RECORD OF DECISION
for the *Deepwater Horizon* Oil Spill: Final Programmatic and Phase III Early Restoration Plan and Early Restoration Programmatic Environmental Impact Statement (Phase III ERP/PEIS)

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RECORD OF DECISION for the *Deepwater Horizon* Oil Spill: Final Programmatic and Phase III Early Restoration Plan and Early Restoration Programmatic Environmental Impact Statement (Phase III ERP/PEIS)

1 OVERVIEW

The federal and state natural resource Trustees (Trustees) for the *Deepwater Horizon* oil spill (the Spill[1]) have prepared a Programmatic and Phase III Early Restoration Plan, including a Programmatic Environmental Impact Statement (Phase III ERP/PEIS)for the purposes of accelerating meaningful restoration of injured natural resources and their services resulting from the Spill. The Phase III ERP/PEIS has been prepared under the authority of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. §§ 2701 *et seq*. and integrated with a Programmatic Environmental Impact Statement in compliance with the Federal agency decision-making requirements of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321 *et seq*. The Phase III ERP/PEIS provides information and analysis concerning: (1) the programmatic approach proposed by the Trustees for continuing Early Restoration; and (2) 44 specific Early Restoration projects.

The purpose of this Record of Decision (ROD) is to document the decisions made by the Trustees on the Phase III ERP/PEIS. The following federal agencies are the designated natural resource Trustees under OPA for this Spill:

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

The following state agencies are designated natural resources Trustees under OPA and are currently acting as Trustees for the Spill:

- Texas Parks and Wildlife Department (TPWD), Texas General Land Office (TGLO) and Texas Commission on Environmental Quality (TCEQ);
- The State of Louisiana's Coastal Protection and Restoration Authority (CPRA), Oil Spill Coordinator's Office (LOSCO), Department of Environmental Quality (LDEQ), Department of Wildlife and Fisheries (LDWF) and Department of Natural Resources (LDNR);

[1] The Spill includes activities conducted in response to the spilled oil.

- The State of Mississippi's Department of Environmental Quality (MDEQ);
- The State of Alabama's Department of Conservation and Natural Resources (ADCNR) and Geological Survey of Alabama (GSA); and
- The State of Florida's Department of Environmental Protection (FDEP) and Fish and Wildlife Conservation Commission (FWC).

The selection of the Preferred Alternative for the Programmatic Early Restoration Plan and selection of 44 projects for the Phase III Early Restoration Plan are subject to review under NEPA. DOI prepared a Draft and Final Phase III ERP/PEIS with the NOAA, EPA, and USDA, and Trustees from Alabama, Florida, Louisiana, Mississippi, and Texas as cooperating agencies in the PEIS.

NEPA permits a federal agency to adopt another agency's environmental impact statement provided that the statement meets the standards for an adequate statement under the NEPA regulations (40 C.F.R. §1506.3).Further, an agency participating in the NEPA process as a cooperating agency may adopt the environmental impact statement of a lead agency without recirculating the statement when, after an independent review of the statement, the cooperating agency concludes that its comments and suggestions have been satisfied. NOAA, USDA and EPA participated in the development of the Phase III ERP/PEIS as cooperating federal agencies for purposes of NEPA. Each agency has independently determined that the PEIS component of the Phase III ERP/PEIS is sufficient for the purposes of informing that agency's decisions and hence has adopted the PEIS in accordance with 40 C.F.R. §1506.3 and its agency-specific NEPA procedures[2]. This document serves as the NEPA Record of Decision (ROD) for DOI, NOAA, USDA, and EPA.

2 DECISIONS TO BE MADE BY TRUSTEES

This ROD documents two decisions by the Trustees for the Spill under OPA: 1) selection of the Preferred Alternative for the Programmatic Early Restoration Plan; and 2) selection of 44 projects for the Phase III Early Restoration Plan, subject to completing remaining permitting and consultation requirements, as specifically identified in Section9 below.

The Trustees are in the process of conducting a Natural Resource Damage Assessment (NRDA) to assess and quantify injuries to natural resources and lost resource services caused by the Spill. The NRDA will result in the identification of restoration to compensate the public for those injuries and lost services. While the NRDA for the Spill is ongoing, the Trustees and BP Exploration and Production, Inc. (BP), one of the parties responsible for the Spill, have begun a process of "Early Restoration" whereby the Trustees accelerate meaningful restoration of injured natural resources and their services resulting from the Spill.

The Phase III ERP/PEIS has been developed to guide the early restoration of injured natural resources and the services they provide. It serves as a Programmatic and Phase III Early Restoration Plan and a

[2] NOAA NEPA implementing procedures NAO 216-6, 5.09(f); USDA NEPA implementing regulations 7 C.F.R. Part 1b ; EPA NEPA implementing regulations 40 C.F.R. Part 6.

Programmatic Environmental Impact Statement, as well as the environmental impact statement for the 44 Phase III projects. The Programmatic Environmental Impact Statement (including Chapters 8-12) contains a comprehensive environmental review of the 44 projects and provides an Environmental Impact Statement that adequately covers the projects. The Phase III ERP/PEIS frames and helps to inform Early Restoration actions and identifies a range of Early Restoration programmatic alternatives and project types that could be applied at this time and in future phases of Early Restoration planning.

The Phase III ERP/PEIS has been prepared in accordance with federal regulations implementing OPA and federal agency requirements under the NEPA. The Trustees are issuing this ROD pursuant to NEPA regulations at 40 C.F.R.§1505.2 and OPA regulations at 15 C.F.R. § 990.23. The ROD documents the Trustees' decision to: 1) select the Preferred Alternative for the Programmatic Early Restoration Plan; and 2) select 44 projects for implementation under the Phase III Early Restoration Plan.

3 INTRODUCTION AND PURPOSEAND NEED

On or about April 20, 2010, the mobile offshore drilling unit, *Deepwater Horizon*, which was being used to drill a well for BP Exploration and Production, Inc. (BP) in the Macondo prospect (Mississippi Canyon 252–MC252),suffered a blowout, caught fire and subsequently sank in the Gulf of Mexico (the Gulf). Tragically, 11 workers were killed and 19 injured.

The Spill is one of the largest oil spills in U.S. history. The Spill discharged millions of barrels of oil over a period of 87 days. In addition, well over 1 million gallons of dispersants[3] were applied to the waters of the spill area in an attempt to disperse the spilled oil. An undetermined amount of natural gas was also released to the environment as a result of the Spill.

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

In April 2011, the Trustees entered into an agreement under which BP agreed to provide up to $1 billion toward Early Restoration projects in the Gulf to address injuries to natural resources caused by the Spill. The Framework for Early Restoration Addressing Injuries Resulting from the Deepwater Horizon Oil Spill (Framework Agreement) is intended to facilitate and expedite restoration in the Gulf in advance of the completion of the NRDA process. The Framework Agreement provides a mechanism through which the Trustees and BP can work together "to commence implementation of Early Restoration projects that will

[3] Dispersants do not remove oil from the ocean. Rather, they are used to help break large globs of oil into smaller droplets that can be more readily dissolved into the water column.

provide meaningful benefits to accelerate restoration in the Gulf as quickly as practicable" prior to completion of the NRDA process or full resolution of the Trustees' natural resource damage claims (http://www.restorethegulf.gov/sites/default/files/documents/pdf/framework-for-early-restoration-04212011.pdf).

For the purpose of accelerating meaningful restoration under OPA, the Trustees need to identify restoration actions that contribute to making the environment and the public whole for injury to or loss of natural resources and services resulting from the Spill. The Trustees previously selected 10 Early Restoration projects for implementation, including eight projects documented in the April 2012 final "*Deepwater Horizon* Oil Spill Phase I Early Restoration Plan and Environmental Assessment" and two projects documented in the December 2012 final "*Deepwater Horizon* Oil Spill Phase II Early Restoration Plan and Environmental Review." In addition to the Phase I and II Early Restoration projects totaling approximately$71 million, the Trustees have identified restoration projects totaling $627 million in the Phase III ERP/PEIS, leaving approximately $300 million for future Phases of Early Restoration.

4 PUBLIC REVIEW AND COMMENT

Public input is an integral part of NEPA, OPA, and the Spill restoration planning effort. The process of public review has facilitated discussion regarding the programmatic approach to Early Restoration, restoration alternatives, and proposed projects; allowed the Trustees to solicit and consider public comment; and has helped ensure that the final plan addressed relevant issues.

4.1 Early Restoration PEIS Scoping

On June 4, 2013, under the authority of NEPA, OPA, and the implementing NRDA regulations, the Trustees published a Notice of Intent to Prepare a Programmatic Environmental Impact Statement for an Early Restoration Plan and Early Restoration Project Types, and to Conduct Scoping Meetings (78 FR. 33431) (http://www.gulfspillrestoration.noaa.gov/wp-content/uploads/phase-III-NOI.pdf). That Notice announced the Trustees' intent to prepare a PEIS for Early Restoration under NEPA to evaluate the environmental consequences of Early Restoration project types, as well as early restoration projects in an upcoming Phase III Draft Early Restoration Plan. As part of the Notice, the Trustees stated their intent to evaluate Early Restoration project types programmatically in the PEIS to allow for a better analysis of cumulative effects of Early Restoration and to support tiering of NEPA analyses for future Early Restoration projects/plans to the PEIS, where appropriate. During the public comment period for this scoping process, which ended on August 2, 2013, the Trustees held six public meetings throughout the Gulf States and in the District of Columbia.

4.2 Draft Phase III ERP/PEIS Public Meetings

After the release of the Draft Phase III ERP/PEIS on December 6, 2013 (78 FR 75919), the Trustees held a 75-day public comment period (including a 15-day extension of the originally announced 60-day comment period), which closed on February 19, 2014. During that time, the Trustees maintained a web-based comment submission site, P.O. Box, and email address and hosted nine public meetings.

The Trustees included a summary of all relevant public comments received on the Draft Phase III ERP/PEIS and their responses in the final document. The Trustees reviewed and considered all relevant public comments in developing the Final Phase III ERP/PEIS. The Final Phase III ERP/PEIS reflects revisions to the Draft Phase III ERP/PEIS arising from agency and public comments; progress on compliance with other laws, regulations and Executive Orders; and continuing Trustee project development and consideration of potentially relevant information. Key updates and revisions are identified in Section 1.12 of the Final Phase III ERP/PEIS.

4.3 Correspondence Received After Publication of the Final Phase III ERP/PEIS

Following the release of the Final Phase III ERP/PEIS, the Trustees received letters from several parties generally acknowledging the thorough consideration of comments and indicating that the commenters found the majority of the Phase III projects to be appropriate under the Oil Pollution Act (OPA) and to have undergone sufficient environmental analysis under the National Environmental Policy Act (NEPA). However, two (Ocean Conservancy and Gulf Restoration Network) of the three letters expressed specific concerns regarding the OPA and NEPA analyses for the Gulf State Park Enhancement Project. The substance of these concerns had either been previously addressed or requested actions that are not required by law. While the Trustees are not required to consider additional issues submitted after the public comment period has closed and are not required to respond to such issues, the Trustees have considered these issues and provide the following responses. The third late letter raised no new issues concerning the Phase III ERP/PEIS or the Phase III projects but provided several suggestions for consideration in preparing future Early Restoration plans.

1. Issue: The Gulf State Park Enhancement Project will result in significant impacts to the human environment, triggering the need for a project specific environmental impact statement (EIS).

   Response: The Trustees received this comment following the release of the Draft Phase III ERP/PEIS and responded in the Final Phase III ERP/PEIS, Chapter 13, comment and response number 241. The Final Phase III ERP/PEIS, including Section 11.7 that contains a comprehensive environmental review of the environmental consequences of the Gulf State Park Enhancement Project on a wide variety of resources present in the affected environment, provides an Environmental Impact Statement that covers this project adequately. There is no requirement that the Environmental Impact Statement covering the project be put into a separate document.

2. Issue: The final rule designating critical habitat for the Threatened Northwest Atlantic Ocean Distinct Population Segment of the loggerhead sea turtle was issued on July 10, 2014, and constitutes significant new information that the Trustees must address in a supplemental or separate EIS for the project.

   Response: The Trustees released the Final Phase III ERP/PEIS after release of the loggerhead critical habitat proposed rule and prior to the final rule designating loggerhead critical habitat. Based on the proposed rule, the Trustees evaluated the environmental consequences of the Gulf State Park Enhancement Project on proposed loggerhead critical habitat and concluded

there would be no adverse modification or destruction of proposed loggerhead critical habitat. As further discussed in Section 10.4.2.1 of the ROD, the Trustees evaluated the environmental consequences of this project on loggerhead sea turtle critical habitat as described in the final rule and have concluded that the final rule does not represent significant new information that the Trustees must address in a supplemental or separate EIS.

3. Issue: The Draft and Final Phase III ERP/PEIS contain inadequate alternatives analyses for the Gulf State Park Enhancement Project, and the alternatives analysis incorporated by reference into the Final Phase III ERP/PEIS is too narrow in scope and provides a post-hoc rationalization for the project.

   Response: The Trustees received a similar comment on the Draft Phase III ERP/PEIS suggesting that the alternatives analysis for the Gulf State Park Enhancement Project is too narrow. The Trustees considered the substance of this comment as described in the Final Phase III ERP/PEIS, Chapter 13, comment and response number 253. In response to this comment and as discussed in Section 11.6.4 of the Final Phase III ERP/PEIS, the Alabama Trustees made available a more complete alternatives analysis that was developed for the Gulf State Park Enhancement Project prior to finalizing the analysis presented in both the Draft and Final Phase III ERP/PEIS. As described in the Final Phase III ERP/PEIS, Chapter 13, comment and response number 89, the Framework Agreement and the need to negotiate projects with BP for funding constrains the range of project-level alternatives that can be considered formally in the Phase III ERP/PEIS. The alternatives analysis for the Gulf State Park Enhancement Project presented in the Final Phase III ERP/PEIS, including the alternatives analysis incorporated by reference, represents a reasonable range of alternatives given the context of Early Restoration.

4. Issue: The 2014 Habitat Conservation Plan (HCP) was not made publicly available during the comment period or during the current 30-day cooling off period, and therefore the Trustees have failed to properly incorporate the HCP.

   Response: The U.S. Fish and Wildlife Service (USFWS) issued an incidental take permit and approved a Habitat Conservation Plan (HCP) for Alabama beach mouse habitat in 2004 (2004 HCP), which the Trustees considered in the Draft Phase III ERP/PEIS. Following the release of the Draft Phase III ERP/PEIS, the Trustees received a public comment requesting more data on the Alabama beach mouse out of concern that most of the information presented in the Draft Phase III ERP/PEIS was out of date, including the 2004 HCP. In response to this request, USFWS updated its consultation on the Alabama Beach mouse, and issued a revised HCP on May 16, 2014 (2014 HCP). The public comment period on the Draft Phase III ERP/PEIS closed on February 19, 2014, therefore the 2014 HCP issued in response to public comments almost two months afterwards was not available during the public review and comment period. Consistent with USFWS practice, the 2014 HCP was made publicly available for review upon request when it was issued on May 16, 2014. USFWS has provided the 2014 HCP to all parties who have requested it, including requests made during the cooling off period prior to the issuance of the ROD.

5. Issue: The Trustees should establish an independent peer review process for vetting NRDA restoration projects.

   Response: The Trustees received a similar comment following the release of the Draft Phase III ERP/PEIS and responded in the Final Phase III ERP/PEIS, Chapter 13, comment and response number 23. The Trustees believe that the existing project selection criteria and process established under applicable law and the Framework Agreement provide the Trustees and the public with a robust process for vetting NRDA Early Restoration projects.

6. Issue: The Final Phase III ERP/PEIS does not provide the location and quantity of lost recreational uses that would be restored by the Gulf State Park Enhancement Project or the number of offsets BP would receive for funding the Project, and that prevents the public from assessing the claimed benefits of the Project against its environmental harms.

   Response: The Trustees received and addressed a similar comment on the Draft Phase III ERP/PEIS regarding a perceived lack of recreational loss information, and the Trustees considered that comment as described in the Final Phase III ERP/PEIS, Chapter 13, comment and response number 249. As previously stated in the Trustees' response to comments, the information provided in the Phase III ERP/PEIS is consistent with the Framework Agreement, applicable laws, regulations, and Pre-Trial Orders. The materials concerning Offsets exchanged with BP are settlement confidential and subject to Pre-Trial Orders in the Deepwater Horizon litigation. The Trustees identified the following offsets for the Gulf State Enhancement Project in Section 11.6.5 of the Draft and the Final Phase III ERP/PEIS: "NRDA Offsets are $171,010,610 expressed in present value 2013 dollars to be applied against the monetized value of lost recreational use provided by natural resources injured in Alabama, which will be determined by the Trustees' assessment of lost recreational use for the Oil Spill."

   Chapter 13, comment and response number 248 of the Final Phase III ERP/PEIS also provides information about specific loss of visitation and use of Gulf State Park for 2010 as compared to pre-spill conditions in 2009.

7. Issue: Any new road construction that might occur due to the construction of the Gulf State Park Enhancement Project is a connected action or cumulative impact related to the Project, and therefore the Trustees should have prepared an environmental review for new road construction.

   Response: New road construction related to the Gulf State Park Enhancement Project is not reasonably foreseeable at this time. As noted in the Trustees' response to comment number 257, the Trustees evaluated the environmental consequences of an increase in traffic and determined that the increase would be at a moderate level with site mitigation (see Section 11.7.6 "Traffic and Transportation" of the Phase III ERP/PEIS). The Trustee are not required, and do not have sufficient information, to prepare an environmental review for any new road construction that is speculative and not reasonably foreseeable.

8. Issue: There are numerous hotels in the area of Gulf State Park that provide short-term lodging options and there was no information in the Phase III ERP/PEIS showing a need for more short-term lodging options.

   Response: While hotels do exist in the general vicinity of Gulf State Park, they represent a small fraction of the overall lodging accommodations available. As discussed in Section 11.6.3 of Final Phase III ERP/PEIS, data gathered by the Alabama Trustees relating to this issue indicates that most current overnight visitation requires longer-term, 5-7 night rentals of condominiums and vacation homes. Consequently, there is a need for short-term lodging in this area. The lodge portion of the Gulf State Park Enhancement Project is intended to provide additional lodging options for visitors to the park and will be uniquely located on the beach unlike the vast majority of the other short-term lodging options.

9. Issue: There is no indication that the Gulf State Park Enhancement Project will make the environment and public whole.

   Response: This issue was addressed in Chapter 2, Section 2.1.2.1 and in Chapter 13, comment and response number 103: "It is not possible, nor intended, that all injuries will be made whole through the Early Restoration process, and the Trustees anticipate that many more projects, both ecological and human use, will be implemented as part of the long term restoration plan for the Spill."

10. Issue: The Alabama Trustees were biased in their decision to proceed with the Gulf State Park Enhancement Project since the lodge and conference center components had previously been discussed by the State.

    Response: The Trustees acknowledge that the lodge and conference center components of the Gulf State Park Enhancement Project had previously been considered by the State prior to the oil spill, just as many of the Phase III projects had previously been considered or partially developed by other trustees. This fact does not make these projects unsuitable for Early Restoration.

5 DESCRIPTION OF EARLY RESTORATION PROGRAMMATIC ALTERNATIVES

After considering public input and gathering many potential restoration ideas during the public scoping and various relevant public comment processes, the Trustees developed a set of project types for inclusion in programmatic alternatives, consistent with the desire to seek a diverse set of projects providing benefits to a broad array of potentially injured resources. Ultimately, this process resulted in the inclusion of 12 project types in the programmatic alternatives evaluated for Early Restoration in the Final Phase III ERP/PEIS, including:

1. Create and Improve Wetlands
2. Protect Shorelines and Reduce Erosion

3. Restore Barrier Islands and Beaches
4. Restore and Protect Submerged Aquatic Vegetation
5. Conserve Habitat
6. Restore Oysters
7. Restore and Protect Finfish and Shellfish
8. Restore and Protect Birds
9. Restore and Protect Sea Turtles
10. Enhance Public Access to Natural Resources for Recreational Use
11. Enhance Recreational Experiences
12. Promote Environmental and Cultural Stewardship, Education and Outreach

While the 12 project types can be combined in numerous ways to develop programmatic alternatives, the Trustees considered and evaluated the following four programmatic alternatives in the Final Phase III ERP/PEIS:

1. Alternative 1: No Action (no additional Early Restoration at this time);
2. Alternative 2: Contribute to Restoring Habitats and Living Coastal and Marine Resources (project types 1-9 above);
3. Alternative 3: Contribute to Providing and Enhancing Recreational Opportunities (project types 10-12 above); and
4. Alternative 4: Contribute to Restoring Habitats, Living Coastal and Marine Resources, and Recreational Opportunities (project types 1-12 above).

The Trustees believe that these alternatives and project types are consistent with relevant evaluation criteria and provide a reasonable range for consideration and evaluation. The Trustees' preferred alternative is Alternative 4, as identified in the Final Phase III ERP/PEIS.

5.1 Alternatives and Project Types Considered but Not Included in Detailed Analysis

Additional project types were considered by the Trustees for inclusion in programmatic alternatives, but were not evaluated in detail in the Final Phase III ERP/PEIS because the Trustees do not currently consider them appropriate for Early Restoration. For example, while the Trustees are concerned about and continue to evaluate potential Spill-related injuries to marine mammals and to components of the deep benthic environment (e.g., deep sea corals, mesophotic reefs, and deep soft bottom sediment habitat), additional time and effort are needed to enhance Trustee understanding of such injuries and to identify appropriate, reliable restoration methods.

6 COMPARISON OF THE ENVIRONMENTAL CONSEQUENCES OF THE PROGRAMMATIC ALTERNATIVES

This section provides a comparison of the potential environmental consequences from each of the programmatic alternatives analyzed. It first addresses direct and indirect impacts and then follows with a summary of cumulative impacts.

6.1 Direct and Indirect Impacts

Table 1 provides an overview of potential impacts to resource areas for each alternative. The information presented in the table represents the range of impacts and their duration estimated for each resource (e.g., minor to moderate, short-term) based on project-type-level analyses. Specific impacts of alternatives, when implemented, will depend on where individual projects may occur, the timing of planned construction and other activities, and the scale of the planned activities. This table provides a basis for comparing the ranges of the environmental impacts for the alternatives.

While most resources are expected to experience benefits across all alternatives, the Table does not identify benefits relative to potential adverse impacts, i.e., it is not intended to represent "net" benefits attributed to alternatives. Adverse impacts for all alternatives range from No Effect to Major Impacts, depending on the resource.

Trustees note that there are differences in environmental consequences that could result from recreational use project types (project types 10-12) as compared to ecological project types (project types 1-9). Table 1presents a range of potential impacts (e.g., minor to moderate) for each alternative, as, particularly for Alternative 4, the relative amount of recreational use restoration and ecological restoration that may ultimately occur are not known at this time. It should also be noted that the potential impacts associated with Alternative 4 are not the sum of impacts from Alternatives 2 and 3, but include the range of impacts evaluated and described for Alternatives 2 and 3 when considered together as a comprehensive alternative. Project-specific analyses included in the Phase III ERP/PEIS (in Chapters 8 – 12) and in any future tiered analyses will describe the specific impacts associated with the specific proposed projects.

On July 10, 2014, the USFWS and NOAA published final rules (79 FR 39756 and 79 FR 39855, respectively) designating critical habitat for the Northwest Atlantic Ocean Loggerhead Sea Turtle Distinct Population Segment (Loggerhead CH). The Trustees released the Final Phase III ERP/PEIS prior to this final rule, and therefore evaluated the environmental consequences of proposed early restoration alternatives on the proposed Loggerhead CH designation (78 FR 18000 and 78 FR 43005).

In the final rules, changes occurred to both the marine and terrestrial critical habitat designations. For marine critical habitat, the geographic extent of the proposed Sargassum unit (LOGG-S-02) was reduced in the final designation. The final designation eliminated some of the proposed CH in the eastern GOM, resulting in a majority of the CH being located west of the Mississippi River.

For terrestrial critical habitat, the USFWS made only a few substantive changes to Loggerhead CH between the proposed rule and the final rule, which are as follows: 1) updated information in the Background, Physical or Biological Features, and Special Management Considerations or Protection from recommended literature; 2) added "Natural coastal processes or artificially created or maintained habitat mimicking natural conditions" as a fourth Primary Constituent Element (PCE) of Loggerhead CH; 3) excluded all or portions of several proposed units in St. Johns, Volusia, and Indian River Counties, Florida; and 4) made other changes to maps, units, and the rule itself along the Atlantic Coast, and Dry Tortugas. In total, the final critical habitat designation has decreased from the proposed rule by 87.8 km

(54.5 mi).None of the excluded areas or map modifications occurred within the action area for the Phase III ERP/PEIS. The USFWS added the fourth PCE in the final designation in response to concerns and confusion regarding beach stabilization projects. "This PCE addresses artificial habitat types that mimic the natural conditions described in the PCE 1-3 for beach access, nest site selection, nest construction, egg deposition and incubation, and hatchling emergence and movement to the sea. Habitat modification and loss occurs with beach stabilization activities that prevent the natural transfer and erosion and accretion of sediments along the ocean shoreline. Beach stabilization efforts that may impact loggerhead nesting include beach nourishment, beach maintenance, sediment dredging and disposal, inlet channelization, and construction of jetties and other hard structures. However, when sand placement activities result in beach habitat that mimics the natural beach habitat conditions, impacts to sea turtle nesting habitat are minimized." (79 FR 39756)

The Trustees made the following assumptions in the Final Phase III ERP/PEIS to conduct the environmental analysis for programmatic project types: 1) proposed Loggerhead CH would eventually be designated as final, and 2) BMPs that the USFWS and NOAA would normally require to protect sea turtles and their habitats would be included in any early restoration project proposed by the Trustees regardless of final Loggerhead CH designation. The Trustees also did not differentiate between natural or artificial habitats in regards to evaluating the environmental consequences of early restoration programmatic alternatives on sea turtle nesting. If sea turtles were known to nest or likely to nest in the habitat, the Trustees considered the areas to be sea turtle nesting habitat. Because the Trustees' analysis did not distinguish between natural or artificial habitats and also incorporated BMPs to avoid or minimize potential impacts to beach access, nest site selection, nest construction, egg deposition and incubation, and hatchling emergence and movement to the sea (regardless of the presence of critical habitat), the Trustees have determined that no additional programmatic environmental analysis or programmatic BMPs are necessary to due to the finalization of Loggerhead CH.

Table 1. Benefits and Adverse Impacts of Alternatives by Resource and Alternative

Benefit	No Effect	Minor Adverse Effect	Minor to Moderate Adverse Effect	Moderate Adverse Effect	Minor to Major Adverse Effect	Moderate to Major Adverse Effect	Major Adverse Effect
B	0	1	2	3	4	5	6

Resources	Sub-Resources	Duration	Alternative 1	Alternative 2		Alternative 3		Alternative4	
Geology and Substrates	Upland Geology and Soil; Nearshore Coastal Geology and Sediment	Short Term	0	2		2		2	
		Long Term	0	2	B	2	B	2	B
Hydrology and Water Quality	Freshwater and Coastal Water Environments	Short Term	0	2	B	2		2	
		Long Term	0	1	B	1		1	B
Air Quality	–	Short Term	0	2		2		2	
		Long Term	0	0		1		1	
Noise	–	Short Term	0	4		4		4	
		Long Term	0	0		2		2	
Habitats	Wetlands, Barrier Islands; Beaches and Dunes; Submerged Aquatic Vegetation; Other Habitats in the Coastal Environment of the Northern Gulf of Mexico	Short Term	0	2		2		2	
		Long Term	0	2	B	2	B	2	B
Living Coastal and Marine Resources	Nearshore Benthic Communities; Oysters; Pelagic Microfaunal Communities; Sargassum; Finfish; Sea Turtles; Marine Mammals; Birds; Terrestrial Wildlife	Short Term	0	2		2		2	
		Long Term	0	2	B	2	B	2	B
Socioeconomics and Environmental Justice*	–	Short Term	0	B		B		B	
		Long Term	0	B		1	B	1	B
Cultural Resources **	–	Short Term	0	2		2		2	
		Long Term	0	2	B	2	B	2	B
Infrastructure	–	Short Term	0	4		4		4	
		Long Term	0	4	B	1	B	4	B
Land and Marine Management	National and State Parks; Refuges and WMAs; Land Trusts; Marine Protected Areas	Short Term	0	2		2		2	
		Long Term	0	B		B		B	
Tourism and Recreation Use	Wildlife Observation; Hunting; Beach and Waterfront (swimming, sightseeing, etc.); Boating; Recreational Fishing; Tourism; Museums, Cultural Resources, and Education Centers	Short Term	0	2		2		2	
		Long Term	0	B		B		B	

Resources	Sub-Resources	Duration	Alternative 1	Alternative 2		Alternative 3		Alternative4	
Fisheries and Aquaculture	Commercial Fishing; Shellfish Fishery; Seafood Processing and Sales; Aquaculture	Short Term	**0**	2		2		2	
		Long Term	**0**	B		B		B	
Marine Transportation	-	Short Term	**0**	1		1		1	
		Long Term	**0**	B		B		B	
Aesthetics and Visual Res.	-	Short Term	**0**	4		2		4	
		Long Term	**0**	2	B	2	B	2	B
Public Health and Safety, including Flood and Shoreline	_	Short Term	**0**	1		1		1	
		Long Term	**0**	B		1	B	1	B

Notes: The Trustees note that there are differences in environmental consequences that could result from recreational use project types as compared to ecological project types. Table 1 presents a range of potential impacts (e.g., minor to moderate) for each alternative. The rating system reflects the range of impacts that could occur to each resource by project type. It is important to note that all techniques within a project type would not necessarily have the same level of impacts on resources. That is, some techniques could have no effect on the specific resource area. Note that the project-specific analyses in Section 10 of this ROD describe the specific impacts associated with those projects.

* Note that Socioeconomics and Environmental Justice are combined under a single heading in this table. However, consistent with EO 12898, benefits to Environmental Justice were not evaluated in the Final Phase III ERP/PEIS; hence the findings summarized in this table reflect only socioeconomic considerations. No disproportionally high and adverse environmental effects on minority, low-income populations were identified.

**Project types under all Alternatives could lead to long-term beneficial impacts through the identification of cultural resources. Cultural or historical sites that may otherwise have been unknown or unprotected may benefit from the NHPA Section 106 review process that could require it be avoided and preserved in its natural state. In this manner, some information may be retrieved and future impacts could be avoided. Although minor to moderate adverse effects could occur if cultural resources are present at project sites involving dredge, fill or ground-disturbing activities, a Section 106 consultation will be completed prior to implementation of these activities and appropriate avoidance and mitigation measures will be implemented prior to commencement of ground disturbing activities.

6.2 Cumulative Impacts

A cumulative impacts analysis was conducted that assessed the impacts of the proposed alternatives when added to other past, present, and reasonably foreseeable future actions. Specifically, the cumulative impacts analysis was conducted in the context of the affected environment, and the incremental impact of the proposed action (X) when added to the impacts from applicable past, present, and reasonably foreseeable future actions (Y), to understand the potential cumulative impacts to an affected resource (Z), or, where the effects may interact and/or be additive, X+Y=Z. Based on the analysis, the Trustees concluded that none of the alternatives would contribute substantially to cumulative adverse impacts for any of the affected resources analyzed. Several of the alternatives will contribute to cumulative beneficial impacts for specific resources. Alternative 2 was found to incrementally contribute to beneficial cumulative impacts for geology and substrates, hydrology and water quality, air quality and greenhouse gases, habitats, living coastal and marine resources, socioeconomics, infrastructure, land and marine management, tourism and recreation, fisheries and aquaculture, marine transportation, aesthetics and visual resources, and public health and safety. Alternative 3 was found to incrementally contribute to beneficial cumulative impacts for all the same resources except air quality and greenhouse gas emissions. Alternative 4 was found to contribute beneficial cumulative impacts similar to Alternatives 2 and 3.

7 PROGRAMMATIC ALTERNATIVE DECISIONANDFACTORSCONSIDEREDINTHEDECISION

7.1 The Programmatic Alternative Decision

The Trustees select Alternative 4 - Contribute to Restoring Habitats, Living Coastal and Marine Resources, and Recreational Opportunities- as described in the Phase III ERP/PEIS as the preferred Programmatic Early Restoration Plan for the Spill.

7.2 Factors Considered and Rationale for the Programmatic Decision

In reaching the programmatic decision, the Trustees considered the purpose and need for the action as described in Section 3 of this ROD, including the programmatic evaluation criteria developed for Early Restoration described below. The Trustees also carefully considered public comments, including comments on the programmatic alternatives analyses. The Trustees considered Alternative 1, the No Action alternative, in which no additional Early Restoration would be pursued at this time. The No Action alternative does not meet the Trustees' purpose of accelerating meaningful restoration of injured natural resources and their services resulting from the Spill while the natural resource damage assessment is ongoing.

The Trustees developed a suite of programmatic criteria to develop and evaluate Early Restoration programmatic alternatives that meet the purpose and need for taking action. First, the Trustees considered the following criteria found in the OPA regulations at 15 C.F.R. § 990.53(a) (2):

- Whether each alternative is comprised of primary and/or compensatory restoration components that address one or more specific injury(ies) associated with the incident;

- Whether each alternative is designed so that, as a package of one or more actions, the alternative would make the environment and public whole;[4]
- Whether each alternative is technically feasible; and
- Whether each alternative is in accordance with applicable laws, regulations, or permits.

In addition to the criteria identified above, the Trustees found three of the OPA regulation's evaluation standards (15 C.F.R. § 990.54(a) (2)-(4)) particularly suited to serving as programmatic criteria for evaluating Early Restoration programmatic alternatives:

- 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 likelihood of success of each alternative; and
- The extent to which each alternative will avoid collateral injury as a result of implementing the alternative.[5]

The Framework Agreement and its criteria are important components of the Trustees' objectives for Early Restoration, and along with the OPA regulations, were considered in developing programmatic criteria. Although the Framework Agreement primarily contemplates project specific evaluation, the concepts can be applied to the development of programmatic alternatives. Thus, when evaluating programmatic alternatives for consistency with Framework Agreement criteria, the Trustees specifically considered whether the alternative:

- Addresses one or more specific injuries to natural resources or services associated with the incident; and
- Contributes 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.

Alternatives 2 and 3, when considered separately, were found to meet the criteria described above to varying degrees. However, Alternative 4 was determined to best meet all the evaluation criteria. Combining Alternatives 2 and 3 allows the Trustees to address a larger number of injuries caused by the Spill than those addressed by those Alternatives individually, thereby contributing more broadly to the Trustees' goal of making the environment and the public whole. Alternative 4 allows the Trustees to implement a greater variety of Early Restoration project types than Alternatives 2 and 3, and consequently provides the Trustees with a more flexible means of meeting the purpose and need for Early Restoration when compared to those

[4] Because Early Restoration will not, by itself, make the environment and the public whole, in Early Restoration planning, the Trustees consider whether each alternative will *contribute to* making the environment and public whole.

[5] This criterion is adapted from the regulatory language, which includes consideration of "the extent to which each alternative will prevent future injury as a result of the incident." This adaptation reflects the fact that Early Restoration takes place concurrently with, rather than after completion of, NRDA activities for this Spill.

provided by Alternatives 1 through 3.As a result of selecting this programmatic alternative, projects proposed in future restoration planning phases can include projects that restore habitat and living and coastal and marine resources, and can include projects that address lost recreational use.

7.3 Programmatic Mitigation Measures

Consistent with NEPA's implementing regulations, Appendix A lists those mitigation measures (i.e., Best Management Practices and Conservation Measures) that will be applied, as appropriate, to Phase III and future phases of Early Restoration projects that are consistent with Alternative 4 (40 C.F.R. § 1505.2). The mitigation measures identified in Appendix A will be applied to future Early Restoration projects based on the circumstances of a particular project. For example, the mitigation measures for bald eagles will be applied to future Early Restoration projects that have the potential to affect bald eagles, and would not be applied to future projects that do not have the potential to affect bald eagles. The Trustees are required to ensure all required consultation-specific mitigation measures are implemented for Phase III projects. The Trustees are also required to fulfill all necessary regulatory consultation requirements for future projects and comply with any mitigation measures that are required through the regulatory reviews and approvals. On July 10, 2014 DOI and NOAA designated Critical Habitat for Loggerhead sea turtles. Prior to the critical habitat designation, the Trustees conducted environmental analysis for programmatic project types, assuming: 1) proposed critical habitat would eventually be designated and 2) BMPs the USFWS and NOAA would normally require to protect sea turtles and their habitats would be required in any proposed project affecting sea turtles, regardless of critical habitat designation. Therefore, the Trustees have determined that no additional programmatic environmental analysis or programmatic BMPs are necessary due to the finalization of Loggerhead critical habitat. Based on the mitigation measures identified in Appendix A and the Trustees' decision to apply the measures to future projects based on site-specific circumstances, the Trustees have determined that all practicable means to avoid or minimize environmental harm from Alternative 4 have been adopted.

7.4 The Environmentally Preferred Programmatic Alternative

As required by the Council on Environmental Quality NEPA implementing regulations, a ROD must identify the alternative or alternatives considered to be environmentally preferable (40 C.F.R. § 1505.2(b)). The environmentally preferable alternative is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources.

The Trustees have determined that Alternative 2: Contribute to Restoring Habitats and Living Coastal and Marine Resources is the environmentally preferred alternative as it specifically contributes to the initial restoration and protection of certain habitats and living coastal and marine resources. This alternative includes nine project types: 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 and Shellfish, Restore and Protect Birds, Restore and Protect Sea Turtles. Although all of these project types would likely result in short-term adverse impacts associated with project construction, they would all result in long term benefits to the natural resources of the northern Gulf of Mexico. While the three project types in Alternative 3 (and thus Alternative 4) would contribute to restoring lost recreational uses and can enhance resource stewardship and education, they also can result in more long-term adverse environmental impacts when compared to impacts of project types in Alternative 2 alone.

8 PHASE III EARLY RESTORATION PLAN DECISION AND FACTORS CONSIDERED IN THE DECISION

As noted above, the Phase III ERP/PEIS provides information and analysis concerning: (1) the programmatic approach proposed by the Trustees for continuing Early Restoration; and (2) 44 specific Early Restoration projects. This section addresses the selection of the 44 specific Phase III Early Restoration projects.

