1] As stated in Chapter 1, examples of ecological services include biological diversity, nutrient cycling, food production for other species, habitat provision, and other services that natural resources provide for each other.

[2] 1 "DSAY" = the discounted (to a specified base year) services provided by one acre of habitat for one year.

Table 7-2. Proposed Phase III Early Restoration Projects: Estimated Costs and Offsets.

	PROJECT	LOCATION	COST (including potential contingencies)[3]	OFFSET[1]							
				BACK BARRIER MARSH HABITAT	SALT MARSH HABITAT	BEACH/DUNE HABITAT	SUBMERGED AQUATIC VEGETATION HABITAT	OYSTER SECONDARY PRODUCTIVITY	BENTHIC SECONDARY PRODUCTIVITY	PELICAN, TERN/SKIMMER AND GULL FLEDGLINGS	RECREATIONAL USE
1	Freeport Artificial Reef	TX	$2,155,365								X
2	Matagorda Artificial Reef	TX	$3,552,398[2]								X
3	Mid/Upper Texas Coast Artificial Reef - Ship Reef[3]	TX	$1,919,765[2]								X
4	Sea Rim State Park Improvements	TX	$210,100								X
5	Galveston Island State Park Beach Redevelopment	TX	$10,745,060								X
6	Louisiana Outer Coast Restoration	LA[4]	$318,363,000	X		X				X	
7	Louisiana Marine Fisheries Enhancement, Research, and Science Center	LA	$22,000,000								X
8	Hancock County Marsh Living Shoreline Project	MS	$50,000,000		X				X		
9	Restoration Initiatives at the INFINITY Science Center	MS	$10,400,000								X
10	Popp's Ferry Causeway Park	MS	$4,757,000								X
11	Pascagoula Beach Front Promenade	MS	$3,800,000								X
12	Alabama Swift Tract Living Shoreline	AL	$5,000,080		X				X		
13	Gulf State Park Enhancement Project	AL	$85,505,305								X
14	Alabama Oyster Cultch Restoration	AL	$3,239,485					X			
15	Beach Enhancement Project at Gulf Island National Seashore	FL[5]	$10,836,055								X
16	Gulf Islands National Seashore Ferry Project	FL[5]	$4,020,000								X
17	Florida Cat Point Living Shoreline Project	FL	$775,605		X				X		
18	Florida Pensacola Bay Living Shoreline Project	FL	$10,828,063		X				X		
19	Florida Seagrass Recovery Project	FL	$2,691,867				X				
20	Perdido Key State Park Beach Boardwalk Improvements	FL	$588,500								X
21	Big Lagoon State Park Boat Ramp Improvement	FL	$1,483,020								X
22	Bob Sikes Pier Parking and Trail Restoration	FL	$1,023,990								X
23	Florida Artificial Reefs	FL	$11,463,587								X
24	Florida Fish Hatchery	FL	$18,793,500								X

[3] Actual costs may differ depending on future contingencies, but will not exceed the amount shown without further agreement between the Trustees and BP.

	PROJECT	LOCATION	COST (including potential contingencies)[3]	OFFSET[1]							
				BACK BARRIER MARSH HABITAT	SALT MARSH HABITAT	BEACH/DUNE HABITAT	SUBMERGED AQUATIC VEGETATION HABITAT	OYSTER SECONDARY PRODUCTIVITY	BENTHIC SECONDARY PRODUCTIVITY	PELICAN, TERN/SKIMMER AND GULL FLEDGLINGS	RECREATIONAL USE
25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle	FL	$2,890,250								X
26	Shell Point Beach Nourishment	FL	$882,750								X
27	Perdido Key Dune Restoration Project	FL	$611,234			X					
28	Florida Oyster Cultch Placement Project	FL	$5,370,596					X			
29	Strategically Provided Boat Access Along Florida's Gulf Coast	FL	$3,248,340								X
30	Walton County Boardwalks and Dune Crossovers	FL	$743,276								X
31	Gulf County Recreation Projects	FL	$2,118,600								X
32	Bald Point State Park Recreation Areas	FL	$470,800								X
33	Enhancement of Franklin County Parks and Boat Ramps	FL	$1,771,385								X
34	Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements	FL	$262,989								X
35	Navarre Beach Park Gulfside Walkover Complex	FL	$1,221,847								X
36	Navarre Beach Park Coastal Access	FL	$614,630								X
37	Gulf Breeze Wayside Park Boat Ramp	FL	$309,669								X
38	Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area	FL	$2,576,365								X
39	Norriego Point Restoration and Recreation Project	FL	$10,228,130								X
40	Deer Lake State Park Development	FL	$588,500								X
41	City of Parker- Oak Shore Drive Pier	FL	$993,649								X
42	Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks	FL	$2,000,000								X
43	Wakulla Mashes Sands Park Improvements	FL	$1,500,000								X
44	Northwest Florida Estuarine Habitat Restoration, Protection, and Education- Fort Walton Beach	FL	$4,643,547								X
		Total	$627,198,302								

	PROJECT	LOCATION	COST (including potential contingencies)[3]	OFFSET[1]							
				BACK BARRIER MARSH HABITAT	SALT MARSH HABITAT	BEACH/DUNE HABITAT	SUBMERGED AQUATIC VEGETATION HABITAT	OYSTER SECONDARY PRODUCTIVITY	BENTHIC SECONDARY PRODUCTIVITY	PELICAN, TERN/SKIMMER AND GULL FLEDGLINGS	RECREATIONAL USE

[1] Offset Types indicated in this table provide general information about Offsets, for overview purposes only. Important, detailed information about Offsets is provided in project-specific write-ups included in Chapters 8-12.
[2] In Texas, the combined cost of the Matagorda and Mid/Upper Texas Coast Ship Artificial Reef projects increased by $200,000, a less than 3% increase, to cover marine archaeological and environmental compliance requirements for the projects.
[3] As described in more detail in Chapter 8, the Trustees include an alternative (the Corpus Artificial Reef Project) to the Mid/Upper Texas Coast Artificial Reef Ship Reef Project, to be implemented in the event the Ship Reef Project becomes technically infeasible (e.g., an appropriate ship cannot be acquired with available funding). The Corpus Artificial Reef Project 'Alternative' has its own project description, description of Affected Environment and analysis of environmental consequences in Chapter 8; is categorized within the same Programmatic Alternative as the Ship Reef Project; and would provide similar Offsets.
[4] One component of this proposed project would be implemented on federally-managed lands and managed by DOI.
[5] These proposed projects would be implemented on federally-managed lands and managed by DOI.

REA-estimated benefits are expressed in resource-specific units, rather than on a habitat basis. For example, the Trustees estimated the present value of Offsets associated with Early Restoration projects focused on construction of living shorelines in terms of discounted kilogram years (DKg-Y) of benthic secondary productivity (in addition to a habitat credit for living shorelines, estimated as DSAYs of salt marsh habitat).[4]

The Trustees considered a variety of project-specific factors when applying HEA and REA methods to estimate the ecological benefits of restoration projects, including, but not limited to:

- The date at which ecological services from a restoration project are expected to begin to accrue;
- The rate of ecological service accrual over time;
- The time period over which ecological services will be provided;
- The quantity and quality of ecological services provided by the restored habitat or resource relative to those not affected by the Spill; and
- The size of the restoration action.

HEA- and REA-based Offsets negotiated by the Trustees and BP use 2010 (the year of the Spill) as the base year and a 3.0 percent annual discount rate for calculation of present values.[5] For each of the proposed Phase III ecological Early Restoration projects, the Trustees and BP either agreed to:

[4] 1 "DKG-Y" = the discounted (to a specified base year) kilograms of biomass generated by the project in one year, reflecting the expected survival and growth of that biomass during that year.

[5] It is standard practice to use a 3.0 percent annual discount rate for this type of analysis; please see (NOAA 1999) for a detailed discussion of the basis for its use.

- A primary Offset;
- A primary Offset, plus specified agreements on methods for converting Offset units if needed to better match units ultimately used in the Trustees' final assessment of injury;
- A primary Offset to be applied against a specified injury, and a secondary Offset to be applied only if the primary Offsets are at the time of final case resolution determined to be in excess of the injury ultimately determined and quantified in the Trustees' final assessment of injury; or
- More than one Offset, reflecting project-specific evaluation of the types of benefits expected to be generated by a particular project.

Detailed information about Offsets negotiated for each proposed Phase III Early Restoration project is provided in subsequent chapters of this document.

7.2.2 Monetized Offsets

The expected benefits of some restoration projects can be monetized, or expressed in terms of the dollar value of expected benefits to the public, rather than in terms of ecological gains. As with HEA and REA, monetization approaches are used to estimate Offsets over a restoration project's expected lifespan. For this Final Phase III ERP/PEIS, the Trustees used a monetizing approach to estimate Offsets for proposed recreational use projects designed to achieve a range of goals, including:

- Enhancing public access to natural resources for recreational use;
- Enhancing recreational experiences; and/or
- Promoting environmental and cultural stewardship, education and outreach.

More specifically, the Trustees relied on a benefit-to-cost ratio ("BCR") approach to estimate Offsets for the proposed Phase III Early Restoration recreational use projects. This approach uses existing economic literature and preliminary estimates of project inputs (see below for additional detail) to develop BCRs representing average benefit-to-cost ratios. For example, a project with an estimated cost of $10 and a BCR of 1.5 would be assigned a monetized Offset of $15.[6] This monetized Offset would later be applied to monetized estimates of recreational use losses attributable to the Spill.

Estimated project inputs considered by Trustees as part of the process for developing BCRs for recreational use losses include, but are not limited to:

- The number of participants expected to benefit from each project;
- The benefit these individuals are expected to derive from a new experience or enhanced experience;
- The time frame over which the benefits will be provided, in terms of both start date as well as expected duration of benefits; and
- The discount rate used to calculate the present value of future benefits (3.0 percent, expressed in 2010 dollars).

The BCR is applied to the amount of Early Restoration funds that are provided by BP for a project, but not to funds provided from other sources.

[6] $15 = $10 * 1.5

Based on review and analysis of relevant economics literature and project-specific information, the Trustees developed BCRs applicable to two groupings of proposed projects, based on their expected levels of benefits relative to their costs. Specifically, one BCR was established for projects expected to yield lower levels of benefits relative to costs (to represent the lower end of the range of project-specific BCRs), and a second BCR was established for projects expected to have higher levels of benefits relative to costs (to represent the higher end of the BCR range).

The Trustees and BP agreed to apply a BCR of 1.5 to the proposed recreational use projects expected to have lower benefit-to-cost ratios and a BCR 2.0 to the remaining proposed recreational use projects. Thus, proposed projects in the lower BCR category would provide BP with a monetized Offset equal to 1.5 times the project funding provided by BP, to be applied against monetized injuries to recreational use arising from the Spill. For the remaining proposed projects, BP would receive a monetized Offset equal to 2.0 times the project funding provided by BP.

7.3 Monitoring

NRDA regulations call on Trustees, when developing a restoration plan under OPA, to establish restoration objectives that are specific to the injuries (15 C.F.R. § 990.55(b)(2)). These objectives should clearly specify the desired project outcome, and the performance criteria by which successful restoration under OPA will be determined (15 C.F.R. § 990.55(b)(2)). The monitoring component of a restoration plan is further described in 15 C.F.R. § 990.55(b)(3).

Performance monitoring for the proposed Early Restoration projects will be designed to evaluate the effectiveness of the restoration actions in meeting the restoration objectives and to assist in determining the need for corrective actions. While the Trustees intend to strive for consistency in performance monitoring parameters, frequency, and duration for similar project types, flexibility in monitoring design is necessary to account for inherent differences between restoration projects. Monitoring of Early Restoration projects may also include additional monitoring or evaluation of Early Restoration projects for compliance with other laws (e.g., to address Endangered Species Act monitoring needs) or to assist future restoration planning, etc.

7.4 Consistency with Project Evaluation Criteria

Chapters 8-12 of this document provide project-specific information addressing each project's consistency with project evaluation criteria identified in Chapter 2. These criteria are summarized again below for reference.

The following evaluation criteria are from the OPA regulations (15 C.F.R. § 990.54):

- 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 is an important consideration in the project selection process);
- 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.

If the Trustees conclude that two or more alternatives are equally preferable, the most cost-effective alternative must be chosen (15 C.F.R. § 990.54(b)).

The Framework Agreement states Early Restoration projects are to meet all of the following criteria:

- 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;
- 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 recreational 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.

In addition, the introductions to Chapters 8-12 include additional, Trustee-specific information about their Early Restoration project screening process, beyond the general project screening information provided in Chapter 2. Finally, to limit repetition in the discussion of OPA criteria in the proposed Phase III project information portions of Chapters 8-12, the Trustees note that:

- The potential of each proposed project to cause collateral injury (15 C.F.R. §990.54(a)(4)) is evaluated and that analysis is informed by each proposed project's environmental consequence analysis; and
- The potential impact of each proposed project on public health and safety (15 C.F.R. §990.54(a)(6)), is addressed by each proposed project's environmental consequence analysis where applicable for individual projects.

7.5 Environmental Compliance

Chapters 8-12 of this document provide detailed information and OPA and NEPA analyses for each proposed Phase III Early Restoration project, its expected environmental consequences and its consistency with the programmatic alternative(s). In addition, coordination and reviews to ensure compliance with a variety of other legal authorities potentially applicable to the proposed Phase III Early Restoration projects have been initiated. While many of these reviews are still in process and some may not be finalized before issuance of the Record of Decision, progress to date suggests that all the proposed projects will be able to meet permitting and other environmental compliance requirements and that all projects will be implemented in accordance with all applicable laws and regulations. Additional, project-specific information and analyses regarding the environmental compliance status of proposed Phase III Early Restoration projects are provided below and in Chapters 8-12 of this document.

These sections of the Final Phase III ERP/PEIS have been updated with progress made since the release of the Draft Phase III ERP/PEIS, as applicable.

Examples of applicable laws or Executive Orders include, but are not necessarily limited to, the following:

7.5.1 Endangered Species Act (16 U.S.C. §§ 1531 et seq.)

Numerous species throughout the Gulf of Mexico are listed as threatened or endangered and protected by the Endangered Species Act of 1973 (ESA). Section 7(a)(2) of the ESA requires every Federal agency, in consultation with and with the assistance of the Secretaries of the Interior and Commerce, to ensure that any action it authorizes, funds, or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat.

To comply with the ESA, the Trustees have initiated or re-initiated consultations and conferences[7] with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (NMFS) to evaluate the effects the proposed Phase III Early Restoration projects may have on listed, proposed, and candidate species and their designated or proposed critical habitats. The Trustees developed a list of species and critical habitats that could be affected by each proposed project, documented the types of potential impacts from the proposed project to species and critical habitats, incorporated BMPs, as applicable from the Chapter 6 appendix of this PEIS, and where necessary, proposed project specific avoidance and minimization measures. Based on this information, projects were analyzed to determine if they: would have no effect; may affect, but not likely to adversely affect; or were likely to adversely affect listed species or candidate and proposed species, if listed. Projects were also analyzed to determine if critical habitat (or proposed critical habitat if designated) would be adversely modified or destroyed.

Several projects included in Chapters 8-12 completed ESA consultation or permitting prior to the preparation of the Draft Phase III ERP/PEIS document. In these instances, the pre-existing consultations or permits were reviewed to determine if the consultations/permits were still valid. Specifically, projects were reviewed to determine if: 1) any new species or critical habitats had been proposed, listed or designated; 2) the proposed action had changed in a manner or extent that might affect a candidate, proposed, or listed species or proposed or designated critical habitat in a manner or an extent not previously considered; 3) or if new information was available to reveal that effects from the proposed action might affect species or critical habitats in a manner or to an extent not previously considered. If any single criterion above was met, the consultation was reinitiated. The outcomes of these ESA consultations and conferences, including required conservation measures and/or BMPs where applicable, are included in the specific project descriptions in this Final Phase III ERP/PEIS (see Chapters 8-12).

[7] Conference is a process of early interagency cooperation involving informal or formal discussions between a Federal agency and the Services pursuant to section 7(a)(4) of the ESA regarding the likely impact of an action on proposed species or proposed critical habitat. While conferences are only *required* for proposed Federal actions likely to jeopardize *proposed* species or destroy or adversely modify proposed critical habitat, the Trustees chose to conference on candidate and proposed species and proposed critical habitats to develop recommendations to minimize or avoid adverse effects.

For all projects that have completed consultations, none proposed in the Phase III ERP/PEIS were determined to adversely modify or destroy critical habitat either designated or proposed. Most consultations resulted in either a 'no effect' or 'not likely to adversely affect' determination for listed species (or candidate and proposed species if listed). While some projects may give rise to adverse effects to listed or proposed species in the form of incidental take, the incidental take authorized through the ESA consultation will not jeopardize the continued existence of the species. The outcomes of these ESA consultations are included in each specific project description (see Chapters 8-12). As noted in the project descriptions, several projects are still in the consultation process.

7.5.2 Migratory Bird Treaty Act (16 U.S.C. §§ 703-712)

There are more than 400 species of migratory birds and millions of individual resident birds that reside along the Gulf Coast for all or part of the year. The Migratory Bird Treaty Act of 1918 (MBTA) implements various treaties and conventions between the U.S., Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under MBTA, unless permitted by regulations, it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg or product, manufactured or not. USFWS regulations broadly define "take" under MBTA to mean "pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect" (50 C.F.R. §10.12).

Each proposed Phase III Early Restoration project has been reviewed by the USFWS to ensure "take," pursuant to the MBTA, does not occur. The review process included the project sponsor documenting species or groups of birds likely to be present in the project area and likely behaviors the birds would be exhibiting on or near the project site (i.e., breeding, nesting, feeding, foraging, resting, or roosting). If migratory birds may be present in a project area, avoidance measures (either included in the Chapter 6 appendix and/or the project specific sections of Chapters 8-12) would be implemented to ensure these birds (including parts, nests, eggs, or products) are not wounded or killed during construction or use of the project area. Avoidance measures, where applicable, are described within each specific project description. No project involves actions expected to hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell or barter, purchase, deliver or cause migratory birds to be shipped, exported, imported, transported, carried, or received.

7.5.3 Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §§ 1801 et seq.)

The 1996 Magnuson-Stevens Fishery and Conservation and Management Act (MSA) requires cooperation among NMFS , anglers, and federal and state agencies to protect, conserve, and enhance essential fish habitat (EFH). EFH encompasses waterbodies, habitats, and substrates, managed by federal or regional fishery management councils, which are necessary for fish to complete various life history stages such as breeding, spawning, feeding or growth, and survival to maturity. EFH for multiple fish species is present throughout the Gulf Coast. To comply with requirements of the MSA, the Trustees obtained information on areas designated as EFH from NMFS at http://www.habitat.noaa.gov/protection/efh/newInv/index.html, and from text descriptions in Fishery Management Plans also available at that website. An EFH consultation to assess potential effects to EFH from each proposed project was completed after the release of the Phase III DERP/PEIS. The outcomes of these EFH consultations are included in each specific project description (see Chapters 8-12).

For projects determined to possibly have adverse effects on essential fish habitat, the potential negative effects are expected to be temporary and minor or minimized by proposed BMPs in the project description. As a result, EFH conservation recommendations were not made for any of the projects.