The Trustees developed the Early Restoration project selection process to be responsive to the purpose and need for conducting Early Restoration. Early Restoration project identification is a step-wise process comprised of: (1) project solicitation, (2) project screening, (3) negotiation with BP, and (4) public review and comment.

Using this process, the Trustees identified the 44 projects included in the Phase III Early Restoration Plan. For each of these projects, the Phase III plan evaluated the proposed alternative to conduct the project as described in the project summary and a No Action alternative under which the project would not be pursued at this time for Early Restoration.

8.1 The Phase III Early Restoration Plan Decision

The Trustees have selected 44 Phase III Early Restoration projects for implementation in Phase III, subject to completing remaining permitting and consultation requirements. The projects total approximately $627 million in estimated project costs (including contingencies). 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). These projects and their expected effects, both beneficial and adverse, are described in the Phase III ERP/PEIS.

Table 2 provides the estimated cost (including contingencies) of each project and information about the type(s) of Offsets negotiated with BP for each project. 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.

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

	PROJECT	LOCATION	COST (including potential contingencies)[6]	OFFSET[7]							
				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								X
3	Mid/Upper Texas Coast Artificial Reef - Ship Reef[8]	TX	$1,919,765								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[9]	$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 Beachfront 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			

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

[7] NRD Offsets arethe benefits expected from the project stated in either units of ecological service or monetary terms – that will be applied to reduce BP's NRD liability. Note that all accounting for Early Restoration Offsets as credits for injury would be conducted in the final natural resources damage claim.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 of the Phase III ERP/PEIS.

[8] As described in more detail in Chapter 8 of the Phase III ERP/PEIS, 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 will provide similar Offsets.

[9] One component of this project will be implemented on federally-managed lands and managed by DOI.

	PROJECT	LOCATION	COST (including potential contingencies)[6]	OFFSET[7]							
				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
15	Beach Enhancement Project at Gulf Islands National Seashore	FL[10]	$10,836,055								X
16	Gulf Islands National Seashore Ferry Project	FL[11]	$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
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	$386,291								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

[10]These projects will be implemented on federally-managed lands and managed by DOI.

	PROJECT	LOCATION	COST (including potential contingencies)[6]	OFFSET[7]							
				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
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	$626,841,317								

8.2 Factors Considered and Rationale for Phase III Early Restoration Plan Decision

The Trustees developed an Early Restoration project screening process that reflects the purpose and need for conducting Early Restoration — to accelerate meaningful restoration under OPA, the Trustees need to identify restoration that contributes to making the environment and the public whole for injury to or loss of natural resources and services resulting from the Spill. Early Restoration is being initiated prior to completion of the full NRDA, and is not intended to fully address all injuries caused by the Spill.

The Trustees acted promptly to identify project proposals that met the OPA and Framework Agreement criteria as well as several practical considerations that, while not legally mandated, are nonetheless useful and permissible to help screen the large number of potential qualifying projects. None of these practical considerations are used as the sole basis for a decision; rather they are used as flexible, discretionary factors to supplement the criteria described above. For example, Trustees:

- Take into account how quickly a given project is likely to begin producing environmental benefits;
- Seek a diverse set of projects providing benefits to a broad array of potentially injured resources;

- Focus on types of projects with which they have significant experience, allowing them to predict costs and likely success with a relatively high degree of confidence and making it easier to reach agreement with BP on the Offsets attributed to each project, as required by the Framework Agreement; and
- Give preference to projects that are closer to being ready to implement.

All of these discretionary factors are consistent with a key objective for pursuing Early Restoration: to secure tangible restoration of natural resources and natural resource services for the public's benefit while the longer-term process of fully assessing injury and damages is still underway.

In addition, NRDA regulations (15 C.F.R. § 990.56) contemplate the use of existing restoration projects and regional restoration plans to address natural resource injuries where such a plan or project is determined to be the preferred alternative among a range of feasible restoration alternatives for an incident. Projects already developed under such plans, with completed engineering designs, cost analyses, partner coordination, and permit and NEPA requirements satisfied, could be implemented quickly, and are good candidates for consideration in the Early Restoration process.

The Trustees evaluated proposals for Phase III Early Restoration relative to the purpose and need for Early Restoration and with consideration of the evaluation criteria, potential impacts to the environment, and the discretionary factors identified above. Included in these proposals, the Trustees identified a number of previously developed projects. The Phase III Early Restoration Plan identifies 44 projects that meet the purpose and need while being able to quickly provide benefits across a diverse array of injured resources and for which the Trustees have experience in implementing and can do so in an expedient manner.

In addition, NOAA and DOI considered the restoration evaluation criteria to identify potential projects, with particular focus as described below:

- DOI identified projects that would take place both on and off DOI-managed lands. DOI has significant experience implementing restoration projects on lands managed by DOI, which allows DOI to predict costs and project success with a relatively high degree of confidence. Additionally, the Spill injured natural resources and related services on several of the National Wildlife Refuges and National Parks. Consequently, DOI prioritized some restoration projects that would be implemented on these National Wildlife Refuges and National Parks. For projects that will not take place on DOI lands, DOI has sought to partner with other Trustees to propose and implement Early Restoration projects that address injuries and comply with project evaluation criteria. As described in more detail in Chapters 9 and 12 of the Final Phase III ERP/PEIS, DOI will serve as a lead or co-lead implementing Trustee for 3 of the projects in the Final Phase III ERP/PEIS (Louisiana Outer Coast Restoration- North Breton restoration location, Beach Enhancement Project at Gulf Islands National Seashore, and Gulf Islands National Seashore Ferry Project).
- NOAA's project screening process included the application of the restoration evaluation criteria, as well as identification of projects that would restore for injuries specific to NOAA trust resources. Further, NOAA prioritized projects that would have benefits to both nearshore and offshore trust resources. NOAA sought to partner with other Trustees to propose and implement Early

Restoration projects that address injuries to NOAA trust resources, and comply with the project evaluation criteria. As described in more detail in Chapters 9-12 of the Final Phase III ERP/PEIS, NOAA will serve as a lead or co-lead implementing Trustee for 4 of the projects (Louisiana Outer Coast Restoration- Chenier-Ronquille restoration location; in Mississippi, the Hancock County Marsh Living Shoreline Project; Alabama Swift Tract Living Shoreline; and Florida Pensacola Bay Living Shoreline Project).

8.3 Compliance with Other Federal Laws and Executive Orders

In addition to the requirements of OPA and NEPA, requirements of other laws may apply to Early Restoration planning or Early Restoration implementation. The Trustees will comply with all applicable laws as part of the Early Restoration planning and implementation process. Whether and to what extent a law applies to a particular project depends on the specific characteristics of a particular project. For the Phase III Early Restoration projects, the subset of authorities listed below are the most commonly relevant:

- Endangered Species Act (16 U.S.C. §§ 1531 *et seq*.);
- National Historic Preservation Act (16 U.S.C. §§ 470 *et seq*.);
- Coastal Zone Management Act (16 U.S.C. §§ 1451-1464);
- Federal Water Pollution Control Act (Clean Water Act, 33 U.S.C. §§ 1251 *et seq*.);
- Clean Air Act (42 U.S.C. §§ 7401 *et seq*.);
- Migratory Bird Treaty Act (16 U.S.C. §§ 703-712);
- Bald and Golden Eagle Protection Act (16 U.S.C.§§ 668-668c);
- Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §§ 1801 *et seq*.);
- Marine Mammal Protection Act (16 U.S.C. §§ 1361-1421h);
- Rivers and Harbors Act (33 U.S.C.§§ 401 *et seq*.)
- EO 11988: Floodplain Management
- EO 11990: Protection of Wetlands
- EO 12898: Environmental Justice
- EO 12962: Recreational Fisheries
- EO 13112: Invasive Species
- EO 13175: Consultation and Coordination with Indian Tribal Governments
- EO 13186: Responsibilities of Federal Agencies to Protect Migratory Birds

In addition, Trustees have or will have ensured compliance with applicable authorities in individual states. The Trustees will adhere to conditions, BMPs, or other conservation measures required by environmental regulatory reviews and environmental consultations. Documents requiring conditions, BMPs, or other conservation measures from these reviews and consultations will be made available to the public on DOI's Administrative Index website (http://www.doi.gov/deepwaterhorizon/adminrecord/index.cfm).

As discussed below, the Trustees, in some cases, have not yet completed all required consultations or environmental reviews. Where that is the case, the Trustees have conditioned project selection on completion of those consultations and reviews. Please refer to Section 9 of this document for additional detail on the

process. For purposes of this ROD, a compliance review or consultation is considered complete when it is complete to the extent necessary to begin project implementation.

As stated previously, on July 10, 2014, after publication of the Final Phase III ERP/PEIS, the USFWS and NOAA published the final rule designating critical habitat for the Northwest Atlantic Ocean Loggerhead Sea Turtle Distinct Population Segment. The critical habitat finalization affected 11 projects. DOI has conferenced on critical habitat and each conference report has been adopted as an informal consultation. NOAA has reinitiated 4 ESA consultations to address critical habitat. For more information on the ESA compliance changes due to loggerhead sea turtle critical habitat finalization at the restoration project level, review the "Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders" sections for the following projects: Freeport Artificial Reef Project (10.1.1.1), Matagorda Artificial Reef Project (10.1.2.1), Mid/Upper Texas Coast Artificial Reef – Corpus Artificial Reef Project (10.1.4.1), Louisiana Outer Coast Restoration C – Shell Island (10.2.5.1), Gulf State Park Enhancement Project (10.4.2.1), Beach Enhancement Project at Gulf Islands National Seashore (10.5.1.1), Perdido Key Dune Restoration Project (10.5.13.1), Strategically Provided Boat Access along Florida's Gulf Coast: Project Description A (City of Mexico Beach Marina Project) (10.5.15.1), Gulf County Recreation Projects: Highland View Boat Ramp (10.5.24.1), Gulf County Recreation Projects: Windmark Beach Fishing Pier Improvements (10.5.26.1), and Enhancement of Franklin County Parks and Boat Ramps: (Waterfront Park, Indian Creek Park, Eastpoint Fishing Pier Improvements, and St. George Island Fishing Pier Improvements) (10.5.28.1).

In addition, several projects have had their ESA consultations reinitiated so that NOAA could carefully consider determinations made in the past. For more information on the ESA compliance changes due to re-initiation at the restoration project level, see Sections 9.2 and the "Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders" sections for the following projects: Louisiana Outer Coast Restoration A – Caillou Lake Headlands (10.2.3.1), Louisiana Outer Coast Restoration B – Chenier Ronquille Barrier Island (10.2.4.1), Louisiana Outer Coast Restoration C – Shell Island (10.2.5.1), Gulf Islands National Seashore Ferry Project (10.5.2.1), Strategically Provided Boat Access along Florida's Gulf Coast: Project Description A (City of Mexico Beach Marina Project) (10.5.15.1), and Bald Point State Park Recreation Areas (10.5.27.1).

Table 3 summarizes the status of regulatory compliance requirements as of September 24, 2014 for each of the 44 Phase III projects, identifying regulatory reviews and approvals[11] as either complete, in progress, or not applicable.

[11] "Regulatory approvals" encompasses approvals generally including: consultations, authorizations, permits, coordinations, and consistency determinations

Table 3. Status of Regulatory Compliance for Phase III Projects

Location	Phase III Project Title	Essential Fish Habitat[12]	Endangered Species Act (NMFS)[13]	Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act coordination (USFWS)[14]	Marine Mammal Protection Act authorization/ Coordination (NMFS)[15]	National Historic Preservation Act[16]	Rivers and Harbors Act/ Clean Water Act[17]	Coastal Zone Management Act[18]
TX	Freeport Artificial Reef Project							
TX	Matagorda Artificial Reef Project							
TX	Mid/Upper Texas Coast Artificial Reef - Ship Reef Project							
TX	Mid/Upper Texas Coast Alternate Artificial Reef - Corpus Artificial Reef Project							
TX	Sea Rim State Park Improvements							
TX	Galveston Island State Park Beach Redevelopment							
LA	Louisiana Outer Coast Restoration – Caillou Lake Headlands							
LA	Louisiana Outer Coast Restoration - Chenier Ronquille Barrier Island							
LA	Louisiana Outer Coast Restoration - Shell Island							
LA	Louisiana Outer Coast Restoration - North Breton Island							
LA	Louisiana Marine Fisheries Enhancement, Research, and Science Center							
MS	Hancock County Marsh Living Shoreline Project							
MS	Restoration Initiatives at the INFINITY Science Center							
MS	Popp's Ferry Causeway Park							
MS	Pascagoula Beachfront Promenade							

[12] Refers to the Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat consultation

[13] Refers to consultation under the Endangered Species Act under jurisdiction of the National Marine Fisheries Service

[14] Refers to consultation under the listed Acts under jurisdiction of the U.S. Fish and Wildlife Service

[15] Refers to authorization and coordination with the Marine Mammal Protection Act under jurisdiction of the National Marine Fisheries Service

[16] Refers to consultation under Section 106 of the National Historic Preservation Act

[17] Refers to authorization under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act under jurisdiction of the U.S. Army Corps of Engineers

[18] Refers to the federal consistency determination for the Coastal Zone Management Act; this consistency determination has been made for purposes of project selection for all projects, but for some projects additional consistency reviews may be necessary for project implementation.

Location	Phase III Project Title	Essential Fish Habitat[12]	Endangered Species Act (NMFS)[13]	Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act coordination (USFWS)[14]	Marine Mammal Protection Act authorization/ Coordination (NMFS)[15]	National Historic Preservation Act[16]	Rivers and Harbors Act/ Clean Water Act[17]	Coastal Zone Management Act[18]
AL	Alabama Swift Tract Living Shoreline							
AL	Gulf State Park Enhancement Project							
AL	Alabama Oyster Cultch Restoration							
FL	Beach Enhancement Project at Gulf Islands National Seashore							
FL	Gulf Islands National Seashore Ferry Project							
FL	Florida Cat Point Living Shoreline Project							
FL	Florida Pensacola Bay Living Shoreline Project							
FL	Florida Seagrass Recovery Project							
FL	Perdido Key State Park Beach Boardwalk Improvements							
FL	Big Lagoon State Park Boat Ramp Improvement							
FL	Bob Sikes Pier, Parking and Trail Restoration							
FL	Florida Artificial Reef Creation and Restoration							
FL	Florida Gulf Coast Marine Fisheries Hatchery/ Enhancement Center							
FL	Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle							
FL	Shell Point Beach Nourishment							
FL	Perdido Key Dune Restoration Project							
FL	Florida Oyster Cultch Placement Project							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - City of Mexico Beach Marina Project							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - Panama City St. Andrews Marina Docking Facility Expansions							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - City of Parker, Earl Gilbert Dock and Boat Ramp Improvements							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - City of Port St. Joe, Frank Pate Boat Ramp Improvements							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - City of St. Marks Boat Ramp Improvements							
FL	Strategically Provided Boat Access along Florida's Gulf Coast - Walton County, Lafayette Creek Boat Dock Improvements							
FL	Walton County Boardwalks and Dune Crossovers - Ed Walline							

Location	Phase III Project Title	Essential Fish Habitat[12]	Endangered Species Act (NMFS)[13]	Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act coordination (USFWS)[14]	Marine Mammal Protection Act authorization/ Coordination (NMFS)[15]	National Historic Preservation Act[16]	Rivers and Harbors Act/ Clean Water Act[17]	Coastal Zone Management Act[18]
	Beach Access Improvements							
FL	Walton County Boardwalks and Dune Crossovers - Gulfview Heights Beach Access Improvements							
FL	Walton County Boardwalks and Dune Crossovers - Palms of Dune Allen West Beach Access Improvements							
FL	Walton County Boardwalks and Dune Crossovers - Bayside Ranchettes Park Improvements							
FL	Gulf County Recreation Projects - Highland View Boat Ramp							
FL	Gulf County Recreation Projects - Improvements at Beacon Hill Veterans' Memorial Park							
FL	Gulf County Recreation Projects - Windmark Beach Fishing Pier Improvements							
FL	Bald Point State Park Recreation Areas							
FL	Enhancement of Franklin County Parks and Boat Ramps - Waterfront Park							
FL	Enhancement of Franklin County Parks and Boat Ramps - Indian Creek Park							
FL	Enhancement of Franklin County Parks and Boat Ramps - Eastpoint Fishing Pier Improvements							
FL	Enhancement of Franklin County Parks and Boat Ramps - St. George Island Fishing Pier Improvements							
FL	Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements - Cash Bayou							
FL	Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements - Sand Beach							
FL	Navarre Beach Park Coastal Access and Dune Restoration							
FL	Navarre Beach Park Gulfside Walkover Complex							
FL	Gulf Breeze Wayside Park Boat Ramp							
FL	Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area							
FL	Norriego Point Restoration and Recreation Project							
FL	Deer Lake State Park Development							

Location	Phase III Project Title	Essential Fish Habitat[12]	Endangered Species Act (NMFS)[13]	Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act coordination (USFWS)[14]	Marine Mammal Protection Act authorization/ Coordination (NMFS)[15]	National Historic Preservation Act[16]	Rivers and Harbors Act/ Clean Water Act[17]	Coastal Zone Management Act[18]
FL	City of Parker - Oak Shore Drive Pier							
FL	Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks							
FL	Wakulla Mashes Sands Park Improvements							
FL	Northwest Florida Estuarine Habitat Restoration, Protection, and Education - Fort Walton Beach							

Regulatory Reviews/Approvals Complete
Regulatory Reviews/Approvals In Progress
Regulatory Reviews/Approvals Not Applicable

8.4 Environmental Consequences of Phase III Projects

As part of the Phase III ERP/PEIS, Trustees evaluated potential direct, indirect, and cumulative impacts of the 44 projects on geology and substrates, hydrology, floodplains, water quality, noise, living coastal and marine resources, protected species, socioeconomics, environmental justice, cultural resources, land and marine management, tourism and recreational use, infrastructure, public health and safety, and shoreline protection. The potential impacts to these resources are identified for specific projects in Section 10 of this ROD.

8.5 Severability

In general, the Phase III projects presented in the Final Phase III ERP/PEIS are independent of each other and may be selected independently by the Trustees. A decision to substantially modify or not to implement one or more of the projects should not affect either the programmatic elements of the plan and associated decisions or the Trustees' implementation of the remaining Phase III Early Restoration projects.

9 IMPLEMENTATION

All Trustees have agreed that regulatory compliance must be completed prior to project implementation and that the terms and conditions of all federal and state permits must be complied with. Projects are selected subject to completion of such permits or approvals.

9.1 Outstanding Compliance as of the Date of this Record of Decision

For some projects selected for Phase III Early Restoration, the regulatory permitting, review, and/or approval processes are only partially complete at this time. This ROD specifies the status of federal regulatory permits/approvals (as of September 24, 2014) in Table 3. Table 3 will be posted for public review online (http://www.gulfspillrestoration.noaa.gov/restoration/early-restoration/phase-iii/compliance) and updated as regulatory compliance information changes. Prior to the completion of regulatory reviews and approvals on a project, the Trustees will not make any irreversible or irretrievable commitment of resources on that project that has the effect of foreclosing alternative measures to protect trust resources. This does not prohibit Trustees from conducting or authorizing nondestructive project planning activities before completion of regulatory reviews and approvals.

9.2 Compliance-Related Changes to Phase III Early Restoration Projects

If there are material changes to Phase III Early Restoration projects as a result of outstanding compliance requirements or changes in environmental, design or other reasons, the Trustees will conduct a project review to determine several factors. First, the Trustees will determine whether any change to the project is consistent with the environmental review in the Phase III ERP/PEIS or where there are substantial changes that are relevant to environmental concerns. Second, the Trustees will assess whether or not there are significant new circumstances or information relevant to environmental concerns not addressed in the impact analysis of the Phase III ERP/PEIS (40 C.F.R. § 1502.9 (c)). Third, the Trustees will evaluate whether changes to the project result in changes to the project description in

the Phase III ERP that affects their selection under OPA. In some circumstances, additional restoration planning and environmental review, including opportunity for public comment, may be necessary.

9.3 Future Early Restoration Projects

Future phases of Early Restoration will be prepared in accordance with the programmatic Early Restoration Plan and PEIS that support and inform this ROD, the Framework Agreement, federal regulations implementing OPA, and federal agency requirements under the NEPA. To comply with NEPA, the Trustees will tier future Early Restoration projects/plans from the Phase III ERP/PEIS whenever appropriate to eliminate repetitive analysis and to narrow the focus to the relevant issues (40 C.F.R. § 1508.28). If the proposed Early Restoration project is outside the scope of the NEPA analysis in the Phase III ERP/PEIS it may require an independent or supplemental NEPA review.

10 PHASE III EARLY RESTORATION PLAN MITIGATION MEASURES AND MONITORING

A project description, review of compliance status, mitigation measures, and OPA performance criteria and related monitoring and maintenance are described below for each of the 44 projects. Those subsections provide a summary of information relevant to decisions in this ROD.

For each of the 44 projects in Phase III, Trustees have or are in the process of obtaining all required federal, state and local environmental regulatory compliance consultations prior to project implementation. Trustees understand that they will be required to complete any remaining environmental review or consultation requirements prior to implementation, and as necessary during implementation. This requirement includes any consultation-specific mitigation and conservation measures as part of project implementation. The Trustees are required to ensure all consultation-specific mitigation measures are implemented. The Trustee(s) shall maintain and make available to the public on request monitoring records required as a result of environmental regulatory consultations, reviews or permits. Note that there may be minimal requirements for documentation, as well as legal constraints on releasing some types of information.

The Trustees have determined that all practicable means to avoid or minimize environmental harm from the selection of each of the 44 Phase III Early Restoration projects have been or will be (for those consultations underway at the time of this ROD) adopted through the application of mitigation measures either required by consultations in adherence to laws, regulations and executive orders or developed during the NEPA process (40 C.F.R. § 1505.2). The mitigation measures are identified in this ROD for each of the 44 Phase III Early Restoration projects (see Subsections below) include both specific requirements from environmental regulatory compliance consultations and other best management practices agreed to be undertaken by the implementing Trustee(s) to avoid or mitigate harmful impacts to resources. These mitigation measures, listed below, are categorized by whether they mitigate impacts to the physical environmental, biological resources, and human uses and socioeconomics. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could also result in reduced impacts to other resources. Note this list is not an

exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

10.1 Texas

10.1.1 Freeport Artificial Reef Project

The Freeport Artificial Reef project will increase the amount of reef materials in a currently permitted artificial reef site, the George Vancouver (Liberty Ship) Artificial Reef, approximately 6 miles from Freeport, Texas. The current reef site is permitted for 160 acres, but only has materials in 40 acres. The project will place predesigned concrete pyramids in the remaining portions of the permitted area onto sandy substrate at a water depth of 55 feet.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The Freeport Artificial Reef project is intended to enhance recreational fishing opportunities (and limited diving opportunities since water clarity is not usually conducive for diving) by creating artificial reef habitat. Artificial reefs created in state waters benefit anglers by providing reefs that are more readily accessible than other natural areas, which can be more than 30 miles offshore. Transportation to the structures within state waters can be accomplished with smaller boats as well as decreased travel time and cost. The project will enhance opportunities for the public's use and enjoyment of natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated. The Trustees evaluated the Texas artificial reef projects in combination with other present and reasonably foreseeable future actions on geology and substrates, water quality, air quality and greenhouse gases (GHGs), noise, living coastal and marine resources, protected species, socioeconomics and environmental justice, aesthetics and visual resources, as well as tourism and recreational use. Based on the cumulative impact analysis, Texas artificial reef projects will not substantially contribute to adverse cumulative effects to resources. The Texas artificial reef projects, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use.

10.1.1.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the Freeport Artificial Reef project under the Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act, National Historic Preservation Act, Rivers and Harbors Act, and the Coastal Zone Management Act. Consultations have been initiated for the Endangered Species Act.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since publication, this consultation has been reinitiated due to the July 2014 designation of critical habitat for loggerhead sea turtles.

10.1.1.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could also result in reduced impacts to other resources.

10.1.1.2.1 Measures to Mitigate Impacts to the Physical Environment

- The nearshore deployment of artificial reef material will be implemented within the permitted area, avoiding any existing artificial reef materials as well as any identified hard outcrops, uneven surfaces, or geologic features.
- During deployment, anchors/anchor spread will be minimized and reef materials will be lowered slowly to reduce temporary turbidity.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.

10.1.1.2.2 Measures to Mitigate Impacts to Biological Resources

- The pyramids will be designed to be complex, with a large surface area to attract marine life. The predesigned concrete pyramids will be made of materials to match a natural reef in pH and substrate using concrete, limestone, and rebar or other similar materials.
- 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.
- All existing artificial reef materials and other hard substrates will be avoided during placement of the reef materials.
- Reef materials will be lowered slowly, providing fish and wildlife with the opportunity to leave the reef deployment area.
- Project implementation will adhere to National Marine Fisheries Service's (NMFS) Sea Turtle and Smalltooth Sawfish Construction Conditions (2006), The Texas Artificial Reef Fishery Management Plan (TPWD 1990), the Guidelines for Marine Artificial Reef Materials (Atlantic and Gulf States Marine Fisheries Commissions 2004), The Texas Public Reef Building Program Standard Operating Protocol and Guidelines (TPWD 2012), and the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (NMFS2007).
- During reef deployment, a monitor will be present that will be able to halt work if sea turtles, smalltooth sawfish, marine mammals, or other federally protected species are in the project area. Work will be halted until such time as the area is deemed safe, by the monitor, to continue the operation (i.e., species have left the area).

10.1.1.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the U.S. Army Corps of Engineers (USACE) permit (SWG-2010-00264) and Texas General Land Office (GLO) subsurface lease (SL20070057) will be adhered to.
- If any previously unknown historic or archeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- During project implementation, a 50-meter avoidance zone surrounding the George Vancouver Liberty Ship wreck will be maintained.
- Any boats in the area will be coordinated with prior to the deployment of any materials to ensure safety of everyone in the vicinity.
- The project will maintain the minimum clearance (33 feet) above the artificial reefs as required by the U.S. Coast Guard (USCG) to prevent an impediment to boat traffic.
- All navigation safety measures will be followed.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.
- During construction of the predesigned concrete pyramids, the Guidelines for Marine Artificial Reef Materials will be followed and the materials will be stable, durable, and complex, and will be clean and free of any hazardous substances.
- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with Occupational Safety and Health Administration (OSHA) and state and local requirements.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.

10.1.1.3 Performance Criteria, Monitoring and Maintenance

The Freeport Artificial Reef project includes monitoring efforts to ensure project designs are correctly implemented during construction. Monitoring has been designed around the project objective, which is to increase the amount of reef materials in a currently permitted artificial reef site (BA-336) through the random placement of 800 to 950 predesigned concrete pyramids within the open portions of the permitted reef site.

Performance criteria for this project will include a determination of successful construction of the project according to design, and then monitoring and maintenance to confirm that the reef materials are in place and available for recreational fishing. In order to determine successful placement of the constructed pyramids in accordance with the design, multi-beam side-scan surveys will be used to document the location of the pyramid structures and ensure all materials are located within the deployment zone and meet all permit conditions, including USCG clearance restrictions. Monitoring

using side-scan sonar will be conducted annually (for 2 years) and after major storm events to document any movement and settling of the structures. Recreational use of the reef observed during the side-scan monitoring will also be documented.

While not funded through Early Restoration, recreational use monitoring is being conducted through ongoing research. Currently Texas A&M University-College Station is studying the social and economic impacts of Texas artificial reefs. Also, as TPWD's Artificial Reef Program looks to expand existing reefs and identify locations for new permitted reef areas, TPWD's Artificial Reef Program will continue to receive feedback from user groups regarding placement and use of reefs in Texas.

No ongoing maintenance beyond the annual surveys and buoy maintenance is anticipated unless there is significant movement of artificial reef materials, which is not expected to occur. A USCG approved marker buoy is already installed at the Freeport reef site and will be maintained per USCG requirements. Regular maintenance of the buoy marker will include cleaning the chain, replacing the reflective TPWD decal as needed, and replacing or repairing the buoy as needed. Monitoring and maintenance activities will be managed by the TPWD's Artificial Reef Program.

10.1.2 Matagorda Artificial Reef Project

The Matagorda Artificial Reef project will create a new artificial reef site approximately 10 miles offshore of Matagorda County, Texas. The 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.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The Matagorda Artificial Reef project is intended to enhance recreational fishing opportunities by creating artificial reef habitat. Artificial reefs created in state waters benefit anglers by providing reefs that are more readily accessible than other natural areas which can be more than 30 miles offshore. Transportation to the structures within state waters can be accomplished with smaller boats as well as decreased travel time and cost. The project will enhance opportunities for public use and enjoyment of natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated. The Trustees evaluated the Texas artificial reef projects in combination with other present and reasonably foreseeable future actions on geology and substrates, water quality, air quality and GHGs, noise, living coastal and marine resources, protected species, socioeconomics and environmental justice, aesthetics and visual resources, as well as tourism and recreational use. Based on the cumulative impact analysis, Texas artificial reef projects will not substantially contribute to adverse cumulative effects to resources. The Texas artificial reef projects, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use.

10.1.2.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the Matagorda Artificial Reef project under the Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act, Clean Water Act, Rivers and Harbors Act, and the Coastal Zone Management Act. Compliance with the National Historic Preservation Act has been initiated. Consultations have been initiated for the Endangered Species Act.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since publication, this consultation has been reinitiated due to the July 2014 designation of critical habitat for loggerhead sea turtles.

10.1.2.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could result in reduced impacts to other resources.

10.1.2.2.1 Measures to Mitigate Impacts to the Physical Environment

- The nearshore deployment of artificial reef material will be implemented within the permitted area, avoiding any identified hard outcrops, uneven surfaces, or geologic features.
- During deployment, anchors/anchor spread will be minimized and reef materials will be lowered slowly to reduce temporary turbidity.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.

10.1.2.2.2 Measures to Mitigate Impacts to Biological Resources

- The pyramids will be designed to be complex, with a large surface area to attract marine life. The predesigned concrete pyramids will be made of materials to match a natural reef in pH and substrate using concrete, limestone, and rebar or other similar materials.
- 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.
- All existing artificial reef materials and other hard substrates will be avoided during placement of the reef materials.
- Reef materials will be lowered slowly, providing fish and wildlife with the opportunity to leave the reef deployment area.
- Project implementation will adhere to NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions (2006), The Texas Artificial Reef Fishery Management Plan (TPWD 1990), the Guidelines for Marine Artificial Reef Materials (Atlantic and Gulf States Marine Fisheries

Commissions 2004), The Texas Public Reef Building Program Standard Operating Protocol and Guidelines (TPWD 2012), and the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (NMFS2007).

- During reef deployment, a monitor will be present that will be able to halt work if sea turtles, smalltooth sawfish, marine mammals, or other federally protected species are in the project area. Work will be halted until such time as the area is deemed safe, by the monitor, to continue the operation (i.e., species have left the area).

10.1.2.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the USACE permit (SWG-2009-01139) and GLO subsurface lease (SL20070057) will be adhered to.
- If any previously unknown historic or archeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- If wooden planking or other cultural materials that could represent shipwreck remains are encountered, field operations will cease and a representative from the Texas Historical Commission will be contacted to provide further guidance.
- The reef area will be added to the NOAA navigation charts.
- Any boats in the area will be coordinated with prior to the deployment of any materials to ensure safety of everyone in the vicinity.
- The project will maintain the minimum clearance (50 feet) above the artificial reefs as required by the USCG to prevent an impediment to boat traffic.
- All navigation safety measures will be followed.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.
- During construction of the predesigned concrete pyramids, the Guidelines for Marine Artificial Reef Materials will be followed and the materials will be stable, durable, and complex, and will be clean and free of any hazardous substances.
- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with OSHA and state and local requirements.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.

10.1.2.3 Performance Criteria, Monitoring and Maintenance

The Matagorda Artificial Reef project includes monitoring efforts to ensure project designs are correctly implemented during construction. Monitoring has been designed around the project objective, which is

to create an artificial reef through the random placement of 1,600 predesigned concrete pyramids within the permitted artificial reef site (BA-439).

Performance criteria for this project will include a determination of successful construction of the project according to design, and then monitoring and maintenance to confirm that the reef materials are in place and available for recreational fishing. In order to determine successful placement of the constructed pyramids in accordance with the design, multi-beam side-scan surveys will be used to document the location of the pyramid structures and ensure all materials are located within the deployment zone and meet all permit conditions, including USCG clearance restrictions. Monitoring using side-scan sonar will be conducted annually (for 2 years) and after major storm events to document any movement and settling of the structures. Recreational use of the reef observed during the side-scan monitoring will also be documented.

While not funded through Early Restoration, recreational use monitoring is being conducted through ongoing research. Currently Texas A&M University-College Station is studying the social and economic impacts of Texas artificial reefs. Also, as TPWD's Artificial Reef Program looks to expand existing reefs and identify locations for new permitted reef areas, TPWD's Artificial Reef Program will continue to receive feedback from user groups regarding placement and use of reefs in Texas.

No ongoing maintenance beyond the annual surveys is anticipated unless there is significant movement of artificial reef materials, which is not expected to occur. A buoy waiver was received from USCG so buoy maintenance is not expected for the Matagorda Reef project. The reef site is not located in a high traffic area and therefore no adverse impacts are expected by not marking the site with a buoy. Monitoring and maintenance activities will be managed by the TPWD's Artificial Reef Program.

10.1.3 Mid/Upper Texas Coast Artificial Reef - Ship Reef Project

The Ship Reef project will create a new artificial reef site in deep waters of the Gulf of Mexico, about 67 miles south-southeast of Galveston, Texas. The project will create an artificial reef by sinking a 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 well as pass all required Federal and State inspections, including EPA, TPWD, and USCG.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The Ship Reef project is intended to enhance recreational fishing and diving opportunities in the Gulf of Mexico offshore of Texas. This ship reef will benefit anglers and divers by creating additional habitat to attract a high diversity of reef species in an area that has good visibility for recreational diving activities. The project will enhance opportunities for public use and enjoyment of natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated. The Trustees evaluated the Texas artificial reef projects in combination with other present and reasonably foreseeable future

actions on geology and substrates, water quality, air quality and GHGs, noise, living coastal and marine resources, protected species, socioeconomics and environmental justice, aesthetics and visual resources, as well as tourism and recreational use. Based on the cumulative impact analysis, Texas artificial reef projects will not substantially contribute to adverse cumulative effects to resources. The Texas artificial reef projects, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use.

10.1.3.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the Ship Reef project under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Marine Mammal Protection Act, National Historic Preservation Act, and the Rivers and Harbors Act.

10.1.3.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could result in reduced impacts to other resources.

10.1.3.2.1 Measures to Mitigate Impacts to the Physical Environment

- The ship will be sunk within the permitted area, and avoid any identified hard outcrops, uneven surfaces, or geologic features.
- All hazardous materials will be removed from the ship before deployment per the Environmental Protection Agency (EPA) and U.S. Maritime Administration (MARAD) National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs (2006).This practice will ensure that water quality is not compromised from substances leaching from the ship itself.
- All hazardous materials handled during ship cleaning will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.

10.1.3.2.2 Measures to Mitigate Impacts to Biological Resources

- All existing artificial reef materials and other hard substrates will be avoided during deployment of the ship.
- Project implementation will adhere to NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions (2006), The Texas Artificial Reef Fishery Management Plan (TPWD 1990), the

Guidelines for Marine Artificial Reef Materials (Atlantic and Gulf States Marine Fisheries Commissions 2004), the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (NMFS2007), and the National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs (EPA and MARAD 2006).

- The final sinking plan will be coordinated with the NMFS to minimize underwater impacts from explosives. The explosive charges employed will be the smallest needed (lowest possible net explosive weight per detonation) to puncture pre-cut plates in order to sink the ship. Detonations of explosives along the ship will be in a rapid series rather than simultaneous in order to minimize impacts to marine fauna. Devices will be used to create a delay between sections of the ship to minimize the high frequency energy from the charges that passes through the hull into the water.
- A protected species observer protocols which involves monitoring the zone of influence and stopping work if any federally protected species are observed will be developed with the final sinking plan and implemented during deployment.
- Aerial observations for protected species will begin prior to the planned sink time.
- If protected species observers see *Sargassum* rafts over 10 feet in diameter or any protected species including sea turtles or marine mammals, the scheduled detonation of explosives will be postponed for at least 30 minutes or until the impact zone is free from any condition that may cause injury to a protected species. Detonation of scare charges to intentionally harass sea turtles or marine mammals into leaving a project area is prohibited.
- Upon detonation, the area will continue to be surveyed to monitor for adversely impacted protected species.
- The sinking event will not be conducted if the area cannot be adequately monitored or if weather conditions do not permit full visibility of the area. Detonation of explosives will occur no sooner than 1 hour following sunrise and no later than 1 hour before sunset.

10.1.3.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the USACE permit (SWG-2013-00249) will be adhered to.
- If any previously unknown historic or archeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- If the ship that is proposed for acquisition for this project is a historical resource, it will be evaluated for its cultural significance and suitability for this project before it is used. MARAD conducts historical reviews on all ships in its inventory before disposal, which should satisfy all requirements under Section 106 of the National Historic Preservation Act.
- The project will maintain the minimum clearance (60 feet) above the artificial reef (ship) as required by the USCG to prevent an impediment to boat traffic.
- Prior to the arrival of the ship, TPWD will visually inspect the ship yard facility and meet with its managers to ensure environmental and worker safety plans are in place.
- Pollution booms and any other required pollution response equipment will be staged at the facility, ready for deployment to guard against any pollution discharge.