7.5.4 Marine Mammal Protection Act (16 U.S.C. §§ 1361-1421h)

There are more than 22 species of marine mammals in the Gulf of Mexico, including dolphins, whales, and the West Indian manatee. The Marine Mammal Protection Act, as amended, prohibits the taking of marine mammals, where “take” is defined as "the act of hunting, killing, capture, and/or harassment of any marine mammal; or, the attempt at such" 16 U.S.C. § 1362(13). The Marine Mammal Protection Act does provide a mechanism (section 101(a)(5) (A-D)) for allowing, upon request, the "incidental", but not intentional, taking of small numbers of marine mammals by U.S citizens who engage in a specified activity (other than commercial fishing) within a specified geographic region. Proposed projects were analyzed to evaluate the potential for any such non-fishery interactions with marine mammals. Based on that analysis, either: 1) no incidental take of marine mammals is anticipated, and a Marine Mammal Protection Act authorization will not be required or sought for the proposed project; or 2) if there is potential that marine mammals may be incidentally harassed or otherwise “taken” during the construction or implementation phases of a project, discussions of whether any best management practices can be implemented to avoid or reduce the potential for take are underway. Should incidental take be anticipated, the appropriate authorization would be sought and obtained for the relevant aspects of the project.

While the manatee is also protected by the ESA, take of manatees, incidental or otherwise, is not presently authorized under the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 U.S.C. 1461 *et seq*.). Therefore, each ESA consultation where manatees may be affected, included conservation measures to ensure potential effects were avoided or minimized to an insignificant and discountable level under the ESA. The ESA consultations considered the likelihood of mantee presence and the potential adverse effects of the proposed projects to the manatee. While manatees are not likely to be present at most of the project locations, they could be transiting the project areas. Therefore, avoidance measures for manatee were incorporated into all of the ESA consultations proposing in-water work where manatees could possibly be transiting (see project specific details in Chapters 8-12).

7.5.5 Bald and Golden Eagle Protection Act (16 U.S.C. § 668-668c)

Bald eagles are present along the Gulf Coast. The Bald and Golden Eagle Protection Act of 1940 prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Bald and Golden Eagle Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb” (16 U.S.C. § 668c). For the purpose of this document "disturb" means: to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (50 C.F.R. § 22.3). In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that

interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment.

Eagles are not as sensitive to human disturbance during migration and wintering as they are while nesting. However, wintering eagles can congregate at specific sites year-after-year (i.e., established roost sites) for purposes of feeding and sheltering. Therefore, each proposed project has been reviewed to evaluate bald eagle status in the action area and determine if best management practices (see Chapter 6 Appendix) need to be put into place to avoid non-purposeful "taking" or "disturbing" of bald eagles. Specifically, the review process included the project sponsor documenting the presence or absence of known bald eagle nests or congregation/roosting sites. If nests or congregations were known, projects were evaluated to determine if activities would be able to maintain a standard buffer distance (based on vegetation cover and nearby similar activities). If a standard buffer distance for project construction and the nest could be maintained, then the buffer distance became a required BMP for project implementation. If a standard buffer distance could not be maintained, then the sponsor would need to either alter the project or seek a non-purposeful take permit. All of the projects proposed in Chapters 8-12 that have nearby eagle nesting known, have indicated they can comply with standard buffer distances and as such do not need a non-purposeful take permit.

Although very rare, golden eagles are occasionally observed along the Gulf coast during migration, and it is likely that any measures taken to protect bald eagles or other migratory birds will also protect golden eagles.

7.5.6 Coastal Zone Management Act (16 U.S.C. §§ 1451-1456)

The goal of the Coastal Zone Management Act (CZMA) is to encourage states to preserve, protect, develop, and where possible, to restore and enhance the resources of the nation's coastal zone. The CZMA encourages coastal states to develop and implement comprehensive management programs that balance the need for coastal resource protection with the need for economic growth and development in the coastal zone. Coastal management plans developed by a coastal state must be approved by the Secretary of the U.S. Department of Commerce. Once a coastal management plan is approved, the CZMA requires federal agency activities affecting the land or water uses or natural resources of a state's coastal zone to be consistent, to the maximum extent practicable, with the applicable, enforceable policies of that state's federally approved coastal management program. This requirement is addressed through processes that provide for state review of a federal agency's determination of consistency with the relevant state's approved program. Restoration activities proposed to be undertaken or authorized by federal agencies are subject to review for "federal consistency" under the CZMA.

The Federal Trustees involved in development of this Final Phase III ERP/PEIS reviewed the specific restoration projects for consistency with the federally-approved coastal management programs in the states where coastal uses or resources would be affected by proposed project activities and submitted their determinations of consistency to the appropriate state agencies for review coincident with the public review of the Draft Phase III ERP/PEIS. All States concurred with the federal determination of consistency at this point in the Early Restoration planning process (i.e. for purposes of selection of these projects in Final Phase III ERP/PEIS Record of Decision). Selected Early Restoration projects remain subject to additional state consistency reviews required of applicants during permitting processes required for implementation.

7.5.7 Coastal Barrier Resources Act

The Coastal Barrier Resources Act (CBRA) established the John H. Chafee Coastal Barrier Resources System, a defined set of geographic units along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts. The CBRA restricts federal expenditures of funds for activities located within the Coastal Barrier Resources System unless those activities meet one of the listed exceptions under the CBRA. A federal agency proposing to spend funds within the Coastal Barrier Resources System must consult with the U.S. Fish and Wildlife Service (Service) to determine whether the proposed federal expenditure meets one of the CBRA exceptions or is otherwise subject to restrictions. The Service has reviewed the Early Restoration projects subject to the CBRA and is currently engaged in intra-Service consultation to confirm that exceptions to the CBRA's funding restrictions apply to those projects.

7.5.8 Clean Air Act (42 U.S.C. §7401 et seq.)

The Clean Air Act (CAA) requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. NAAQS have been set for six common air pollutants (also known as criteria pollutants), consisting of particle pollution or particulate matter, ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead. Particulate matter is defined as fine particulates with a diameter of 10 micrometers or less (PM_{10}), and fine particulates with a diameter of 2.5 micrometers or less ($PM_{2.5}$). When a designated air quality area or airshed in a state exceeds one or more of the NAAQS, that area may be designated as a "nonattainment" area. Areas with levels of pollutants below the health-based standards are designated as "attainment" areas. To determine whether an area meets the NAAQS, air monitoring networks have been established and are used to measure ambient air quality. No violations of the NAAQS are expected to occur from implementation of any selected early restoration project.

7.5.9 Federal Water Pollution Control Act (Clean Water Act, 33 U.S.C. §§ 1251 et seq.) and/or Rivers and Harbors Act (33 U.S.C. §§ 401 et seq.)

Waters of the United States, as defined by the Clean Water Act and implementing regulations, and navigable waterways, regulated by the Rivers and Harbors Act, are present throughout the Gulf Coast and could potentially be affected by proposed projects. Section 404 of the Clean Water Act requires United States Army Corps of Engineers (USACE) authorization prior to discharging dredged or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act requires USACE authorization prior to any work in, under or over navigable waters of the United States, or which affects the course, location, condition or capacity of such waters. Authorization from the USACE pursuant to Section 103 of the Marine Protection, Research and Sanctuaries Act may also be required for the transportation of dredged material for the purpose of dumping it in ocean waters.

There may be other provisions of the Clean Water Act or Rivers and Harbors Act that are also applicable to proposed Early Restoration projects depending on site-specific circumstances. Specifically with regard to the Rivers and Harbors Act, this includes Section 14, which applies to activities that could affect completed public works projects. Under Section 401 of the Clean Water Act, projects that entail discharge to wetlands or other waters within Federal jurisdiction must obtain State certification of compliance with State water quality standards. Under Section 401, States can review and approve, condition, or deny all Federal permits or licenses that might result in a discharge to State waters, including wetlands. Section 402 of the Clean Water Act establishes the National Pollutant Discharge

Elimination System (NPDES) permit program to regulate point source discharges of pollutants into waters of the United States. A NPDES permit sets specific limits for point sources discharging pollutants into waters of the United States and establishes monitoring and reporting requirements, as well as special conditions. The EPA is charged with administering the permit program, but can authorize States to assume many of the permitting, administrative, and enforcement responsibilities. All five Gulf coast States are authorized to issue NPDES permits.

For proposed projects with activities that might be subject to provisions included above, project sponsors are coordinating with the appropriate U.S. Army Corps of Engineers District and/or State office responsible for authorizing such activities to help identify whether a permit is needed and, if so, what type. This early coordination helps facilitate information-sharing and communication, thus maximizing available efficiencies in the permitting process. Early coordination also allows for advance discussion of measures to avoid and minimize potential project impacts and helps inform sponsors on additional factors that are considered in the permit decision-making process. USACE authorization under Clean Water Act Section 404 or Rivers and Harbors Act Section 10 has already been completed for some of the proposed projects considered in this document. For those proposed Early Restoration projects still requiring USACE and/or State authorization, coordination is ongoing and authorization will ultimately be completed prior to project implementation.

7.5.10 National Historic Preservation Act (16 U.S.C. §§ 470 et seq.)

People have lived in the coastal region of the Gulf of Mexico for more than ten thousand years. Today many unique and diverse cultures call the Gulf Coast home. These cultures, past and present, are often closely linked to the environmental and natural resources that comprise the Gulf Coast ecosystem that the proposed projects seek to help restore. The National Historic Preservation Act of 1966 (NHPA) charges the Federal Government with protecting the cultural heritage and resources of the nation. A complete review of proposed projects under Section 106 of the NHPA would be completed as environmental review continues (see Chapters 8-12). Projects will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

7.5.11 Executive Order 13112: Invasive Species

The potential introduction of terrestrial and aquatic non-native invasive species of plants, animals, and microbes is a constant concern. Non-native invasive species could alter existing terrestrial or aquatic ecosystems, may cause economic damages and losses (Pimentel et al. 2005), and are frequently the second most common reason for protecting species under the Endangered Species Act. To address these concerns, the prevention, management, and control of non-native invasive species, as it pertains to federal agencies, was formally addressed in Executive Order 13112. The executive order directs federal agencies to work together to “prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause.” Therefore, all projects would provide an evaluation of the possible transport and spread of non-native invasive species due to planned activities and provide measures to avoid and minimize habitat and trust resource impacts (see Chapters 8-12). The amount of measures taken will vary for each project based on the potential risk of invasive species introduction, the presence of transport vectors, and the sensitivity of receiving areas.

7.5.12 Additional Executive Orders

The following Executive Orders (EO) are also evaluated as applicable in Chapters 8-12.

7.5.12.1 EO 11988: Floodplain Management

EO 11988 Floodplain Management requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

7.5.12.2 EO 11990: Protection of Wetlands

EO 11990 Protection of Wetlands is intended to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided.

7.5.12.3 EO 12114: Environmental Effects Abroad of Major Federal Actions

EO 12114 enables responsible officials of Federal agencies having ultimate responsibility for authorizing and approving actions encompassed by this Order to be informed of pertinent environmental considerations and to take such considerations into account, with other pertinent considerations of national policy, in making decisions regarding such actions. This Order requires Federal agencies with facilities located outside the United States to consider the impact of major actions on the environment.

7.5.12.4 EO 12898: Environmental Justice

EO 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority or low income populations. Environmental justice review should be incorporated into the NEPA process and, where disproportionate adverse effects on minority and low-income populations are identified, address those impacts.

7.5.12.5 EO 12962: Recreational Fisheries

EO 12962 Recreational Fisheries is intended to conserve, restore and enhance aquatic systems to provide for increased recreational fishing opportunities nationwide.

7.5.12.6 EO 13112: Invasive Species

EO 13112 Invasive Species applies to all federal agencies whose actions may affect the status of invasive species and requires agencies to identify such actions and to the extent practicable and permitted by law (1) take actions specified in the Order to address the problem consistent with their authorities and budgetary resources ; and (2) not authorize, fund, or carry out actions that they believe are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, “pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

7.5.12.7 EO 13175: Consultation and Coordination with Indian Tribal Governments

EO 13175 Consultation and Coordination with Indian Tribal Governments reaffirms the federal government's commitment to a government-to-government relationship with Indian Tribes, and directed federal agencies to establish procedures to consult and collaborate with tribal governments when new agency regulations would have tribal implications.

7.5.12.8 EO 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

EO 13186 Responsibilities of Federal Agencies to Protect Migratory Birds directs executive departments and agencies to take certain actions to further implement the Migratory Bird Treaty Act.

7.6 Overview of Proposed Phase III Early Restoration Projects

Figure 7-1 below identifies the location of each Phase III project. The following subsections list and briefly describe each of the 44 proposed projects. The list is organized by the state in which the proposed project will take place.

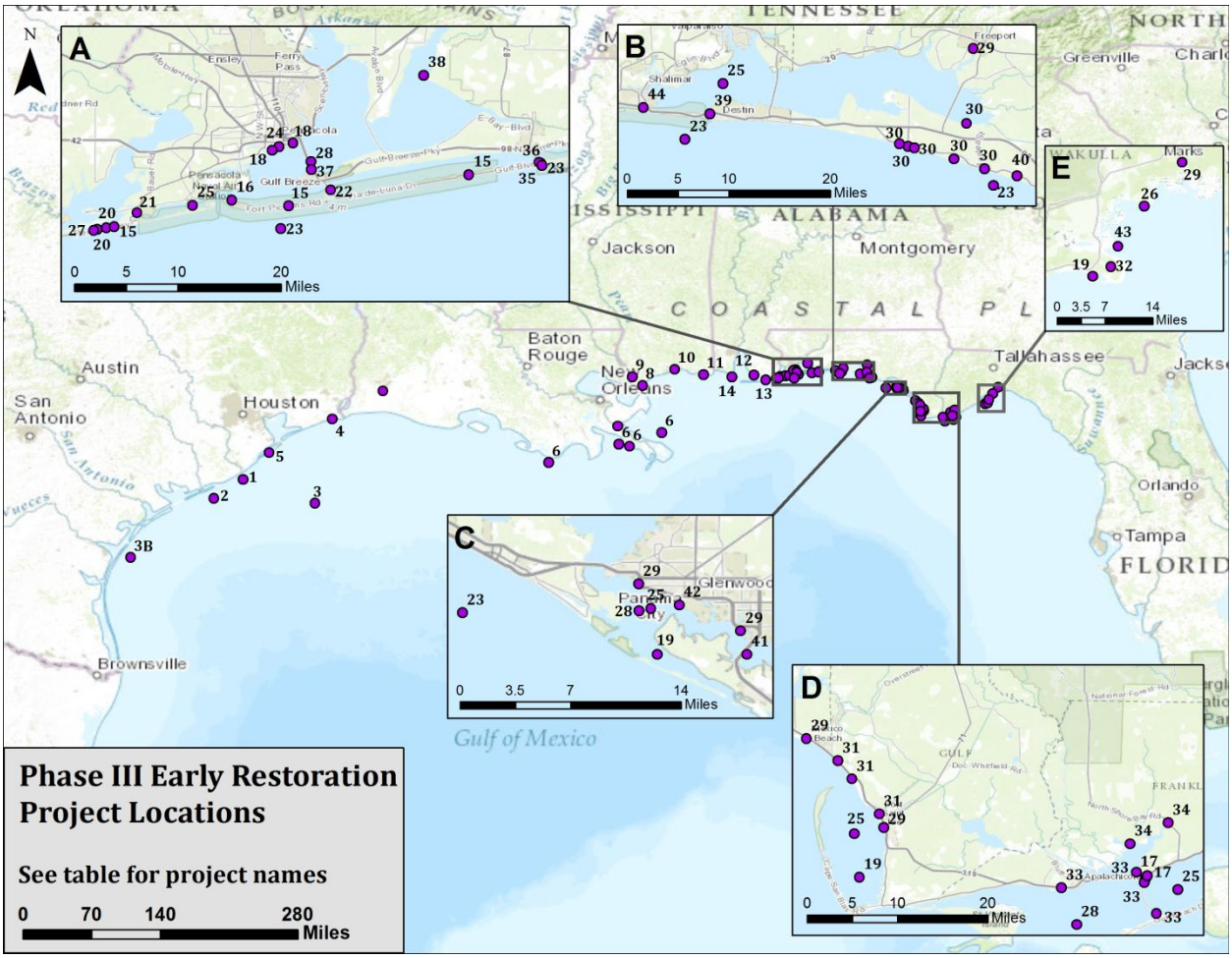

Figure 7-1 Phase III Early Restoration Project Locations

Main Map Panel			Map Inset B	
1	Freeport Artificial Reef		23	Florida Artificial Reefs *
2	Matagorda Artificial Reef		25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle *
3	Mid/Upper Texas Coast Artificial Reef - Ship Reef		29	Strategically Provided Boating Access Along Florida's Gulf Coast *
3B	Mid/Upper Texas Coast Artificial Reef - Corpus Artificial Reef (Alternative)		30	Walton County Boardwalks and Dune Crossovers *
4	Sea Rim State Park Improvements		39	Norriego Point Restoration and Recreation Project
5	Galveston Island State Park Beach Redevelopment		40	Deer Lake State Park Development
6	Louisiana Outer Coast Restoration *		44	Northwest Florida Estuarine Habitat Restoration, Protection and Education- Fort Walton Beach
7	Louisiana Marine Fisheries Enhancement, Research, and Science Center *		**Map Inset C**	
8	Hancock County Marsh Living Shoreline Project		19	Florida Seagrass Recovery Project *
9	Restoration Initiatives at the INFINITY Science Center		23	Florida Artificial Reefs *
10	Popp's Ferry Causeway Park		25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle *
11	Pascagoula Beach Front Promenade		28	Florida Oyster Cultch Placement *
12	Alabama Swift Tract Living Shoreline		29	Strategically Provided Boating Access Along Florida's Gulf Coast *
13	Gulf State Park Enhancement Project		41	City of Parker - Oakshore Drive Pier
14	Alabama Oyster Cultch Restoration		42	Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks
Map Inset A			**Map Inset D**	
15	Beach Enhancement Project at Gulf Islands National Seashore *		17	Florida Cat Point Living Shoreline *
16	Gulf Islands National Seashore Ferry Project		19	Florida Seagrass Recovery Project *
18	Florida Pensacola Bay Living Shoreline Project *		25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle *
20	Perdido Key State Park Beach Boardwalk Improvements *		28	Florida Oyster Cultch Placement *
21	Big Lagoon State Park Boat Ramp Improvement		29	Strategically Provided Boating Access Along Florida's Gulf Coast *
22	Bob Sikes Pier Parking and Trail Restoration		31	Gulf County Recreation Projects *
23	Florida Artificial Reefs *		33	Enhancement of Franklin County Parks and Boat Ramps *
24	Florida Fish Hatchery		34	Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements *
25	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle *		**Map Inset E**	
27	Perdido Key Dune Restoration Project		19	Florida Seagrass Recovery Project *
28	Florida Oyster Cultch Placement *		26	Shell Point Beach Nourishment
35	Navarre Beach Park Gulfside Walkover Complex		29	Strategically Provided Boating Access Along Florida's Gulf Coast *
36	Navarre Beach Park Coastal Access and Dune Restoration		32	Bald Point State Park Recreation Areas
37	Gulf Breeze Wayside Park Boat Ramp		43	Wakulla County Mashes Sands Park Improvements
38	Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area			* multiple project locations

7.6.1 Texas

7.6.1.1 Freeport Artificial Reef Project

The proposed Freeport Artificial Reef Project will increase the amount of reef materials in a currently permitted artificial reef site (Outer Continental Shelf Block Brazos BA-336), the George Vancouver (Liberty Ship) Artificial Reef, located within Texas state waters in the Gulf of Mexico, approximately 6 miles from Freeport, Texas. The current reef site is permitted for 160 acres, but only has materials in 40 acres. The proposed project will place predesigned concrete pyramids in the remaining portions of the 160-acre permitted area onto sandy substrate at a water depth of 55 feet. As required by the ESA consultation with NMFS, the pyramid designs were modified so that one side of the constructed pyramids will be open on the top half to allow sea turtles to move freely in and out of the structure. These improvements would enhance recreational fishing and diving opportunities. The estimated cost for this project is $2,155,365.