- A Spill Prevention and Emergency Response Plan will be developed and approved.
- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required and all state and federal regulations will be followed during the cleanup.
- A security system to protect the ship and workers will be provided to TPWD for approval. The security should have significant controls such as having a guarded entrance for ingress and egress of all personnel and materials, and 24-hour guard presence on the premises.
- The ship will be cleaned of debris, loose items, and hazardous materials to a level that meets or exceeds best management practices and complies with health and safety statutes and regulations as set forth by the EPA, MARAD, and Texas, including the *National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs* (EPA and MARAD 2006).
- All federal and state regulations will be followed to clean, remove and dispose all hazardous materials generated from the cleaning of the ship.
- A ship remediation plan to address cleanup and removal of hazardous materials from the ship will be submitted federal and state agencies for review prior to beginning work.
- The hull will be modified to ensure safety for divers and meet requirements, inspections, and modifications stipulated by TPWD, EPA and the USCG. Hull modifications will be made to meet depth clearance requirements established for the permitted reef site and to allow limited exploration of the ship by scuba divers while maintaining diver safety. Hull modifications will also be made to create the best opportunity for the ship to sink in an upright position on the Gulf bottom. Any hull modifications required will be designed and executed to retain the ship's original external characteristics as much as possible.
- The ship will be completely surveyed to identify worker hazards (e.g., unsafe deck and structure hazards, hazardous substances, unsafe air quality). Areas of hazard will be marked, repaired and/or removed. Workers will maintain all work areas by removing unneeded items. They will also set up areas for temporary storage of containerized waste and spill kits. A general area will be designated for an on-board office, decontamination trailer, supply containers, and waste containers. Confined spaces such as tanks will not be entered until atmospheric readings have been obtained and a confined space program is approved by a marine chemist or other qualified person.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with OSHA and state and local requirements.
- Personal protective equipment will be required for all ship cleaning and explosives personnel and authorized access zones will be established at the perimeter during ship cleaning and explosives use.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

- An explosives plan and associated safety procedures will be developed, reviewed, and approved by government agencies before project implementation.
- All navigation safety measures will be followed.
- A safety zone will be established around the reef site to exclude all ship and submarine traffic not participating in the sinking action. The specific radius will be determined by the USCG on site. Any traffic within this radius will be warned to alter course or will be escorted from the site. An immediate "STOP WORK" will be ordered if any unauthorized craft entered the safety zone and could not be contacted. Work will not continue until the safety zone was clear of unauthorized vessels.
- Weather that supports the ability to conduct final sinking preparation activities is required for maximum safety for all workers and observers involved in the activity. Operations are most affected by wind, visibility, and ocean surface conditions. Higher winds typically increase wave height and create “white cap” conditions, both of which compromise safety of personnel participating in and/or observing the sinking action. Weather conditions will be monitored closely to provide the largest good weather window for all activities needed to tow, moor, conduct final on-sight hull modifications, and sink the ship. Weather conditions considered marginal or poor will cause a “stop work” order.
- The reef area will be added to the NOAA navigation charts and a lighted, navigational buoy will be in the permitted reef area.

10.1.3.3 Performance Criteria, Monitoring and Maintenance

This Ship Reef project includes monitoring efforts to ensure project methods are correctly implemented during implementation. Monitoring has been designed around the project objective, which is to create an artificial reef through the sinking of a ship within the permitted artificial reef site (HI-A-424).

Performance criteria for this project will include a determination of successful construction of the project according to design, and then monitoring and maintenance to confirm that the ship is in place and available for recreational fishing and diving. In order to determine successful placement of the ship according to design plans, multi-beam side-scan surveys and/or divers will verify final location and orientation of the ship before and after project implementation. The post-implementation survey will also be used to confirm that the final project meets all permit conditions, including USCG clearance restrictions. Monitoring using side-scan sonar and/or divers will be conducted annually (for 2 years) and after major storm events to document any movement and settling of the ship. Recreational use of the reef observed during the annual monitoring will also be documented.

While not funded through Early Restoration, recreational use monitoring is being conducted through ongoing research. Currently Texas A&M University-College Station is studying the social and economic impacts of Texas artificial reefs. Also, as TPWD’s Artificial Reef Program looks to expand existing reefs and identify locations for new permitted reef areas, TPWD’s Artificial Reef Program will continue to receive feedback from user groups regarding placement and use of reefs in Texas.

No ongoing maintenance beyond the annual surveys and buoy maintenance is anticipated unless there is significant movement of artificial reef materials, which is not expected to occur. A lighted buoy, as

required by the USCG, will be installed within the reef area. Regular maintenance of the buoy marker will include cleaning the chain, replacing the light, and replacing or repairing the buoy as needed. The TPWD Artificial Reef Program currently has a buoy maintenance contract in place for other reef sites. This buoy will be added to the current contract. Monitoring and maintenance activities will be managed by the TPWD's Artificial Reef Program.

10.1.4 Mid/Upper Texas Coast Artificial Reef - Corpus Artificial Reef Project

[The Corpus Artificial Reef Project will only be implemented in the event that the Ship Reef Project becomes technically infeasible (e.g. an appropriate ship cannot be acquired with available funding).]

The Corpus Artificial Reef project will increase the amount of reef materials in a currently permitted artificial reef site, approximately 11 miles from Packery Channel (near Corpus Christi Bay, Texas). The current reef site is permitted for 160 acres, but only has materials in the northwest quadrant and in the center of the permitted area. The project will place predesigned concrete pyramids in the remaining portions of the 160-acre permitted area (about 115 acres) onto sandy substrate at a water depth of 73 feet. 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.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The Corpus Artificial Reef project is intended to enhance recreational fishing opportunities by creating artificial reef habitat. Artificial reefs created in state waters benefit anglers by providing reefs that are more readily accessible than other natural areas which can be more than 30 miles offshore. Transportation to the structures within state waters can be accomplished with smaller boats as well as decreased travel time and cost. The project will enhance opportunities for public use and enjoyment of natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated. The Trustees evaluated the Texas artificial reef projects in combination with other present and reasonably foreseeable future actions on geology and substrates, water quality, air quality and GHGs, noise, living coastal and marine resources, protected species, socioeconomics and environmental justice, aesthetics and visual resources, as well as tourism and recreational use. Based on the cumulative impact analysis, Texas artificial reef projects will not substantially contribute to adverse cumulative effects to resources. The Texas artificial reef projects, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use.

10.1.4.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the Corpus Artificial Reef project under the Magnuson-Stevens Fishery Conservation and Management Act, Marine Mammal Protection Act, Clean

Water Act, National Historic Preservation Act, Rivers and Harbors Act, and the Coastal Zone Management Act. Consultations have been initiated for the Endangered Species Act.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since publication, this consultation has been reinitiated due to the July 2014 designation of critical habitat for loggerhead sea turtles.

10.1.4.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could result in reduced impacts to other resources.

10.1.4.2.1 Measures to Mitigate Impacts to the Physical Environment

- The nearshore deployment of artificial reef material will be implemented within the permitted area, avoiding any existing artificial reef materials as well as any identified hard outcrops, uneven surfaces, or geologic features.
- During deployment, anchors/anchor spread will be minimized and reef materials will be lowered slowly to reduce temporary turbidity.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.

10.1.4.2.2 Measures to Mitigate Impacts to Biological Resources

- The pyramids will be designed to be complex, with a large surface area to attract marine life. The predesigned concrete pyramids will be made of materials to match a natural reef in pH and substrate using concrete, limestone, and rebar or other similar materials.
- 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.
- All existing artificial reef materials and other hard substrates will be avoided during placement of the reefing materials.
- Reef materials will be lowered slowly, providing fish and wildlife with the opportunity to leave the reef deployment area.
- Project implementation will adhere to NMFS's Sea Turtle and Smalltooth Sawfish Construction Conditions (2006), The Texas Artificial Reef Fishery Management Plan (TPWD 1990), the Guidelines for Marine Artificial Reef Materials (Atlantic and Gulf States Marine Fisheries Commissions 2004), The Texas Public Reef Building Program Standard Operating Protocol and Guidelines (TPWD 2012), and the National Artificial Reef Plan (as Amended): Guidelines for Siting, Construction, Development, and Assessment of Artificial Reefs (NMFS2007).

- During reef deployment, a monitor will be present that will be able to halt work if sea turtles, smalltooth sawfish, marine mammals, or other federally protected species are in the project area. Work will be halted until such time as the area is deemed safe, by the monitor, to continue the operation (i.e., species have left the area).

10.1.4.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the USACE permit (SWG-2010-01047) and GLO subsurface lease (SL950008) will be adhered to.
- If any previously unknown historic or archeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- If wooden planking or other cultural materials that could represent shipwreck remains are encountered, field operations will cease and a representative from the Texas Historical Commission will be contacted to provide further guidance.
- Any boats in the area will be coordinated with prior to the deployment of any materials to ensure safety of everyone in the vicinity.
- The project will maintain the minimum clearance (50 feet) above the artificial reefs as required by the USCG to prevent an impediment to boat traffic.
- All navigation safety measures will be followed.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.
- During construction of the predesigned concrete pyramids, the Guidelines for Marine Artificial Reef Materials will be followed and the materials will be stable, durable, and complex, and will be clean and free of any hazardous substances.
- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with OSHA and state and local requirements.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.

10.1.4.3 Performance Criteria, Monitoring and Maintenance

The Corpus Artificial Reef project includes monitoring efforts to ensure project designs are correctly implemented during construction. Monitoring has been designed around the project objective, which is to increase the amount of reef materials in a currently permitted artificial reef site (MU-775) through the placement of 1,000 to 1,200 predesigned concrete pyramids within the open portions of the permitted reef site.

Performance criteria for this project will include a determination of successful construction of this project according to design, and then monitoring and maintenance to confirm that the reef materials are in place and available for recreational fishing opportunities. In order to determine successful placement of the constructed pyramids in accordance with the design, multi-beam side-scan surveys will be used to document the location of the pyramid structures and ensure all materials are located within the deployment zone and meet all permit conditions, including USCG clearance restrictions. Monitoring using side-scan sonar will be conducted annually (for 2 years) and after major storm events to document any movement and settling of the structures. Recreational use of the reef observed during the side-scan monitoring will also be documented.

While not funded through Early Restoration, recreational use monitoring is being conducted through ongoing research. Currently Texas A&M University-College Station is studying the social and economic impacts of Texas artificial reefs. Also, as TPWD's Artificial Reef Program looks to expand existing reefs and identify locations for new permitted reef areas, TPWD's Artificial Reef Program will continue to receive feedback from user groups regarding placement and use of reefs in Texas.

No ongoing maintenance beyond the annual surveys and buoy maintenance is anticipated unless there is significant movement of artificial reef materials, which is not expected to occur. A USCG approved marker buoy is already installed at the Corpus reef site and will be maintained per USCG requirements. Regular maintenance of the buoy marker will include cleaning the chain, replacing the light, and replacing or repairing the buoy as needed. Monitoring and maintenance activities will be managed by the TPWD's Artificial Reef Program.

10.1.5 Sea Rim State Park Improvements

The Sea Rim State Park project will build two wildlife viewing platforms (Fence Lake and Willow Pond), a comfort station, and a fish cleaning shelter in the Park.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The project will enhance the public's use and enjoyment of natural resources, helping to offset a portion of the adverse impacts to such uses caused by the Spill. Creating the infrastructure (viewing platforms, comfort station, and a fish cleaning shelter) will provide visitors increased opportunities for viewing wildlife while also maintaining sanitary conditions during the users' fishing and personal activities. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated. The Trustees evaluated the Texas state park projects in combination with other present and reasonably foreseeable future actions on geology and substrates; hydrology, floodplain, and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure. Based on the cumulative impact analysis, Texas state park projects will not substantially contribute to adverse cumulative effects to resources. The Texas state park projects, carried out in conjunction with other

actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use, as well as infrastructure.

10.1.5.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the Sea Rim State Park project under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, National Historic Preservation Act, and the Coastal Zone Management Act. A Letter of Permission pursuant to Section 10 of the Rivers and Harbors Act has been received for the Fence Lake viewing platform. The USACE has determined that the Willow Pond viewing platform is not subject to their jurisdiction under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

10.1.5.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could result in reduced impacts to other resources.

10.1.5.2.1 Measures to Mitigate Impacts to the Physical Environment

- Implementation of an erosion control and storm water management plan. Additional measures to minimize impacts include, the installation of sediment traps prior to commencement of construction activities, operating outside of set-backs from wetland areas, and ongoing construction monitoring to ensure compliance.
- Where necessary, all runoff will be controlled with sediment fencing around the construction zone to reduce impacts to the adjacent wetlands.
- The Willow Pond project area will be accessed while the wetlands are dry using tracked equipment.
- Soil and sediment stabilization measures will be incorporated into the Sea Rim State Park project design as needed in areas where the potential exists for erosion to occur in order to protect resources and ensure public health and safety.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.

10.1.5.2.2 Measures to Mitigate Impacts to Biological Resources

- To prevent any invasive species from becoming established during project construction, equipment, materials, and disturbed areas will be monitored for invasive species. If invasive

species are observed during normal post-construction monitoring, appropriate treatment methods will be used to remove them.

- Any revegetation following construction activities will use native species.
- To minimize impacts to migratory birds, the initial site access, clearing, and construction effort will be conducted outside of the spring nesting season (March 15 to July 1).
- Actions to minimize impacts to piping plovers during construction of the fish cleaning shelter include having an onsite monitor, avoiding work after dark, maintaining a speed limit of 10 mph, and stopping work if the birds are observed foraging within 100 feet of the work site. The onsite monitor will have stop work authority and will be present at the site when construction is occurring near the fish cleaning shelter. The trained monitor will survey the fish cleaning shelter project area daily prior to the initiation of any construction activity and periodically throughout the day. If vehicles or equipment are left in the fish cleaning shelter project area, the areas around the tires will be surveyed before moving the vehicle. The monitor will keep a daily log documenting all surveys conducted during the fish cleaning shelter construction project. These actions will only take place during construction of the fish cleaning shelter, where there is piping plover habitat.

10.1.5.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the USACE permit (SWG-2013-00686) will be adhered to.
- If any previously unknown historic or archaeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- All standards and provisions of TPWD's State Park Division Operating Plan (TPWD 2012a) and related regulations will be adhered to, including Texas State Park Operational Rules (Title 31, Texas Administrative Code Chapter 59) and Texas Accessibility Standards issued under the authority of the Texas Government Code, Chapter 469.
- The Willow Pond worksite will be monitored during construction to ensure that no archaeological sites are disturbed.
- All waste generated during construction of the improvements will be disposed in the appropriate waste or recycle collection receptacles in the Park or hauled off to an approved waste disposal site.
- All occupational and safety regulations and laws will be followed to ensure safety of all workers and the public.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with OSHA and state and local requirements,

- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.

10.1.5.3 Performance Criteria, Monitoring and Maintenance

This Sea Rim State Park project includes monitoring efforts to ensure project designs are correctly implemented during construction. Monitoring has been designed around the project objective, which is to construct two wildlife viewing platforms (Fence Lake and Willow Pond), one comfort station, and one fish cleaning shelter in Sea Rim State Park to enhance recreational use of the Park.

Performance criteria for this project will include a determination of successful construction of the project according to design to ensure that the opportunity for recreational use of the Park will be enhanced. Monitoring efforts will also be implemented to ensure that the project is constructed in accordance with construction documents. The State Park currently has visitation monitoring procedures to capture the number of daytime visitors, overnight visitors, and participants in interpretive programs. This information will be collected and shared annually to document performance monitoring of the project for 5 years after construction completion.

Ongoing maintenance of the constructed facilities will be the responsibility of Sea Rim State Park, which is owned and managed by the TPWD.

10.1.6 Galveston Island State Park Beach Redevelopment

The Galveston Island State Park project will redevelop the beach side of the Park by building new facilities, including multi-use campsites, tent campsites, beach access boardwalks, equestrian facilities, as well as restroom and shower facilities.

Texas experienced a loss of recreational use along the Texas coast during the Spill, including recreational fishing, beach use, camping, diving, and wildlife viewing. The project will enhance opportunities for public use and enjoyment of natural resources, helping to offset a portion of the adverse impacts to such uses caused by the Spill. Creating the infrastructure will provide facilities for over-night and day-use visitors as well as access and facilities for equestrian use. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Framework Agreement).

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories, moderate short-term impacts to tourism and recreational use, and no major adverse impacts are anticipated. The Trustees evaluated the Texas state park projects in combination with other present and reasonably foreseeable future actions on geology and substrates; hydrology, floodplain, and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure. Based on the cumulative impact analysis, Texas state park projects will not substantially contribute to adverse cumulative effects to resources. The Texas state park projects, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts to living coastal and marine resources, protected species, socioeconomics, tourism and recreational use, as well as infrastructure.

10.1.6.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews for the of Galveston Island State Park Beach Redevelopment project under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, National Historic Preservation Act, Clean Water Act, Rivers and Harbors Act, and the Coastal Zone Management Act.

10.1.6.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under the specific resource that they are intended to benefit, they could result in reduced impacts to other resources.

10.1.6.2.1 Measures to Mitigate Impacts to the Physical Environment

- To control erosion, native vegetation will be planted near the campsites.
- Project implementation will adhere to the TCEQ Tier 1 checklist, including minimization measures for erosion control, post construction total suspended solids control, and sedimentation control.
- A comprehensive storm water pollution prevention plan will be developed to reduce the intensity of the construction-related impacts to water quality.
- Implementation an erosion control and storm water management plan. Additional measures to minimize impacts include the installation of sediment traps prior to commencement of construction activities, operating outside of set-backs from wetland areas, and ongoing construction monitoring to ensure compliance.
- Where necessary, all runoff will be controlled with sediment fencing around the construction zone to reduce impacts to the adjacent wetlands.
- Soil and sediment stabilization measures will be incorporated into the Galveston Island State Park project design as needed in areas where the potential exists for erosion to occur in order to protect resources and ensure public health and safety.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable.
- To limit the adverse impacts of noise during construction, activity at project sites, including traffic ingress/egress to the site, will be limited to daytime hours; work crews will be made aware that prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and work crews will be required to seek pre-approval for any work conducted during weekends or outside of daytime hours.

10.1.6.2.2 Measures to Mitigate Impacts to Biological Resources

- To prevent any invasive species from becoming established during project construction, equipment, materials, and disturbed areas will be monitored for invasive species. If invasive species are observed due to construction activities, appropriate treatment methods will be used to remove them.
- All revegetation following construction activities will use native species.
- All observed sea turtle nests will be excavated and the eggs relocated for incubation, in coordination with the National Park Service's Sea Turtle Recovery Project.
- The construction of beach access boardwalks (the only development that will affect sea turtle nesting) has been scheduled to avoid nesting season, which extends from April 1until October 1.
- Actions to minimize potential impacts to piping plovers and red knots during construction of the beach access boardwalks (the only development that could impact these bird species) include having an onsite monitor, avoiding work after dark, maintaining a speed limit of 10 miles per hour, and stopping work if the birds are observed foraging within 100 feet of the work site. The onsite monitor will have stop work authority and will be present at the site when construction is occurring on the beach. The trained monitor will survey the beach area daily prior to the initiation of any construction activity and periodically throughout the day. If vehicles or equipment are left on the beach, the areas around the tires will be surveyed before moving the vehicle. The monitor will keep a daily log documenting all surveys conducted during construction of the beach access boardwalks. These actions will only take place during construction of the beach access boardwalks, where there is piping plover and red knot habitat.
- To minimize impacts to migratory birds the initial site access, clearing, and construction effort will be conducted outside of the spring nesting season (March 15 to July 1).

10.1.6.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All conditions identified in the USACE permit (SWG-2012-00631) will be adhered to.
- If any previously unknown historic or archaeological remains are discovered while completing the project, the USACE, Galveston District, will be notified immediately.
- All standards and provisions of TPWD's State Park Division Operating Plan (TPWD 2012a) and related regulations will be adhered to, including Texas State Park Operational Rules (Title 31, Texas Administrative Code Chapter 59) and Texas Accessibility Standards issued under the authority of the Texas Government Code, Chapter 469.
- All waste generated during the construction of the amenities will be disposed in the appropriate waste or recycle collection receptacles in the Park or hauled off to an approved waste disposal site.
- All occupational and safety regulations and laws will be followed to ensure safety of all workers and the public.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.

- In the event of a discharge of oil or release of hazardous substances, the release will be reported to the National Response Center (800-424-8802) and Texas Emergency Oil Spill and Hazardous Substance Reporting line (800-832-8224) as required.
- Proper procedures for handling, storage, transport and disposal of all hazardous materials during on site construction activities will be followed in accordance with OSHA and state and local requirements.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.

10.1.6.3 Performance Criteria, Monitoring and Maintenance

This project includes monitoring efforts to ensure project designs are correctly implemented during construction. Monitoring has been designed around the project objective, which is to construct multi-use campsites, tent campsites, dune access boardwalks, equestrian facilities, as well as restroom and shower facilities on the beach side of Galveston Island State Park to enhance recreational use of the Park.

Performance criteria for this project will include a determination of successful construction of the project according to design to ensure that the opportunity for recreational use of the Park will be enhanced. Monitoring efforts will also be implemented to ensure that the project is constructed in accordance with construction documents and the Master Plan for the Park. The State Park currently has visitation monitoring procedures to capture the number of daytime visitors, overnight visitors, and participants in interpretive programs. This information will be collected and shared annually to document performance monitoring of the project for 5 years after construction completion.

Ongoing maintenance of the constructed facilities will be the responsibility of Galveston Island State Park, which is owned and managed by the TPWD.

10.2 Louisiana

10.2.1 Louisiana Marine Fisheries Enhancement, Research, and Science Center

The Louisiana Marine Fisheries Enhancement, Research, and Science Center ("the Center") will establish state of the art facilities to responsibly develop aquaculture-based techniques for marine fishery management. The project will 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 will 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 will allow for measurement and detection of changes in wild populations of marine sport fish species. The Center will also establish living laboratories to support a variety of marine fisheries outreach and educational activities for the public.

The project will enhance the public's use and/or enjoyment of natural resources, helping to offset adverse impacts to such uses caused by the Spill. Recreational fishing in Louisiana was adversely

impacted by the Spill, as widespread closures of areas for recreational fishing were necessary because of oil and clean-up/response activities. The objective of this restoration project is to help compensate for the loss of recreational fishing services resulting from the Spill by constructing and operating facilities to support and improve the State of Louisiana's management of marine fishery resources (via the production of sport and bait fish and associated research) as well as public education and outreach.

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; cultural resources; infrastructure; land and marine management; aesthetics and visual resources; tourism and recreational use; as well as public health and safety and shoreline protection. NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated to result. The project will provide long-term benefits by supporting the State of Louisiana's ongoing management of its saltwater sport fishery. Furthermore, based on the analysis of past, present and reasonably foreseeable future actions and the anticipated resources to be impacted by those actions, the Calcasieu and Plaquemines Parish facilities will not substantially contribute to adverse cumulative impacts to resources in the respective region.

10.2.1.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Consultations or reviews have been completed under the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, the Marine Mammal Protection Act, and the National Historic Preservation Act.

Consistency reviews of the Phase III early restoration projects in Louisiana were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Consultation under the Clean Water Act has been initiated and will be completed prior to implementation.

10.2.1.2 Mitigation Measures

The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.2.1.2.1 Measures to Mitigate Impacts to the Physical Environment

Calcasieu Parish Facility

- Coordination with local floodplain administrators and FEMA due to potential impacts to the 100-year floodplain that might modify the characteristics of floodwaters.
- During final design, a standard engineering review of runoff from the site will be performed to ensure that offsite effects will be reduced.

- A Stormwater Pollution Prevention Plan with BMPs to protect water quality (e.g., silt fence, re-vegetation) will likely mitigate impacts; these measures will also likely fulfill the requirements of the Section 401 Water Quality Certification and mitigate water quality impacts.
- Prior notification to and coordination with the LDNR Groundwater Resources Program will be provided before construction of process water wells for the developments.
- Pond lining will prevent seepage of pond water into groundwater.
- If required, additional evaluations including a review of the water balance of the Turn Basin and surrounding systems will be performed to assess any potential impacts to surrounding waters and determine if modifications to the design of the intake or effluent systems are needed.
- The project will meet applicable LPDES discharge standards.
- To remove excess nutrients from discharge water, the final design process will determine the appropriateness of using multi-trophic integrated aquaculture in conjunction with the lined, 0.5 acre settling ponds, ponds, or potentially with adjacent constructed wetlands.
- Coordination with the state administrative authority will be initiated to assist in a determination of LPDES applicability.
- Impacts to wetlands and other waters of the U.S. will be minimized by modifying the site plan to the extent practicable.
- Impacts to mature trees will be minimized through design and the surface herbaceous vegetation impacted during construction will be restored following construction. Native species will be utilized to the extent practicable.
- The facility site, staging, and buffer areas will be inspected for common invasive species prior to the onset of construction. A control plan will be implemented, if necessary, to ensure invasive plant species do not increase in distribution or abundance at the site due to project operation. The site will be inspected periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction. During facility construction and operation, water extracted from water bodies, as well as equipment (including personal gear, machinery, vehicles, or vessels), will be inspected for presence of mud or soil, seeds, invasive aquatic weeds, and/or any other invasive vegetation before being brought to the site and before being moved from the site to prevent the transport and spread of such species. Propagated or transplanted vegetation will be inspected and certified as pest and disease free prior to planting in restoration project areas.
- The following mitigation measures have been identified to reduce emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
    - Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.
- The use of recirculating aquaculture systems ("RAS") technology will also minimize air emissions associated with water heating and cooling compared to facilities that use flow-through systems.

- An erosion control and storm water management plan will be implemented.
- Sediment traps will be installed prior to commencement of construction activities to minimize impacts to geology and substrates.
- Impacts to wetlands and other waters of the U.S. will be mitigated by fulfilling compensatory mitigation requirements of the Section 404 permit, if necessary.
- Construction will be limited to daylight working hours, when feasible, in order to reduce the noise impacts to the surrounding environment.

Plaquemines Parish Facility

- The facility site, staging, and buffer areas will be inspected for common invasive species prior to the onset of construction. A control plan will be implemented, if necessary, to ensure these species do not increase in distribution or abundance at a site due to project operation. The site will be inspected periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction. During facility construction and operation, water extracted from water bodies, as well as equipment (including personal gear, machinery, vehicles, or vessels) will be inspected for presence of mud or soil, seeds, invasive aquatic weeds, and/or any other invasive vegetation before being brought to the site and before being moved from the site to prevent the transport and spread of such species propagated or transplanted vegetation will be inspected and certified as pest and disease free prior to planting in restoration project areas if required.
- An erosion control and storm water management plan will be implemented.
- Sediment traps will be installed prior to commencement of construction activities to minimize impacts to geology and substrates.
- Impacts to mature trees will be minimized through design and the surface herbaceous vegetation impacted during construction will be restored following construction. Native species will be utilized to the extent practicable.
- The project will be subjected to an Engineering Review under Section 408.
- During final design, standard engineering review of runoff from the site will be performed to ensure that offsite effects will be reduced.
- Pond lining will prevent seepage of pond water into groundwater.
- A Stormwater Pollution Prevention Plan with BMPs to protect water quality (e.g., silt fence, re-vegetation) will likely mitigate impacts; these measures will also likely fulfill the requirements of the Section 401 Water Quality Certification and mitigate water quality impacts.
- Coordination with the state administrative authority will be initiated to assist in a determination of LPDES applicability.
- The following mitigation measures have been identified to reduce emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
    - Encourage the use of the proper size of equipment for the job to maximize energy efficiency.

    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.
- The use of RAS will also minimize air emissions associated with water heating and cooling compared to facilities that use flow-through systems.
- Impacts to wetlands and other waters of the U.S. during construction will be mitigated by fulfilling compensatory mitigation requirements of the Section 404 Permit, if necessary.
- Construction will be limited to daylight working hours, when feasible, in order to reduce the noise impacts to the surrounding environment.

10.2.1.2.2 Measures to Mitigate Impacts to Biological Resources

Calcasieu Parish Facility

- The effluent discharge system will be constructed in such a way that aquatic species (such as fish and marine mammals) cannot be impinged or entrapped during operation.
- The effluent leaving the facility will pass through various levels of treatment prior to any discharge to the unnamed tributary of the Calcasieu River/GIWW. Treatment scenarios will include an integrated effluent treatment system for management of solids and nutrients so that discharged water will be pursuant to LPDES permit conditions including testing and monitoring.
- BMPs such as turbidity curtains, erosion control screens, and staked hay bales will be used to reduce or eliminate erosion and elevated turbidity during the construction phase.
- Equipment and transport vehicles could potentially release minor amounts of petroleum products into the water system and wetland areas through operational use and spillage. Water quality impacts to the pelagic water column could occur as a result of accidental spills of petroleum lubricants and fuel during pipeline construction. Implementation of preventative and mitigative BMPs using regulatory guidelines to reduce the risk of accidental construction spills will be used for protection of the aquatic ecosystem.
- Impacts from hydrostatic testing of the pipeline to verify material integrity immediately after construction could occur from toxic effects of chemical additives after discharge of the used test water. Hydrostatic test water will be treated as required by the LDEQ, and discharges will be conducted in accordance with applicable Louisiana Pollution Discharge Elimination System (LPDES) requirements.
- If required, additional evaluations including a review of the water balance of the Turn Basin and surrounding systems will be performed to assess any potential impacts to surrounding waters and determine if modifications to the design of the intake or effluent systems are needed.
- Fish production will be completed using established BMPs for marine fish production, and fish quality will be monitored and assessed using American Fisheries Society Bluebook Fish Health procedures.
- A disease and health management plan will be included in the LDWF operating plan, which will address the protocols for wild broodfish management in addition to standard fish culture practice.
- Water from the source water supply systems will be micro-screened, UV disinfected, and sand filtered before use in the hatchery.

- A genetic resource management plan will also be developed to avoid deleterious effects to the genetic integrity of wild populations.
- Damage prevention and/or control strategies for managing bird damage/and or losses at the facility will be assessed during project development.
- Ground-clearing construction activities will be conducted outside of the avian nesting season, March 15 to September 15, to the extent practicable, to avoid direct impacts to nesting birds, in accordance with the Migratory Bird Treaty Act. If the project schedule should require ground-clearing activities during this time, pre-construction nest surveys of areas to be cleared will be conducted by a qualified biologist. Any prevention or control measures will be established in compliance with the Migratory Bird Treaty Act and LDWF regulations.
- *Standard Conditions for In-water Work in the Presence of Manatees* (USFWS n.d.a.) will be implemented during construction to protect manatees from direct effects of the construction of the intake and outfall structures.
- During facility operation, the intake structure will be screened to prevent impingement of manatees as well as other aquatic species, such as ichthyofauna.

Plaquemines Parish Facility

- BMPs such as turbidity curtains, erosion control screens, and staked hay bales will be used to reduce or eliminate erosion and elevated turbidity during the construction phase.
- Erosion controls will be implemented to prevent discharges of storm water runoff into EFH during operation.
- During facility operation, the intake structure will be screened to prevent impingement of marine and estuarine fauna.
- Damage prevention and/or control strategies for managing bird damage/and or losses at the facility will be assessed during project development. Any prevention or control measures deemed necessary will be established in compliance with the Migratory Bird Treaty Act (e.g. non-lethal exclusionary or deterrent devices) and LDWF regulations.
- Ground clearing activities including tree and shrub removal, will be conducted outside of the avian nesting season, March 15 to September 15, to the extent practicable, to avoid direct impacts to nesting birds in accordance with the Migratory Bird Treaty Act. If the project schedule should require ground clearing activities during this time, pre-construction nest surveys of areas to be cleared will be conducted by a qualified biologist, and active nests will be avoided until nest fate is determined by a qualified biologist.

10.2.1.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

Calcasieu Parish Facility

- A complete review of this project under Section 106 of the NHPA will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse effects on historic properties located within the project area.
- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

- A traffic control plan will be instituted during construction to provide for safe ingress/egress of construction workers, equipment and materials (e.g., scheduling, staging, signage, flagmen).
- Minor improvements such as an exclusive right turn lane will be considered in the event that traffic studies determine the need for road improvement.
- Some traffic control devices such as reduced speed signage will also considered if necessary to accommodate the increase in vehicular and pedestrian traffic.
- Established OSHA regulations for the transportation, storage and handling of hazardous materials will be adhered to.
- Employees whose responsibilities include handling hazardous materials must undergo required training.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the site during construction.
- Shoreline stabilization measures will be incorporated into design as needed in areas where the potential exists for erosion to occur in order to protect marine resources and ensure public health and safety.
- Noise levels during construction and facility operations will not exceed acceptable limits of OSHA regulations.

Plaquemines Parish Facility

- A complete review of this project under Section 106 of the NHPA will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse effects on historic properties located within the project area.
- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.
- A traffic control plan will be instituted during construction to provide for safe ingress/egress of construction workers, equipment and materials (e.g., scheduling, staging, signage, flagmen).
- Established OSHA regulations for the transportation, storage and handling of hazardous materials will be adhered to.
- Employees whose responsibilities include handling hazardous materials must undergo required training.
- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the site during construction.
- Shoreline stabilization measures will be incorporated into design as needed in areas where the potential exists for erosion to occur in order to protect marine resources and ensure public health and safety.
- Noise levels during construction and facility operations will not exceed acceptable limits of OSHA regulations.

10.2.1.3 Performance Criteria, Monitoring, and Maintenance

Monitoring will be designed around the objective of the project which is to develop 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. Construction monitoring will be done before, during, and in a subsequent period following construction to ensure that project designs are correctly implemented. Successful implementation of this restoration project will be measured by (1) the completion of construction of the facilities and (2) the operations of the facilities as anticipated, including public outreach and education. LDWF will monitor the operations of the Center in multiple ways, including documenting compliance with all permitting requirements, monitoring the operational status of the hatchery components, and monitoring the number of fish produced and released annually. The Center is also designed as an education and outreach facility, so the number and types of visitors (e.g., tourists, school groups) to the facilities will be recorded.

The facilities at both Center locations are designed as research facilities, so there will be ongoing scientific efforts to optimize hatchery performance, including monitoring the effects of different protocols on outcomes. The production and release of marked hatchery fish are intended to be carried out in conjunction with LDWF's statewide fishery monitoring program and will help develop and evaluate strategies for the management of marine fish species by providing information on the recruitment, survival, health, and movements of these populations.

Maintenance and staffing of the facilities will be the responsibility of LDWF and will be done as specified in the design plans for the Center.

10.2.2 Louisiana Outer Coast Restoration

Louisiana Outer Coast Restoration will 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 restoration work at each island involves placement of appropriately sized sediments to create beach, dune, and back-barrier marsh areas; installation of sand fencing to trap and retain wind-blown sediments and foster dune development; and revegetation of appropriate native species in dune and back-barrier marsh habitat. Louisiana's barrier islands, especially the islands located in the Barataria Hydrologic Basin, were heavily impacted by the Spill. Numerous dead and oiled brown pelicans, terns, skimmers, and gulls were collected during and following the Spill. The ecological resources and services gained by this restoration are anticipated to help compensate the public for Spill-related injuries to beach/dune and back-barrier marsh in Louisiana, as well as for injuries to brown pelicans, terns, skimmers, and gulls.

10.2.3 Louisiana Outer Coast Restoration A – Caillou Lake Headlands

Restoration at the Caillou Lake Headlands location will occur on Whiskey Island, a barrier island in the Isle Dernieres reach of the Terrebonne Basin barrier shoreline. Construction will utilize hydraulically dredged sediments to create beach, dune, and back-barrier marsh habitats. The project was federally authorized under the Water Resources Development Act of 2007 and selected as a preferred alternative in the Terrebonne Basin Barrier Shoreline Restoration Integrated Feasibility Study and Final Environmental Impact Statement (USACE 2010), and is included in the state's Master Plan (CPRA 2012). The project was designed to minimize adverse ecological impact(s) with emphasis on not disturbing

approximately 286 acres of existing mangroves on the island during construction. Louisiana will be the lead Trustee for the design and construction of this project, working cooperatively with NOAA and DOI.

DOI has adopted the LCA Integrated Feasibility Study and Final EIS for the TBBSR to fulfill DOI's NEPA requirements for analysis of the Caillou Lake Headlands restoration location and finds that it complies with CEQ and DOI requirements for adopting NEPA analyses prepared by other agencies. Analysis of the environmental consequences of the action (as described in the adopted EIS) suggest that while there will be minor adverse impacts to some resource categories, there will be no long-term moderate to major adverse impacts as a result of the project. The project will provide long-term benefits by restoring barrier island habitats.

The cumulative impact analysis included in the LCA EIS for the TBBSR considers the direct and indirect impacts of past, present and reasonably foreseeable future actions in the analysis of environmental consequences resulting from the project, including other Federal, State, local, and private restoration efforts across coastal Louisiana. There are no indications that there will be additional significant cumulative impacts associated with the implementation of the four island locations that are part of the Louisiana Outer Coast Restoration project that will result in impacts beyond what were analyzed in the previous cumulative impact analysis.

10.2.3.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Consultations or reviews have been completed under the Magnuson-Stevens Fishery Conservation and Management Act, the Migratory Bird Treaty Act, the Clean Water Act Section 404 and Rivers and Harbors Act, the Marine Mammal Protection Act, the Bald and Golden Eagle Protection Act, the National Historic Preservation Act, the Coastal Barrier Resources Act, and the Coastal Zone Management Act.

Consultation, including a formal conference to address potential impacts of the Caillou Lake Headlands location to red knot under the Endangered Species Act (ESA), has been completed with the USFWS. The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. The consultation has been initiated.

10.2.3.2 Mitigation Measures

The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.2.3.2.1 Measures to Mitigate Impacts to the Physical Environment

- Sand fencing will be installed to trap and retain wind-blown sediments and help foster dune development.
- If necessary, dikes will be gapped within the first three years following completion of construction to allow for tidal exchange with the created marsh and to prevent ponding of water within the containment area. Considerations regarding if and when mechanical gapping

will be conducted will be based on site inspections and determinations will be made in cooperation with natural resource agencies.

- The dune platform and other supratidal areas will be planted with native vegetation shortly after construction.
- The back-barrier marsh platform will be planted after a period of compaction and dewatering has occurred and the platform is stable enough for planting activities.