7.6.1.2 Matagorda Artificial Reef Project

The proposed Matagorda Artificial Reef Project will create a new artificial reef site (Outer Continental Shelf Block Brazos BA-439) within Texas state waters in the Gulf of Mexico, approximately 10 miles offshore of Matagorda County, Texas. The proposed project will create a new artificial reef within the 160-acre permitted area, through deployment of predesigned concrete pyramids onto sandy substrate at a water depth of 60 feet. As required by the ESA consultation with NMFS, the pyramid designs were modified so that one side of the constructed pyramids will be open on the top half to allow sea turtles to move freely in and out of the structure. This project would enhance recreational fishing opportunities. The estimated cost for this project is $3,552,398, which includes an increase of $66,000 over the original estimated cost to complete marine archaeological environmental compliance requirements.[8]

7.6.1.3 Mid/Upper Texas Coast Artificial Reef Ship Reef Project[9]

The proposed Ship Reef Project will create a new artificial reef site (Outer Continental Shelf Block High Island HI-A-424) in deep waters of the Gulf of Mexico, about 67 miles south-southeast of Galveston, Texas (**Error! Reference source not found.**). The proposed project will create an artificial reef by sinking ship that is at least 200 feet long within the 80-acre permitted reef site, in waters that are approximately 135 feet deep. The ship will be cleaned of hazardous substances to meet EPA criteria, as

[8] In Texas, the estimated costs of artificial reef projects increased by $200,000, a less than 3% increase, to cover marine archaeological and environmental compliance requirements for three of the artificial reef sites.

[9] Should this proposed project become technically infeasible, the Trustees would implement the "Texas Artificial Reef (Mid/Upper Coast)- Corpus Reef " Project: The proposed Corpus Artificial Reef Project will increase the amount of reef materials in a currently permitted artificial reef site (Outer Continental Shelf Block Mustang Island MU-775) located within Texas state waters in the Gulf of Mexico and approximately 11 miles from Packery Channel (near Corpus Christi Bay, Texas. Previous deployments at the reef site placed artificial reef materials into the northwest quadrant and in the center of the 160-acre reef site. The proposed project will place predesigned concrete pyramids in the remaining portions of the 160-acre project area onto sandy substrate at a water depth of 73 feet. As required by the ESA consultation with NMFS, the pyramid designs were modified so that one side of the constructed pyramids will be open on the top half to allow sea turtles to move freely in and out of the structure. These improvements would enhance recreational fishing opportunities. The estimated cost for this project is $1,919,765, which includes an increase of $134,000 over the original estimated cost to complete marine archaeological environmental compliance requirements. This project is an alternative to the Ship Reef Project, and is proposed for implementation only in the event that the Ship Reef Project proves to be technically infeasible.

well as pass all required Federal and State inspections, including EPA, TPWD, and USCG. The project would enhance recreational fishing and diving opportunities. This Early Restoration project proposal would fund a portion of the costs to implement this project. The estimated cost for the NRD Early Restoration portion of this project is $1,919,765 which includes an increase of $134,000 over the original estimated cost to complete marine archaeological environmental compliance requirements. [10] Additional funds from donations to the TPWD Texas Artificial Reef Program will be used to complete the project.

7.6.1.4 Sea Rim State Park Improvements

Sea Rim State Park is located along the upper Texas coast in Jefferson County, Texas, southwest of Port Arthur, Texas. The proposed Sea Rim State Park Improvements project would construct two wildlife viewing platforms (Fence Lake and Willow Pond), one comfort station, and one fish cleaning shelter in the Park. These improvements would enhance visitor use and enjoyment of Park resources. The estimated cost for this project is $210,100.

7.6.1.5 Galveston Island State Park Beach Redevelopment

Galveston Island State Park is a 2,000-acre park in the middle of Galveston Island, southwest of the City of Galveston in Galveston County, Texas. The proposed Galveston Island State Park Beach Redevelopment project includes the building of multi-use campsites, tent campsites, dune access boardwalks, equestrian facilities, as well as restroom and shower facilities on the beach side of the Park. These improvements would enhance visitor use and enjoyment of Park resources. The estimated cost for this project is $10,745,060.

7.6.2 Louisiana

7.6.2.1 Louisiana Outer Coast Restoration

The Trustees propose to restore beach, dune, and back-barrier marsh habitats at four barrier island locations in Louisiana. From west to east, the four locations are Caillou Lake Headlands (also known as Whiskey Island), Chenier Ronquille, Shell Island (West Lobe and portions of East Lobe), and North Breton Island. The total estimated cost to implement Louisiana Outer Coast Restoration is $318,363,000.

7.6.2.2 Louisiana Marine Fisheries Enhancement, Research, and Science Center

The Louisiana Marine Fisheries Enhancement, Research, and Science Center ("the Center") would establish state of the art facilities to responsibly develop aquaculture-based techniques for marine fishery management. The proposed project would include two sites (Calcasieu Parish and Plaquemines Parish) with the shared goals of fostering collaborative multi-dimensional research on marine sport fish and bait fish species; enhancing stakeholder involvement; and providing fisheries extension, outreach, and education to the public. Specifically, the project would provide Louisiana with an important management tool for monitoring the long term health of wild populations of popular recreation marine species by developing the ability to release known numbers of marked juveniles into pre-determined habitats as part of well-designed studies that would allow for measurement and detection of changes in

[10] In Texas, the estimated costs of artificial reef projects increased by $200,000, a less than 3% increase, to cover marine archaeological and environmental compliance requirements for three of the artificial reef sites.

wild populations of marine sport fish species. The Center would also establish living laboratories to support a variety of marine fisheries outreach and educational activities for the public. The estimated cost for this project is $22,000,000.

7.6.3 Mississippi

7.6.3.1 Hancock County Marsh Living Shoreline Project

The proposed Hancock County Marsh Living Shoreline project is intended to employ living shoreline techniques including natural and artificial breakwater material and marsh creation to reduce shoreline erosion by dampening wave energy while encouraging reestablishment of habitat that was once present in the region. The project would provide for construction of up to 5.9 miles of living shoreline, approximately 46 acres of marsh creation, and 46 acres of subtidal oyster reef would be created in Heron Bay to increase secondary productivity in the area. The project would include shoreline erosion reduction, creation of habitat for secondary productivity, and protection and creation of salt marsh habitat. The estimated cost for this project is $50,000,000.

7.6.3.2 Restoration Initiatives at the INFINITY Science Center

The proposed project, Restoration Initiatives at the INFINITY Science Center, would provide the public enhanced and increased access to coastal natural resources injured by the Spill and response actions. The goal is to restore lost recreational opportunities through the provision of increased access to coastal estuarine habitats, wildlife viewing areas and educational features. The project would enhance and expand a state-of-the-art interactive science, education, interpretive, and research center for use by visitors seeking to experience and learn about the coastal natural resources of the Gulf of Mexico. The project also would serve as a launching point for a comprehensive scenic byway trail system that can take visitors to beaches and tidal coastal estuarine environments. The INFINITY Science Center is located in Hancock County, Mississippi, and is adjacent to the Hancock County Marsh Preserve and coastal estuarine habitats. The INFINITY Science Center is a partnership between public and private entities such as NASA, the State of Mississippi, and private funders. The estimated cost for the Restoration Initiatives at INFINITY Science Center Early Restoration project is $10,400,000.

7.6.3.3 Popp's Ferry Causeway Park

The proposed Popp’s Ferry Causeway Park Project would improve a portion of a site in Back Bay, in Harrison County, Mississippi, that is owned by the City of Biloxi by expanding a park environment where visitors could experience the coastal estuarine ecosystem. The intent is to restore lost recreational use. The project would provide for construction of an interpretive center, nature trails, boardwalks, and other recreational enhancements and would enhance visitor access to the adjacent coastal estuarine environment while updating and constructing amenities, which would allow visitors to fish, crab, and observe nature. The estimated cost for this project is $4,757,000.

7.6.3.4 Pascagoula Beachfront Promenade

The proposed Pascagoula Beachfront Promenade project is intended to restore lost recreational opportunities resulting from the Spill and related response actions. This project would enhance recreational shoreline access via the construction of a lighted concrete beachfront pedestrian pathway adjacent to a sand beach in Pascagoula, Mississippi. Project funds would be used to help complete a two-mile, 10-ft.-wide lighted concrete pathway complete with amenities. This Early Restoration project

proposal would fund a portion (8,200 ft.) of the 10-ft. wide promenade, a portion of which has already been constructed. The estimated cost for this project is $3,800,000.

7.6.4 Alabama

7.6.4.1 Alabama Swift Tract Living Shoreline

The proposed Alabama Swift Tract Living Shoreline project is intended to employ living shoreline techniques that utilize natural and/or artificial breakwater material to stabilize shorelines along an area in the eastern portion of Bon Secour Bay, Alabama. As the lead implementing Trustee, NOAA would create breakwaters to dampen wave energy and reduce shoreline erosion while also providing habitat and increasing benthic secondary productivity. The project would provide for construction of up to 1.6 miles of breakwaters in Bon Secour Bay adjacent to the 615 acre Swift Tract parcel, which is part of the Weeks Bay National Estuarine Research Reserve (NERR). 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. The estimated cost for this project is $5,000,080.

7.6.4.2 Gulf State Park Enhancement Project

The proposed Gulf State Park Enhancement Project would implement ecologically-sensitive improvements to Gulf State Park (GSP) including: (1) rebuilding the Gulf State Park Lodge and Conference Center; (2) building an Interpretive Center; (3) building a Research and Education Center; (4) visitor enhancements including trail improvements and extensions, overlooks, interpretive kiosks and signage, rest areas, bike racks, bird watching blinds, or other visitor enhancements; and (5) ecological restoration and enhancement of degraded dune habitat. Early Restoration funds would contribute $85,505,305, a portion of the total project costs.

7.6.4.3 Alabama Oyster Cultch Restoration

The proposed Alabama Oyster Cultch project would enhance and improve the oyster populations in the estuarine waters of Alabama. The project would place approximately 30,000 – 40,000 cubic yards of suitable oyster shell cultch over approximately 319 acres of subtidal habitat in Mobile County, AL, in proximity to other oyster reefs currently managed by the Alabama Department of Conservation and Natural Resources (ADCNR) and within the historic footprint of oyster reefs in the area. The estimated cost for this project is $3,239,485.

7.6.5 Florida

7.6.5.1 Beach Enhancement Project at Gulf Island National Seashore

This project involves removing fragments of asphalt and road-base material (limestone aggregate and some chunks of clay) that have been scattered widely over the Fort Pickens, Santa Rosa, and Perdido Key areas of the Florida District of Gulf Islands National Seashore, managed by the National Park Service, and replanting areas, as needed, where materials are removed. These materials originated from roads damaged during several storms and hurricanes. The asphalt- and road-base-covered conditions are clearly unnatural and impact the visitor experience both aesthetically and physically in these National Seashore lands. This project would enhance the visitor experience in the cleaned-up areas. The exact method for removing the material would be left to the contractor hired if the project is approved, but would involve primarily mechanized equipment, supplemented by small crews using hand tools. The estimated cost for this project is $10,836,055.

7.6.5.2 Gulf Islands National Seashore Ferry Project

The proposed DOI Ferry project involves the purchase of up to three ferries to be used to ferry visitors (no automobiles) between the City of Pensacola, Pensacola Beach, and the Fort Pickens area of the Gulf Islands National Seashore (Seashore) in Florida. The need for an alternative means to access the Fort Pickens area of the Seashore was made especially apparent when hurricanes and storms in 2004 and 2005 destroyed large segments of the road, eliminating vehicle access through this eight-mile-long area. A viable ferry service to this area of the Seashore would allow visitors to enjoy the Seashore not only if the road were to be destroyed again, but also by providing alternative options for visitor access. Operational responsibility for the boats (i.e., all aspects of the ferry service including preparing a business plan, staffing, ticket sales, vessel maintenance and repairs, insurance, licensing, getting regular inspections, etc.) has not yet been determined but would likely be either Escambia County or the National Park Service (or their contractor). The determination would be made by the ferry service stakeholders and would be based on several factors, including adequacy of staffing, experience, institutional stability, etc. Regardless of the operator, however, all BMPs described in this Environmental Review would be followed such that impacts to all stakeholders' trust resources are protected. The estimated cost for this project is $4,020,000.

7.6.5.3 Florida Cat Point Living Shoreline Project

The proposed Cat Point (Franklin County) Living Shoreline project is intended to employ living shoreline techniques that utilize natural and/or artificial breakwater material to reduce shoreline erosion and provide habitat off Eastpoint, Florida. Combining these objectives, this project would create breakwaters to reduce wave energy, increase benthic secondary productivity, and create salt marsh habitat. Proposed activities include expanding an existing breakwater by creating up to 0.3 miles of new breakwater that will provide reef habitat and creating salt marsh habitat. The total estimated cost for this project is $775,605.

7.6.5.4 Florida Pensacola Bay Living Shoreline Project

The proposed Pensacola Bay Living Shorelines project is intended to employ living shoreline techniques that utilize natural and/or artificial breakwater material to reduce shoreline erosion and provide habitat at two sites within a portion of Pensacola Bay. This project would create reefs to reduce wave energy, increase benthic secondary productivity, and create salt marsh habitat. Proposed activities include constructing breakwaters that will provide reef habitat and creating salt marsh habitat at both sites. In total, approximately 18.8 acres of salt marsh habitat and 4 acres of reefs would be created. The estimated cost for this project is $10,828,063.

7.6.5.5 Florida Seagrass Recovery Project

The proposed Florida Seagrass Recovery project will address boat damage to shallow seagrass beds in the Florida panhandle by restoring scars located primarily in turtle grass (Thalassia testudinum) habitats located in St. Joseph Bay Aquatic Preserve in Gulf County, with additional potential sites in Alligator Harbor Aquatic Preserve in Franklin County, and St. Andrews Aquatic Preserve, in Bay County. A boater outreach and education component of the project will install non-regulatory Shallow Seagrass Area signage, update existing signage and buoys where applicable, and install educational signage and provide educational brochures about best practices for protecting seagrass habitats at popular boat ramps in St. Joseph Bay, Alligator Harbor, and St. Andrews Bay. The total estimated cost for this project is $2,691,867.

7.6.5.6 Perdido Key State Park Beach Boardwalk Improvements

The proposed Perdido Key project would improve a number of existing boardwalks in Perdido Key State Park in Escambia County. The proposed improvements include removing and replacing six existing boardwalks leading to the beach from two public access areas. The total estimated cost for this project is $588,500.

7.6.5.7 Big Lagoon State Park Boat Ramp Improvement

The proposed Big Lagoon State Park project would involve enhancing an existing boat ramp and surrounding facilities in the Big Lagoon State Park in Escambia County. These improvements would include adding an additional lane to the boat ramp, expanding boat trailer parking, improving traffic circulation at the boat ramp, and providing a new restroom facility to connect the park to the Emerald Coast Utility Authority (ECUA) regional sanitary sewer collection system. The total estimated cost for this project is $1,483,020.

7.6.5.8 Bob Sikes Pier Parking and Trail Restoration

The proposed Bob Sikes Pier project would improve access to a fishing pier in the Pensacola area in Escambia County as well as enhancing the quality of the experience for its recreational users. The proposed improvements include renovating parking areas, enhancing bicycle/pedestrian access, and aesthetic improvements to the surrounding area. The estimated cost for this project is $1,023,990.

7.6.5.9 Florida Artificial Reefs

The proposed Florida Artificial Reef Creation and Restoration project involves creating artificial reefs in Escambia, Santa Rosa, Okaloosa, Walton, and Bay Counties. These proposed improvements include emplacing artificial reefs in already permitted areas. As required by the ESA consultation with NMFS, the pyramid designs originally planned for this project were modified so that one side of the constructed pyramids will be open on the top half to allow sea turtles to move freely in and out of the structure. The total estimated cost for this project is $11,463,587.

7.6.5.10 Florida Fish Hatchery

The proposed Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center project would involve constructing and operating a saltwater sportfish hatchery in Pensacola, Florida. This project would enhance recreational fishing opportunities. The total estimated cost for this project is $18,793,500.

7.6.5.11 Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle

The proposed Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle project would involve enhancing local scallop populations in targeted areas in the Florida Panhandle. The proposed improvements include the harvesting and redistribution of naturally-occurring juvenile scallops supplemented with stocking from a commercial scallop hatchery. The total estimated cost for this project is $2,890,250.

7.6.5.12 Shell Point Beach Nourishment

The proposed Shell Point Beach Nourishment project would involve the renourishment of Shell Point Beach in Wakulla County. The proposed improvements include the placement of approximately 15,000 cubic yards of sand on the county owned section of the beach from an approved upland borrow area to

restore the width and historic slope/profile of this beach. The total estimated cost for this project is $882,750.

7.6.5.13 Perdido Key Dune Restoration Project

The proposed Perdido Key Dune Restoration project will restore appropriate dune vegetation to approximately 20 acres of degraded beach dune habitat in Perdido Key, Florida, including habitat used by the federally endangered Perdido Key Beach Mouse. The project will consist of planting appropriate dune vegetation (e.g., sea oats, panic grasses, cord grasses, sea purslane, beach elder) approximately 20 – 60' seaward of the existing primary dune to provide a buffer to the primary dune and enhance dune habitats. In addition, gaps in existing dunes within the project area will be re-vegetated to provide a continuous dune structure. The total estimated cost for this project is $611,234.

7.6.5.14 Florida Oyster Cultch Placement Project

The proposed Florida Oyster Cultch project would enhance and improve the oyster populations in Pensacola Bay, Andrew Bay and Apalachicola Bay. The proposed improvements include the placement of a total of 42,000 cubic yards of suitable cultch material over 210 acres of previously constructed oyster bars for the settling of native oyster larvae and oyster colonization in three Florida Bays. The total estimated cost for this project is $5,370,596.

7.6.5.15 Strategically Provided Boat Access along Florida's Gulf Coast Project Components

7.6.5.15.1 City of Mexico Beach Marina Project

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) project would improve the existing Mexico Beach Canal Park boat ramp in the City of Mexico Beach. The proposed improvements include replacing the boardwalk dock with a concrete surface and increasing the width, removing and replacing eighteen existing finger piers, and replacement of the existing retaining wall. The total estimated cost of the project is $1,763,554.

7.6.5.15.2 Panama City St. Andrews Marina Docking Facility Expansions

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project would improve the existing St. Andrews Marina docking facility in Panama City. The proposed improvements include adding three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock. The total estimated cost of the project is $250,029.

7.6.5.15.3 Strategically Provided Boat Access - City of Parker, Donaldson Point Boat Ramp Improvements

The Strategically Provided Boat Access along Florida's Gulf Coast: City of Parker, Donaldson Point Boat Ramp Improvements project component has been dropped from the Final Phase III ERP/PEIS. During the public comment period it was discovered that some uncertainty existed as to whether the City of Parker owned the property at which the proposed boat ramp was to be constructed. Rather than get involved in lengthy and costly legal investigations into ownership the City of Parker requested the Trustees to withdraw this project component. Total funds allocated to Donaldson Point Boat Ramp project component were $60,569.00; these funds will be reallocated to the Earl Gilbert component of the Strategically Provided Boat Access along Florida's Gulf Coast project (see Chapter 12 for additional details).

7.6.5.15.4 City of Parker, Earl Gilbert Dock and Boat Ramp Improvements

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project would improve the existing Earl Gilbert dock and boat ramp in the City of Parker. The proposed work includes improving the existing dock and expanding the existing parking. The total estimated cost of the project is $169,929.