10.2.3.2.2 Measures to Mitigate Impacts to Biological Resources

- To mitigate impacts to piping plover and red knot:
    - A baseline piping plover and red knot distribution survey will be conducted within the migrating and wintering season immediately prior to initial construction within the action area. As part of that survey, the project footprint will be delineated using a global position system (GPS) unit and appropriately marked/flagged for future survey reference and data collection.
    - A survey of the intertidal benthic prey species community will be conducted within the migrating and wintering season immediately prior to initial construction, at the same time as the piping plover and red knot distribution surveys, in order to establish a baseline of benthic prey species diversity and abundance.
    - Piping plover and red knot monitoring surveys will be conducted during the migrating and wintering seasons throughout initial project construction and three consecutive years following completion of initial construction.
    - To confirm re-establishment of suitable foraging habitat for migrating and wintering piping plover and red knot, monitoring surveys of the intertidal benthic prey species community will be conducted each year following completion of initial construction for three consecutive years, preferably at the same time as the bird surveys.
    - USFWS will be notified in writing at least six months prior to a re-nourishment event for each island. If re-nourishment events are conducted during the migrating and wintering season, piping plover and red knot monitoring surveys shall be conducted for the duration of construction activities. (Note that no re-nourishment events are planned for the project at this time).
    - A comprehensive report describing the actions taken to implement the RPMs and terms and conditions associated with this incidental take statement (including data sheets from surveys conducted) will be submitted to USFWS by June 1 of the year following completion of all required surveys.
    - Upon locating a dead or injured piping plover or red knot that may have been harmed or destroyed as a direct or indirect result of the project, CPRA and/or contractor will be responsible for notifying the USFWS's Lafayette, Louisiana, Field Office (337/291-3100) and the LDWF's Natural Heritage Program (225/765-2821). Care will be taken in handling an injured piping plover or red knot to ensure effective treatment or disposition and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

    - The Trustees agree to implement all non-discretionary terms and conditions listed in the consultations for these measures.
- If effects to listed species or their habitat differ from the effects subject to consultation, including unintended consequences to such species, the Trustees will re-initiate consultations with the regulatory agencies.
- Trustees will ensure due diligence with regard to ensuring no unanticipated effects to listed species and habitats occur, including ensuring that BMPs are implemented and continue to function as intended.
- Trustees will implement NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions*.
- NMFS provided the following EFH conservation recommendations, and a response to each recommendation was included in the LCA Integrated Feasibility Study and Final EIS for the TBBSR, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act. Only recommendations that apply to Caillou Lake Headlands are included here. The response to the recommendation is provided indented below the respective recommendation:
    - Recommendation: Including tidal creeks and ponds in created marsh platform designs should be considered to the maximum extent practicable to ensure the development of functional habitat heterogeneity.

        Response: The Preconstruction Engineering and Design (PED) process will develop island design alternatives that address habitat heterogeneity, stability, and longevity.
    - Recommendation: Containment dikes for the marsh platforms should be degraded or gapped in an acceptable manner to be developed through coordination with NMFS.

        Response: The Preconstruction Engineering and Design (PED) process will develop island design alternatives that address habitat heterogeneity, stability, and longevity.
    - Recommendation: During the PED phase of project implementation, the need for dredging windows to avoid or minimize potential impacts to blue crab in the vicinity of Ship Shoal should be considered through further coordination with NMFS, the Bureau of Ocean Energy Management, Regulation and Enforcement, and other interested resource agencies.

        Response: All concerned agencies will be consulted regarding timing of utilization of the Ship Shoal borrow areas in order to minimize impact to fisheries resources.
- The Trustees will implement the USFWS "Standard Conditions for In-water Work in the Presence of Manatees" and NOAA's Measures for Reducing Entrapment Risk to Protected Species, revised on May 22, 2012. The NOAA measures are included below:
    - Pre-construction Planning
        - During project design, the project proponents will incorporate at least one escape route into the retention structure(s) to allow any protected species to exit the area(s) to be enclosed. Escape routes must lead directly to open water outside the construction site and must have a minimum width of 100 feet. Escape routes should also have a depth as deep as the deepest natural entrance into the enclosure site and must remain open until a thorough survey of the

area, conducted immediately prior to complete enclosure, determines no protected species are present within the confines of the structure.

- Pre-construction Compliance Meeting
  - Prior to construction, project proponents, the contracting officer representative, and construction personnel should conduct a site visit and meeting to develop a project-specific approach to implementing these preventative measures.
- Responsible Parties
  - The project proponents will instruct all personnel associated with the project of the potential presence of protected species in the area and the need to prevent entrapment of these animals. All construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing protected species. Construction personnel will be held responsible for any protected species harassed or killed as a result of construction activities. All costs associated with monitoring and final clearance surveys will be the responsibility of project proponents and will be incorporated in the construction plan.
- Monitoring During Retention Structure Construction
  - It is the responsibility of construction personnel to monitor the area for protected species during dike or levee construction. If protected species are regularly sighted over a 2 or 3 day period within the enclosure area during retention structure assembly, construction personnel must notify the project proponent. It is the responsibility of the project proponent to then coordinate with the NMFS Marine Mammal Health and Stranding Response team (1-877-WHALE HELP [1-877-942-5343]) or the appropriate State Coordinator for the Sea Turtle Stranding and Salvage Network (see http://www.sefsc.noaa.gov/species/turtles/stranding_coordinators.htm) to determine what further actions may be required. Construction personnel may not attempt to scare, herd, disturb, or harass the protected species to encourage them to leave the area.
- Pre-closure Final Clearance
  - Prior to completing any retention structure by closing the escape route, the project proponent will ensure that the area to be enclosed is observed for protected species. Surveys must be conducted by experienced marine observers during daylight hours beginning the day prior to closure and continuing during closure. This is best accomplished by small vessel or aerial surveys with 2-3 experienced marine observers per vehicle (vessel/helicopter) scanning for protected species. Large areas (e.g. >300 acres) will likely require the use of more than one vessel or aerial survey to ensure full coverage of the area. These surveys will occur in a Beaufort sea state (BSS) of 3 feet or less (measured within the area being closed by the containment), as protected species are difficult to sight in choppy water. Escape routes may not be closed until the final clearance determines the absence of protected species within the enclosure sight.
- Post closure Sightings

- If protected species become entrapped in an enclosed area, the project proponent and NMFS must be immediately notified. If observers note entrapped animals are visually disturbed, stressed, or their health is compromised then the project proponent may require any pumping activity to cease and the breaching of retention structures so that the animals can either leave on their own or be moved under the direction of NMFS.
- In coordination with the local stranding networks and other experts, NMFS will conduct an initial assessment to determine the number of animals, their size, age (in the case of dolphins), body condition, behavior, habitat, environmental parameters, prey availability and overall risk.
- If the animal(s) is/are not in imminent danger they will need to be monitored by the Stranding Network for any significant changes in the above variables.
- Construction personnel may not attempt to scare, herd, disturb, or harass the protected species to encourage them to leave the area. Coordination by the project proponent with the NMFS SER Stranding Coordinator may result in authorization for these actions.
- NMFS may intervene (catch and release and/or rehabilitate) if the protected species are in a situation that is life threatening and evidence suggests the animal is unlikely to survive in its immediate surroundings.
- Surveys will be conducted throughout the area at least twice or more in calm surface conditions (BSS 3 feet or less - measured within the area being closed by the containment)), with experienced marine observers, to determine whether protected species are no longer present in the area.

- A migratory bird abatement plan has been developed for the Caillou Lake Headlands project site and included within the Department of the Army permit for this project. The Trustees agree to implement all the measures included in that plan.
- If any bald eagle nests are observed prior to or during construction, appropriate best management practices *from the National Bald Eagle Management Guidelines* (USFWS 2007)to avoid disturbance to nesting bald eagles shall be implemented.

10.2.3.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Some oil and gas pipelines are present in the vicinity of the action. To minimize the potential damage to these features, the pipeline locations have been identified so they may be avoided in the implementation of the action. The construction contractor will also verify the location of these features.
- Analyses of the data in the Whiskey 3A borrow area and associated conveyance corridor identified two targets (3A Targets 10 and 11) exhibiting characteristics that could represent submerged cultural resources in the conveyance corridor. Analyses of the data in the Ship Shoal Block 88 borrow area and conveyance corridor identified two targets (88 Targets 04 and 06) that could represent submerged cultural resources in the conveyance corridor. The project team consulted with BOEM and adjusted the project design to accommodate recommended buffers. A determination of “No historic properties affected” (36 C.F.R. 800.4) was recommended

provided that the four targets identified during data analyses are avoided by a distance determined through consultation with relevant authorities.

- DOI is initiating a complete review of this project under Section 106 of the NHPA. This review will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse effects on historic properties located within the project area.
- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

10.2.4 Louisiana Outer Coast Restoration B – Chenier Ronquille Barrier Island

Chenier Ronquille is located along the Barataria Bay barrier shoreline, eight miles east of Grand Isle and forms the eastern boundary of Quatre Bayou Pass. The restoration on Chenier Ronquille Island will repair the breaches in the shoreline and inhibit creation of new breaches over the 20-year project life, while reestablishing and increasing the island's longevity via dune and marsh creation. Additionally, the project will restore the shoreline, dune, and back-barrier marsh to increase island habitat utilized by essential fish and wildlife species. The Chenier Ronquille barrier island restoration was authorized in 2010 as a candidate project under CWPPRA. Although it received design phase funding, it did not receive construction funding under CWPPRA. Chenier Ronquille barrier island restoration is also included in the state's Master Plan (CPRA 2012).NOAA will be the lead Trustee for the design and construction of this project, working cooperatively with Louisiana and DOI.

DOI has independently evaluated and adopted the 2013 Environmental Assessment for the Chenier Ronquille Barrier Island Restoration Project (Chenier Ronquille EA), BA-76, prepared by NOAA (NOAA 2013), and finds that it complies with CEQ and DOI requirements for adopting NEPA analyses prepared by other agencies. Analysis of the environmental consequences of the action (as described in the adopted EA) suggest that while there will be minor adverse impacts to some resource categories, there will be no long-term moderate to major adverse impacts as a result of the project. The project will provide long-term benefits by restoring barrier island habitats.

The cumulative impact analysis included in the Chenier Ronquille EA considers the direct and indirect impacts of past, present and reasonably foreseeable future actions in the analysis of environmental consequences resulting from the project, including other Federal, State, local, and private restoration efforts across coastal Louisiana. There are no indications that there will be additional significant cumulative impacts associated with the implementation of the four island locations that are part of the Louisiana Outer Coast Restoration project that will result in impacts beyond what were analyzed in the previous cumulative impact analysis.

10.2.4.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Consultations or reviews have been completed under the Magnuson-Stevens Fishery Conservation and Management Act, the Migratory Bird Treaty Act, the Marine Mammal Protection Act, the Bald and Golden Eagle Protection Act, the National Historic Preservation Act, the Clean Water Act and Rivers and

Harbors Act, the Coastal Barrier Resources Act, and the Coastal Zone Management Act. Consultations have been initiated for the Endangered Species Act.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. The consultation has been initiated.

10.2.4.2 Mitigation Measures

The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.2.4.2.1 Measures to Mitigate Impacts to the Physical Environment

- If necessary, dikes will be gapped within the first three years to allow for tidal exchange with the created marsh and to prevent ponding of water within the containment area. Considerations regarding if and when mechanical gapping will be conducted will be based on site inspections and determinations will be made in cooperation with natural resource agencies.
- Sand fencing will be erected on the constructed dune to capture naturally windblown sand and passively build or maintain the dune feature.
- After a period of settlement and salinity stabilization of placed materials, native intertidal and dune habitat species will be planted in phased events over the first 3 years. Plantings will help establish the plant community, and foster retention of placed sediments.

10.2.4.2.2 Measures to Mitigate Impacts to Biological Resources

- The EA provides information on measures that will be taken to avoid and minimize potential adverse impacts to existing resources, such as threatened and endangered species. NOAA will uphold all avoidance and minimization measures identified in the Chenier Ronquille EA and associated consultation and included in the supplemental BA.
- Education of the Federal and State teams [i.e., any individuals working on the project] and construction contractors on the species interactions to avoid will be part of the ongoing Federal [i.e., NOAA] oversight.
- A migratory bird abatement plan is under development and will include measures to protect migratory birds during project implementation and thereby avoid take under the MBTA.
- The most recent version of the "Standard Conditions for In-water Work in the Presence of Manatees" provided by USFWS will be implemented.
- If any bald eagle nests are observed prior to or during construction, appropriate best management practices (USFWS 2007) to avoid disturbance to nesting bald eagles shall be implemented.
- A qualified biologist will inspect the project area for the presence of undocumented nesting birds and if needed, an abatement plan will be developed in coordination with USFWS and implemented for the duration of project construction.
- Trustees will implement NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions*.

- The Trustees intend to implement NOAA's Measures for Reducing Entrapment Risk to Protected Species, revised on May 22, 2012 (NOAA 2012). These measures are listed above in the mitigation measures for the Caillou Lake Headlands project.
- If effects to listed species or their habitat differ from the effects subject to consultation, including unintended consequences to such species, the Trustees will re-initiate consultations with the regulatory agencies. Trustees will ensure due diligence with regard to ensuring no unanticipated effects to listed species and habitats occur, including ensuring that BMPs are implemented and continue to function as intended.

10.2.4.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The area has numerous oil and gas pipelines in the vicinity of the action. To minimize the potential damage to these features, multiple surveys have identified their locations so they may be avoided in the course of the action. The construction contractor will also verify the location of these features. The preferred alternative obviates the need to cross pipeline infrastructure during the construction of the primary dike.
- Magnetic and acoustic anomalies identified as suggestive of potentially sensitive submerged cultural resources in the borrow areas will be avoided.
- DOI is initiating a complete review of this project under Section 106 of the NHPA. This review will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse effects on historic properties located within the project area.
- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

10.2.5 Louisiana Outer Coast Restoration C – Shell Island

Restoration at the Shell Island (East and West Lobes) location will occur on Shell Island West and the western portion of Shell Island East, two barrier islands located along the southern margin of the Barataria Basin in Plaquemines Parish. Shell Island (East and West Lobes) is located approximately 49 miles south-southeast of New Orleans and comprises a portion of the Plaquemines barrier shoreline. Plans and proposals to restore Shell Island have been developed in multiple documents, including Coast 2050: Toward a Sustainable Coastal Louisiana (LCWCRTF and WCRA 1998), the Barataria Basin Barrier Shoreline Restoration Project (USACE 2012), and the state's Master Plan (CPRA 2012). Construction of Shell Island will utilize hydraulically dredged sediments to create beach, dune, and back-barrier marsh habitats. Louisiana will be the lead Trustee for the design and construction of this project, working cooperatively with NOAA and DOI.

DOI has adopted the LCA Barataria Basin Barrier Shoreline Restoration Final Integrated Construction Report and Final EIS (USACE 2012) to fulfill DOI's NEPA requirements for analysis of the Shell Island (East and West Lobes) location of the Louisiana Outer Coast Restoration project. Analysis of the environmental consequences of the action (as described in the adopted EIS) suggest that while there will be minor adverse impacts to some resource categories, there will be no long-term moderate to major adverse impacts as a result of the project. The project will provide long-term benefits by restoring barrier island habitats.

The cumulative impact analysis included in the LCA Barataria Basin Barrier Shoreline Restoration Final Integrated Construction Report and Final EIS considers the direct and indirect impacts of past, present and reasonably foreseeable future actions in the analysis of environmental consequences resulting from the project, including other Federal, State, local, and private restoration efforts across coastal Louisiana. There are no indications that there will be additional significant cumulative impacts associated with the implementation of the four island locations that are part of the Louisiana Outer Coast Restoration project that will result in impacts beyond what were analyzed in the previous cumulative impact analysis.

10.2.5.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Consultations or reviews have been completed under the Magnuson-Stevens Fishery Conservation and Management Act, the Migratory Bird Treaty Act, the Marine Mammal Protection Act, the Bald and Golden Eagle Protection Act, the National Historic Preservation Act, the Clean Water Act and the Rivers and Harbors Act, the Coastal Barrier Resources Act, and the Coastal Zone Management Act. Consultations have been initiated for the Endangered Species Act.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. Also, this project is located within loggerhead sea turtle critical habitat. The consultation has been initiated.

10.2.5.2 Mitigation Measures

The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.2.5.2.1 Measures to Mitigate Impacts to the Physical Environment

- Sand fencing will be erected to capture naturally windblown sand and foster dune development.
- If necessary, dikes will be gapped within the first three years to allow for tidal exchange with the created marsh and to prevent ponding of water within the containment area. Considerations regarding if and when mechanical gapping will be conducted will be based on site inspections and determinations will be made in cooperation with natural resource agencies.
- The dune platform and portions of the supratidal areas will be planted with native vegetation shortly after construction.
- The back-barrier marsh platform will be planted after a period of compaction and dewatering has occurred and the platform is stable enough for planting activities.

10.2.5.2.2 Measures to Mitigate Impacts to Biological Resources

- Trustees will implement NMFS' *Sea Turtle and Smalltooth Sawfish Construction Conditions*.
- The supplemental BA proposed BMPs for Shell Island to avoid and minimize impacts to any piping plover, red knots and West Indian manatee as follows:

    - Education of the Federal and State teams [i.e., any individuals working on the project] and construction contractors on the species interactions to avoid will be part of the ongoing Federal oversight.
    - Nesting colonial waterbirds, piping plover, and red knot will be avoided given provisions provided by USFWS and NMFS Protected Resources.
    - The most recent version of the "Standard Conditions for In-Water Work in the Presence of Manatees" provided by USFWS will be implemented.
- If effects to listed species or their habitat differ from the effects subject to consultation, including unintended consequences to such species, the Trustees will re-initiate consultations with the regulatory agencies. Trustees will ensure due diligence with regard to ensuring no unanticipated effects to listed species and habitats occur, including ensuring that BMPs are implemented and continue to function as intended.
- The Trustees intend to implement NOAA's Measures for Reducing Entrapment Risk to Protected Species, revised on May 22, 2012 (NOAA 2012). These measures are listed above in the mitigation measures for the Caillou Lake Headlands project.
- If any bald eagle nests are observed prior to or during construction, appropriate best management practices (USFWS 2007) to avoid disturbance to nesting bald eagles shall be implemented.
- A migratory bird abatement plan has been developed for the Shell Island project site and accepted by the USFWS. The Trustees agree to implement all the measures included in that plan.

10.2.5.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Numerous oil and gas pipelines are present in the vicinity of the action. To minimize the potential damage to these features, the pipeline locations have been identified so they may be avoided in the implementation of the action. The construction contractor will also verify the location of these features prior to any construction activities. The action obviates the need for any construction activities near pipeline infrastructure during the construction of the primary dike.
- "Potentially significant anomalies and anomaly clusters and associated sonar targets have been buffered and are recommended for avoidance." No historic properties will be impacted if:
    - In Investigation Area 35E, 300 foot buffers are maintained around CR-1 (magnetic anomaly 9 and side-scan sonar targets 1 and 2), CR-2 (magnetic anomalies 5 and 30), and CR-3 (magnetic anomalies 6, 7, 8, 10, and 11).
    - In Investigation Area 9, 300 foot buffers are maintained around the 15 potential cultural anomalies – CR-4 through CR-18 – identified in the survey.
    - In the two pipeline corridors, a 100 foot buffer is maintained around CR-19, a possible buried cultural anomaly.
- DOI is initiating a complete review of this project under Section 106 of the NHPA. This review will be completed prior to any project activities that would restrict consideration of measures to avoid, minimize or mitigate any adverse effects on historic properties located within the project area.

- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.

10.2.6 Louisiana Outer Coast Restoration D – North Breton Island

North Breton Island, located at the southern end of the Chandeleur Island chain in Louisiana, is part of the Breton NWR established in 1904 by Theodore Roosevelt. Breton NWR is recognized by the National Audubon Society as a globally important bird area because of the resources it provides to birds. This project aims to increase island longevity by restoring beach, dune, and back-barrier marsh habitats on the island, providing nesting and foraging habitat for brown pelicans, terns, skimmers and gulls injured by the Spill. Restoration work will reestablish a dune platform along the length of the shoreline and construct a marsh platform on the landward side of the dune. DOI will be the lead Trustee for the design and construction of this project, working cooperatively with Louisiana and NOAA.

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety. The NEPA analysis of the environmental consequences suggests that minor adverse impacts are anticipated to all potentially affected resources except "Protected Species", where a short term moderate adverse impact is anticipated to piping plover and red knot due to construction and dredging related disturbances. No moderate to major adverse impacts are anticipated to result to all other resources. The project will provide long-term benefits by restoring barrier island habitats.

Overall, the cumulative impact of past, present and reasonably foreseeable future actions related to the North Breton Island location of the Louisiana Outer Coastal Restoration project will result in beneficial cumulative impacts over the long-term, as restoration and environmental stewardship activities and other barrier island restoration projects will all contribute to improving the natural environment. Similar to other past, present and reasonably foreseeable future actions, implementation of the North Breton Island location project will result in short-term adverse impacts from disturbance during construction that will no longer occur once the project is completed. There will be beneficial cumulative impacts from restored habitat to which the Breton Island location project will contribute.

10.2.6.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Consultations or reviews have been completed under the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Migratory Bird Treaty Act, the Marine Mammal Protection Act, and the Bald and Golden Eagle Protection Act.

Consistency review of the Phase III Outer Louisiana Coast-Breton Island early restoration project was initiated by the Federal Trustees under the Coastal Zone Management Act and has been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur if necessary during permitting processes required for implementation.

Consultation under the National Historic Preservation Act, the Clean Water Act and the Rivers and Harbors Act has been initiated and will be completed prior to implementation.

10.2.6.2 Mitigation Measures

The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.2.6.2.1 Measures to Mitigate Impacts to the Physical Environment

- If necessary, dikes will be gapped within the first three years to allow for tidal exchange with the created marsh and to prevent ponding of water within the containment area. Considerations regarding if and when mechanical gapping will be conducted will be based on site inspections and determinations will be made in cooperation with natural resource agencies.
- Sand fencing will be erected to capture windblown sand and foster dune development.
- The dune and back barrier marsh areas will be planted with native vegetation shortly after construction, after a period of settlement and salinity stabilization.
- The borrow area will be sited and designed, to the extent feasible, to minimize adverse impacts to water quality due to inadequate circulation and stratification.
- Sediment analyses for the restoration site and potential borrow sites will be completed and analyzed prior to project implementation.
- Modeling exercises will be conducted as part of this project to assess possible changes in the wave climate due to changes in substrate contours resulting from source dredging.
- A Spill Prevention, Control, and Countermeasure Plan will be developed and implemented to reduce incidental discharges of fuel and oil from construction.
- All necessary evaluations will be undertaken during engineering and design to minimize adverse construction-related impacts to vegetated habitats, namely scrub-shrub and marsh acreage, on North Breton Island.

10.2.6.2.2 Measures to Mitigate Impacts to Biological Resources

- Impacts to birds will be avoided by implementing the Louisiana Guidelines for Minimizing Disturbance to Colonial Nesting Birds (USFWS 2014a). A bird abatement plan may also be necessary to avoid impacts to nesting birds.
- After a period of settlement and salinity stabilization of placed materials, native intertidal and dune habitat species will be planted in dune and marsh areas as applicable. Plantings will help establish the plant community and foster retention of placed sediments.
- The Trustees intend to implement the USFWS “Standard Conditions for In-water Work in the Presence of Manatees” and NOAA’s Measures for Reducing Entrapment Risk to Protected Species, revised on May 22, 2012. The NOAA measures are listed above in the mitigation measures for the Caillou Lake Headlands project.

- The USFWS will ensure compliance with the Best Management Practices in National Marine Fisheries Service's *Sea turtle and smalltooth sawfish construction conditions* and *Measures for reducing entrapment risk to protected species*.
- The following Conservation Measures and Reasonable and Prudent Measures included within the Biological Opinion (USFWS 2014a) will be implemented to protect trust resources.
    - The Contractor shall be aware of threatened and endangered species and migratory birds, and implement practices and follow all conditions set forth by NOAA, USFWS, and LDWF to protect these resources.
    - The DOI should carefully mark and stake the boundaries of the project footprint on North Breton Island and ensure that those markers are maintained for the duration of project construction activities. Should the project actions (e.g., personnel, equipment, etc.) affect suitable habitat outside of those boundary markers and beyond the action area as described in the biological opinion, then the level of incidental take (i.e., all piping plovers using the existing 198 acres of bare sand, mud flat, and intertidal habitats) for this project will be exceeded and the DOI should reinitiate Section 7 consultation with the USFWS as soon as possible.
    - A baseline survey for piping plovers and red knots should be conducted within the migrating and wintering season immediately prior to initial construction in order to determine each species' preferred habitat use within the action area. Such information could then be used as an aid to determine whether specific project actions require slight modifications in order to minimize the effects of the take for future migrating and wintering seasons. For example, initial bird surveys may aid in locating and marking appropriate access routes for ORVs and other work-related equipment, as well as equipment staging areas, in order to reduce disturbance to foraging and roosting birds to the maximum extent practicable.
    - A simple diversity and abundance survey of the intertidal benthic prey species community should be conducted within the migrating and wintering season immediately prior to initial construction (preferably at the same time as the bird distribution surveys) in order to establish a baseline of benthic prey species diversity and abundance (e.g., biomass). Again, such information could then be used as an aid to determine whether specific project actions require slight modifications in order to minimize the effects of the take for future migrating and wintering seasons. For example, initial surveys could locate areas of abundant benthic prey where birds may tend to congregate for foraging, and those areas could be flagged for avoidance by regular personnel traffic to reduce disturbance to foraging piping plovers and red knots.
    - Piping plover and red knot monitoring surveys should be conducted during the migrating and wintering seasons throughout initial project in order to determine whether access routes are working or whether they need to be adjusted, and for three consecutive years following completion of initial construction to determine whether birds are still utilizing the project area during the benthic recovery period. The frequency of surveys will be determined in coordination with the USFWS.

- To determine if incidental take exceeds the anticipated recovery time (i.e., up to two years) of suitable foraging habitat on North Breton Island for migrating and wintering piping plovers and red knots, monitoring surveys of the intertidal benthic prey species community should be conducted each year following completion of initial construction for three consecutive years. Such information could also be used to determine whether corrective actions (that may be necessary to achieve the DOI's NRDAR success criteria) require slight modifications in order to minimize the effects of the take.
- Due to the remoteness of the project area, weather conditions, potential logistical constraints, and the need to closely coordinate with Breton NWR staff, the DOI should meet with the USFWS within six months of the date of this biological opinion to coordinate and develop a detailed monitoring plan and schedules for bird and benthic surveys.
- Due to the duration between receiving construction funds and letting out contracts, the USFWS should be notified in writing at least six months prior to mobilization when construction will be initiated so that the DOI and the USFWS can coordinate and exchange updated species and project information to ensure that re-initiation of consultation is not necessary.
- A comprehensive report describing the actions taken to implement the RPMs and terms and conditions associated with the incidental take statement shall be submitted to the USFWS by June 30 of the year following completion of all required surveys.

- To reduce potential impacts to the Gulf sturgeon, the cutterhead will remain completely buried in the sediment during dredging operations. The Contractor will be responsible for surveillance, management, and control of their construction activities to minimize interference with, disturbance to, and damage of water, fish, and wildlife resources.
- No Bald Eagles are known to nest in Breton NWR. If any bald eagle nests are observed prior to or during construction, appropriate best management practices (USFWS 2007) to avoid disturbance to nesting bald eagles shall be implemented.
- To ensure these pathways are "broken" and do not spread or introduce species the following BMPs will be implemented:
  - All equipment to be used during the project, including personal gear, will be inspected and cleaned such that there is no observable presence of mud, seeds, vegetation, insects (especially ants and snails), and other species.
  - Native vegetation will be used for planting.
  - Prior to bringing to vegetation to the island, it will be inspected and "non-target[19]" species will be removed.

[19] A non-target species is any species that is present on the species of choice but is not desirable and should be removed. For example, within soil that is often packed around plant roots, there may be species of snails capable of carrying parasites that can affect birds or fire ants that may attack bird eggs or chicks.

10.2.6.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- This project is currently being reviewed under Section 106 of the NHPA to identify any historic properties located within the project area and to evaluate whether the project will affect any historic properties.
- This project will be implemented in accordance with all applicable laws and regulations concerning the protection of cultural and historic resources.
- Magnetometer surveying within the target borrow area and associated conveyance corridors, access channels, and project fill areas will be conducted as part of project engineering and design before construction activities begin to better delineate these structures.
- If hazardous materials are encountered in the project area during construction activities, appropriate measures for the proper assessment, remediation, management, and disposal of the contamination will be required in accordance with applicable federal, state, and local regulations.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.2.6.3 Performance Criteria, Monitoring and Maintenance

Monitoring activities at the Louisiana Outer Coast Restoration island locations are expected to take place over several years. Available data sets from pre-implementation, implementation, and post-implementation time periods are expected to be utilized. Successful implementation of this project will be measured using a combination of quantitative and qualitative monitoring efforts designed to evaluate whether the following restoration goals and objectives are met, and to determine whether corrective actions are necessary:

- Restore beach, dune, and back-barrier marsh habitats in Louisiana; and
- Support the presence of nesting pelicans, terns/skimmers and gulls, within restored habitat areas.

The Trustees will evaluate the stability and function of the restored islands and marsh habitat characteristics. Performance criteria will be established to determine whether the restored areas are functioning as healthy barrier islands and supporting nesting birds. Components of monitoring may include collecting data on the following parameters:

- Barrier island structure and function, potentially including metrics such as shoreline position, stability (e.g., frequency of overwash, number and status of breaches), area, elevation, and/or volume.
- Bird habitat use and nesting activity, potentially including metrics such as habitat occupancy surveys, colony size, and nest densities.
- Marsh habitat characteristics, potentially including metrics such as species composition, vegetation cover, nekton and invertebrate population densities, and habitat areal coverage.

Updates and additional details concerning the performance measures and monitoring for this project will be made available to the public as they are developed.

10.3 Mississippi

10.3.1 Hancock County Marsh Living Shoreline Project

The 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 will 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 will be created in Heron Bay to increase secondary productivity in the area. The project will include shoreline erosion reduction, creation of habitat for secondary productivity, and protection and creation of salt marsh habitat. The project will restore injured salt marsh and lost benthic secondary productivity resulting from the Spill in an effort to make the environment whole by restoring, rehabilitating, replacing, or acquiring comparable natural resources injured by the Spill(see C.F.R. § 990.54(a) (2) and Sections 6(a)-(c) of the Early Restoration Framework Agreement).

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety. NEPA analysis of the environmental consequences suggests that there will be long-term moderate impacts to geology and substrates, and there will be minor to moderate short term adverse impacts to other resource categories. The project will provide long-term benefits by creating approximately 46 acres of salt marsh, 46 acres of oyster habitat, and approximately 5.9 miles (19.9 acres) of reef. Based on the cumulative impact analysis, the Hancock County Marsh Living Shoreline project will not substantially contribute to adverse cumulative effects to resources. The Hancock County Marsh Living Shoreline project, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts to geology and substrates, living coastal and marine resources, protected species, socioeconomics, land and marine management, tourism and recreation, and public health and safety/shoreline protection.

10.3.1.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, the Migratory Bird Treaty Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammal Protection Act, and the Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Mississippi were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed. The Trustees have initiated consultation under the National Historic Preservation Act, the Clean Water Act, and the Rivers and Harbors Act.

10.3.1.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and Best Management Practices (BMPs), which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.3.1.2.1 Measures to Mitigate Impacts to the Physical Environment

- Spoil from temporary flotation channels will be placed on the seaward side of the channel to facilitate current-driven backfilling of channels.
- Gaps will be present between breakwater segments and created marsh areas that will allow tidal exchange flows and waterway access.
- Best management practices along with other avoidance and mitigation measures required by state and federal regulatory agencies, will be employed to minimize potential water quality and sedimentation impacts. U.S. Army Corps of Engineers (USACE) Section 10/404 and State Water Quality Certifications will be required and permit conditions will be adhered to.
- Appropriate BMPs such as routine maintenance, inspection, and proper refueling of construction equipment will be used to prevent, control, and mitigate impacts (from fuel leaks or spills).
- Suitable maintenance dredge sediments that have been examined for levels of contamination, consistent with applicable requirements, will be used as fill material in the project area.
- To reduce the release of GHG during project implementation, idling construction equipment will be shut down when feasible; staging areas will be located as close to construction sites as practicable to minimize driving distances; using the proper size of equipment for the job to maximize energy efficiency will be encouraged as well as the use of alternative fuels for generators at construction sites, where practicable. Measures to Mitigate Impacts to Biological Resources
- Contractors will be reminded of the potential presence of protected species.
- The entry locations for the channels will be determined by analyzing the shortest distance from the breakwaters to the appropriate depth of -8 ft. and excavated using BMPs to minimize environmental impacts.
- Effort will be made during construction and during placement of materials to avoid existing environmentally sensitive areas such as viable productive oyster reefs, emergent and SAV, and other live-bottom communities.
- Placement of all signage pilings will be achieved by “driving” in lieu of “jetting” to reduce the disturbance of bottom sediments and bottom-dwelling organisms.
- If any sea turtles are found to be present in the immediate project area during restoration activities, construction will be halted until species moves away from project area.
    - Precautionary measures will include construction personnel education, proper use and selection of siltation barriers, use of “no wake/idle” speeds in proper locations,

adherence to protection guidelines when a sea turtle is within 100 yards of activities, and reporting of turtle injuries.

- If possible, complete the in-water work when manatees are not expected to be present, i.e., when water temperatures are below 68F. If timing restrictions are not feasible, then conditions a, b, c, and d of the Standard Manatee Conditions for In-water Work will be followed. Report any collisions to the U.S. Fish and Wildlife Service (USFWS) or State trust resource agency. Temporary signs, if necessary, can be modified from the Florida Fish and Wildlife Conservation Commission's template to reflect local conditions.
- Project restoration features will be built close to the shoreline in shallow water (1-4 feet) and will not impede any migratory paths for Gulf sturgeon. Project components will be constructed in the months of May through October to the extent practicable, to avoid inter-riverine migration movements. Prior to breakwater construction, the contractor will be made aware of the potential presence of sturgeon. Project construction activities will be subject to a stop work order if the species is observed in the project footprint. Work will continue once the species leaves the area.
- If construction activities continued beyond the May to October window, there will be continued adherence to special conditions specified in the Sea Turtle and Smalltooth Sawfish Construction Conditions, dated March 23, 2006 (NMFS 2006).
- The project will follow Measures for Reducing Entrapment Risk to Protected Species, revised May 22, 2012 (NMFS 2006).
- If project implementation will occur during migratory bird nesting and within 300 feet of potential nesting habitat (660 feet for Bald eagles), pre-construction nesting surveys for migratory birds and raptors will be conducted. If evidence of nesting is found, coordination with the USFWS will be initiated to develop and implement appropriate conservation measures. Care will be taken to minimize noise and vibration near areas where foraging or resting migratory birds are encountered. Project construction will occur during daylight hours only.
- Work barges will be moored for overnight and weekends/holidays in areas where previous impacts have occurred (flotation channels, deployment areas).
- Spoil from flotation channels will be placed on the seaward side of the channel to facilitate current-driven backfilling of channels.
- Where practicable, shell obtained from commercial vendors that did not or will not impact the aquatic environments will be utilized for reef construction.
- Monitoring will be conducted before, during, and after project implementation to ensure compliance with project design and completion. If immediate post-construction monitoring reveals that unavoidable impacts to Essential Fish Habitat (EFH) have occurred, appropriate coordination with regional EFH personnel will take place to determine appropriate response measures, possibly including mitigation. If additional adaptive management of the breakwater structure is necessary after monitoring evens, all minimization measures discussed above will be followed.
- Any temporary access channels will be filled in naturally following construction to re-establish baseline elevations. Monitoring will assess whether unexpected impacts to EFH have occurred.

- All equipment to be used during the project, including personal gear, will be inspected and cleaned such that there is no observable presence of mud, seeds, vegetation, insects and other species.
- Sediments for marsh creation will come from the Mississippi Beneficial Use of Sediment Program or nearby sources. Since the sediments are regional they are expected to support the fauna in aquatic habitats at the project.
- Oyster cultch and vegetation will be treated or inspected to remove "non-target" species.

10.3.1.2.2 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Barriers, navigation warning signs (lighted and unlighted), and other safety devices will be installed along the work area to protect boaters.
- Appropriate BMPs will be employed to prevent, mitigate, and control potential impacts from noise to boaters, work crews, and marine organisms.
- After completion of construction, the breakwater structure will be surveyed and permanent navigation signs will be installed in accordance with safety requirements.
- Either adequate survey information for the pipeline will be obtained prior to construction, or the alignment of the pipeline will be surveyed. The Pearl River-to-Heron Bay breakwater will have a sufficiently wide gap in the structure to avoid covering the pipeline and to allow maintenance vessels to navigate and operate over and around the pipeline if needed.
- In addition, proper safety precautions and protocols will be developed, and a safety zone around the pipeline alignments will be set up to keep all construction equipment clear of the pipelines.
    - Similar procedures will be utilized if other infrastructure is identified in the project area during inquiries prior to construction.
- Best management practices in accordance with Occupational Safety and Health Administration (OSHA) and state and local requirements will be incorporated into construction activities onsite to ensure the proper handling, storage, transport, and disposal of all hazardous materials.
- Personal protective equipment will be required for all construction personnel, and authorized access zones will be established at the perimeter of the project site.
- The specific breakwater construction elevation was selected to maximize shoreline protection.

10.3.1.3 Performance Criteria, Monitoring, and Maintenance

Monitoring will be used to evaluate the restoration objectives of the project: 1) construct reef structures to protect shoreline from erosion and support secondary productivity; 2) restore marsh habitat, and 3) restore oyster reefs to support secondary productivity. Post-construction performance monitoring is proposed for seven years following completion of the project and will evaluate the project's performance over time with respect to the production and support of organisms on the living shoreline (e.g., secondary productivity) and the performance of the created marsh.

Components of this monitoring may include collecting information with respect to:

- Water quality (e.g., salinity, dissolved oxygen)
- Structural integrity of breakwater structure;
- Height/elevation and area of breakwater structure;

- Consolidation rate of breakwater structure;
- Shoreline profile;
- Shoreline position;
- Bivalve density, size, biomass, and survival;
- Non-bivalve invertebrate density and biomass; and
- Percent cover of marsh vegetation.

This project will incorporate a mix of monitoring efforts to ensure project designs are correctly implemented during construction and will allow for corrective actions to be taken where necessary.

10.3.2 Restoration Initiatives at the INFINITY Science Center

The project is intended to restore lost recreational use by providing increased access to coastal estuarine habitats, wildlife viewing areas, and educational features. The project will 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 will serve as a launching point for a comprehensive scenic byway trail system that can take visitors to beaches and tidal coastal estuarine environments.

The project will enhance recreational and educational opportunities and will promote the public's appreciation and awareness of the Gulf of Mexico's natural resources injured by the Spill. Accordingly, the project is intended to replace or provide recreational opportunities comparable to the types of opportunities lost as a result of the Spill (see C.F.R. § 990.54(a) (2) and Sections 6a-6c of the Early Restoration Framework Agreement).