7.6.5.15.5 City of Port St. Joe, Frank Pate Boat Ramp Improvements

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project would improve the existing Frank Pate boat ramp in the City of Port St. Joe. The proposed improvements include constructing an additional boarding dock, boat trailer parking, access drive, staging area, and a fish cleaning station. The total estimated cost of the project is $806,972.

7.6.5.15.6 City of St. Marks Boat Ramp Improvements

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project would improve the existing City of St. Marks boat ramp. The proposed improvements include adding a boarding dock to the one-lane boat ramp. The total estimated cost of the project is $50,006.

7.6.5.15.7 Walton County, Choctaw Beach Boat Ramp Improvements

The Strategically Provided Boat Access along Florida's Gulf Coast: Walton County, Choctaw Beach Boat Ramp Improvements project component has been dropped from the Final Phase III ERP/PEIS. Walton County requested the Trustees to withdraw the project component so the County could seek funding from other sources to construct this project. Total funds allocated to the Choctaw Beach Boat Ramp project component were $140,642.00; these funds will be reallocated to the Mexico Beach component of the Strategically Provided Boat Access along Florida's Gulf Coast project (see Chapter 12 for additional details).

7.6.5.15.8 Walton County, Lafayette Creek Boat Dock Improvements

The proposed Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project would improve the existing Lafayette Creek boat dock in Walton County. The proposed improvements include expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels. The total estimated cost of the project is $207,850.

7.6.5.16 Walton County Boardwalks and Dune Crossovers

7.6.5.16.1 Ed Walline Beach Access Improvements

The proposed Walton County Ed Walline Beach Access Improvements project would improve the Ed Walline regional beach access facility in Walton County. The proposed improvements include replacing pavilions and restroom fixtures and updating all interior plumbing. The total estimated cost of the project is $117,700.

7.6.5.16.2 Gulfview Heights Beach Access Improvements

The proposed Walton County Gulfview Heights Beach Access Improvements project would improve the Gulfview Heights beach access facility in Walton County. The proposed improvements include replacing

restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions. The total estimated cost of the project is $87,981.

7.6.5.16.3 Grayton Dunes Beach Access Boardwalk Improvements

The proposed Walton County Grayton Dunes Beach Access Boardwalk Improvements project would improve the Grayton Dunes beach access and boardwalk facility in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The total estimated cost of the project is $168,076.

7.6.5.16.4 Dothan Beach Access Boardwalk Improvements

The proposed Walton County Dothan Beach Access Boardwalk Improvements project would improve the Dothan Beach Access Boardwalk in Walton County. The proposed improvements include replacing the dune walkover allowing beach visitors to access the beach. The total estimated cost of the project is $188,909.

7.6.5.16.5 Palms of Dune Allen West Beach Access Improvements

The proposed Walton County Palms of Dune Allen West Beach Access Improvements project would improve the Palms of Dune Allen West beach access facility in Walton County. The proposed improvements include constructing a dune walkover, allowing beach visitors to access the beach. The total estimated cost of the project is $112,109.

7.6.5.16.6 Bayside Ranchettes Park Improvements

The proposed Walton County Bayside Ranchettes Park Improvements project would improve the Bayside Ranchettes Park in Walton County. The proposed improvements include constructing a parking area, a picnic table, a dock, and steps into the water allowing access to the bay. The total estimated cost of the project is $68,501.

7.6.5.17 Gulf County Restoration Projects

7.6.5.17.1 Highland View Boat Ramp

The proposed Gulf County Highland View Boat Ramp project would improve the existing Highland View boat ramp in Gulf County. As part of this project, the amenities at this boat ramp site would be upgraded. No work to the ramp itself if planned. This work would include some renovations to the existing pier structure such as replacing planking and side bumpers. Expanding the pier footprint is not anticipated and no new piling placement is expected. Additional work would include renovating and expanding the existing informal sand parking area to provide a more stable long-term surface. In addition, current project plans call for providing some sort of restroom facilities (e.g., a port-a-potty). The total estimated cost of the project is $176,550.

7.6.5.17.2 Indian Pass Boat Ramp

The Gulf County Recreation Projects: Indian Pass Boat Ramp project component is being dropped from the Final Phase III ERP/PEIS. Gulf County requested Trustees to withdraw the project component so the County could pursue the construction of a new ramp at a nearby location and abandon this facility. Total funds allocated to Indian Pass Boat Ramp project component were $176,550.00; these funds will be reallocated to the Windmark component of the Gulf County Restoration project (see Chapter 12 for additional details).

7.6.5.17.3 Improvements at Beacon Hill Veterans' Memorial Park

The proposed Gulf County Beacon Hill Veterans' Memorial Park Improvements project would improve and enhance the existing facilities at the Beacon Hill Veterans' Memorial Park Gulf County. The proposed project will improve the park, including: the construction of a small amphitheater, pavilions, upgrade/replace existing restrooms and possible development of a nature trail and additional area for vehicle parking.. The total estimated cost of the project is $588,500.

7.6.5.17.4 Windmark Beach Fishing Pier Improvements

The proposed Gulf County Windmark Beach Fishing Pier Improvements project would construct a fishing pier at Windmark Beach in Gulf County. The proposed improvements include constructing a fishing pier into the Gulf of Mexico. The total estimated cost of the project is $1,353,550.

7.6.5.18 Bald Point State Park Recreation Areas

The proposed Bald Point State Park Recreation Areas project would improve the existing visitor areas at Bald Point State Park in Franklin County. The project activity would involve constructing a visitor day-use area including picnic pavilions, a restroom with an aerobic treatment system and associated septic system drainfield, and an integrated system of boardwalks providing access through the area to a new floating dock, and a canoe/kayak launch area on Chaires Creek. The total estimated cost of the project is $470,800.

7.6.5.19 Enhancement of Franklin County Parks and Boat Ramps

7.6.5.19.1 Abercrombie Boat Ramp Project

The Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project component is being dropped from the Final Phase III ERP/PEIS. Franklin County requested the Trustees to withdraw this project component since the County was awarded funding from other sources to construct this project. Total funds allocated to the Abercrombrie Boat Ramp project component were $176,550.00; these funds will be reallocated to other components of the Enhancement of Franklin County Parks and Boat Ramps project (see Chapter 12 for additional details).

7.6.5.19.2 Waterfront Park

The proposed Franklin County Waterfront Park project would improve the existing Waterfront Park in Apalachicola. The proposed improvements include enhancing existing parking and adjacent tie-up docks to enhance water access. In addition an existing onsite building would be enhanced to serve as an information center and dockmaster office. The total estimated cost of the project is $324,800.

7.6.5.19.3 Indian Creek Park

The proposed Franklin County Indian Creek Park project would improve the existing Indian Creek Park boat launch facility in Franklin County. The proposed improvements include constructing restroom facilities, connecting them to an existing central wastewater facility nearby, and renovating the existing boat ramp, bulkhead, and parking area to enhance water access. The total estimated cost of the project is $429,100.

7.6.5.19.4 Eastpoint Fishing Pier Improvements

The proposed Franklin County Eastpoint Fishing Pier Improvement project would add restroom facilities to the base of the existing public East Point Fishing Pier in Franklin County. The proposed improvements include not only constructing new restrooms, but a holding tank that would be pumped out regularly. In

addition, signage will be installed/updated to provide users of the ramp with information on sensitive species and areas and appropriate actions to take with species interactions (e.g., what to do if a sea turtle or nesting migratory bird is encountered).The total estimated cost of the project is $294,250.

7.6.5.19.5 St. George Island Fishing Pier Improvements

The proposed Franklin County St. George Island Fishing Pier Improvements project would enhance the existing public St. George Island public Fishing Pier in Franklin County. The proposed improvements include constructing restrooms and a holding tank that would be pumped out regularly since there is no central wastewater facility on the island. The proposed improvements also include renovating the existing bulkhead that leads up to the pier and protects the road to the pier. The total estimated cost of the project is $723,235.

7.6.5.20 Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements

7.6.5.20.1 Cash Bayou

The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Cash Bayou project would improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing a fishing and wildlife observation structure and parking area. The total estimated cost of the project is $209,171.

7.6.5.20.2 Sand Beach

The proposed Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project would improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area. The proposed improvements include constructing an elevated boardwalk that would be built on an existing, periodically wet interpretative trail. The total estimated cost of the project is $53,818.

7.6.5.21 Florida Navarre Beach Park Coastal Access and Dune Restoration

The proposed Navarre Beach Park Coastal Access project would improve access for the public seeking to access the beach and water of Santa Rosa Sound from the existing pavilion/parking lot areas. In addition, construction of a new canoe/kayak launch would increase access opportunities to the waters of the sound for recreational boaters. The enhancement of the recreational experience from these infrastructure improvements would also be complemented by the restoration of a roughly 1 acre parcel of degraded dune habitat in the project area. The estimated cost for this project is $614,630.

7.6.5.22 Navarre Beach Park Gulfside Walkover Complex

The proposed Navarre Beach Park Gulfside Walkover Complex project would enhance access to the shoreline at Navarre Beach Park to enhance recreational use of the natural resources. The proposed improvements include constructing an entrance, driveway, and parking area; constructing a restroom facility; constructing pavilions with boardwalk connections; lifeguard tower; and constructing a dune walkover that will provide access to the beach. The total estimated cost of the project is $1,221,847. The footprint for this project was relocated between the Draft and Final Phase III ERP/PEIS to remove the need for an incidental take permit from the state (see Chapter 12 for additional details).

7.6.5.23 Gulf Breeze Wayside Park Boat Ramp

The proposed Gulf Breeze Wayside Park Boat Ramp Improvements project would improve the existing boat ramp at Wayside Park in the City of Gulf Breeze, Santa Rosa County, FL. The proposed improvements include repairing the existing boat ramp and seawall cap, constructing a public restroom facility, and repairing and enhancing the parking area to improve access. The total estimated cost of the project is $309,669.