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety. NEPA analysis of the environmental consequences suggests that while there may be minor adverse impacts to some resource categories, there will be no long-term moderate to major adverse impacts as a result of the project. The project will provide long-term benefits by providing enhanced access to coastal resources and educational opportunities via the Heritage Trail-Possum Walk/Outdoor Education Center and state-of-the-art exhibits at the INFINITY Science Center. Based on the cumulative impact analysis, the Restoration Initiatives at INFINITY Science Center project will not substantially contribute to adverse cumulative effects to resources. The Restoration Initiatives at INFINITY Science Center project, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts to socioeconomics, and infrastructure.

10.3.2.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the Historic Preservation Act. Consistency reviews of the Phase III early restoration projects in Mississippi were initiated by the Federal

Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Coordination has been initiated for the Clean Water Act.

10.3.2.2 Mitigation Measures

Mitigation measures (including best management practices and conservation measures) required by consultations in adherence to laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.3.2.2.1 Measures to Mitigate Impacts to the Physical Environment

- Construction in Mississippi is required to follow the "Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas" and the "Field Manual for Erosion and Sediment Control on Construction Sites in Mississippi" (MDEQ 2005).
- Heavy equipment use and storage will be minimized off the trail for the construction (boardwalk and outdoor education center), to reduce impacts to natural vegetation and water quality.
- During the construction of the native landscape/nursery area, vegetation will be planted to stabilize the soil. Any necessary fill material will be clean and will likely originate from the area.
- Clearing and grubbing will use a track-mounted dozer to mitigate soil compaction-
- Vegetation will be planted to stabilize the soil.
- Any necessary fill material will be clean and will likely originate from the area.
- A helical pier foundation system will be utilized to construct the boardwalk and Outdoor Education Center. This will minimize water quality impacts and will not require traditional or vibratory pile driving.
- During the design process, wetlands will be avoided in the final siting of pullovers and turnarounds, and opportunities will be identified to treat stormwater runoff in pervious areas to the extent practical.
- BMPs will be implemented to minimize short-term sediment transport and to prevent sedimentation and pollution in wetlands. BMPs include, but are not limited to, the use of sediment trapping techniques (such as silt fences and barriers), refueling and maintenance of equipment in uplands, and the use of non-creosote materials.

- A stormwater pollution prevention plan (SWPPP) will be prepared and erosion, sedimentation, and stormwater runoff will be managed in accordance with MDEQ stormwater requirements.
- In order to comply with a Section 404 of the Clean Water Act, all of the general conditions for the permit must be met. The conditions include, but are not limited to, guidance and BMPs concerning disrupting aquatic life movement, work within the 100-year floodplain, and sediment and erosion controls.
- Prior to all construction activities, coordination with USACE will be conducted to determine the extent of the wetlands and potential impacts and to secure authorization for proposed wetland fill and in-water activities.
- To reduce emissions of greenhouse gases, the operators will shut down idling construction equipment, if feasible; locate staging areas as close to construction sites as practicable to minimize driving/travel distances between staging areas and construction sites; encourage the use of the proper size of equipment for the job to maximize energy efficiency; and encourage the use of alternative fuels or power sources for generators at construction sites, such as propane or solar power, or use electrical power where practicable.

10.3.2.2.2 Measures to Mitigate Impacts to Biological Resources

- All construction materials will be delivered to the site using small vehicles to accommodate the narrow width of Heritage Trail-Possum Walk and to inflict minimal intrusion on the environment.
- Shading as a result of the construction of the boardwalk and Outdoor Education Center will be minimized by appropriate material that will allow light penetration to the marsh.
- Remove the minimum amount of vegetation necessary, use well-maintained tools to prevent damage when pruning adjacent or overhanging vegetation, and reduce soil compaction that will prevent regrowth of vegetation by minimizing the amount of heavy equipment.
- No in-water work will occur in Gulf Sturgeon critical habitat in the Pearl River. All available construction best management practices will be used to prevent and control any runoff to ensure none reaches the Pearl River.
- All workers will be informed of the potential for Louisiana black bear presence. If any bears are found to be present in the immediate project area during project activities, construction will be halted until the species move away from the project area. Construction best management practices (i.e. minimize noise and habitat disturbance) will be used to avoid or minimize any impacts during construction.
- No tree removal is anticipated and if necessary will be completed outside of nesting season or surveys for nesting birds will be conducted. Pre-construction migratory bird nesting surveys will be conducted and, if evidence of nesting is found, coordination with the USFWS will be initiated to develop and implement appropriate conservation measures.
- Care will be taken to minimize noise and vibration near areas where foraging or resting migratory birds are encountered. Project construction will occur during daylight hours only.
- All equipment to be used during the project, including personal gear, will be inspected and cleaned prior to being brought to the site such that there is no observable presence of mud,

seeds, vegetation, insects (especially ants and snails), and other species in order to prevent introduction of invasive species.

- Native vegetation will be used for planting. Prior to bringing to vegetation to the site, it will be inspected and "non-target[20]" species will be removed.
- The noise will be generated during daytime hours and is not expected to alter the activities of fauna that utilize the area. Appropriate BMPs will be employed to prevent, mitigate, and control potential impacts from noise.

10.3.2.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Recycling collection areas will be established for paper, cardboard, aluminum cans and plastic bottles, as appropriate.
    - Increases in solid waste as a result of expected growth will be addressed by appropriate waste collection and maintenance activities.
- Underground utilities will be located prior to any construction activities.
- All construction activities will occur in daytime hours.

10.3.2.3 Performance Criteria, Monitoring, and Maintenance

The project's restoration objectives are to enhance and increase recreational opportunities as well as the public's appreciation and awareness of the Gulf of Mexico's natural resources. Successful completion of the project will enhance public use and enjoyment of these resources. This project includes monitoring efforts to ensure project designs are correctly implemented during construction to meet the stated restoration objectives. Further, the project will be monitored for visitor counts and facility usage at the INFINITY Science Center and its resources. Monitoring will include calculating the number of visitors to the INFINITY Science Center indoor facility/exhibits and the number of visitors using the Heritage Trail-Possum Walk and Outdoor Education Center. Visitation and public use of the facilities and associated amenities will be monitored for five years following completion of construction. The INFINITY Science Center will be responsible for maintaining the Science Center facilities, features, and exhibits.

10.3.3 Popp's Ferry Causeway Park: Project Description

The project is intended to restore lost recreational opportunities through the enhancement of increased access to coastal estuarine habitats and wildlife viewing areas. The project will enhance the public's use and/or enjoyment of natural resources by constructing and/or expanding an educational interpretive center, nature trails, piers, and other recreational enhancements that will enhance visitor access to the adjacent coastal estuarine environment and provide opportunities for visitors to fish, crab, and observe nature. Accordingly, the project is intended to replace or provide recreational opportunities comparable to the types of opportunities lost as a result of the Spill (see C.F.R. § 990.54(a) (2) and Sections 6a-6c of the Early Restoration Framework Agreement).

[20] A non-target species is any species that is present on the species of choice but is not desirable and should be removed.

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety. NEPA analysis of the environmental consequences suggests that while there may be minor adverse impacts to some resource categories, there will be no long-term major adverse impacts as a result of the project. The project will provide long-term benefits by providing enhanced access to coastal resources and educational opportunities in the park, fishing piers, boardwalks, a marsh overlook, and interpretive center. Based on the cumulative impact analysis, the Popp's Ferry Causeway Park project will not substantially contribute to adverse cumulative effects to resources. The Popp's Ferry Causeway Park project, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts to socioeconomics, land and marine management, aesthetic and visual resources, tourism and recreation, infrastructure and public health and safety/shoreline protection.

10.3.3.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, the Marine Mammal Protection Act, and the National Historic Preservation Act. Consistency reviews of the Phase III early restoration projects in Mississippi were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. The Trustees have initiated consultations under the Clean Water Act and the Rivers and Harbors Act.

10.3.3.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources, they could result in reduced impacts to other resources.

10.3.3.2.1 Measures to Mitigate Impacts to the Physical Environment

- Construction in Mississippi is required to follow the "Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas" (MDEQ 2012a) and the "Field Manual for Erosion and Sediment Control on Construction Sites in Mississippi" (MDEQ 2005).
- Low-impact lighting will be installed along the waterfront shoreline path.
- To the extent possible, pervious, vegetated treatment areas will be incorporated into the final design to facilitate stormwater storage and treatment throughout the site.
- The current site design has been developed to avoid and minimize impacts on wetlands. Contractors will be instructed to minimize disturbance during construction in wetlands. In addition, the Trustee will adhere to the conditions of the Mississippi Coastal Wetland Protection Act and Clean Water Act permits.

- Dewatering may be required for subsurface work such as utility installation. Water will be discharged to a vegetated pervious area for infiltration. Appropriate BMPs will be used to prevent, control, and mitigate potential impacts.
- To reduce emissions of greenhouse gases, the operators will shut down idling construction equipment, if feasible; locate staging areas as close to construction sites as practicable to minimize driving/travel distances between staging areas and construction sites; encourage the use of the proper size of equipment for the job to maximize energy efficiency; and encourage the use of alternative fuels or power sources for generators at construction sites, such as propane or solar power, or use electrical power where practicable.
- Piling driving will be completed with a vibratory hammer, which will minimize noise impacts.
- Every effort will be made to minimize the time required for pile installation.
- All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times and in all water depths where the draft of the vessel provides less than a 4-ft. clearance from the bottom.
- Construction contractors will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- The Trustee, or designee, will have monitors onsite during pile installation to ensure that conditions are met.

10.3.3.2.2 Measures to Mitigate Impacts to Biological Resources

- Contractors will be instructed to avoid the clearing of trees and minimize disturbance and compaction in wetlands where permitted activities will occur.
- If heavy equipment is necessary for any construction or installation work in sensitive areas, wetland mats and low ground pressure equipment will be used in order to minimize damage.
- Staging for construction will be confined to the site, and the contractor could be directed to stage equipment in areas that have been previously disturbed and that do not contain wetlands.
- Construction of the boardwalk to allow penetration by sunlight will reduce shading effects and allow vegetation to regrow.
- All landscaping work will use native species to the extent possible.
- The Trustee will identify and also avoid pocket beaches to the maximum extent practicable in the design of the project.
- The Trustee, or designee, shall advise all construction personnel regarding the civil and criminal penalties for harming, harassing, or killing West Indian manatees, which are protected under the Endangered Species Act of 1973.
- Establishment of Shut-Down Zone: The calculated radius for the 120 dB rms/Level B harassment zone (i.e., distance from driven pile to area where harassment would no longer be expected to occur) is 1,585 m. The area defined by this radius in all relevant directions from the pile driving activity will comprise the shut-down zone. Shut-down of pile driving activity will occur immediately upon observation of any marine mammal within or approaching this zone.
- Visual Monitoring and Shut-down of Pile Driving Activities: The shut-down zone will include all areas where underwater sound pressure levels are anticipated to equal or exceed the 120 dB

threshold, as described under "Establishment of Shut-Down Zone." Qualified observers will monitor these zones and advise project personnel when delay or shut-down of pile driving activities is required. The shut-down zone will be monitored for the presence of marine mammals before, during, and after any pile installation activity, beginning 15 minutes prior to initiating the start of pile installation and continuing for 15 minutes following the completion of pile installation. If marine mammals are present within the shut-down zone prior to pile installation, the start of pile installation will be delayed until the animals voluntarily leave the shut-down zone and have been visually confirmed beyond the zone, or until 15 minutes have elapsed without redetection. Shutdown of pile driving activities will occur if any marine mammal enters or approaches the established zone, and will not resume until the animal has voluntarily moved beyond the relevant shut-down zone radius, either through visual confirmation or by waiting until 15 minutes has elapsed without redetection.

- Qualified biologists will be present on site at all times during pile driving activities. The action area will be monitored by at least three observers during vibratory pile driving. One will be based on land; two will be on vessels traveling along and within the radius while visually scanning the area.
- Monitoring of the shut-down zone will be conducted using binoculars, spotting scopes and visual observations. Each monitor will have a radio for contact with other monitors or work crews. A GPS unit, range finder, or other suitable methodology will be used for determining the observation location and distance to marine mammals, vessels, and construction equipment.
- No pile driving will occur in low-light conditions, or when visibility is impaired such that the shut-down zone cannot be effectively monitored. Pile driving will only be conducted between one-hour post-sunrise through one hour prior to sunset. If waters exceed small craft advisories or conditions otherwise restrict biologists' ability to make observations or become unsafe for the observation boat to operate, pile installation will cease until conditions allow for monitoring to resume.
- If possible, complete the in-water work when manatees are not expected to be present, i.e., when water temperatures are below 68F. If timing restrictions are not feasible, then conditions A-D of the Standard Manatee Conditions for In-water Work, 2011, shall be followed when operating vessels or doing in-water work construction.
- If protected species enter the construction area, construction will be halted until the individual(s) leave the project area.
- Sea turtle and Smalltooth Sawfish Construction Guidelines (NMFS 2006) shall be followed when operating vessels or doing in-water work construction.
- If activities require tree or shrub removal during the migratory bird breeding season, pre-construction surveys will be completed. If evidence of nesting is found, coordination with the USFWS will be initiated to develop and implement appropriate conservation measures.
- Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.

- Anchoring and mooring will be restricted to impacted areas. Work barges will be moored for overnight and weekends/holidays in areas where previous impacts have occurred (deployment areas).
- Vibratory hammers are considered a minimization measure to decrease injury and behavior modification to fish and cetaceans. The project will use this method to install pilings for piers.
- Monitoring will be conducted before, during, and after project implementation to ensure compliance with project design.
- Structures will be designed to minimize shading impact to tidal and non-tidal wetland grasses.
- Appropriate BMPs will be employed to minimize impacts associated with the parking areas and during construction.
- All non-native species removed during clearing and grubbing will be properly handled to prevent spreading into other areas on the project site. Proper handling could include bagging, mulching, or burning removed vegetation to prevent regrowth.
- All equipment to be used during the project, including personal gear, will be inspected and cleaned prior to being brought to the site such that there is no observable presence of mud, seeds, vegetation, insects (especially ants and snails), and other species, in order to prevent introduction of invasive species.
- During operation and management of the facilities, native vegetation will be used for planting. Prior to bringing vegetation to the site, the vegetation will be inspected and "non-target[21]" species will be removed.
- The Trustees will conduct environmental compliance monitoring to ensure that all BMPs are implemented properly, the intent of the BMPs is achieved, and no unanticipated effects occur to fish and wildlife resources. Compliance monitoring results will be made available to the public.

10.3.3.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Due to safety concerns, access to certain areas may be restricted during construction of each project feature.

10.3.3.3 Performance Criteria, Monitoring, and Maintenance

Successful completion of the project will meet the project's restoration objective to enhance recreational opportunities as well as provide access for enhanced appreciation and awareness of the surrounding natural resources impacted by the Spill. The Trustees will incorporate monitoring efforts to ensure project designs are correctly implemented. Additionally, the Trustees will monitor public use of the project and associated features for recreational activities and access to the natural resources. Monitoring will include visitor counts to reflect the number of visitors to the project during monitoring a five year period upon completion of construction. The monitoring period will conclude five years after the completion of construction. The City of Biloxi will be responsible for maintenance of the Popp's facilities, features, and exhibits.

[21] A non-target species is any species that is present on the species of choice but is not desirable and should be removed.

10.3.4 Pascagoula Beachfront Promenade

The Pascagoula Beachfront Promenade project is intended to restore lost recreational opportunities resulting from the Spill and related response actions. This project will enhance recreational shoreline access via the construction of a lighted concrete beachfront pedestrian pathway adjacent to a sand beach in Pascagoula, Mississippi. Project funds will be used to help complete a two-mile, 10-ft.-wide lighted concrete pathway complete with amenities. This Early Restoration project proposal will fund a portion (8,200 ft.) of the 10-ft. wide promenade, a portion of which has already been constructed. Completion of the project will enhance the public's use and/or enjoyment of natural resources, specifically, shoreline adjacent to the Mississippi Sound. The project is intended to replace or provide recreational opportunities comparable to the types of opportunities lost as a result of the Spill (see C.F.R. § 990.54(a) (2) and Sections 6a-6c of the Early Restoration Framework Agreement).

For the Pascagoula Beachfront Promenade, DOI adopted the U.S. Department of Housing and Urban Development (HUD) EA entitled "Environmental Assessment and Finding of No Significant Impact for HUD-funded Proposals, Pascagoula Beach Promenade Project" (HUD 2011). In addition, supplemental NEPA analysis was completed for elements of the project that were not covered in the HUD EA. The supplemental analysis included potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety.

This project was analyzed for its potential environmental consequences on geology and substrates; hydrology and water quality; air quality and GHGs; noise; living coastal and marine resources; protected species; socioeconomics and environmental justice; aesthetics and visual resources; tourism and recreational use; as well as infrastructure and public health and safety. The environmental consequences (adopted EA and supplemental analysis) suggest that while there will be minor adverse impacts to some resource categories, there will be no long-term moderate to major adverse impacts as a result of the project. The project will provide long-term benefits by providing enhanced shoreline access via the promenade and associated amenities. Based on the cumulative impact analysis, the Pascagoula Beachfront Promenade project will not substantially contribute to adverse cumulative effects to resources. The Pascagoula Beachfront Promenade, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts to socioeconomics, land and marine management, aesthetic and visual resources, tourism and recreation, infrastructure and public health and safety.

10.3.4.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and the National Historic Preservation Act. Although no further cultural resource investigations (i.e., a Phase I cultural resources survey) are recommended for the Pascagoula Beachfront Promenade Project area, a limited period of monitoring and documentation of the proposed modifications to the historic seawall by a qualified archeologist is recommended for the first two days of construction activities, with continuing

consultation with the Mississippi Department of Archives and History State Historic Preservation Office and the Department of the Interior if there are any changes to the project design. Consistency reviews of the Phase III early restoration projects in Mississippi were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. The Trustees have initiated consultation under the Clean Water Act and the Rivers and Harbors Act.

10.3.4.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.3.4.2.1 Measures to Mitigate Impacts to the Physical Environment

- A stormwater pollution prevention plan (SWPPP) will be prepared and erosion, sedimentation, and stormwater runoff will be managed in accordance with Mississippi Department of Environmental Quality (MDEQ) stormwater requirements.
- Construction in Mississippi is required to follow the "Erosion Control, Sediment Control and Stormwater Management on Construction Sites and Urban Areas" (MDEQ 2012) and the "Field Manual for Erosion and Sediment Control on Construction Sites in Mississippi" (MDEQ 2005).
- Although the project will be located in the floodplain, most of the components will be constructed essentially at grade, which will not aggravate current hazards to other floodplains and will not disrupt floodplain values.
- During construction, there will be short-term minor impacts from increased turbidity in the drainage channels resulting from stormwater runoff from the construction zone. Also, construction fluids (oil, gas, lubricant) from construction equipment and vehicles could potentially leak into these channels. Appropriate BMPs will be implemented to avoid and minimize these impacts.
- Shut down idling construction equipment, if feasible to limit greenhouse gas emissions.
- Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
- Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
- Encourage the use of alternative fuels or power sources for generators at construction sites, such as propane or solar power, or use electrical power where practicable.
- Noisy construction activities will not be conducted before 6:30 a.m. or after 7:00 p.m., Monday through Saturday, in compliance with the City of Pascagoula noise ordinance.

10.3.4.2.2 Measures to Mitigate Impacts to Biological Resources

- If any sea turtles are found to be present in the immediate project area during project activities, construction will be halted until the species move away from the project area. In addition,

impacts to lands or waters surrounding the project area will be prevented, controlled or mitigated by use of all available best management practices during construction.

- Pre-operational surveys will be completed if equipment has left ruts on the "beach" or if equipment is staged on the "beach." If any piping plovers or red knots are found to be present in the immediate project area during project activities, construction will be halted until the species move away from the project area or construction activities will resume at a safe distance from the species. During construction, attempts will be made to limit the use of heavy equipment on the "beach" area. Pets are currently not allowed on the "beach" except on the far western end. In addition, all available construction best management practices will be used to prevent control, or mitigate any impacts during construction especially from accidental leaks of fluids from equipment.
- Work will be completed in daylight hours. Care will be taken to minimize noise and vibration near areas where foraging or resting migratory birds are encountered. If evidence of nesting of migratory birds is found during construction, coordination with the USFWS will be initiated to develop and implement appropriate conservation measures.
- All equipment to be used during the project, including personal gear, will be inspected and cleaned such that there is no observable presence of mud, seeds, vegetation, insects, and other species.
- Oyster cultch and vegetation will be treated or inspected to remove "non-target" species.
- The Trustees will conduct environmental compliance monitoring to ensure that all BMPs are implemented properly, the intent of the BMPs is achieved, and no unanticipated effects occur to fish and wildlife resources. Compliance monitoring results will be made available to the public.

10.3.4.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Public access will be restricted during active construction areas due to safety concerns.
- During construction, there will be safety concerns in the construction zone. However, signs and barricades will be used to ensure safety to workers and to the public.
- Litter removal will minimize the impact to native species or natural habitats. The City of Pascagoula will be responsible for monitoring litter accumulation, litter removal and maintenance.

10.3.4.3 Performance Criteria, Monitoring, and Maintenance

Successful completion of the project will meet the restoration objective to enhance public use and enjoyment of the natural resources injured by the Spill. This project includes monitoring efforts to ensure project designs are correctly implemented during construction. Trustees will conduct additional monitoring for public use of the Pascagoula Beachfront Promenade and the adjacent beach area through visitor counts on the promenade and associated amenities for a five [year period upon completion of construction. The City of Pascagoula will be responsible for maintenance of the project facilities, features, and exhibits.

10.4 Alabama

10.4.1 Swift Tract Living Shorelines

The 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 will create breakwaters to dampen wave energy and reduce shoreline erosion while also providing habitat and increasing benthic secondary productivity. The project will 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 project will restore injured benthic secondary productivity by constructing breakwaters topped with oyster shell veneer, enhance injured salt marsh habitat by reducing future erosion, and compensate for interim losses of salt marsh habitat and benthic secondary productivity for impacts caused by the Spill in Alabama. Thus, the nexus to resources injured by the Spill is clear (See 15 C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Early Restoration Framework Agreement).

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories will be expected, no major adverse impacts are anticipated to result. The potential for moderate adverse impacts were identified for Geology and Substrates, Hydrology and Water Quality, and Living Coastal and Marine Resources (Benthos, Motile Invertebrates, and Fishes) resource categories; however, these impacts will be short duration (during construction) and mitigation measures will be implemented to reduce these impacts to a minor level. No other resources were identified as having potential moderate impacts. The project will provide long-term benefits by creating approximately 1.6 miles of reefs. Cumulative impacts from the implementation of the Swift Tract Project will be similar to the direct impacts, with impacts being largely minor or less and long-term benefits due to the implementation of ecological restoration activities such as living shorelines and coastal land acquisition/management. The Swift Tract Project will not make a substantial contribution to cumulative impacts due to the use of BMPs and appropriate mitigation measures.

10.4.1.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, the Marine Mammal Protection Act, and the Coastal Barrier Resources Act. Consistency reviews of the proposed Phase III early restoration projects in Alabama were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance has been initiated for the National Historic Preservation Act and will need to be completed for the, the Clean Water Act, and Rivers and Harbors Act. Best management practices and conservation measures required by consultations in adherence to these laws are listed below categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Mitigation Measures (including best management practices and

conservation measures) required by consultations in adherence to laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.4.1.1.1 Measures to Mitigate Impacts to the Physical Environment

- Construction activities will be performed from water based resources with no activities on the shoreline adjacent to the site.
- Due to water depths in the vicinity of the project site, access channels may need to be dredged. The dredged sediments will be side cast and will be backfilled after construction is complete.
- Turbidity levels will be monitored during construction. BMPs [not listed] will be implemented to maintain ambient water quality standards at or below local and state regulatory permit levels.
- During construction, BMPs, such as floating turbidity barriers, may be used to contain turbid water and reduce impacts to ambient water quality conditions.
- The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving and/or boating distances between staging areas and construction sites.
    - Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.
- Rip rap will be topped with cultch material to encourage oyster colonization. The cultch material is expected to be land-sourced (as opposed to dredged) bagged oyster shell that will be placed on the surface of the rip rap.
- The pilings will be pushed into place instead of driven to minimize noise created from piling installation.
- If the reefs are not performing as designed or anticipated, then adaptive management procedures will be used by the implementing Trustee (NOAA) to correct the structure. Adaptive management activities may include adding additional shell veneer to the surface of the reefs, adding additional hardened structure (e.g. rip rap), and/or replacing warning signs.

10.4.1.1.2 Measures to Mitigate Impacts to Biological Resources

- Anchoring sites will be situated to avoid shading impacts to SAV, if it is found to be in the project area. Access over existing SAV will also be avoided to the maximum extent practicable to minimize prop-scarring impacts.
- The project will adhere to recommendations for Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS, 2006).
- The project will adhere to Standard Manatee Conditions for In Water Work (USFWS, 2011) and any applicable federal and state permit conditions.
- To minimize impacts to EFH, BMPs and mitigation measures may include, using floating turbidity barriers, locating staging areas in off-site upland areas, and maintaining loaded draft barge drafts so as not to impact the bottom substrate, driving pilings instead of jetting pilings to reduce turbidity, operating vessels at idle speeds to avoid collision with individuals and to minimize prop scarring, and obtaining shell cultch materials from shucking houses instead of dredged shell sources.
- The following measures will be implemented during breakwater construction based on the NMFS consultation:
    - The contractor will be made aware of the potential presence of sturgeon. If any are observed during construction, work will cease until the sturgeon have moved away from the construction area.
    - Pilings will be pushed into the soft bottom substrate instead of driven. Pushing the pilings will reduce, to the maximum extent practicable, any noise from piling installation.
- To not spread or introduce species all equipment to be used during the project, including personal gear, will be inspected and cleaned such that there is no observable presence of mud, seeds, vegetation, insects and other species.
- Conducting pre-construction surveys and monitoring for Alabama red bellied turtle presence (or suitable habitat conditions) during construction. Results of the pre-construction survey will be coordinate with USFWS to determine if additional conservation measures are necessary. During construction, the contractor will be made aware of the potential presence of the Alabama red bellied turtle. If turtles are found, construction in the area will be halted until the turtles move on of their own volition. Otherwise, coordination will occur with the USFWS to determine if relocating turtles (via permitted biologist) found within the construction area to nearby suitable habitat is necessary.
- To determine the potential for nesting birds, a pre-construction survey of wetland areas within the 500 feet of the project construction footprint will be conducted. If nests are observed prior to construction, NOAA will coordinate with FWS on specific conservation measures, which may include minimizing boat traffic within 300 feet of the nests and operating vessels at idle/no wake speed.
- Pre-construction surveys will include, at a minimum, wood stork and bald eagle nests. If wood stork nests are identified, boat traffic within 300 feet of the nests will be minimized to the maximum extent practicable and contractors will operate at idle/no wake speed. If bald eagle

nests are located, FWS best management practices (2007) will be followed to minimize harm to bald eagles. For water based construction activities that are intended to protect the shoreline, best practices include:

  - Conducting construction activities outside of nesting season, if nests are present;
  - If a nest is present and it is not possible to avoid construction, maintain a buffer of at least 660 feet from the nest; and,
  - Minimize the number of boat trips passing within 660 feet of the nest location.

- Noise impacts to all bird species, including wood stork, piping plover, and red knot will be minimized through operating boats at idle speed when near shorelines and working during the day only.

10.4.1.1.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The specific elevations of the breakwaters and design techniques will be selected to maximize shoreline protection and meet individual state regulatory requirements.
- During construction, barriers, navigation warning signs (lighted and unlighted), etc. will be established and maintained along the work area to protect boaters.
- The work barge(s) will be selected and operated to safely meet the draft requirements in this area.
- Placement of the rip rap will be monitored to insure the breakwaters dimensions, slopes, and crest elevation is achieved.
- 6 Permanent warning / navigation signs placed on 12-inch diameter posts will be installed in accordance with safety requirements.

10.4.1.2 Monitoring

Performance Criteria, Monitoring and Maintenance Monitoring activities at the Swift Tract site are planned over a 7 year period (Baseline, Implementation, and Post Implementation) and are estimated to cost approximately $650,000.Existing local boat ramps (e.g. Weeks Bay) will be used to access the site. This monitoring approach will incorporate a mix of quantitative and qualitative monitoring efforts to ensure project designs are correctly implemented during construction and in a subsequent period, defined by contract, where corrective actions could be taken by the implementing Trustee (NOAA) to ensure the project meets the following objectives:

- construction of reefs that meet project design criteria and that are sustained for the expected lifespan of the project to support benthic secondary productivity and reduce shoreline erosion,
- support habitat utilization of the reefs by bivalves and other invertebrate infauna and epifauna to increase secondary benthic productivity at the project site, and
- reduction of shoreline erosion to protect existing salt marsh habitat.

Post construction performance monitoring will also be conducted to evaluate the project's performance over time. In general, components of this monitoring will evaluate the production and support of organisms on the reefs (e.g., benthic secondary productivity) and the performance of the protected vegetated habitats on the shoreline (e.g., salt marsh habitat).

Components of this monitoring effort are expected to include collecting information on the following parameters:

- Structural integrity observations of the breakwaters
- Height/elevation and area of the breakwaters
- Consolidation rate of breakwaters
- Shoreline profile
- Shoreline position
- Wave energy / height
- Bivalve species composition, density, size, and biomass
- Infauna and epifauna invertebrate species composition, density, and biomass

10.4.2 Gulf State Park Enhancement Project

The Gulf State Park Enhancement Project will 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. The goal of the Gulf State Park Enhancement Project is to provide partial compensation for recreational services lost as a result of DWH injuries to the natural resources of coastal Alabama.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories may occur, no major adverse impacts are anticipated to result. The potential for moderate adverse impacts was identified for traffic and transportation related impacts; however, mitigation measures will be implemented to reduce these impacts to a minor level. No other resources were identified as having potential moderate impacts. The project will provide long-term benefits by providing increased recreational and interpretive opportunities within GSP, as well as implementing additional dune restoration and enhancement within the park. Cumulative impacts from the implementation of the Gulf State Park Enhancement Project will be similar to the direct impacts, with impacts being largely minor or less, with the potential for moderate impacts to transportation networks that will be addressed though implementation of mitigation measures. The Gulf State Park Enhancement Project will not make a substantial contribution to cumulative impacts due to the use of BMPs and appropriate mitigation measures.

10.4.2.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, National Historic Preservation Act, Clean Water Act, Rivers and Harbors Act, and the Coastal Zone Management Act.

Following the release of the Draft Phase III ERP/PEIS, the Trustees worked with the USFWS to revise an existing Incidental Take Permit and supporting biological opinion that would apply to Gulf State Park, which included a conference report addressing proposed Loggerhead CH. The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed Gulf State Park project on the proposed Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 18, 2014 resulting in a concurrence that the Gulf State Park project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.4.2.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.4.2.2.1 Measures to Mitigate Impacts to the Physical Environment

Lodge, Conference Facility, and Interpretative Center

- No Work will occur on (except walkovers) or Gulfward of the Coastal Construction Line.

General Operations and Maintenance

- The practice of accessing and using the beach areas with off-road capable vehicles will be eliminated except for park personnel and emergency vehicles. Low impact beach driving guidelines (including minimizing vehicle access, the number of trips per day, and using low impact vehicles/tires) will be implemented for non-emergency needs.
- Where necessary, approved fencing or signage will be installed to funnel pedestrian traffic to utilize existing vehicular trails.
- Beach access points will be limited to those necessary. The approved beach accesses will consist of a path wide enough to accommodate the vehicle(s) that will be used by Park personnel. Currently, beach access by vehicles is limited to six locations: two at the fishing pier, one on the eastern edge of the old Lodge site, two at the Beach Pavilion, and one at the western end of the park. Vehicular access points are subject to fire marshal approval of the site plan. If the fire marshal requires a different location or type of access than the existing locations a minor (informal) change to the Habitat Conservation Plan (HCP) may be required.
- Environmental permitting for these projects will require erosion and sedimentation (E&S) plans to obtain building permits from the municipality. E&S plans ensure that erosion and sedimentation are minimized by using BMPs, including:
    - Cordoning off the work area with silt fences.

    - Covering piles of removed soil with sod to keep it in place.
    - Salvaging and reusing topsoil either in place or in other project areas.
    - Revegetating the area with native species so bare soil is no longer present, and
    - Wetting the area to minimize dust and erosion
    - Reclaiming topsoil
- Light construction equipment, such as ATVs or small pick-up trucks, will be used to transport vegetation that will be transplanted in the dune systems over the project area, except where the use of medium or heavy equipment has been approved by the USFWS.
- Prescribed corridors will be established so that equipment transport will not recklessly traverse the dunes.
- The removal of vegetation will be minimized whenever possible.
- To mitigate for the wetlands that will be filled, GSP will create 0.22 acres of replacement wetlands (3 times larger than the filled area) within the footprint of the lodge and conference center.
- Replant wetlands with native vegetation after removing the timber mats.
- Pollution discharge permits will be acquired to protect water quality.
- Stormwater management BMPs will capture the increased sediment before it could run off the site towards the Gulf.
- The U.S. Environmental Protection Agency (USEPA) requires incorporating the following components into an NPDES BMP plan:
    - Municipal oversight
    - Construction site planning and management
    - Erosion control
    - Runoff control
    - Sediment control
    - Proper materials management
- The NPDES permit will require disposal of all construction waste and excavated material according to state and local requirements. The contractor will also be required to use legally operating landfills for the disposal of project-generated waste materials.
- If necessary to control dust emissions, contractors will be required to implement fugitive dust control measures, such as watering exposed areas, installing dust covers on trucks, and using tracking mats to reduce dust emissions from truck tires.
- Other emission reduction measures, if necessary, could include:
    - Use of ultra-low sulfur diesel fuel in off-road construction equipment with engine horsepower (HP) rating of 60 HP and above.
    - Limiting unnecessary idling times on diesel-powered engines to 3 minutes.
    - Locating diesel-powered exhausts away from fresh air intakes.
    - Controlling dust related to construction site activities through a Soil Erosion Sediment Control Plan that includes spraying of a suppressing agent on dust piles (non-hazardous, biodegradable).
    - Covering trucks hauling loose materials.

- Construction will be limited to daylight hours and using material haul routes designed to avoid sensitive noise receptors.

10.4.2.2.2 Measures to Mitigate Impacts to Biological Resources

Lodge, Conference Facility and Interpretive Center

- The construction area will be trapped for Alabama beach mouse (ABM), the week prior to construction (see HCP for details). Should burrows with mice be encountered during construction, work at and around the burrow (radius of at least 50 feet from the point of observation) shall temporarily cease. The USFWS will be notified immediately and, within a 72 hour period, can relocate as many mice as feasible from the area of observation. If circumstances indicate such capture is infeasible, the USFWS will advise the applicant to proceed, while providing advice as to any reasonable modification of construction technology, procedure, or timing that will reduce or avoid further localized adverse effects on the mice in the area of disturbance. Instructions for handling dead or injured mice are addressed under the HCP and Biological Opinion.
- Use of temporary lighting during nighttime hours will be minimized during construction, wildlife-friendly lighting will be incorporated where possible.
- No fencing will be installed that may impede sea turtle movement, except that specifically designed to exclude turtles from walkover construction areas during their construction.
- Construction waste and debris will be stored, disposed of, monitored, and maintained in a manner such that rodents and predators are not attracted to the area
- A landscaping plan will be prepared and submitted to USFWS for approval.

- Dune walkover construction will be restricted to the period outside sea turtle nesting season (May 1-October 31) to the extent practicable.
    - If dune walkover construction is necessary within nesting season, surveys for sea turtle nests will be completed prior to initiation of construction. If nests are found, construction will be delayed until the nest has hatched. If no nests are found, the construction area will be fenced such that turtles cannot enter the area to nest during construction. Fencing will be removed immediately on the completion of walkover construction.
- Dune Walkover construction will occur during daylight hours only. No equipment may be used for dune walkover construction or new walkover maintenance except that which is essential to these purposes.
- All dune walkover construction activities will be conducted in a “top-down” manner in order to prevent further degradation of the dunes. Any disturbed areas outlying the outer edges of the walkovers will be restored.
- The most current version of the USFWS’ beach driving guidelines for use of vehicles and machinery during construction will be followed.
- Walkovers will be constructed on the smallest footprint/design that achieves project goals to reduce physical restrictions and shaded sand to the maximum extent practicable. Walkover

alignment will be established in coordination with and approval by the USFWS and Alabama Department of Environmental Management (ADEM).

- New walkovers will be constructed in accordance with all state and local laws and will also take into account optimal dune height during planning (i.e., new walkovers will be built approximately 5 feet above optimal dune height rather than existing grade such that sand maintenance is not necessary).
- Existing walkovers will be maintained as follows:
    - Consider raising the walkovers such that maintenance is not needed and identify optimal dune height in coordination with USFWS;
    - Until walkovers are raised and prior to maintenance, a permitted biologist will survey for mice burrows and tracks. Burrows and tracks will be flagged and avoided where possible.
    - If avoidance is not possible, a permitted biologist will trap and relocate the mice from the area and the area to be maintained will be fenced such that mice cannot re-enter the area during maintenance (see HCP for details). After initial maintenance, the fencing will be removed and the walkovers will continue to be maintained using the smallest tools available such that the walkover allows mice to transit the area (i.e., maintain connectivity) but does not have suitable burrow habitats (that will be disturbed during maintenance). These procedures will avoid unnecessary disturbance.
    - When the boardwalks need to be repaired or replaced, they will be installed in accordance with state and local laws and use the currently existing (as of May 16, 2014) or optimal dune height (as determined in coordination with USFWS) as a baseline to apply the clearance above grade requirement. This measure will avoid the future need for sand maintenance adjacent to walkovers.
- Unmanaged foot traffic through dune structures, which destroys dune vegetation and leads to dune degradation and erosion will be controlled by construction and use of the dune walkovers.
- Educational signage will be placed and maintained at walkovers and other locations to advise visitors of sea turtles and means to avoid them (see HCP for details).

Dune Restoration/Enhancement

- A program for monitoring, protecting, enhancing, and maintaining dunes within Gulf State Park will be implemented as described in the HCP, including the development and implementation of a Dune Restoration and Management Plan. Reporting requirements are also defined in the HCP.
- Alabama Department of Conservation and Natural Resources (ADCNR) will work with USFWS to determine the timing, construction methods, location, and dimensions for the corridors and dune enhancement activities.
- If Alabama beach mice are present based on surveys conducted in the area for restoration or enhancement, they will be captured and relocated by a permitted biologist if necessary as determined by the USFWS.

Visitor Enhancements

- Gopher tortoise, Alabama beach mouse, and bald eagle nest surveys will be conducted in the area for the trails and interpretive signs. Tortoise and beach mouse burrows and bald eagle nesting areas (following USFWS's 2007 National Bald Eagle Management Guidelines) will be marked with flagging and their locations mapped. The flagging and mapping will be used to design the trail and sign locations to avoid any burrows and prevent obstacles between burrows.
- Pre-construction site visits will be conducted by ADCNR (or their representatives) in coordination with USFWS to ensure the enhancements avoid ABM habitats and bald eagle nesting areas.

General Operations and Maintenance

- A lighting plan for currently proposed and future structures at Gulf State Park will be developed and submitted to USFWS for review and approval.
    - The lighting plan will describe how direct and indirect illumination of sea turtle and ABM habitats will be minimized including minimization of light overspill and brightness from interior spaces and windows and outdoor areas. The lighting plan may include a combination of: low pressure sodium lights, fully shielded fixtures, amber LED bulbs, fully shielded street lights, wildlife-friendly windows, and other new wildlife-friendly lighting technologies as they are developed. All lighting plans will use the information contained in USFWS's "Recommended Measures to Minimize Lighting Impacts to Wildlife Habitat" document (see HCP).
    - Directional outdoor floodlights or other lights that illuminate the primary dunes lying south of the property, the wet beach seaward of such dunes, or any portion of the Gulf of Mexico will not be installed upon nor used on the property.
    - The light emitting and/or reflecting portions of any light sources (including bulbs, tubes, reflectors, or globes) on the property shall be shielded or recessed, such that no portion of the cone or beam of light from any such sources is directed toward any area south of the crest of the primary dune.
- Predators will be controlled.
    - No free-roaming cats shall be allowed as pets, or otherwise, at Gulf State Park. If, during routine monitoring and reporting, surveys disclose the presence of cats and/or cat tracks in the developed parts of the project, immediate control measures will be instituted.
    - In addition to cats, trapping efforts will include the red fox and coyote. Any trapped predators will be taken to the local animal control facility.
    - Dogs shall be restricted to developed areas of the park only and not allowed in dune or beach habitat. Park guidelines require dogs to be on leashes at all times.
    - Restrictions for the property will prohibit tenants, or others, from supporting the presence of domestic or free-roaming feral cats by providing food, shelter, or any other life-supporting elements.

    - Means of control will be established, funded, and carried out by the applicant. Results will be reported during normal reporting cycles to USFWS.
- Refuse management is intended to prevent house mice from being introduced into Gulf State Park. However, if house mice are determined to exist, a house mouse trapping and extermination effort will be initiated and continued until control over house mice has been established.
- Walkways at the Interpretive Center will require sand maintenance and will be maintained using minimally invasive measures and in coordination with the USFWS Alabama Field Office.
- Waste receptacles for visitor use will be maintained in a manner such that rodents and predators are not attracted to them.
- Property fences will be of specific design so as to not fragment habitat or impede species movement and will be regularly inspected and maintained (see HCP for details).
- Efforts will be made to minimize the removal of vegetation whenever possible.
- Impacted bare areas will be replanted with native vegetation to stabilize soils.
- During construction activities, it may be necessary to lay down timber matting for heavy construction equipment to cross wetland areas, without compacting the soil.
- If land clearing must begin during nesting/hatching/or fledging, surveys for nesting birds will be conducted prior to the implementation of any land clearing or construction action. If nesting birds are located, activities will not begin around the nests until the birds have fledged. A buffer distance to avoid the nests will be determined in coordination with the U.S. Fish and Wildlife Service.
- To the extent practicable, staging areas for construction of the interpretive center will occur on areas that are already disturbed, such as the existing parking area for the beach pavilion.
- Construction activities will be timed to avoid the nesting seasons of Bald eagles. With respect to any active Bald eagle nests in proximity to project components, conservation measures outlined in the National Bald Eagle Management Guidelines (2007) will be followed to prevent take.

10.4.2.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The construction limits of the project area will be clearly marked for the duration of construction, with a continuous fence, cable, or other substantial marking device. Signage will be posted at intervals of no less than one hundred feet along its limits inside the fence, with each sign to include the following or essentially similar language “Absolutely no construction activity or other entry permitted beyond this point. For further information, contact construction superintendents’ office.”
- If archeological resources are discovered during construction, all work will halt immediately in the vicinity of the discovery until the resources can be identified and documented and an appropriate mitigation strategy developed.
- In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act of 1990(25 U.S.C. § 3001) will be followed.
- During construction, the one previously recorded archaeological site will not be disturbed and all previous SHPO recommendations will be followed.

- In the event that subsurface disturbance to the site is unavoidable, archaeological monitoring of construction activities will occur.
- For all construction efforts, impacts could be minimized by a screening or visual barrier to obscure the construction site for the duration of construction.
- Install appropriate barriers, safety fencing, and/or signs as appropriate, prior to initiating construction activities on GSP properties.
- The site will be open to visitors during construction; however, when appropriate and as a safety precaution, safety zones may be established within which visitors will not be allowed. The contractor will post personnel along safety zones to inform visitors of ongoing construction.
- All building construction will follow State of Alabama building codes and be built to address hurricane conditions.
- During construction of the project elements, workers will follow standard safety measures in accordance with Occupational Safety and Health Administration regulations; these measures are further outlined in the construction action plan.

10.4.2.3 Monitoring

Monitoring for performance criteria is planned for each of the major subcomponents of the Gulf State Park Enhancement Project. Monitoring is needed to address both recreational use and ecological project performance.

The objective of the Gulf State Park Enhancement Project is to replace lost recreational use along the Alabama coast. The lodge and meeting facilities, as well as all other components of the Gulf State Park Enhancement Project, are designed to increase public access to Alabama's coastal natural resources. The performance criteria discussed below center on monitoring to ensure these projects are constructed according to plans and permitting requirements and to identify future increases in visitation attributable to the new facilities. To document the increase in recreational usage, for at least five years the park will make available annual information on total number of visitors to the rebuilt lodge, lodge occupancy rates, average length of stay, and the state of origin for visitors. In addition, information will be assembled each year for at least five years on the number of visitors attending meetings at the facility and, to the extent practical, their use and enjoyment of the park's natural resources.

The new interpretive, education and research facilities and trails are also expected to attract new visitors to the park and enhance their experiences. GSP park managers will provide a description of the interpretive, educational and research programs conducted and monitor participation in these programs on an annual basis. Data will include the number of participants by program and the length of the programs attended.

As a broader measure of the impact on visitation of park enhancements, park managers plan to assemble annual data on the total number of visitors to the park. This type of information has been collected extending back as far as the early 1990s and will provide a basis for long-term comparisons of park visitation, including comparisons to the time when the previous Gulf State Park Lodge was operating. For the improvements to the quality of the visitor experience, the park will use existing GSP protocols for the gathering and evaluating visitor feedback.

Ecological performance monitoring is necessary for two aspects of the GSP enhancement project. First, the dune restoration work will involve planting to stabilize dunes in the park. A monitoring plan will be implemented to ensure the establishment and survival of transplanted species. The growth and extent of coverage by transplants will be documented and, if required, replanting performed. Replanting will be performed if species survival of the original enhancement stock falls below 75 percent. Photographic documentation will be available for the newly stabilized areas. Also, sand fencing will be monitored, maintained, repaired, and replaced as necessary over the monitoring period. The duration of the monitoring plan will be established as a condition to the permit and through agency coordination.

Construction of the lodge will require wetlands mitigation. At least 0.228 acres of emergent wetlands will be created on-site to offset a 0.076 acre area of impacts—a 3:1 mitigation ratio. A multi-year monitoring plan will be implemented at the newly created wetland. The approved wetland mitigation plan requires a 5-year monitoring program to document success of the wetland. This monitoring plan will include quarterly monitoring during the first year after construction and semi-annual monitoring for the next four years. Monitoring will document surface and subsurface water depths; vegetation growth and coverage; invasive species coverage and removal efforts; and wildlife observed in the wetland. Photographs of the site will also be provided. In the event it is determined that the mitigation areas are not achieving success, then adaptive management strategies including but not limited to the evaluation of alternate sites, use of commercial mitigation banks, and other sources of mitigation credit will be evaluated (Volkert 2013a).

There will also be monitoring during dune restoration and throughout the construction activities for the trails, lodge, and the education and interpretive facilities. This will ensure that all these activities comply with the full set of environmental permit conditions, including conditions relating to endangered species like the Alabama Beach Mouse. The specific monitoring requirements during construction will be defined in conjunction with the final permits for work at the site.

10.4.3 Alabama Oyster Cultch Restoration:

The Alabama Oyster Cultch Restoration project will include placing approximately 30,000 – 40,000 cubic yards of suitable oyster shell cultch over approximately 319 acres of subtidal habitat in Mobile County, Alabama, near other oyster reefs currently managed by the ADCNR. The objective of this project is to enhance oyster biomass through the selective placement of oyster cultch in Alabama's estuarine waters. Cultch placements promote the settlement and growth of oyster spat and have been successful in producing new oysters in Alabama. The project will restore injured oyster reefs and/or partially compensate for interim losses of such natural resources for impacts caused by the Spill. Thus, nexus to resources injured by the Spill is clear (See C.F.R. § 990.54(a)(2) and Sections 6a-6c of the Early Restoration Framework Agreement).

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories may occur, no moderate to major adverse impacts are anticipated to result for either direct or cumulative impacts. The project will provide long-term benefits by creating new habitat for oysters and other species, which will in turn provide multiple ecosystem benefits.

10.4.3.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, Clean Water Act, National Historic Preservation Act, Rivers and Harbors Act, and the Coastal Zone Management Act.

10.4.3.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs (sorted by resource type), which include voluntary measures as well as those identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in increased benefits (reduction of impacts) to other resources.

10.4.3.2.1 Physical Environment

- Air Quality and Greenhouse Gas Emissions
    - BMPs include practices such as the use of equipment that meets air quality standards as well as following appropriate equipment operation standards during implementation of the project.

10.4.3.2.2 Biological Resources

- Construction activities will take precautions to avoid peak migration periods and time of day to limit affects to brown shrimp, white shrimp and pink shrimp.
- Oyster cultch used in the project will be aged such that any potential invasive species will be rendered non-viable.
- The boats used in the construction and maintenance of the project will be local boats that do not discharge ballast water.
- Any equipment used in the monitoring and maintenance of the reef will be inspected for mud and plant material to ensure no invasive species are introduced.
- Risk of adverse effects to manatees and other marine mammals will be further minimized by following the USFWS “Standard Manatee Conditions for In-Water Work” during all project implementation and monitoring activities.
- Ideal project timeframes are generally just before the on-set of nesting season or after fledging has been completed. If nesting migratory birds are observed during project construction, the U.S. Fish and Wildlife Service will be contacted to determine if BMPs are necessary to avoid take. The Trustee will implement any BMPs such that the action will not result in take under the MBTA.
- Due to these species’ mobility and the implementation of NMFS’ Sea Turtle and Smalltooth Sawfish Construction Conditions, the risk of injury from construction will be minimal.

10.4.3.2.3 Human Uses and Socioeconomics

- If potential cultural resources are identified during implementation of the project, activities will cease and the Alabama SHPO will be contacted to determine the significance of these resources.

10.4.3.3 Monitoring

Project performance will be assessed through physical and biological monitoring of oyster cultch plants conducted by ADCNR. The monitoring program will determine whether the project goals and objectives have been achieved. The project restoration objectives are (1) create or enhance oyster cultch areas that are sustained for the expected lifespan of the project, and (2) support oyster settlement and growth. Components of this monitoring effort are expected to include collecting information on the following typical biological oyster metrics and parameters: oyster cultch area, oyster density, oyster mortality, and oyster size distribution. Post-construction monitoring is expected to be conducted annually in late summer, for an estimated 10 years. During sampling events additional dredge samples could be collected to determine if additional dives are necessary.

Oyster cultch plant maintenance will likely consist of cultch replenishment, as necessary. Cultch material may be lost over time due to weather events, harvest activity, etc. Mid-course enhancements will include additional cultch placement in areas of cultch loss. Once clean oyster cultch has been planted and larval oysters become attached, monitoring will take place to document growth and mortality rates.

10.5 Florida

10.5.1 Beach Enhancement Project at Gulf Islands National Seashore

The Beach Enhancement at Gulf Islands National Seashore 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. The asphalt- and road-base-covered conditions are clearly unnatural and impact the visitor experience both aesthetically and physically in these National Seashore lands. The project will enhance and increase the public's use and enjoyment of the natural resources by improving the beach at the Gulf Islands National Seashore.

This project was analyzed for its potential environmental consequences on the following resource topics: Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources (i.e. protected species and their critical habitats, migratory birds and bald eagles, seagrass, fish, Essential Fish Habitat, shellfish, marine mammals, and non-native species), Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).

Final NEPA analysis of the environmental consequences suggests that while short-term moderate impacts may occur to soundscapes during project implementation because of the noise of heavy equipment, no other moderate impacts, and no major adverse impacts, are anticipated to result.

The Trustees evaluated the Beach Enhancement Project at Gulf Islands National Seashore in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Resources, Living Coastal and Marine Resources, Habitat, Socioeconomic, Aesthetics and visual resources, Tourism and Recreational use, and infrastructure. Based on the cumulative impact analysis, the Beach Enhancement Project at Gulf Islands National Seashore will not substantially contribute to adverse cumulative effects to resources. The Beach Enhancement Project at Gulf Islands National Seashore, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts.

10.5.1.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations or reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, the Coastal Barrier Resources Act and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.1.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs (sorted by resource type), which include voluntary measures as well as those included from the consultations noted above. Although conservation measures and BMPs are listed under specific resources, they will result in increased benefits (reduction in impacts) to other resources.

10.5.1.2.1 Measures to Mitigate Impacts to the Physical Environment

- Although there are relatively few on-island water resources, for those that exist (e.g. permanent brackish ponds and lagoons or ephemeral ponds/swales), equipment will stay out of and a safe distance from (to be determined, but at least 10 ft.) them.
- Areas where groundwater is impacted– e.g., near ephemeral freshwater wetlands where groundwater is extremely shallow –will be avoided by equipment.

- BMPs along with other avoidance, mitigation and permit conditions required by state and federal regulatory agencies will be used to minimize water quality and sedimentation impacts.
- The project will be implemented in the in the late summer/fall/winter months when noise-sensitive recreationists will be much fewer.
- Mitigation measures that could limit noise during on-land activities include: limiting activity at project sites to daytime hours (dawn to dusk); promoting awareness among contractors that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; limiting activity to time periods when visitor use of the site is at its lowest (i.e. late summer, fall and winter; Monday through Friday, possibly Saturday, not Sunday); and possibly employing noise-controlled construction equipment to the maximum extent possible.
- Mitigation measures will include breaking up large pieces on land (rather than in-water) whenever possible, and keeping the backhoe vehicle itself out of the water as much as possible. Also, although the window of time for in-water cleanup activities is four months per year for four years, it is expected to only take a total of two months.

10.5.1.2.2 Measures to Mitigate Impacts to Biological Resources

- Project work will only occur during daylight hours; as such the project will not alter the natural light regime of the area.
- Mechanized equipment will not be allowed during the project on densely vegetated areas.
- All destroyed vegetation will be replaced within 12 months. This will be done either by removing all sparse vegetation before asphalt removal activities begin and replanting it afterwards, or by harvesting plant material (e.g., seeds, cuttings), cultivating it, and replanting the cleaned area with it.
- Appendix 2 of PM #77-1 presents a set of conditions that must be satisfied and best management practices (BMPs) that must be implemented for an action to qualify as excepted. If one or more of the conditions or BMPs cannot be met, then the action reverts to full compliance with PM #77-1 and a Wetland Statement of Findings is required. Additional BMPs or conditions may be appropriate depending on local conditions or special circumstances.
- All construction personnel will be notified of the potential presence of Perdido Key beach mice and reminded of the criminal and civil penalties associated with harassing, injuring, or killing Perdido Key beach mice.
- During project work, construction crews will be operating mechanized equipment on the beach and small crews may be walking along the beach removing fragments of material by hand. Machinery will not be used within dune habitats used by beach mice (Perdido Key Beach Mouse and non-listed Santa Rosa Beach Mouse); however crews could use hand tools.
- To minimize impacts to beach mice in burrows, a qualified biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided.
- Only hand tools will be used within a five-foot radius of a burrow opening or any observed mice tracks.
- Mechanized equipment will not be used to remove the materials within areas known to support

beach mice. Small crews, guided by a biologist, may remove product with hand tools to some extent.

- Equipment and vehicles will avoid the dune by 10 feet from the toe of the dune.
- Construction will occur during the day to minimize disturbance to nocturnal patterns.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.
- All construction personnel will be notified that if equipment is left onsite overnight, a qualified biologist will walk around the equipment and look for signs of mice before moving the equipment.
- The project will occur in very localized locations for very short periods of time, allowing for intact sand, mud, and algal flats, as well as surf-cast algae, back beach, salterns, spits and washover areas to remain nearby as others are disturbed.
- When plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize effects to the vegetative composition of the area.
- Only hand tools will be used within the dunes, reducing possible impacts to burrows and reactions to noise and vibration.
- No mechanized equipment will be used or left in the dunes.
- All personnel associated with the project will be instructed in the potential presence of Gulf sturgeon. The project personnel will be informed of the civil and criminal penalties for harming, harassing, or killing species that are protected.
- Keep noise low (in air and in water) to the greatest extent possible.
- Care shall be taken in lowering equipment or material below the water surface and into the sediment. These precautions will be taken to ensure no harm occurs to any sturgeon which may have entered the project area undetected.
- In the unlikely event that a protected Gulf sturgeon approaches any near-shore areas of the project, work will immediately cease until the sturgeon moves away from the area on its own volition.
- The Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS 2006) will be implemented.
- The Beach Enhancement project will adhere to all applicable federal, state, and local permit conditions for the protection of marine mammals.
- Construction activities will be limited to the late summer, fall, and winter months when sea turtles are less likely to be nesting and hatchlings are less likely to be leaving the nest.
- The Seashore will increase turtle crawl and nest monitoring in areas between May 1 and Aug 31 in an effort to locate and identify all crawls, false crawls and nests. These nests will be marked for avoidance (following standard procedures) by foot traffic and vehicles.
- In areas where sea turtle nests are present, cleaning will not begin until after the nest hatches.
- Vehicles and equipment will be driven to avoid nests by a minimum of 10 feet.
- All construction personnel will be notified of the potential presence of sea turtles both on the beach and in the water and will be reminded of the need to avoid sea turtles.
- All construction personnel will be notified of the criminal and civil penalties associated with

harassing, injuring, or killing sea turtles.

- In areas where adults or hatchlings could be present and vehicles or mechanical equipment maybe used, a pre-operational survey will be conducted to ensure no adults or hatchlings are present or in the path of the equipment.
- All construction personnel will be trained/instructed as to what they are to do in the presence of a sea turtle.
- All ruts created during construction activities involving operation of mechanized equipment will be leveled in order to prevent entrapment of sea turtles.
- All holes created from removal of material will promptly be filled in order to prevent entrapment of sea turtles.
- No work will be completed in the nearshore area until all known nests in the vicinity have hatched.
- Driving on the beach for project implementation will be between sea turtle nesting seasons allowing for the full natural cycle of wind/rain erosion and accretion of sand to occur.
- All construction personnel will be instructed and trained in the protection of shorebirds and seabirds. Construction personnel will be notified of the criminal and civil penalties associated with harassing, injuring, or killing shorebirds and seabirds.
- Construction activities will be conducted in accordance with the Florida Fish and Wildlife Conservation Commission's Guidelines to Protect Nesting Shorebirds and Seabirds.
- If piping plovers or red knots are present, work will not occur until the birds have moved from the area by 150 feet.
- All construction personnel will be notified that if equipment is left onsite overnight, a qualified biologist will walk around the equipment and look for signs of birds before moving the equipment, contacting a qualified biologist if signs of birds' presence are detected.
- All construction personnel will be notified of the potential presence of West Indian manatee in the water and reminded of the criminal and civil penalties associated with harassing, injuring, or killing West Indian manatees.
- All workers will be educated that there could be West Indian manatees in the water and will be advised to look for manatees and, if observed, wait until manatees leave the area to put the equipment in the water.
- In-water construction activities will be limited to the late summer, fall and winter months when West Indian manatees are less likely to be present within the construction area. Care will be taken when lowering equipment into the water and the sediment in order to ensure that no harm is caused to West Indian manatee that may potentially be in the water within the construction area.
- Should a West Indian manatee come within 50 feet of the project area during construction activities, work will immediately cease until the West Indian manatee has moved away from the project area on its own.
- Construction noise will be kept to the minimum feasible.
- The project will not be implemented during shorebird/seabird nesting season.

- Care will be taken to minimize noise and vibration near areas where foraging or resting migratory birds or bald eagles are encountered.
- Care will be taken to avoid working near other raptor nests, and to minimize noise and vibration in their vicinities.
- A staff biologist will advise the contractor of the nesting status of all identified raptor nests near the project area and approve of work in the vicinity.
- If a bald eagle nest were observed in the vicinity of the project site, conservation measures from the National Bald Eagle Management Guidelines (USFWS 2007) will be implemented.
- Best Management Practices (BMPs) to control the spread of any invasive species present and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/vessels, and shipping material).

10.5.1.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- A solid waste management plan will be implemented to manage the collection, recycling and disposal of asphalt, road-base materials and non-project-related waste generated during implementation activities.
- Project implementation will occur during the slowest part of the tourist season – i.e., late summer, fall, and winter – and because other nearby areas will continue to be available.
- All hazardous materials (e.g., diesel fuels) handled during removal will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- Personal protective equipment will be required, as appropriate, for all construction personnel and authorized access zones will be established, if needed, at the perimeter of the project site during implementation.

10.5.1.3 Performance Criteria, Monitoring, and Maintenance

The restoration objective of this project is to restore a portion of the lost visitor use of the Seashore caused by the Spill by improving the future visitor experience there. This will be accomplished by improving the appearance of the Seashore and the public's enjoyment of use of the Seashore. The aesthetic and physical improvements will improve the visitors' experience by keeping them from walking on or swimming among the asphalt and road-base materials. The project will be deemed successful when observation shows road materials have been removed and replanted areas established. As such, performance criteria for this project are the removal of the materials from an area and the short-term survival (i.e., 80% after 90 days) of replanted vegetation. Each of these criteria can be easily monitored and confirmed through visual observation. To confirm materials have been removed from an area, monitoring will occur immediately after an area has been cleaned, and then again some days, weeks, or months later in case wind or water uncovers additional materials or in case storm overwash events have redistributed materials back into the same areas or into new areas. Additionally, visitor use will be monitored using existing Seashore protocols for the gathering and evaluation of visitor feedback, including the routine use of visitor comment card surveys.

Monitoring plant survival at replanted areas will likely occur three months after planting to confirm that the percent-survival performance criterion (at least 80%) is met.

No long-term maintenance activities beyond the five-year duration of this project are expected for this project and are not budgeted.

10.5.2 Gulf Islands National Seashore Ferry Project

The Gulf Islands National Seashore 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 Seashore in Florida. A viable ferry service to this area of the Seashore will 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. The project will enhance and increase the public's use and enjoyment of the natural resources by providing a ferry service between the City of Pensacola, Pensacola Beach, and the Gulf Islands National Seashore.

This project was analyzed for its potential environmental consequences on the following resource topics: Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources (i.e. protected species and their critical habitats, migratory birds and bald eagles, seagrass, fish, Essential Fish Habitat, shellfish, marine mammals, and non-native species), Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). This project is anticipated to have only minor impacts to those resources.

The Trustees evaluated the Gulf Islands National Seashore Ferry Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Resources, Living Coastal and Marine Resources, Habitat, Socioeconomic, Aesthetics and visual resources, Tourism and Recreational use, and infrastructure. Based on the cumulative impact analysis, the Gulf Islands National Seashore Ferry Project will not substantially contribute to adverse cumulative effects to resources. The Gulf Islands National Seashore Ferry Project, carried out in conjunction with other actions, has the potential to provide long-term beneficial cumulative impacts.

10.5.2.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations or reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, National Historic Preservation Act, and the Coastal Barrier Resources Protection Act. Consultations have been initiated for the Endangered Species Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the Clean Water Act has been initiated. Best management practices and conservation measures required by consultations in adherence to these laws are listed below, categorized by whether

they correspond to the physical environmental, biological resources, and human uses and socioeconomics.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. The consultation has been initiated.

10.5.2.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs (sorted by resource type), which include voluntary measures as well as those included from the consultations noted above. Although conservation measures and BMPs are listed under specific resources, they will result in increased benefits (reduction in impacts) to other resources.

10.5.2.2.1 Measures to Mitigate Impacts to the Physical Environment

- Best management practices, promulgated by the U.S. Department of Transportation and the operating permit, will dictate mitigation measures needed to control and minimize impacts to water quality from the ferry service at the project areas.
- Mitigation for fueling operations will include a Spill Prevention, Control, and Countermeasures (SPCC) Plan.

10.5.2.2.2 Measures to Mitigate Impacts to Biological Resources

- Instruct all personnel associated with the construction and operational phases of the project in the potential presence of Gulf sturgeon and the need to avoid collisions with them.
- Inform the construction site personnel and personnel associated with operating the ferry of the civil and criminal penalties for harming, harassing, or killing species that are protected.
- Keep construction noise low (in air and in water) to the greatest extent possible.
- Construct piers from floating barges using floating turbidity barriers made of materials that will not allow Gulf sturgeon to become entangled. Barriers will be properly secured and will be monitored regularly so that no animals are entangled or trapped.
- Care shall be taken in lowering equipment or material below the water surface and into the sediment. These precautions will be taken to ensure no harm occurs to any sturgeon which may have entered the construction area undetected.
- Spill response kits on board during construction will be maintained.
- In the unlikely event that a protected Gulf sturgeon approaches (within 100 yards) any near-shore, littoral areas of the project, work will immediately cease until the sturgeon moves away from the area on its own volition.
- All vessels associated with the construction project shall operate at “no wake/idle” speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS 2006) will be implemented.

- NPS will develop a Memorandum of Agreement with local government officials (responsible for the construction of related piers) that requires construction of new piers and Ferry Operation to be consistent with the Endangered Species Act consultations completed for the purchase and operation of the ferries and other measures included within the Phase III Early Restoration Plan/PEIS and this Record of Decision.
- The most recent version of the USFWS' *Standard Manatee Conditions for In-Water Work* (USFWS 2011) will be implemented and adhered to during project construction.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National *Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- To minimize risks in the aquatic environment, all construction conditions identified in the *Sea Turtle and Smalltooth Construction Conditions* will be implemented and adhered to during project construction to minimize the risk of collisions.
- In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated.

10.5.2.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Construction work in the areas will be done to code, including meeting all OSHA standards for workers, including the standards to which the ferry boats themselves will be built.
- Areas under construction will be demarcated so that the public stay out and away from potentially harmful materials or situations.
- Once passengers are using these areas in the future, all federal, state, and local safety requirements for the operating of the ferry service will be followed. This includes the handling and use of hazardous materials such as boat fuel, solvents, biocides, lubricants, etc.
- Regarding hazardous materials, in the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response will be adhered to and the incident will be reported to appropriate agencies.

10.5.2.3 Performance Criteria, Monitoring, and Maintenance

The restoration objective of this project is to restore a portion of the lost visitor use of the Seashore caused by the Spill. The success criteria for the project will be met if construction of the ferries is completed as specified, on schedule, and on budget. Visitor use of the ferries will be monitored through annual compilations of ridership statistics and through the use of existing park protocols for gathering visitor feedback. These existing protocols include the routine use of visitor comment card surveys and the collection of annual ridership statistics.

Regular boat maintenance will be the responsibility of the entity operating the service and will be funded by ongoing ticket sales.

10.5.3 Florida Cat Point Living Shoreline Project

The 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 will create breakwaters to reduce wave energy, increase benthic secondary productivity, and create approximately 1 acre of salt marsh habitat. 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. As a result of the Deepwater Horizon oil spill and associated response activities, benthic secondary productivity and salt marshes along the north central Gulf coast suffered adverse impacts. This project seeks to foster reef development and salt marsh habitat, which will help compensate the public for Spill-related injuries and losses to benthic secondary productivity and salt marsh habitats. Thus, the nexus to resources injured by the Spill is clear. See 15C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The NEPA analysis of the environmental consequences suggests that minor adverse impacts to some resource categories and no moderate to major adverse impacts are anticipated to result. The project will provide long-term benefits by creation of approximately 1 acre of salt marsh, and approximately 0.3 miles of living shoreline.

The Trustees evaluated the Florida Cat Point Living Shoreline project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Cat Point Living Shoreline Project will not substantially contribute to adverse cumulative effects to resources. The Florida Cat Point Living Shoreline Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.3.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.3.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during

the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.3.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- The restoration work includes placing the breakwater structures approximately 30 feet from the shoreline, which will likely have an approximate 5 foot crest width with a height that falls within the mean high and low water lines of the site. The specific breakwater elevation and technique design will be selected to maximize shoreline protection and meet state regulatory requirements.
- Construction of the breakwaters will occur during winter months (November through early March) when the extreme low tides will leave the breakwater material placement area exposed so materials can be placed from shore using a combination of cranes or backhoes.
- The location for the placement of the breakwater materials, along with any preferred transportation paths, will be marked during construction using PVC stakes that will be driven by hand using a post driver or other means into the sediment. Following final materials placement these stakes will be removed.
- Other measures to limit impacts to the physical environment:
    - Installation of floating turbidity barriers;
    - Installation of erosion control measures along the perimeter of all work areas;
    - Stabilization of all filled areas with sod, mats, barriers, or a combination;
    - Storing and fueling vehicles away from aquatic areas; and
    - Re-vegetation of exposed soils when construction activities are complete.

10.5.3.2.2 Measures to Mitigate Impacts to Biological Resources

- During construction, the Sea Turtle and Smalltooth Sawfish Construction Guidelines (NOAA, 2006), and Measures for Reducing Entrapment Risk to Protected Species (NOAA, 2012) will be implemented.
- The Standard Manatee Conditions for In-water Work (USFWS, 2011), will be implemented and adhered to during in-water work.
- Gaps will be constructed between the breakwater units, which will be a minimum of 3 feet wide, to minimize the risk of species entrapment.
- If bald eagles are found nesting within 660 feet of the construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines (USFWS 2007) will be followed.
- If construction and planting occurs during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will be conducted during daylight hours only.

- During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area. During construction, adjacent areas with equivalent or better habitat will be available and undisturbed and organisms could move away from disturbed areas.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.3.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur, it will be contained and cleaned up promptly in accordance with all applicable regulations, and the incident will be reported to appropriate agencies.

10.5.3.3 Performance Criteria, Monitoring, and Maintenance

Monitoring will be conducted to ensure project designs are correctly implemented and to evaluate project effectiveness. Performance criteria will be used to determine project success or the need for corrective actions. The monitoring has been designed around the project objectives: 1) to protect created marsh habitat from erosion, and 2) to promote reef development for bivalves and other invertebrates. Monitoring activities are planned for 5 years following the completion of the project. Specific success criteria include: 1) the construction of breakwaters that meet project design criteria, support benthic secondary productivity, reduce wave energy affecting the shoreline, and are sustained for the expected life of the project; 2) the creation of salt marsh habitat that meets project design criteria and achieves the designed percent cover by native saltmarsh vegetation; and 3) the reduction of shoreline erosion which protects created salt marsh habitat.

Baseline monitoring will be conducted to collect data that will be used as points of comparison for implementation and post-implementation monitoring data. Implementation monitoring will be conducted to ensure that the breakwaters were constructed with the appropriate dimensions. In general, components of this monitoring will evaluate the production and support of organisms on the breakwater (e.g., benthic secondary productivity), the performance of the breakwater in protecting the shoreline (e.g., salt marsh habitat), and the creation of salt marsh habitat. Performance criteria will be established to determine whether the project achieves the desired breakwater specifications, benthic secondary productivity, and salt marsh habitat created.

Components of this monitoring may include collecting information with respect to:

- Structural integrity of breakwater/reef structure;
- Height/elevation and width of breakwater/reef structure;
- Consolidation rate of breakwater/reef structure;
- Shoreline (salt marsh) profile;
- Shoreline (salt marsh) position;
- Bivalve density, size, biomass, and survival;
- Non-bivalve invertebrate density and biomass; and
- Percent cover and survival of planted marsh vegetation.

Adaptive management procedures will be used to correct deficiencies or maintenance needs identified through monitoring. Furthermore, a minimum of 80 percent of the plantings must be viable at the end of the first growing season subsequent to initial planting. Viable area coverage shall be monitored in following years to ensure establishment of salt marsh vegetation. Monitoring of the plantings will occur for a minimum of 5 years with a minimum of one site inspection per year. Annual reports and photographs will be prepared during the monitoring period.

10.5.4 Florida Pensacola Bay Living Shoreline Project

The 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 will create reefs to reduce wave energy, increase benthic secondary productivity, and create salt marsh habitat. 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 will be created. As a result of the Deepwater Horizon oil spill and associated response activities, benthic secondary productivity and salt marsh habitats along Florida's Panhandle suffered adverse impacts. This project seeks to foster reef and salt marsh habitat development, which will help compensate the public for Spill-related injuries and losses to benthic secondary productivity and salt marsh habitat. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor or moderate adverse impacts may occur to some resource categories, no major adverse impacts are anticipated to result. The potential for moderate adverse impacts were identified for Geologic and Soil (substrate) Resources and may result in long-term impacts to sandy bottom substrate which will be covered with hard structure due to breakwater construction and short-term impacts due to sediment excavation for salt marsh creation. The project will provide long-term benefits by creation of approximately 18.8 acre of salt marsh, and approximately 4 acres of reefs.

The Trustees evaluated the Florida Pensacola Bay Living Shoreline project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources,

infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Pensacola Bay Living Shoreline Project will not substantially contribute to adverse cumulative effects to resources. The Florida Pensacola Bay Living Shoreline Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.4.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated. Activities associated with breakwater construction and salt marsh habitat creation are regulated by the U.S. Army Corps of Engineers (Corps). The discharge of dredged or fill material into waters of the United States, including wetlands, or work affecting navigable waters associated with this project will be coordinated with the Corps pursuant to the Clean Water Act Section 404 and Rivers and Harbors Act (CWA/RHA). Coordination with the Corps and final authorization pursuant to CWA/RHA will be conducted during the engineering and design of the project and will be completed prior to project implementation.

10.5.4.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations. Although conservation measures and BMPs are listed under resource types that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.4.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.

- Best management practices will be implemented to control turbidity levels and meet state requirements during construction activities. The State of Florida requires that turbidity levels are less than or equal to 29 Nephelometric Turbidity Units (NTU) above natural background conditions for waters of the State. Floating turbidity screens that meet FDEP specifications will be deployed during project construction to contain and control turbidity or silt in the project area. Additional best management practices will be implemented if turbidity levels during construction exceed local and state regulatory/permit levels. Sediment control measures will also remain in place throughout the dredging and filling process.

- Borrow source sediments will be determined to be free of contaminants via the methodology described in the USACE Inland Testing Manual (Evaluation of Dredged Material Proposed For Discharge in Waters of the U.S., USACE 1998). Or other methods required by Florida testing protocols. In addition, borrow areas in water depths of six (6) feet or less will be limited to excavated depths of four (4) feet below the sediment line. Borrow areas in six (6) feet or more of water depth will be limited to excavated depths of six (6) feet below the sediment line.
- The breakwaters will have variable crest widths that fall within the mean high and low water lines (intertidal) of the site with appropriately sized gaps between breakwater structures to maintain tidal exchange. The specific breakwater elevation and design will be selected to maximize protection of salt marsh habitat created, meet state regulatory requirements, and avoid or minimize conflicts with current uses at the sites.
- Boater warning safety signs will be placed on 12-inch diameter posts and pushed into the bottom in several locations adjacent to the breakwaters. Sign installation methods will be selected to minimize the generation of underwater sound. Therefore, it is expected that sign posts will be pushed in rather than using a pile driver or jetting the piles into place, unless necessary due to site conditions.

10.5.4.2.2 Measures to Mitigate Impacts to Biological Resources

- Anchoring sites during construction will be situated to avoid impacts to seagrass if found to be in the project area. Access over existing seagrass will also be avoided to the extent practicable to minimize prop-scarring impacts.
- The project will adhere to the following guidance to avoid impacts to protected species: *Sea Turtle and Smalltooth Sawfish Construction Conditions (2006), U.S. Fish and Wildlife Service (USFWS) Standard Manatee Conditions for In-water Work (2011),* NOAA's *Measures for Reducing Entrapment Risk to Protected Species (2012),* and any applicable federal and state permit conditions.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* (USFWS 2007) will be followed.
- To avoid potential impacts to protected species, the project will not use a hopper dredge unless required due to site conditions at the selected dredge material source sites. Additional site evaluation and sediment testing will also be conducted to identify the most suitable borrow sites.
- Pre-construction surveys will identify any nesting migratory bird species that may be disturbed by construction noise and BMPs developed in consultation with USFWS will be implemented to minimize this potential disturbance.
- Care will be taken to minimize noise and physical disruptions (e.g., vibration) near areas where foraging or resting birds are encountered.
- If the project will be implemented during shorebird nesting season, areas that could be affected by project noise will be examined for nesting shorebirds or evidence of nesting shorebirds. If nesting or evidence of nesting is observed, the most recent version of the Florida Fish and

Wildlife Conservation Commission's (FWC) standard guidelines to protect against impacts to nesting shorebirds will be obtained and followed.

- Creation of marsh habitat will involve the use of native marsh species and follow strict protocol established by the state of Florida to ensure local sources of native species are used to create marsh habitat.
- Best Management Practices to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material).There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.4.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The project design will incorporate and accommodate existing marine uses within the area to prevent or minimize any potential impacts.
- Barriers, navigation warning signs (lighted and unlighted), and other markers will be established along the work area to protect boaters. These will be maintained throughout the project until permanent markers are established.
- Permanent boating safety warning signs placed on 12-inch diameter posts will be pushed into the bottom adjacent to breakwaters.