7.6.5.24 Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area

The proposed Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area project would improve public access and enjoyment of natural resources at the Escribano Point portion of the Yellow River Wildlife Management Area. The proposed improvements include a one-time assessment and mapping activities necessary for developing the site for outdoor recreation purposes, hurricane debris removal and road repair,constructing an entrance kiosk, information facilities, parking facilities, interpretive facilities, fishing facilities, picnicking facilities, primitive camping sites, wildlife viewing areas, and bear-proof containers for trash and food storage. The total estimated cost of the project is $2,576,365.

7.6.5.25 Norriego Point Restoration and Recreation Project

The proposed Norriego Point Restoration and Recreation project would involve stabilizing, enhancing and re-establishing recreational activities available at Norriego Point. Improvements would include constructing erosion control structures and new park amenities including a picnic pavilion with restrooms, showers, and drinking fountains; educational signage; a multi-use trail; bike racks; and vehicle parking along the access road adjacent to the park land. The total estimated cost of the project is $10,228,130.

7.6.5.26 Deer Lake State Park Development

The proposed Deer Lake State Park Recreation Areas project would improve the existing visitor areas at Deer Lake State Park in Walton County. The proposed improvements would include adding a paved access road, parking, picnic shelters, restroom facilities, plantings (trees, grass, shrubs), and necessary utilities (water, sewer, and electrical). The total estimated cost of the project is $588,500.

7.6.5.27 City of Parker – Oak Shore Drive Pier

The proposed City of Parker Oak Shore Drive Pier project would construct a fishing pier at Oak Shore Drive in the City of Parker, Bay County Florida. The proposed work includes construction of a 500 foot long fishing pier. The total estimated cost of the project is $993,649.

7.6.5.28 Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks

The proposed Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks project would provide additional recreational fishing opportunities for the public in Panama City in Bay County. The proposed improvements include constructing a 400-foot long pier, replacing a poorly functioning boat ramp, and constructing new staging docks associated with the boat ramp at the Panama City Marina. The total estimated cost of the project is $2,000,000.

7.6.5.29 Wakulla County Mashes Sands Park Improvements

The proposed Wakulla County Mashes Sands Park Improvements project would improve recreation areas at the Wakulla County Mashes Sands Park. The proposed improvements include constructing observation platforms, boardwalks, and walking paths, improving the boat ramp area, and picnic areas, renovating the parking area, and the restroom facility, and constructing a canoe/kayak launch site. The total estimated cost of the project is $1,500,000.

7.6.5.30 Northwest Florida Estuarine Habitat Restoration, Protection, and Education- Fort Walton Beach

The proposed Northwest Florida Fort Walton Beach Educational Boardwalk project would construct new boardwalks and connect them to existing boardwalks as well as conducting several small natural resource and habitat enhancement projects in Fort Walton Beach. The proposed improvements include constructing a new educational and interactive boardwalk, expansion of an existing intertidal oyster reef, and restoration of a degraded salt marsh. The total estimated cost of the project is $4,643,547.

7.7 Organization and Content of Proposed Phase III Project Chapters

Chapters 8-12 provide information and analysis related to the specific projects listed above located in Texas, Louisiana, Mississippi, Alabama, and Florida respectively.

Within each chapter, there is a subsection for each proposed Phase III project. Each project-specific subsection begins with a general description of the project and relevant background information, followed by: 1) a discussion of the project's consistency with project evaluation criteria; 2) a description of planned performance criteria, monitoring and maintenance; 3) a description of the type and quantity of Offsets BP would receive if the project is selected for implementation; and 4) information about estimated project costs.

Following this project information is a project-specific environmental review, which provides information specific to each project's affected environment and analysis about anticipated environmental consequences for the individual, proposed projects.[11] Each of the proposed projects is consistent with project types identified and evaluated in the Trustees' programmatic alternatives (see Chapters 5 and 6). The following Chapters also include the Trustees' project-specific environmental reviews analyzing project locations, methods, timing and other factors, project benefits, potential adverse consequences, and otherwise address environmental compliance needs.

7.8 Adoption of Existing NEPA Analyses

Four of the proposed projects or project components are the subject of existing NEPA analyses prepared by other federal agencies. These projects or components are analyzed in whole or in part in these NEPA documents. As lead agency for preparation of this PEIS, DOI has responsibility for the adequacy of the NEPA analysis, and would accordingly be the agency to adopt the applicable existing NEPA analyses. The DOI (or any of its bureaus) is not a cooperating agency on the NEPA analyses DOI has adopted. They are:

[11] This format is not precisely followed for all Florida projects because some are grouped together for environmental review purposes.

7.8.1 Louisiana

- Louisiana Outer Coast Restoration Project components:
  - Chenier Ronquille Barrier Island – Environmental Assessment for the Chenier Ronquille Barrier Island Restoration Project (NOAA 2013).
  - Caillou Lake Headlands - Louisiana Coastal Area Integrated Feasibility Study and Final Environmental Impact Statement for the Terrebonne Basin Barrier Shoreline Restoration (USACE 2010).
  - Shell Island - Louisiana Coastal Area Barataria Basin Barrier Shoreline Restoration Final Integrated Construction Report and Final Environmental Impact Statement (USACE 2012).

7.8.2 Mississippi

  - Pascagoula Beachfront Promenade Project - Environmental Assessment for the Department of Housing and Urban Development for the Beachfront Promenade Project (HUD 2011)

Federal agencies are encouraged to coordinate and take appropriate advantage of existing NEPA documents and studies, including adoption and incorporation by reference. Under CEQ NEPA Regulations (40 C.F.R. § 1506.3), DOI NEPA Regulations (43 C.F.R. § 46.120), and individual DOI bureau NEPA procedures, DOI may adopt another federal agency's NEPA analysis to streamline the NEPA compliance process.

DOI may adopt another federal agency's NEPA analysis or portion thereof if it meets the standards for an adequate analysis under the CEQ NEPA regulations, and if it adequately assesses the environmental effects of the proposed action and reasonable alternatives (40 C.F.R. 1506.3(a); 43 C.F.R. 46.120(c)). If DOI adopts another agency's NEPA analysis, the supporting record must include an evaluation of whether new circumstances, new information or changes in the action or its impacts not previously analyzed may result in significantly different environmental effects (43 C.F.R. 46.120(c)). The Spill was not previously considered in the Caillou Lake Headlands – Louisiana Coastal Area Integrated Feasibility Study and Final Environmental Impact Statement (Caillou Lake Headlands FIES) for the Terrebonne Basin Barrier Shoreline Restoration. The Spill was not considered as part of the affected environment in the Caillou Lake Headlands FEIS, and therefore the environmental consequences of the Caillou Lake Headlands alternatives were not considered in light of the Spill. However, the environmental consequences of the Caillou Lake Headlands alternatives would occur regardless of the Spill and the relative impacts of the alternatives considered would not materially change because of the Spill.

In addition to the requirements listed above, DOI may adopt another federal agency's NEPA analysis if DOI independently reviews the analysis and finds that the analysis complies with the DOI NEPA regulations, relevant provisions of the CEQ NEPA regulations and with other program requirements (43 C.F.R. 46.320(a)). DOI must also ensure that DOI's public involvement requirements are met before adopting another federal agency's NEPA analysis (43 C.F.R. 46.320(d)). When appropriate, the Responsible Official may augment the analysis to be consistent with the DOI's proposed action (43 C.F.R. 46.320(b)).

DOI has independently evaluated the existing NEPA analyses pertinent to the four proposed projects or project components listed above. DOI believes these existing NEPA analyses meet the standards for adequate NEPA analyses under the CEQ NEPA regulations, and that they adequately assess the environmental effects of the proposed restoration projects and reasonable alternatives. All applicable

environmental commitments previously made in the adopted NEPA documents are incorporated by reference into this Final PEIS.

Summaries of the adopted NEPA analyses for the Caillou Lake Headlands, Chenier Ronquille Barrier Island and Shell Island components of the proposed Louisiana Outer Coast Restoration project are found in Chapter 9, "Proposed Phase III Early Restoration Projects: Louisiana", Sections 9.2, 9.3 and 9.4, respectively. The currently proposed project designs for Shell Island and Caillou Lake Headlands are slightly different from the designs previously evaluated under the existing NEPA documents. These differences in design, however, have been considered and do not result in significantly different environmental effects.

Chapter 10, "Proposed Phase III Early Restoration Projects: Mississippi", includes the proposed Mississippi Pascagoula Beachfront Promenade restoration project (Section 10.7), and contains a summary of the NEPA analysis DOI has adopted. The Pascagoula Beachfront Promenade adopted EA required augmentation due to changes in the proposed action. The project proposed in the Phase III ERP contained elements not analyzed in the 2011 HUD EA, requiring additional analysis (43 C.F.R. 46.320(b)). Elements that were added to the project after the 2011 HUD EA (additional promenade and visitor amenities) are the subject of additional analysis in Section 10.7 and this analysis indicates these additional elements are not expected to "result in significantly different environmental effects" (43 C.F.R. 46.120(c)).

Accordingly, DOI has adopted these NEPA analyses and incorporates them in this PEIS.

7.9 References

HUD (U.S. Department of Housing and Urban Development). 2011. Environmental Assessment for HUD-funded Proposals, Pascagoula Beach Promenade Project. Prepared by BMI Environmental Services, LLC., for the City of Pascagoula.

National Oceanic and Atmospheric Administration (NOAA). 1999. Discounting and the Treatment of Uncertainty in Natural Resource Damage Assessment: Technical Paper 99-1. Silver Spring, MD. Available at: http://www.whitehouse.gov/omb/circulars/a094/a094.pdf.

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United States Army Corps of Engineers (USACE). 2010. Louisiana Coastal Area Integrated Feasibility Study and Final Environmental Impact Statement for the Terrebonne Basin Barrier Shoreline Restoration Terrebonne Parish, Louisiana. Available at: http://www.lca.gov/Projects/3/final_reports.aspx.

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