10.5.4.3 Performance Criteria, Monitoring, and Maintenance

As part of the project costs, monitoring will be conducted to ensure project designs were correctly implemented and to evaluate project effectiveness. Performance criteria will be used to determine project success or the need for corrective actions. The monitoring will be designed around the following project objectives: 1) protect created marsh habitat from erosion, and 2) promote reef development for bivalves and other invertebrates. Monitoring activities will be planned for up to a seven year period. Specific success criteria include: 1) the construction of reefs that meet project design criteria, support benthic secondary productivity, reduce wave energy affecting the shoreline, and are sustained for the expected life of the project; 2) the creation of salt marsh habitat that meets project design criteria and achieves the designed percent cover by native saltmarsh vegetation; and 3) the reduction of shoreline erosion which protects created salt marsh habitat.

Baseline monitoring will be conducted to collect data that will be used as a point of comparison for implementation and post implementation monitoring data. Performance criteria will be established to determine whether the project achieves the desired breakwater specifications, benthic secondary productivity, and salt marsh habitat created. Components of this monitoring may include collecting information with respect to:

- Structural integrity of breakwater/reef structure;
- Height/elevation and width of breakwater/reef structure;
- Consolidation rate of breakwater/reef structure;
- Shoreline (salt marsh) profile;
- Shoreline (salt marsh) position;
- Wave energy;
- Bivalve density, size, biomass, and survival;
- Non-bivalve invertebrate density and biomass; and
- Percent cover and survival of planted marsh vegetation.

Adaptive management procedures will be used to correct deficiencies or maintenance needs identified through monitoring. Adaptive management activities may include adding additional material to the surface of a breakwater, adding additional hardened structure (e.g. riprap), adding additional natural materials (e.g. fossilized oyster shell), and/or replacing warning signs. Furthermore, a minimum of 80 percent of the plantings must be viable at the end of the first growing season subsequent to initial planting. Viable area coverage shall be monitored in following years to ensure establishment of salt marsh habitat. All monitoring and adaptive management procedures will follow disturbance minimization measures, especially as they relate to vessel use around the project area.

Anticipated pre and post project monitoring activities: Monitoring activities will be performed at various times beginning prior to construction and continuing up to seven years post construction. The monitoring activities will include:

- Topographic/bathymetric surveys,
- Vegetation surveys (i.e. species composition and % cover), and
- Biological monitoring (i.e. oyster and invertebrate density and biomass)

Monitoring will ensure project designs are correctly implemented during construction and in a subsequent period, defined by contract, where corrective actions could be taken. Post construction performance monitoring will also be conducted to evaluate the project's performance over time with respect to the agreed upon Offsets, goals, and objectives. In general, components of this monitoring will evaluate the production and support of organisms on the breakwater for the establishment of reefs (e.g., benthic secondary productivity) and the performance of the created salt marsh habitats.

Components of this monitoring will include collecting information with respect to: the breakwater height and structural integrity; salt marsh coverage; water quality parameters (e.g., salinity, dissolved oxygen), survival of planted species/vegetated area, bivalve and algal presence, coverage, and composition on the reef.

Anticipated Maintenance / Adaptive Management Activities: If the breakwaters are not performing as designed or anticipated, then adaptive management procedures will be used to correct the structures. Adaptive management activities may include adding additional material to the surface of a breakwater, adding additional hardened structure (e.g. riprap), adding additional natural materials (e.g. fossilized

oyster shell), and/or replacing warning signs. All monitoring and adaptive management procedures will follow disturbance minimization measures, especially as they relate to vessel use around the project area.

For the breakwaters, one maintenance activity will take place within the first four years following construction. The maintenance activity will allow for the capping of the breakwaters with riprap and fossilized oyster shell material. The breakwaters are anticipated to experience the greatest consolidation of the subgrade in the first years following construction. The need for additional placement of rock and shell on the breakwater will be assessed based upon the monitoring plan. Maintenance activity construction methods are similar to the breakwater construction process as described in the Construction and Installation section above. Maintenance activities for the created salt marsh habitat may occur within the first 5 years following construction. Maintenance may include additional plantings of native salt marsh habitat to meet project performance criteria.

No long term operations or maintenance requirements are anticipated.

10.5.5 Florida Seagrass Recovery Project

The 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. As a result of the Deepwater Horizon oil spill and associated response activities, submerged aquatic vegetation in the Florida Panhandle suffered adverse physical impacts. The project seeks to restore injured submerged aquatic vegetation. The ecological benefits that will be gained by this restoration project are anticipated to help compensate the public for Spill-related injuries and losses to submerged aquatic vegetation. Thus, nexus to resources injured by the Spill is clear. See15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will provide long-term benefits by restoring approximately 2 acres of seagrass habitat.

The Trustees evaluated the Florida Seagrass Recovery project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Seagrass Recovery Project will not substantially contribute to adverse cumulative effects to resources.

The Florida Seagrass Recovery Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.5.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.5.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.5.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Project noise levels will be kept to a minimum via BMPs such as turning boats off during idling, and working only during daylight hours.

10.5.5.2.2 Measures to Mitigate Impacts to Biological Resources

- Project installation activities will use BMPs including impact avoidance of existing seagrass habitat through the use of small vessels.
    - Construction activities will incorporate the guidance and requirements set forth in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001)
- The Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Care will be taken to minimize noise and vibration near areas where foraging or resting migratory birds are encountered. Work will occur during daylight hours only.

    - Construction within 300 feet of suitable nesting habitat will be avoided during the nesting season. If construction is not able to avoid the nesting season, a preconstruction survey will be conducted by a qualified biologist, and if nesting birds are identified within 300 feet of project activities, the FWC and USFWS will be contacted regarding the placement of appropriate buffers to ensure no impacts to nesting birds will occur.
- Contractors will be required to be aware of and comply with applicable laws prohibiting harm to migratory birds and endangered species.
- BMPs to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material).There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.5.3 Performance Criteria, Monitoring, and Maintenance

As part of the project costs, monitoring will be conducted to ensure project designs were correctly implemented and to evaluate project effectiveness. Performance criteria will be used to determine project success or the need for corrective actions. The monitoring has been designed around the project objective, which is to restore injured submerged aquatic vegetation. Specific success criteria includes: the creation of new submerged aquatic vegetation in previously scarred areas that meets project design criteria and is sustained for the expected life of the project.

Post construction performance monitoring will initially focus on plant survival and revegetation of the existing scars. This monitoring may include collection of habitat information such as the depth of the scar at different points in time, and percent vegetative cover of the scar. Additional information collected may include utilization and integrity of the bird stakes over time and nature and extent of any subsequent seagrass habitat scaring in areas where the new non-regulatory buoys are placed.

Pre- and post-project monitoring could compare restoration progress in both control and study areas. Changes in the number, length, and cover of propeller scars will be determined in large replicate photograph plots within each study area. Aerial photography may be performed annually, in late summer. Data layers will be created using ArcMap to determine the increase or decrease in scar number, length, and area over time.

Field surveys will be performed biannually in the early spring and late summer to monitor the progress of the restoration activities. Methods designed to measure percent-cover and shoot counts will be used to compare recovery rates of prop scars located within treated and untreated locations of the project area. Permanent (fixed) transects will be incorporated into the study in order to monitor changes in the number of untreated prop scars. Underwater photographs and video may also be taken to document site characteristics prior to and following restoration efforts.

The Florida Department of Environmental Protection (FDEP) Aquatic Preserve staff or a third party will be responsible for monitoring and maintenance of the project after the initial 3-year monitoring of the project. Pre- and post-project monitoring will compare restoration progress in both control and study areas. In addition, routine maintenance of signs and buoys will be conducted by FDEP throughout the monitoring period.

10.5.6 Perdido Key State Park Beach Boardwalk Improvements

The Perdido Key project will improve a number of existing boardwalks in Perdido Key State Park in Escambia County. The improvements include removing and replacing six existing boardwalks leading to the beach from two public access areas. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Perdido Key State Park Beach Boardwalk Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving beach access. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational beach use opportunities by improving beach access.

The Trustees evaluated the Perdido Key State Park Beach Boardwalk Improvements project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Perdido Key State Park Beach Boardwalk Improvements Project will not substantially contribute to adverse cumulative effects to resources. The Perdido Key State Park Beach Boardwalk Improvements Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.6.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.6.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.6.2.1 Measures to Mitigate Impacts to the Physical Environment

- Dune walkovers/boardwalks will be implemented per the USFWS' most recent version of the *Conservation Measures for Dune Walkover Construction*.
- Construction materials will be staged in the parking lot that accesses each of the existing boardwalk complexes. Additional materials could be temporarily placed *near but not within* the dune as needed to support the construction of the boardwalk (e.g., ladders, scaffolding, daily construction materials). Access will occur through existing points only (i.e., no new access points will be created).
- If erosion control measures are determined necessary, it will be required as a part of the permitting process and will be managed by the construction contractor throughout construction activities and will be monitored on a daily basis by the contracting authority (FDEP).

10.5.6.2.2 Measures to Mitigate Impacts to Biological Resources

- Dune walkovers/boardwalks will be implemented per the USFWS' most recent version of the *Conservation Measures for Dune Walkover Construction*.
- The extent of any walkover/boardwalks lengthening will be addressed in the final engineering design and plan development. However, efforts will be made to minimize the lengthening to avoid encroachment into areas on the Gulf side of the dunes where sea turtles might nest.
- No lighting will be installed on the walkovers/boardwalks.
- The USFWS Panama City Field Office (PCFO) will be contacted prior to conducting the restoration, regarding dune plantings to balance habitat for listed and migratory birds and beach mouse.
- In Florida, conservation measures to protect active bird nesting sites during nesting season must be considered to reduce potential disturbances of certain project activities.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines (USFWS 2007) will be followed.
- Should work be undertaken between May 1 and October 31 the conservation measures below will be followed:
    - All construction personnel will be notified of the potential presence of sea turtles and reminded of the criminal and civil penalties associated with harassing, harming, or killing sea turtles (all life stages).

    - The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
    - Avoid driving over the wrack line or areas of dense seaweed, as these habitats may contain sea turtle hatchings or baby birds that are difficult to see.
- The following measures shall be implemented (regardless of seasonality):
    - All construction personnel will be notified of the presence of critical habitat and reminded to avoid impacting it otherwise additional restoration may be necessary.
    - The nearest, existing staging, access and egress areas, travel corridors, pathways, and roadways shall be used (including those provided by the State, local governments, land managers, trustee, or private property owner, with proper permissions).
    - No new staging areas, access or egress, or travel corridors shall be created.
    - Vegetation removal will be minimized.
    - When driving equipment or vehicles on the beach, they will enter at designated access areas, proceed directly to the hard-packed sand near or below the high tide line and stay below the tide line when driving long distances.
    - Personnel will avoid driving on the upper beach whenever possible, and never drive over any dunes or beach vegetation.
    - The smallest footprint possible will be used to complete the project.
    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.
    - No lighting will be installed.
- All construction personnel will be notified of the potential presence of Perdido Key Beach Mice (and other protected species) and reminded of the criminal and civil penalties associated with harassing, injuring, or killing Perdido Key Beach Mice.
- To minimize impacts to Perdido Key beach mice in burrows, a qualified, permitted, biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided.
- Construction noise will be kept to the minimum feasible, and construction will occur during the day to minimize disturbance to nocturnal patterns.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.
- Personnel will remove trash or anything that will attract nuisance wildlife to work areas daily.
- Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.

- Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area.
- The project will occur in very localized locations for very short periods of time, allowing the mosaic of primary, secondary scrub vegetation and dune structure to remain unchanged or increase after implementation.
    - If native dune plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize impacts to the vegetative composition of the area. Any dune restoration should mimic natural dunes including the relative abundance of dunes and swales and vegetated and unvegetated areas.
    - A fertilizer to help jump start the plant growth process from initial shock of being planted may be necessary.
    - If sand fencing is to be used, it should be used judiciously and moved up regularly as dune grows. Sand fencing should be removed as dune and plants are large enough to capture sand on their own.
    - Use some larger plants mixed with the smaller typical planting size plants to trap sand naturally and grow the dune.
    - Post and rope should be used/maintained around the entire restoration area to keep people out.
    - ATVs should stay out of dunes and as low to the water line as possible. Plants may have to be walked up to the planting area from ATV travel path.
- If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.
- Project work will only occur during daylight hours.
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
    - Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered.
- If construction occurs within the period from August to May: shorebird surveys (for piping plover and red knot) will be conducted in the project area; and within the project area a 300-foot wide buffer zone where either species congregates will be established. Any and all construction will be prohibited in the buffer zone until the individuals move from the area of their own volition.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for

integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.6.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Post and rope should be used and maintained around the entire restoration area to keep people from affecting the restoration.
- The project areas will be isolated by construction fencing to prevent incidental access. This fencing material will be erected by hand driving (e.g., with a sledge hammer or post driver) stakes as necessary. These stakes will likely be less than 2 inches in diameter and driven to a depth of 1 foot to 2 feet to secure the fencing.
- Construction will likely occur between October and March, the low visitation season which will also avoid the turtle nesting season.

10.5.6.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate the removal and replacement of the six existing boardwalks. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boardwalks are available and open.

Long-term monitoring and maintenance of the improved facilities will be completed by staff from the Florida Park Service as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the Florida Park Service.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the post construction performance monitoring period, the Florida Park Service will monitor the recreational use activity at the site. Florida Park Service staff will monitor the number of visitors at the boardwalks on a routine basis. The visitation numbers will be kept by the Florida Park Service which is part of the Florida Department of Environmental Protection.

State park staff will perform operation and maintenance of the facility, which includes keeping the area clean of debris, routine inspection and repair of the boardwalks (e.g., maintaining or fixing loose boards), and similar tasks. Monitoring will include construction monitoring and enhanced use numbers.

The construction will be intensely monitored to ensure that the boardwalks are built according to plans, specifications, and permits. Once the construction is complete, the boardwalks will be under a 1-year warrantee period. Periodically the facilities will be reviewed for structural integrity and any failures will be required to be repaired by the contractor during the year under warrantee. A final complete

warrantee inspection will be performed by the contract manager and state parks personnel. State Park staff will provide maintenance after the warrantee period at the end of the year, and any defects that might be noted and repairs that might be required will be made by the contractor. Once the boardwalks are built, State Park staff will record usage of the boardwalks, through parking lot counts during the off season, and revenue acquired during the high visitation season.

10.5.7 Big Lagoon State Park Boat Ramp Improvement

The Big Lagoon State Park project will involve enhancing an existing boat ramp and surrounding facilities in the Big Lagoon State Park in Escambia County. These improvements will 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Big Lagoon State Park Boat Ramp Improvements project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories may occur, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp area.

The Trustees evaluated the Big Lagoon State Park Boat Ramp Improvement Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Big Lagoon State Park Boat Ramp Improvement Project will not substantially contribute to adverse cumulative effects to resources. The Big Lagoon State Park Boat Ramp Improvement Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.7.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan.

Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.7.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.7.2.1 Measures to Mitigate Impacts to the Physical Environment

- BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation, such as following speed limits and prohibiting idling unless necessary to run equipment.
- The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
    - Encourage the use of the proper equipment size for the job to maximize energy efficiency.
    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.
- Sediment analysis for contaminants at the boat ramp site and potential borrow pits will be completed and analyzed prior to project implementation. If hazardous materials were encountered in the project area during construction activities, appropriate measures for the proper assessment, remediation, management, and disposal of the contamination will be required in accordance with applicable federal, state, and local regulations.
- All permit conditions, including mitigation measures for siltation, erosion, turbidity, and release of chemicals, will be strictly followed. During construction, BMPs and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts, as well as the damage and loss of wildlife habitats. FDEP permit conditions require erosion and turbidity mitigation measures, which include the following: 1) Installation of floating turbidity barriers, 2)Installation of erosion control measures along the perimeter of all work areas, 3) Stabilization of all filled areas with sod, mats, barriers, or a combination, and 4)Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures modified, and the FDEP will be notified.
- A wetlands permit will be required for the project and will stipulate appropriate BMPs and mitigation.

- In addition to construction BMPs, the contractor will implement BMPs for adequate erosion control. Erosion control is necessary to prevent damage to adjacent property, natural features, site property, and work in progress. Erosion control measures will be in place prior to any land alteration and will be used throughout the construction process until soils are stabilized. Erosion control BMPs are as follows:
    - To protect against wind and stormwater-runoff erosion, the contactor will place, as appropriate, hay bales and silt fencing with wire fence reinforcement, with sediment to be removed when it reaches approximately one-half of the height of the barrier.
    - Silt fences will be of optimal design and materials for adequate sediment control.
    - Side slopes created during construction will be stabilized at the earliest possible date to avoid erosion with adequate use of compacted soil and staked hay bales.
    - Any disturbed area that will not be paved, sodded, or built upon will have a minimum vegetative cover of 80% and be mature enough to control soil erosion and survive severe weather conditions prior to final inspection.
    - Sod will be sufficiently grown and maintained to secure a dense stand of live grass.

10.5.7.2.2 Measures to Mitigate Impacts to Biological Resources

- The conditions and guidelines of the Sea Turtle and Smalltooth Sawfish Construction Conditions (NOAA, 2006) and the Standard Manatee Conditions for In-Water Work (USFWS, 2011) will be implemented and adhered to during all in-water construction activity.
- The Trustees will work with staff from the PCFO regarding specific language to inform/educate visitors that nearby areas support protected species and provide guidance with respect to how activities could be pursued in a way that will avoid harming these species. Further, the State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- Preconstruction vegetation surveys and preconstruction and post-construction weed treatments will likely be required. The presence of any special status species will be considered during the design phase of the project, and precautions will be taken to avoid them.
- If a bald eagle nest is observed in the vicinity of the project area, the National Bald Eagle Management Guidelines (USFWS 2007) will be implemented. If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.

- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Notices will be posted advising park users of high piping plover use areas.
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Undeveloped areas disturbed during construction will be monitored, and exotic species removed.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.7.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials, and to avoid releases and spills. If a release should occur, it will be handled promptly in accordance with all applicable regulations.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permit conditions require spill containment protection and mitigation measures as follows:
    - Prohibiting boat repair or fueling facilities over the water
    - Prohibiting activities such as hull cleaning and painting; discharge or release of oils or greases; and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- Construction could occur at any time but will ideally take place during the time of year when recreation use is lowest to minimize impacts to boat ramp users.
- At the end of the day the area is checked for debris, sediment and possible spillage and these are properly removed and disposed of before shutting down the site.

10.5.7.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp area. Performance monitoring will evaluate: 1) the construction of an

additional lane to the boat ramp; 2) the expansion of the boat trailer parking; 3) the improvement to the traffic circulation at the boat ramp; and 4) the construction of a new restroom facility that will be connected the park to the Emerald Coast Utility Authority (ECUA) regional sanitary sewer collection system. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp area is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Big Lagoon State Park staff as part of their regular public facilities maintenance activities. Corrective actions necessary after completion and signoff of the project will be undertaken by park staff. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Big Lagoon State Park.

Park staff will operate, monitor, and maintain the new and expanded facilities under the existing management plan. Maintenance will include tasks such as checking and cleaning restrooms, removing debris and trash from the boat ramp and boat trailer parking areas, and maintaining the parking area over time. Monitoring will include construction monitoring and tracking visitor use.

During and following the post construction performance monitoring period, the State of Florida park staff will monitor the human use activity at the site. Park staff keeps track of visitation and usage at the park and will provide visitation numbers by the month. This use information is kept by the Florida Department of Environmental Protection.

The State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

10.5.8 Bob Sikes Pier, Parking and Trail Restoration

The Bob Sikes Pier Restoration project will 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 improvements include renovating parking areas, enhancing bicycle/pedestrian access, and aesthetic improvements to the surrounding area. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Bob Sikes Pier, Parking and Trail Restoration project is intended to enhance and/or increase recreational fishing and beach use opportunities by improving access to the existing fishing pier and the associated beach access trail. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset

adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing and beach use opportunities by improving access to the existing fishing pier and the associated beach access trail.

The Trustees evaluated the Bob Sikes Pier, Parking and Trail Restoration Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Bob Sikes Pier, Parking and Trail Restoration Project will not substantially contribute to adverse cumulative effects to resources. The Bob Sikes Pier, Parking and Trail Restoration Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.8.1 Compliance with Relevant Federal Environmental Laws, Regulations and Executive Orders

The Trustees have completed consultations and reviews under the, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.8.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.8.2.1 Measures to Mitigate Impacts to the Physical Environment

- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants and GHG emissions during Project implementation.
- BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts.

- Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours.
- Contaminated soils at the project area are not anticipated, if during construction areas of concern are identified appropriate testing and actions will be taken.

10.5.8.2.2 Measures to Mitigate Impacts to Biological Resources

- Precautions during construction will be used to protect any migratory birds that may be feeding, loafing, or resting in or near the project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors.

10.5.8.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All waste generated during construction will be disposed of in the appropriate waste or recycling receptacles on-site, and will be taken off-site and disproved in an approved waste disposal site by the construction contractor. All occupational and safety regulations will be followed to ensure safety of all workers and the public.
- All hazardous materials handled during construction including paints, solvents, chemicals and petroleum products will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks. In the event of a discharge of oil or release of hazardous substances all spills will be reported to the FDEP and all federal and state regulations will be followed during the cleanup.
- BMPs in accordance with the Occupational Safety and Health Administration (OSHA) and state and local requirements will be incorporated into construction activities to ensure proper handling, storage, transport and disposal of all hazardous materials. While the majority of project work will take place within the existing footprint of the recreational site and no changes to infrastructure or habitat will occur, soil and sediment stabilization measures will be incorporated into project design as needed in areas where the potential for erosion exists in order to protect resources and public health and safety.

10.5.8.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing and beach use opportunities by improving access to the existing pier and the associated beach access trail. Performance monitoring will evaluate: 1) the addition of solar-powered lighting; 2) the completion of a series of minor pier and rail modifications; 3) renovation and rehabilitation of designated parking areas; 4) construction of informational/educational signage; 5) enhancement of bicycle/pedestrian access trail;; and 6) the completion of the aesthetic improvements to the parking area, parking access road and multipurpose trail leading to Bob Sikes Pier. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the pier is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Escambia County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Escambia County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the post construction performance monitoring period, the Escambia County will monitor the recreational use activity at the site. Escambia County will visit the site twice a year to count the number of users at the fishing pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.9 Florida Artificial Reef Creation and Restoration

The Florida Artificial Reef Creation and Restoration project will place artificial reefs in permitted areas in Escambia, Santa Rosa, Okaloosa, Walton, and Bay Counties. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Florida Artificial Reef Creation and Restoration project is intended to enhance and/or increase recreational fishing opportunities by increasing the number of artificial reefs in state waters. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing opportunities by increasing the number of artificial reefs in state waters.

The Trustees evaluated the Florida Artificial Reef Creation and Restoration Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources,

and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Artificial Reef Creation and Restoration Project will not substantially contribute to adverse cumulative effects to resources. The Florida Artificial Reef Creation and Restoration Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.9.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.9.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.9.2.1 Measures to Mitigate Impacts to the Physical Environment

- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- BMPs, along with other avoidance and mitigation measures required by state and federal regulatory agencies, will be employed to minimize any water quality and sedimentation impacts.
- Efforts to reduce turbidity in the shallow water emplacement areas consistent with existing best practice guidelines will be followed.
- A survey will be conducted to determine the placement, alignment, and boundaries of the artificial reefs. The final engineering and design process will determine material needs for intertidal reef construction. If alternative materials are proposed, their suitability will first be evaluated against criteria in existing guidelines for reef materials (Atlantic and Gulf States Marine Fisheries Commissions, 2004). Equipment will be selected considering its draft and considering the specific project location. This will help avoid/minimize the risk of prop dredging or blowouts or impacts from grounding in shallow water locations.

- For the shallower water disk-type reef modules, each reef module is deployed from a tripod which is set in place adjacent to a barge which is in a fixed position. The top of the fully constructed disk reef with central piling is suspended by a hydraulic collar. Once the hollow center pipe is placed in position in contact with the sea floor, ambient saltwater is pumped through the center of the hollow pipe and the pipe subsides to the appropriate depth in the sand layer. The pump is then turned off, the positioning of the disk reef is double checked, the piling is held in place by the tripod for a few minutes until the medium-coarse grained sand re-consolidates around the piling, the hydraulic collar and tripod are then removed and the next disk module is similarly deployed.
- For the deeper water pyramid type modules, each module will be lifted separately, by crane, from the barge deck using a pelican hook and then lowered to the seafloor where the hook will be disengaged, modules will not be indiscriminately dumped. Modules will be deployed on either side of the vessel in a specific order and adjusted so each successive placement will be far enough from the previous one to prevent any two modules from touching.
- Barges and machinery and equipment used during artificial reef creation will generate noise, which may disturb wildlife and humans using the area, but will be kept to a minimum using BMPs (e.g., state requirement to use appropriately muffled equipment).

10.5.9.2.2 Measures to Mitigate Impacts to Biological Resources

- The *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) and *Standard Manatee Conditions for In-Water Work* (USFWS, 2011) will both be adhered to during in-water work.
- Access over existing seagrass will be avoided to the extent practicable to minimize prop-scarring impacts.
- Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- The Trustees have determined disturbance to any EFH and species using the habitat in areas adjacent to artificial reef placement will be brief and insignificant, with risks further mitigated by identified best management practices during construction so no adverse impacts to other EFH types will result from the project.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.9.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All required permits will be obtained, and conditions, permit requirements, and best management practices (BMPs) will be followed during construction.

10.5.9.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, both pre-construction and post-construction monitoring will be conducted by the contracted entity (typically a county agency) or their subcontractors to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is enhance and/or increase recreational fishing opportunities by creating artificial reefs in Escambia, Santa Rosa, Okaloosa, Walton, and Bay counties. Specific success criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined that the reefs are available for public use.

Pre-construction monitoring will primarily be related to siting and determining that there is no hard substrate already present. Post-construction monitoring (typically annually for at least 3 years) is required by permits, and generally includes 1) observations of organisms that populate the structures, and 2) documentation and measurement of physical changes to the reef over time. Additional post-construction monitoring of recreational use will be required by the terms of agreements with the local governments implementing the project and will likely consist of boat or snorkeler diver counts taken at pre-determined intervals for at least 3 years post-construction. The recreational use data will be provided to the Florida Department of Environmental Protection.

Monitoring activities will be performed at various times, beginning before construction and continuing after construction. Monitoring will ensure project designs are correctly implemented during construction and in a subsequent period, defined by contract, where corrective actions could be taken. Monitoring activities will include the following:

- Topographic/bathymetric surveys
- Public use monitoring

Pre-restoration deployment will be conducted to confirm that no hard substrate is already present in areas where artificial reef structures will be placed.

Construction-related monitoring will consist of having divers observe the placement of the modules and record exact coordinates of placed materials so that existing state databases can be updated.

Post-construction monitoring will be conducted to evaluate the project's performance over time with respect to the agreed-upon Offsets, goals, and objectives. In general, monitoring will evaluate the production and support of organisms on the living shoreline structure (e.g., secondary production), document and measure physical changes to the reef over time, and possibly provide observations of public use. Components of this monitoring will include collecting information with respect to reef height and structural integrity, water quality parameters (e.g., salinity, dissolved oxygen), bivalve and algal presence, coverage, and composition on the reef.

In accordance with the USACE permitting process, fathometer scans will be conducted once per year for all artificial reef sites to verify material location and condition. Yearly monitoring will also include the use of SCUBA to conduct Level 1, 2, 4, and 4a monitoring. Definitions of each monitoring level are provided in the USACE permit.

Over the long term, project sites will be incorporated into FWC's ongoing diver-based artificial reef monitoring survey program, which evaluates the status of emplaced reef modules. In addition, some counties (e.g., Escambia) also have their own independent reef monitoring programs. Once placed, artificial reef units will require little or no maintenance. Over a period of years to decades, the artificial reef structures will degrade gradually or may be covered through a combination of subsidence and sediment transport/accumulation.

10.5.10 Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center

The Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center project will involve constructing and operating a saltwater sportfish hatchery in Pensacola, Florida. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center project is intended to enhance and/or increase recreational fishing opportunities by producing and releasing highly sought-after sportfish species. The project will enhance and/or increase opportunities for the public's use and enjoyment from the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing opportunities by producing and releasing highly sought-after sportfish species.

The Trustees evaluated the Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project will not substantially contribute to adverse cumulative effects to resources. The Florida Gulf Coast Marine Fisheries Hatchery/Enhancement Center Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.10.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden

Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.10.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.10.2.1 Measures to Mitigate Impacts to the Physical Environment

- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation. No air quality–related permits will be required. The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
    - Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.
- Incorporating BMPs (e.g., wetting to control fugitive dust, limited idling) during construction will help mitigate these potential air quality impacts. These BMPs will be incorporated in construction permits.
- In the short term, particularly during the period of intensive excavation and grading, there is the potential for increased sediment transport off the construction site during storm events. Incorporation of BMPs for construction (e.g., silt fencing, hay baling sensitive areas) will ensure that these potentially adverse water quality impacts are minimized.
- Water that is not reused will be treated in two phases. The first phase will consist of on-site filtration to remove large solids. The solids will be disposed of by Emerald Coast Utilities Authority. Next, the water will flow to the storage pond to allow the settling of additional solids. The remaining effluent will be transported to the plant production pond or filtration marsh where nutrients will be removed by native plants before the water is returned as sheet flow back to Pensacola Bay.
- Water quality monitoring will be required by the industrial wastewater permit to ensure there is no water quality impairment of discharges into the bay. All permit conditions, including

mitigation measures for siltation, erosion, turbidity, and release of chemicals, will be strictly adhered to. During construction, BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. FDEP permit conditions require erosion and turbidity mitigation measures, which include:

- Installation of floating turbidity barriers;
- Installation of erosion control measures along the perimeter of all work areas;
- Stabilization of all filled areas with sod, mats, barriers, or a combination; and
- Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures will be modified, and the FDEP will be notified.

10.5.10.2.2 Measures to Mitigate Impacts to Biological Resources

- The production of sport fish will be conducted in a manner consistent with the relevant rules and best management practices (BMPs) that have been developed for the release of marine organisms in the state of Florida (FWC 2009a, 2009b, 2009c). These rules and guidance describe conditions under which marine organisms may be collected, as well as considerations to be addressed prior to the release of any marine organisms into the environment (e.g., genetic risk from the release).
- To reduce risks and potential in-water impacts to protected species, all in-water work will comply with the recommendations contained within the Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS, 2006) and the Standard Manatee Construction Conditions for In-Water Work (USFWS, 2011) guidance documents.
- The water in-take pipe will be designed and operated in a manner such that manatees cannot be entrained or entrapped. To minimize potential risks of impingement and entrainment the intake pipe will incorporate that a design and screen that ensures water velocity at the screen is less than 15 cm/second (equivalent to 0.15m/s) when water is being pumped.
- Construction activities will cause some disturbance to vegetation in the site's upland habitat. This small area contains remnant native vegetative communities and will be avoided to adhere to city ordinances regarding tree protection. Using construction BMPs to prevent erosion and sediment runoff, disturbance or degradation to these areas will minimize these impacts. Any impacts to native vegetative communities will be short term and minor.
- The large oak and pecan trees on site will be avoided during site grading and project construction to avoid impacts on nesting songbirds.
- Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and

vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.10.2.3 Measures to Mitigate Impacts to Human uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids and to avoid releases and spills. If a release should occur, such releases will be contained and cleaned up promptly in accordance with all applicable regulations.

10.5.10.3 Performance Criteria, Monitoring, and Maintenance

As part of the project costs, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by constructing and operating a saltwater sportfish hatchery. Performance monitoring will evaluate the construction and operation of the hatchery. Specific success criteria include: 1) the completion of the construction as designed and permitted; 2) operation of the hatchery as permitted; and 3) enhanced and/or increased public access provided to the natural resources, which will be determined by observation that the hatchery is open and operational.

A detailed project timeline and associated monitoring framework will be developed as the first step in the initial project design phase. Overall project quality control and assurance will be overseen by the Florida Trustees and quarterly progress reports will be prepared to help track the successful implementation, performance, and completion of the various goals and objectives outlined in the scope of work. Existing fisheries monitoring programs will be leveraged to provide information on recreational catch and effort, and abundance of select sportfish species. The project proposal provides for five years of Trustee data collection during which detailed data on fisheries abundance, catch, effort and angler preferences will be collected to define the impact of the project on recreational fishing.

Assuming accurate analysis of the genetic risks (FWC 2009a), the release of Phase I hatchery fish will have a long-term benefit on estuarine and marine resources by supplementing native populations of fish species. The success of the hatchery releases will be determined by an ongoing comprehensive monitoring program. Specific objectives of this monitoring program will be to estimate the short- and long-term survival of stocked fish; the potential long-term impact on wild sport fish populations; and the respective contributions of hatchery fish to local fish populations and recreational catches. Methods that may be implemented as part of a multidisciplinary and integrative monitoring program to evaluate hatchery program success are described below:

- **Hatchery Production.** Staff at the hatchery will collect and maintain a captive sport fish brood stock; produce hatchling sport fish and rear them to the appropriate size for release; mark larger fish with coded wire tags (CWT); and participate in fish releases.

- **Fish Health.** Staff will work with a suite of qualified partners to evaluate the health of all hatchery-reared offspring before release. Post-release surveys will also be used assess the survival and health status of hatchery-reared sport fish.
- **Fisheries-Dependent Monitoring (FDM).** Recreational anglers will be surveyed to monitor fishing effort, catch and other variables such as targeted species. Fin clips from harvested sport fish will also be obtained for genetic testing.
- **Fisheries-Independent Monitoring (FIM).** Staff will systematically collect sport fish of all sizes from estuarine and coastal waters via stratified random sampling and directed fishing using small mesh seines, trammel nets, and hook-and-line. Fish will be scanned by an onboard detector for the presence of CWTs and fin clips, or other tissue will be collected for genetic testing. Fish collected with CWT will be retained. Other fish will be measured and released; those greater 100 millimeters (standard length) will be fin-clipped.
- **Angler-based Fin Clip Program (FCP).** Staff will develop a volunteer-based fin-clip program to identify hatchery-released fish. Recreational anglers will be provided with kits to collect fin clips and record collection data.
- **Radio Telemetry.** A number of larger fish will be tagged with transmitters to identify patterns of movement and habitat preferences of released fish.

The project proposal also provides for five years of Trustee operation and maintenance which will provide for regular facility maintenance and repair (electrical, plumbing, physical facility, etc.) as well as periodic maintenance and repair of aquaculture systems (including tanks, filtration systems, and specialized instrumentation). After five years, upkeep and repair of facility buildings as well as maintenance of stormwater and effluent retention ponds, and filtration marsh will be provided by FWC and its governmental, university, or non-profit partners.

A hatchery maintenance plan will be developed that provides specific plans for short- and long-term equipment inspection, repair, and replacement. Short-term maintenance will include regular facility upkeep (e.g., cleaning) and periodic inspection and repair of aquaculture systems including tanks, filtration systems, specialized instruments, and basic facility systems (e.g., electrical, plumbing). Long-term maintenance will include provisions for upkeep and repair of facility buildings, stormwater pond, storage pond, and the plant production pond or filtration marsh to ensure effective productivity.

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

The Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle project will involve enhancing local scallop populations in targeted areas in the Florida Panhandle. The improvements include the harvesting and redistribution of naturally-occurring juvenile scallops supplemented with stocking from a commercial scallop hatchery. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle project is intended to enhance and/or increase recreational fishing opportunities by increasing scallop populations. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to

offset adverse impacts to such uses caused by the Spill and related response activities. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing opportunities by increasing scallop populations.

The Trustees evaluated Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle Project will not substantially contribute to adverse cumulative effects to resources. The Scallop Enhancement for Increased Recreational Fishing Opportunity in the Florida Panhandle Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.11.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

Trustees have completed coordination and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, and the National Historic Preservation Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the Clean Water Act and Rivers and Harbors Act has been initiated.

10.5.11.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.11.2.1 Measures to Mitigate Impacts to the Physical Environment

- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.

10.5.11.2.2 Measures to Mitigate Impacts to Biological Resources

- To reduce risks and help avoid in-water impacts to protected species, the recommendations for in-water work within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS 2006) and the *Standard Manatee Conditions for In-Water Work* (USFWS 2011), will be adhered to.
- Project installation activities will use BMPs, including impact avoidance of existing seagrass habitat through the use of small vessels for placement of scallops. Every effort will be made to access the scallop placement sites during periods of high tide using shallow draft vessels to minimize potential adverse impacts to seagrass habitat as a result of navigation.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.

- State-listed birds such as oystercatchers (*Haematopus* sp.*)* or least terns may nest on beaches or mudflats in the vicinity of the project area. If project activities occur during the nesting season (February 15 to August 31), these birds could be disturbed by noise generated by in-water activities. In such circumstances, FWC nesting shorebird avoidance measures will be followed. These measures generally call for surveys within 300 feet and an avoidance buffer of 300 feet for nesting birds.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material).There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.11.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.

10.5.11.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by increasing the local scallop populations in targeted areas. Performance monitoring will evaluate the number of spat per unit

area in newly stocked regions of Wakulla, Gulf, Franklin, Walton, Okaloosa, Santa Rosa, and Escambia counties. Specific success criteria include: increased likelihood that the scallop population density is increased to and sustained at recreational harvesting levels.

The monitoring will occur for the life of the project, which is ten years. These assessments will be conducted by FWC under established protocols. Long term maintenance activities include annual procurement of larvae and spat from a commercial shellfish hatchery and monthly harvest and rearing of naturally occurring scallop spat to supplement collapsed or transitional populations.

Recreational use on scallop areas open to harvest will be assessed using both boat counts (aerial or boat-based) and a shore-based survey of scallopers currently used by FWC. This assessment will occur at least once during the three month recreational harvesting season. The recreational use numbers will be provided to the Florida Department of Environmental Protection.

10.5.12 Shell Point Beach Nourishment

The Florida Shell Point Beach Nourishment project will involve the renourishment of Shell Point Beach in Wakulla County. The improvements include the placement of approximately 15,000 cubic yards of sand on county owned section of the beach from an approved upland borrow area to restore the width and historic slope/profile of this beach. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Shell Point Beach Nourishment project is intended to enhance and/or increase recreational beach use opportunities by improving the county owned section of the beach. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

Draft NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational beach use opportunities by improving the county owned section of the beach.

The Trustees evaluated Florida Shell Point Beach Nourishment Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Shell Point Beach Nourishment Project will not substantially contribute to adverse cumulative effects to resources. Florida Shell Point Beach Nourishment Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.12.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.12.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.12.2.1 Measures to Mitigate Impacts to the Physical Environment

- Sand used as part of this project will comply with requirements set forth by Florida DEP Rule 62B-41.007(2)(j), F.A.C., requires that any material placed on a Florida beach "maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system". Florida DEP will be consulted to ensure that the sand source is acceptable and all guidelines are properly adhered to.
- Best management practices (BMPs) for shoreline and beach work will be employed to ensure that natural resources are minimally disturbed during restoration activities. The berm width will range between 25 and 50 feet at a constant elevation of +4.0 feet, NAVD 1988 and be graded to the landward edge of the mean high water line at varying slopes. Based on this beach fill shape, the potential for the direct impact of sea grasses will be avoided.
- All appropriate permits regarding water quality will be obtained and work will adhere to conditions, permit requirements, and BMPs to ensure that any potential adverse impacts are minimized.
- BMPs will be followed to ensure that noise disturbance is minimized, such as only performing nourishment activities during normal daylight hours.

10.5.12.2.2 Measures to Mitigate Impacts to Biological Resources

- Adhere to appropriate avoidance windows [for piping plover and red knot] to the maximum extent possible.
- To avoid impacts to any foraging or resting migratory birds, the following measures will be implemented:
    - Driving on the beach for construction shall be limited to the minimum necessary within the designated travel corridor, which will be established just above or just below the primary "wrack" line.

    - Predator-proof trash receptacles shall be installed and maintained during construction at all beach access points used for the project construction to minimize the potential for attracting predators of migratory birds.
    - Workers shall be briefed on the importance of not littering and keeping the project area trash and debris free.
    - Educational signs shall be installed at public access points within the project area with emphasis on the importance of the beach habitat and wrack line for migratory birds.
    - When the project area has a pet or dog regulation, the provisions of the regulation shall be included on the educational signs.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.12.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Standard conditions in state contracts for addressing hazardous and toxic materials include:
    - All paints, solvents, chemicals and petroleum products used stored on site will be contained so that any leakage or spills that may occur do not run off into surrounding properties or waterways. All leaks or spills will be promptly cleaned up, and all absorbent materials used will be promptly removed from the site and properly disposed to an appropriate facility. Any spills will be reported to the FDEP.
    - The contractor will have sufficient number and size of waste container(s) on site for the proper disposal of all waste material generated during construction activities. The contractor will remove or have waste containers emptied and waste material disposed to a properly licensed facility when full and all containers must be removed at the conclusion of construction.
    - If during the course of performing the work the Contractor uncovers unsuitable or contaminated material he shall cease work in that area and notify the FDEP. A site assessment report and remedial action plan will be prepared and approved by the FDEP before any further activity or construction in the affected area is resumed.
- Temporary signage and other access controls will be placed to indicate the beach is effectively the site of an active construction project where heavy equipment is being operated, which will mitigate risks to human safety during construction.

10.5.12.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving the county owned section of the beach. Performance monitoring will evaluate the renourishment of the beach. Specific success criteria include: 1) the completion of the renourishment as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the beach is open and available.

Operation and maintenance for this project will include pre- and post-restoration monitoring and long- and short-term maintenance. Pre-restoration monitoring will focus on reconnaissance to identify tar balls at the project area. Pre-restoration monitoring will also include monitoring for threatened, endangered, and special status species, both floral and faunal.

Long-term monitoring will be completed by Wakulla County. Funding for monitoring is not included in the previously provided value for the project cost and will be accomplished by Wakulla County.

Wakulla County will monitor the recreational use activity at the site. Wakulla County will visit the site twice a year to count the number of users at the beach. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.13 Perdido Key Dune Restoration Project

The Florida 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. As a result of the Deepwater Horizon oil spill and related response activities, dune habitat in Florida's Panhandle was adversely impacted. This project seeks to restore injured dune habitat by planting new dune vegetation. The ecological benefits that will be gained by this restoration project are anticipated to help compensate the public for Spill-related injuries and losses to the dune habitat. Thus, nexus to resources injured by the Spill is clear. See15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will provide long-term benefits by restoring and enhancing approximately 20 acres of degraded dune habitat.

The Trustees evaluated Perdido Key Dune Restoration Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure,

land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Perdido Key Dune Restoration Project will not substantially contribute to adverse cumulative effects to resources. Perdido Key Dune Restoration Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.13.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.13.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.13.2.1 Measure to Mitigate Impacts to the Physical Environment

- Available BMPs will be employed to prevent, mitigate, and control potential minor air pollutants during project implementation.
- Sand fencing should be moved up regularly as the dune grows and removed as soon as the dune and plants are large enough to capture sand.
- Use some larger plants mixed with the typically used smaller plants to help capture sand immediately.
- No movement of sand is envisioned for the project, but sand fencing will be installed to trap and retain wind-blown sediments and protect the plants for dune restoration purposes. Sand fencing shall be placed in a sea turtle compatible design and be made of biodegradable material.

Appropriate signs to designate and indicate the purpose of the conservation area may be used if necessary. If dune vegetation is impacted during the implementation activities in some areas within the project, these areas shall be restored by planting the appropriate vegetation in those areas with the same survival performance measures as the other planted areas.

- Sand/soil removed for plantings will be packed around the planted unit to support regrowth. Only the excavated sand/soil removed to make room for the plantings will be placed on the site and it will be used to anchor the planted vegetation. Incidental trash encountered during project activities will be removed. No irrigation lines or pipes will be installed.
- To protect the dune habitat, most of the work will be done by hand with ATVs potentially used to shuttle plants and other materials to sites of active replanting. Access to the dunes will be established through existing emergency vehicle paths and rights-of-way. Staging areas will be established in existing parking lots.
- ATVs should stay out of the dunes and as low to the water line as possible. Plants may have to be walked up to the planting area from the ATV travel path.
- No storage of equipment or materials will occur on the beach or dunes throughout the project area. No activity, except as needed to plant and monitor vegetation shall occur on existing dunes during any time of the year.
- All appropriate permits will be obtained prior to the beginning of construction and all BMPs and conditions set forth will be followed.
- Noise will be kept to a minimum using best management practices.

10.5.13.2.2 Measures to Mitigate Impacts to Biological Resources

- In accordance with Rule 62B-41.007(2)(l), Fla. Admin. Code, all vegetation used for the restoration will be native salt-resistant vegetation suitable for beach and dune stabilization, and grown from seeds or cuttings from the Alabama coast or North Florida to ensure appropriate genetic stocks are used in the project. The seedlings to be planted shall be at least 1 inch by 1 inch with a 2.5-inch pot. Vegetation shall be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. Planting will generally be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted.
- The planting shall be patterned after the species composition in native communities adjacent to a project site, if possible. This vegetation will be planted using hand tools to excavate cavities where the root ball from the planting container can be placed and secured with the excavated sand/soil.
- The Panama City Field Office (PCFO) will be contacted prior to conducting the restoration, regarding dune plantings to balance habitat for listed and migratory birds and beach mouse.
- Should work be undertaken between May 1 and October 31 the following conservation measures will be followed.
    - All construction personnel will be notified of the potential presence of sea turtles and reminded of the criminal and civil penalties associated with harassing, harming, or killing sea turtles (all life stages).

    - The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31[22], actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
    - Avoid driving over the wrack line or areas of dense seaweed, as these habitats may contain sea turtle hatchings or baby birds that are difficult to see.
- The following measures shall be implemented (regardless of seasonality):
    - All construction personnel will be notified of the presence of critical habitat and reminded to avoid impacting it otherwise additional restoration may be necessary.
    - The nearest, existing staging, access and egress areas, travel corridors, pathways, and roadways shall be used (including those provided by the State, local governments, land managers, trustee, or private property owner, with proper permissions).
    - No new staging areas, access or egress, or travel corridors shall be created.
    - Vegetation removal will be minimized.
    - If driving equipment or vehicles on the beach, enter at designated access, proceed directly to the hard-packed sand near or below the high tide line and stay below the tide line when driving long distances.
    - Avoid driving on the upper beach whenever possible, and never drive over any dunes or beach vegetation.
    - Use the smallest footprint possible to complete the project.
    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.
    - No lighting will be installed.
- All construction personnel will be notified of the potential presence of Perdido Key Beach Mice and reminded of the criminal and civil penalties associated with harassing, injuring, or killing Perdido Key Beach Mice.
- To minimize impacts to Perdido Key beach mice in burrows, a qualified, permitted, biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided.
- Construction noise will be kept to the minimum feasible, and construction will occur during the day to minimize disturbance to nocturnal patterns.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.

[22] Turtle *nesting* season is May 1 to August 31, while turtle *hatching* continues until October 31. The remaining turtle BMPs will be implemented May 1 through October 31 and BMPs for proposed critical habitat will be implemented all year.

- Other Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.
- Personnel will remove trash or anything that will attract nuisance wildlife to work areas daily.
- Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.
- The project will occur in very localized locations for very short periods of time, allowing the mosaic of primary, secondary scrub vegetation and dune structure to remain unchanged or increase after implementation.
    - If native dune plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize impacts to the vegetative composition of the area. The Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mouse. Any dune restoration should mimic natural dunes including the relative abundance of dunes and swales and vegetated and unvegetated areas.
    - A fertilizer to help jump start the plant growth process from initial shock of being planted may be necessary.
    - If sand fencing is to be used, it should be used judiciously and moved up regularly as dune grows. Sand fencing should be removed as dune and plants are large enough to capture sand on their own.
    - Use some larger plants mixed with the smaller typical planting size plants to trap sand naturally and grow the dune.
    - ATVs should stay out of dunes and as low to the water line as possible. Plants may have to be walked up to the planting area from ATV travel path.
- If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.
- Project work will only occur during daylight hours.
- Post and rope should be used and maintained around the entire restoration area to keep people from affecting the restoration.
- If construction occurs within the period from August to May: shorebird surveys (for piping plover and red knot) will be conducted in the project area; and within the project area a 300-foot wide buffer zone where either species congregates will be established. Any and all construction will be prohibited in the buffer zone until the individuals move from the area of their own volition.

- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines (USFWS 2007).
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered.
- In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.13.3 Performance Criteria, Monitoring, and Maintenance

As part of the project costs, monitoring will be conducted to ensure project designs were correctly implemented and to evaluate project effectiveness. Performance criteria will be used to determine project success or the need for corrective actions. The monitoring has been designed around the project objective, which is to restore and enhance injured dune habitat. Specific success criteria include: the construction of dune habitat that meet project design criteria, achieves the designed percent cover by native vegetation, and is sustained for the expected life of the project.

This project will incorporate a mix of monitoring efforts to ensure project designs are correctly implemented during construction and in a subsequent period, defined by contract, where corrective actions could be taken. Monitoring will include construction monitoring and restoration success.

The number of acres restored, number of dune plants installed, and survivorship of installed dune plants will be reported. Short-term maintenance activities will include periodic watering of dune plants by selected contractor, if needed, and replanting where dune plants have not survived. Specific criteria for evaluating revegetation success will be accomplished through implementation of standard state guidelines.

Post construction performance monitoring will initially focus on plant survival. Plants that do not survive to 90 days post-planting will be replaced. At least 80 percent of plants must survive after 6 months or replanting will occur. Approximately $30,000 in funding has been set aside for monitoring the results of the project and plant survival. No movement of sand will be envisioned for the project, but sand fencing will be installed to protect the plants. The sand fencing will have a one year warranty period. Topographic surveys will not be necessary due to the lack of physical movement of sand, but species survival and cover will be monitored as part of this project.

Escambia County will take over maintenance of the project once survival of the plants is accomplished. Additional performance monitoring could include collection of information such as the utilization of the habitat by the endangered Perdido Key beach mouse to assist with future habitat enhancement and restoration efforts focused on benefitting this species

10.5.14 Florida Oyster Cultch Placement Project

The Florida Oyster Cultch project will enhance and improve the oyster populations in Pensacola Bay, Andrew Bay and Apalachicola Bay. The 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. As a result of the Deepwater Horizon oil spill and associated response actions, oyster secondary productivity along the north central Gulf coast suffered adverse impacts. This project seeks to foster reef development, which will help compensate the public for Spill-related injuries and losses to oyster secondary productivity. Thus, nexus to resources injured by the Spill is clear. See 15C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will provide long-term benefits by promoting reef development for oysters by restoring approximately 210 acres of existing oyster reef habitat.

The Trustees evaluated Florida Oyster Cultch Placement Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Florida Oyster Cultch Placement Project will not substantially contribute to adverse cumulative effects to resources. Florida Oyster Cultch Placement Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.14.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed coordination and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.14.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific

resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.14.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation. No air quality–related permits will be required.
- BMPs, along with other avoidance and mitigation measures required by state and federal regulatory agencies, will be employed to minimize any water quality and sedimentation impacts.

10.5.14.2.2 Measures to Mitigate Impacts to Biological Resources

- The equipment (e.g., shallow draft barges) selected for the delivery of the cultch is made in these project to avoid potential prop dredging or scraping of bottom areas in order to avoid adversely impacting important habitats such as submerged aquatic vegetation beds. .
- The Sea turtle and Smalltooth Sawfish Construction Guidelines (NOAA, 2006) and Standard Manatee Conditions for In-water Work (USFWS, 2011) will be implemented and adhered to during in-water work.
- BMPs to avoid impacts to seagrass have been incorporated into the construction plan, including 1) situating anchoring sites to avoid impacts to seagrass, if found to be in the project area; 2) avoiding access over existing seagrass to the extent practicable to minimize prop-scarring impacts; and 3) monitoring turbidity levels during construction and implementing additional BMPs if turbidity levels rise too high based on local and state regulatory/permit levels.
- Care will be taken to minimize noise and vibration near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.14.3 Performance Criteria, Monitoring, and Maintenance

As part of the project costs, monitoring will be conducted to ensure project designs were correctly implemented and to evaluate project effectiveness. Performance criteria will be used to determine project success or the need for corrective actions. The monitoring has been designed around the project objective. The project objective is to promote reef development for oysters by restoring existing oyster

reef habitat. Specific success criteria include: construction of reefs that meet project design criteria, support oyster secondary productivity, and are sustained for the expected life of the project.

Post construction performance monitoring will focus on the recruitment and growth of oysters on the new cultch placements. Restored reefs may become productive in as few as 3 to 6 months under optimal conditions, with oyster reaching market size in 12 to 18 months. However, since recruitment and survival can be highly variable, some reefs may not become productive for 2-5 years. It has been shown that restored reefs can remain productive for more than 10 years with little additional maintenance (dragging to re-expose shell material and substrate enhancement). However, if poor recruitment to restored reefs is observed, management and maintenance activities to improve spat settlement and growth will be investigated; additional management activities will be conducted as necessary and as funding allows. Based on the expected longevity of the restored reefs, a monitoring program will assess oyster population parameters for ten years.

DACS will be responsible for effectively assessing or providing guidance on the status of oyster resources on reefs that are restored during this project. Specific metrics to delineate reef locations and reef area, measure population parameters, and estimate production potential will be accomplished.

The monitoring will include collecting samples following project completion on all restored reefs and establishing a sampling schedule based on expected recruitments cycles. All restored reefs will be sampled twice a year from year-one through year-five and once a year from year-six through year-ten. Sampling intervals may be modified to assess significant events which may affect oyster population dynamics. A total of sixteen sampling trips are planned for each restored reef.

The monitoring program will establish and describe the parameters and metrics required to accurately assess oyster reef habitat and populations on restored reefs. Reefs will be measured and delineated to determine the surface area and reef boundaries, and estimate the coverage forming available reef habitat. The Standard Oyster Resource Management Protocol utilized by the state of Florida will be used to establish baseline and serial oyster population data to measure and report changes in oyster populations and oyster population dynamics.

The Standard Oyster Resource Management Protocol is based on collecting oyster samples from quadrats established at specific sampling locations on restored reefs. Samples are collected by divers using current standard procedures and returned to the laboratory for analyses. Live oysters collected during replicated samples are individually measured, dead oysters and recent boxes are counted, predators are identified and counted, and the general condition of the reef is recorded. The numbers and size of live oysters are converted to size frequency distributions that are used to develop population parameters, such as density, production levels, recruitment, growth, and survival, which in turn, can be applied to predict population trends and identify adverse impacts from events such a hurricanes, floods and drought.

The Standard Oyster Resource Management Protocol provides that estimated production exceeding 400 bags of oysters per acre indicates healthy oyster reefs capable of sustaining commercial harvesting. Accordingly, oyster populations are 1) capable of supporting limited commercial harvesting when stocks

exceed 200 bags/acre, 2) below levels necessary to support commercial harvesting when stocks fall below 200 bags/acre, and 3) considered depleted when marketable stocks are below 100 bags/acre (Berrigan, 1990). Generally, the protocol has been an accurate indicator of oyster production in Florida.

10.5.15 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description A (City of Mexico Beach Marina Project)

The Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) project will improve the existing Mexico Beach Canal Park boat ramp in the City of Mexico Beach. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Mexico Beach Marina) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.15.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, USFWS Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consultations have been initiated for the NMFS Endangered Species Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been

completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. The consultation has been initiated. In addition, the Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.15.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.15.2.1 Measures to Mitigate Impacts to the Physical Environment

- Best management practices for erosion control will be implemented and maintained in upland areas at all times during construction to prevent siltation and turbid discharges into surface waters. Methods for this control will include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; and staged construction. The erosion control measures will remain in place and be maintained until all authorized work is completed and the site has been stabilized.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:
    - Install floating turbidity barriers
    - Install erosion control measures along the perimeter of all work areas
    - Stabilize all filled areas with sod, mats, barriers or a combination
    - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

- During construction, turbidity barriers will be installed with weighted skirts that extend to within one foot of the bottom around all work areas that are in, or adjacent to, surface waters. These turbidity barriers will remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:
    - No boat repair or fueling facilities over the water,
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than 2 years.

10.5.15.2.2 Measures to Mitigate Impacts to Biological Resources

- During all in-water work, including transit to the project site, the measures within the *Vessel Strike Avoidance Measures and Reporting for Mariners* relevant for this project will be implemented.
- In addition, the best management practices identified within the Sea Turtle and Smalltooth Sawfish Construction Conditions (NOAA, 2006) will be implemented during periods of in-water work.
- Development of final plans will also incorporate the guidance and requirements set forth in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) should an SAV survey indicate sea grasses are located in the project area for the pier work. Among other impacts, implementing these guidelines will require pilings for the dock expansion be placed a minimum of 10 feet apart.
- Predator-proof waste receptacles will be installed and maintained such that an increase in predator abundance does not occur due to use of the project.

- Informational signs on the fishing piers will explain what to do in case of hooking a sea turtle and remind individuals of measures needed to avoid all wildlife during recreational activities.
- No project activities or staging will occur on the beach or within the dunes. Fencing/signage/barriers will be used to ensure no equipment or material is inadvertently placed/stored in the dune area during the project implementation period.
- No lighting is proposed for the project at this time; however, should lighting become necessary it will be wildlife-friendly.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds and their

recommendations will be implemented if shorebird nesting is occurring within 300 feet of the project site.

- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.15.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will utilize mechanical equipment and barges that use oil, lubricants and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.15.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing marina. Performance monitoring will evaluate: 1) the repair of the existing retaining wall; 2) the replacement of a number of the existing finger piers; and 3) the improvement of the existing boardwalk. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the marina is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Mexico Beach as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Mexico Beach.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Mexico Beach will monitor the recreational use activity at

the site. City of Mexico Beach staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.16 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description B (Panama City St. Andrews Marina Docking Facility Expansions)

The Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project will improve the existing St. Andrews Marina docking facility in Panama City. The improvements include adding three boat slips, replacing the boat ramp, and replacing a fixed wooden dock with a concrete floating dock. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the marina. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the marina.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (Panama City St. Andrews Marina Docking Facility Expansions) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.16.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone

Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.16.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.16.2.1 Measures to Mitigate Impacts to the Physical Environment

- All applicable best management practices (BMPs) and permit conditions will be followed to minimize any adverse impacts of construction. BMPs for erosion control will be implemented and maintained at all times during construction to prevent discharges into surface waters.
    - Methods for land-based portions of the project construction could include, but may not be limited, to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Prior to the initiation of any work, erosion control measures will be put in place along the perimeter of construction zone.
    - Erosion control measures will remain in place and be maintained until all authorized work is completed and the site has been stabilized. During and following construction, all construction waste materials will be disposed of appropriately.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:
    - Install floating turbidity barriers
    - Install erosion control measures along the perimeter of all work areas
    - Stabilize all filled areas with sod, mats, barriers or a combination
    - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.
- Turbidity barriers with weighted skirts extending to within one foot of the bottom will be installed along the entire shoreline length of the in-water project area prior to initiation of construction. Turbidity barriers will remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:

    - No boat repair or fueling facilities over the water,
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- BMPs, to limit the noise from any pile driving (e.g., consideration of bubble curtains) will be evaluated with the selection of the final construction methods and implemented, as appropriate.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year.

10.5.16.2.2 Measures to Mitigate Impacts to Biological Resources

- As part of this engineering and site assessment, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented. Among other elements this will require that pilings for the dock expansion be placed at a minimum of 10 feet apart.
- The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to during project implementation.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Any lighting installed as a part of the project will be wildlife-friendly and comply with guidance provided in the most current version of the FWC's Lighting Technical Manual.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.

- Protective measures will also be implemented in the design phase and include the use of pointy, white, piling caps and containers for waste fishing gear.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.16.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills. If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.16.3 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing marina facility. Performance monitoring will evaluate: 1) the construction of the three new boat slips; 2) the replacement of the existing boat ramp; and 3) the replacement of the existing fixed wooden dock with a concrete floating dock. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the marina is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Panama City as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Panama City.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Panama City will monitor the recreational use activity at the site. Panama City staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

10.5.17 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description C (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.

10.5.18 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description D (City of Parker, Earl Gilbert Dock and Boat Ramp Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project will improve the existing Earl Gilbert dock and boat ramp in the City of Parker. The work includes improving the existing dock and expanding the existing parking. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat Ramp Improvements) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Parker Earl Gilbert Dock and Boat

Ramp Improvements) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.18.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.18.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.18.2.1 Measures to Mitigate Impacts to the Physical Environment

- Best management practices (BMPs) for erosion control associated with the ramp and parking lot work will be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state.
- Upland silt and sedimentation control measures will be installed and properly maintained at all points where runoff from disturbed areas could result in water quality impacts. This may include the use of filter fences (staked or floating), sedimentation screens, erosion control blankets or other appropriate erosion and turbidity control measures. The in-water use of silt curtains and the dewatering of work areas for the boat ramp repairs will further help limit the scope, nature, and extent, of any turbidity impacts.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:
    - Install floating turbidity barriers
    - Install erosion control measures along the perimeter of all work areas
    - Stabilize all filled areas with sod, mats, barriers or a combination
    - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.

- Required spill containment measures will be implemented for applicable construction activities.
- Implementation of stormwater management controls for the project.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year.

10.5.18.2.2 Measures to Mitigate Impacts to Biological Resources

- As part of the dock renovations there will be an initial survey of submerged aquatic vegetation (SAV) in the area where the work will be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented, as relevant.. Among other elements, these guidelines address decking material and spacing.
- During any in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to during project construction.
- Any lighting installed as a part of the project will be wildlife-friendly and comply with guidance provided in the most current version of the FWC's Lighting Technical Manual.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- Nesting is not known at the project site for migratory birds, if project activities occur during shorebird nesting season (February 15 to August 31). If nests are found, the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.

- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- Protective measures will also be implemented in the design phase and include the use of pointy, white, piling caps and containers for waste fishing gear.
- During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.18.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.
- If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations.
- In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response will be adhered to and the incident will be reported to appropriate agencies.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.18.3 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp facility. Performance monitoring will evaluate: 1) the improvement of the existing dock, and 2) expansion of the existing parking. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Parker as part of their regular public facilities maintenance activities. Funding for this post-construction

maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Parker.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Parker will monitor the recreational use activity at the site. The City of Parker will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

In addition, the State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

10.5.19 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description E (City of Port St. Joe, Frank Pate Boat Ramp Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project will improve the existing Frank Pate boat ramp in the City of Port St. Joe. The improvements include constructing an additional boarding dock, boat trailer parking, access drive, staging area, and a fish cleaning station. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land

and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (City of Port St. Joe Frank Pate Boat Ramp Improvements) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.19.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.19.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.19.2.1 Measures to Mitigate Impacts to the Physical Environment

- BMPs for erosion control will also be implemented and maintained at all times during upland construction to prevent siltation and turbid discharges into surface waters. Methods could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:
    - Install floating turbidity barriers
    - Install erosion control measures along the perimeter of all work areas
    - Stabilize all filled areas with sod, mats, barriers or a combination

    - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:
    - No boat repair or fueling facilities over the water,
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting
- Implementation of stormwater management controls.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Boat wakes created by additional boat traffic that could increase shoreline erosion will be controlled through no-wake or speed zones to mitigate shoreline erosion.
- Should any lighting be installed or upgraded the new lighting will be wildlife friendly and comply with the guidance provided in the current edition of the FWC's Lighting Technical Manual.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year.

10.5.19.2.2 Measures to Mitigate Impacts to Biological Resources

- During periods of in-water work the guidelines and conditions within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to.
    - These provisions include stopping operation of any equipment if sea turtles or smalltooth sawfish come within 50 feet of the equipment until the time when animals leave the project area of their own volition.
- Development of final plans will incorporate the guidance and requirements set forth in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) should an SAV survey indicate sea grasses are located in the project area. Among other impacts, implementing these guidelines will require pilings for the dock expansion to be placed at a minimum of 10 feet apart.
- Implementation of Best Management Practices (BMPs) for species protection and turbidity and erosion control to be implemented. This will help minimize the damage and loss of habitats. All construction activities will be done in compliance with FDEP and USACE permit conditions.
- No work (including staging or storing of equipment, materials, or debris) will occur on sandy beach areas that could be used for sea turtle nesting. Any sand or gravel material brought to the project site and not used during construction will be removed and will not be place on the beach.
- Lighting is not proposed in this project; however, should it become necessary, lighting will follow be wildlife-friendly and comply with the guidance provided in the current edition of the FWC's Lighting Technical Manual.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.

- Pilings for the dock will be placed by a combination of water jetting and mechanical auguring to minimize noise.
- If construction occurs when piping plover or red knot could be present, a shorebird survey will be conducted in the project area and a 300-foot wide buffer zone (no work zone) will be established where either or both of the species congregate in significant numbers. Any and all construction will be prohibited in the buffer zone.
- Project activity will not extend into designated critical habitat for species or expand beyond existing developed areas.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- If project activities occur during shorebird/seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/seabirds or rookeries and their recommendations will be implemented.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting seabirds are encountered. Work will occur during daylight hours only.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.19.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will utilize mechanical equipment that uses oil, lubricants and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.
- If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations.
- In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response will be adhered to and the incident will be reported to appropriate agencies.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.19.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate: 1) construction of a boarding dock; 2) the addition of boat trailer parking; 3) the construction of an access drive; 4) the addition of a staging area; and 5) the construction a fish cleaning station. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Port St. Joe as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Port St. Joe.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Port St. Joe will monitor the recreational use activity at the site. The City of Port St. Joe will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.20 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description F (City of St. Marks Boat Ramp Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) project will improve the existing City of St. Marks boat ramp. The improvements include adding a boarding dock to the one-lane boat ramp. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf

Coast (City of St. Marks Boat Ramp Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (City of St. Marks Boat Ramp Improvements) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.20.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.20.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.20.2.1 Measures to Mitigate Impacts to the Physical Environment

- BMPs for erosion control will be implemented and maintained at all times during construction to prevent siltation and turbid discharges into surface waters from land-based activity.
    - Methods for land-based portions of the project construction will include, but may not be limited to, the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. Prior to the initiation of any work, erosion control measures will be put in place along the perimeter of all landward work areas to prevent the displacement of fill material into the St. Marks River.
- Turbidity barriers with weighted skirts extending to within one foot of the bottom will be installed along the entire shoreline length of the in-water project area prior to initiation of construction. Turbidity barriers will remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:
    - Install floating turbidity barriers
    - Install erosion control measures along the perimeter of all work areas
    - Stabilize all filled areas with sod, mats, barriers or a combination
    - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permits require spill containment protection and mitigation measures such as:
    - No boat repair or fueling facilities over the water,
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year.

10.5.20.2.2 Measures to Mitigate Impacts to Biological Resources

- Should SAV be identified in the potential project area where pilings will need to be placed, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented. Among other elements this will require pilings for the canoe/kayak launch be placed a minimum of 10 feet apart.

- Implementation of Best Management Practices (BMPs) for species protection and turbidity and erosion control to be implemented. This will help minimize the damage and loss of habitats. All construction activities will be done in compliance with all permit conditions.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Plan* guidelines will be followed (USFWS 2007).Care will be taken to minimize noise and physical disruptions near areas where foraging, resting, or nesting migratory birds are encountered. Work will occur during daylight hours only.
- During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area.
- The Standard Manatee Conditions for In-Water work (USFWS 2011) will be implemented.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.20.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will utilize mechanical equipment that uses oil, lubricants and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.
- If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations. As a result, no impacts associated with construction-related hazardous materials will be anticipated.
- In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response will be adhered to and the incident will be reported to appropriate agencies.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.20.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate the construction of the boarding dock to the one-lane boat ramp. Specific performance criteria include: 1) the completion of

the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of St. Marks as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of St. Marks.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of St. Marks will monitor the recreational use activity at the site. The City of St. Marks will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.21 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description G (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 was not included in the Final Phase III ERP/PEIS.

10.5.22 Strategically Provided Boat Access along Florida's Gulf Coast: Project Description H (Walton County, Lafayette Creek Boat Dock Improvements)

The Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project will improve the existing Lafayette Creek boat dock in Walton County. The improvements include expanding the dock by 400 feet at the boat ramp to accommodate larger vessels and additional vessels. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public

health and safety and shoreline protection). Based on the cumulative impact analysis, the Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) Project will not substantially contribute to adverse cumulative effects to resources. The Strategically Provided Boat Access along Florida's Gulf Coast (Walton County Lafayette Creek Boat Dock Improvements) Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.22.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.22.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.22.2.1 Measures to Mitigate Impacts to the Physical Environment

- Prior to starting construction, the existing FDEP permit indicates roughly 800' of turbidity barrier will be installed in Lafayette Creek to minimize direct water quality impacts, primarily turbidity increases. These turbidity barriers will have weighted skirts extending to within one foot of the bottom and will remain in place and be maintained until the authorized work has been completed and all erodible materials have been stabilized.
- Methods for limiting the impact of the land-based portions of the project construction will include, but may not be limited, to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.
- Immediately after completion of the final grading of land surface, all slopes, land surfaces, and filled areas will be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. Erosion control measures will remain in place and be maintained until all authorized work is completed and the site has been stabilized.
- All permit conditions requiring mitigation measures for siltation, erosion, turbidity and release of chemicals will be strictly adhered to. During construction, Best Management Practices and boom placement along with other avoidance and mitigation measures required by state and

federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. The FDEP permit conditions require erosion and turbidity mitigation measures. These include:

  - Install floating turbidity barriers
  - Install erosion control measures along the perimeter of all work areas
  - Stabilize all filled areas with sod, mats, barriers or a combination
  - If turbidity thresholds are exceeded the project must stop, stabilize the soils, modify the work procedures, and notify the FDEP.
- Required spill containment measures will be implemented for applicable construction activities. The FDEP permits require spill containment protection and mitigation measures such as:
  - No boat repair or fueling facilities over the water,
  - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Boat wakes created by additional boat traffic that could increase shoreline erosion will be controlled through no-wake or speed zones to mitigate shoreline erosion along Lafayette Creek.
- Construction noise will be temporary and limited to daytime hours, and the construction period is not anticipated to last more than one year.

10.5.22.2.2 Measures to Mitigate Impacts to Biological Resources

- The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to during all in-water construction activity.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Educational signs will be posted to inform visitors of the potential for marine mammals and any necessary precautions.
- Nesting is not known at the marina for migratory birds, however, preconstruction nesting surveys will be conducted if project activities occur during shorebird nesting season (February 15 to August 31). The FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented. If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Plan* guidelines will be followed (USFWS 2007).Care will be taken to minimize noise and physical disruptions near areas where foraging, resting, or nesting migratory birds are encountered. Work will occur during daylight hours only.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection,

pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.22.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- During and following construction, all construction waste materials will be disposed of appropriately.
- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.
- If a release should occur such releases will be contained and cleaned up promptly in accordance with all applicable regulations.
- In the event of a fuel or oil spill from construction equipment, all procedures, regulations and laws pertaining to Oil Spill Prevention and Response will be adhered to and the incident will be reported to appropriate agencies.
- All occupational and marine safety regulations and laws will be followed to ensure safety of all workers and monitors.

10.5.22.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving an existing boat ramp. Performance monitoring will evaluate the construction of the dock. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.23 Walton County Boardwalks and Dune Crossovers all Components (Ed Walline Beach Access Improvements, Gulfview Heights Beach Access Improvements, Palms of Dune Allen West Beach Access Improvements, and Bayside Ranchettes Park Improvements)

The Walton County Boardwalks and Dune Crossovers: Ed Walline Beach Access Improvements project will improve the Ed Walline regional beach access facility in Walton County. The improvements include replacing pavilions and restroom fixtures and upgrading all interior plumbing. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Walton County Ed Walline Beach Access Improvement project is intended to enhance and/or increase recreational beach use opportunities by improving the facilities at the Ed Walline beach access point. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Walton County Boardwalks and Dune Crossovers: Gulfview Heights Beach Access Improvements project will improve the Gulfview Heights beach access facility in Walton County. The improvements include replacing restroom fixtures, updating all interior plumbing, and repairing all soffits on pavilions. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Walton County Gulfview Heights Beach Access Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving the existing facilities at the beach access point. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Walton County Boardwalks and Dune Crossovers Project: Grayton Dunes Beach Access Boardwalk Improvements project component was included in Final Phase III ERP/PEIS. However, it has since been dropped from funding consideration and is not included in this Record of Decision. Walton County requested that the Trustees withdraw the project from consideration, since the County had already constructed the project with another funding source. Total funds allocated to Grayton Dunes Beach Access Boardwalk Improvements project component were $168,076.00. The funds from the Walton County Boardwalks and Dune Crossovers Project: Grayton Dunes Beach Access Boardwalk Improvements project component will be left in the Early Restoration Subaccount and will be available to fund future early restoration projects. The re-allocation of funds from the Grayton Dunes Beach Access Boardwalk Improvements project component to the Early Restoration Subaccount does not affect the Benefit to Cost Ratio (BCR) that was negotiated with BP for the Walton County Boardwalks and Dune Crossovers project.

The Walton County Boardwalks and Dune Crossovers Project: Dothan Beach Access Boardwalk Improvements project component was included in Final Phase III ERP/PEIS. However, it has since been

dropped from funding consideration and is not included in this Record of Decision. Walton County requested that the Trustees withdraw the project from consideration, since the County is in the process of constructing the project with another funding source. Total funds allocated to Dothan Beach Access Boardwalk Improvements project component were $188,909.00. The funds from the Walton County Boardwalks and Dune Crossovers Project: Dothan Beach Access Boardwalk Improvements project component will be left in the Early Restoration Subaccount and will be available to fund future early restoration projects. The re-allocation of funds from the Dothan Beach Access Boardwalk Improvements project component to the Early Restoration Subaccount does not affect the BCR that was negotiated with BP for the Walton County Boardwalks and Dune Crossovers project.

The Walton County Boardwalks and Dune Crossovers: Palms of Dune Allen West Beach Access Improvements project will improve the Palms of Dune Allen West beach access facility in Walton County. The improvements include constructing a dune walkover, allowing beach visitors to access the beach. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Walton County Palms of Dune Allen West Beach Access Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving beach access. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Walton County Boardwalks and Dune Crossovers: Bayside Ranchettes Park Improvements project will improve the Bayside Ranchettes Park in Walton County. The improvements include constructing a parking area, a picnic table, a dock, and steps into the water allowing access to the bay. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Walton County Palms of Dune Allen West Beach Access Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving beach access. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects will enhance and/or increase recreational beach use opportunities by improving beach access, and by improving recreational opportunities at parks.

The Trustees evaluated the Walton County Boardwalks and Dune Crossovers Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and

recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Walton County Boardwalks and Dune Crossovers Project will not substantially contribute to adverse cumulative effects to resources. The Walton County Boardwalks and Dune Crossovers Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.23.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

For the Ed Walline Beach Access Improvements component, the Gulfview Heights Beach Access Improvements component, and the Palms of Dune Allen West Beach Access Improvements, the Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with Clean Water Act and Rivers and Harbors Act has been initiated. Compliance with the National Historic Preservation Act has also been initiated for the Ed Walline Beach Access Improvements component, and the Palms of Dune Allen West Beach Access Improvements component – this consultation is complete for the Gulfview Heights Beach Access Improvements component.

For the Bayside Ranchettes Park Improvements component, the Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.23.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.23.2.1 Measures to Mitigate Impacts to the Physical Environment

- The following conservation measures for dune walkover construction will be implemented at each site:
    - **Boardwalks**: A dune walkover will be constructed at a height (minimum 3 feet above grade) to accommodate natural dune growth and associated vegetation.

- **Equipment storage**: No storage of equipment or materials will occur on the beach or dunes throughout the entire year.
- **Dune protection**: No activity, except as needed to repair/replace/construct the walkovers, will occur on existing healthy dunes during any time of the year. Activities in this area will be limited to maintenance and restoration of the habitat. If dunes are impacted, they will be restored by planting the appropriate vegetation or installing sand fence. Appropriate signs will be used to designate and indicate the purpose of the conservation area, if necessary.
- **Sand fence**: Minimal use of sand fence will be encouraged. When used, the fence will be used for restoration of dune blowouts. Post and rope are preferred for beach visitor access, pedestrian traffic control, and wildlife exclusion zones (e.g., bird wintering areas). If used for dune restoration, the fence will be placed in a sea turtle–compatible design and be made of biodegradable material.
- **Native landscaping**: The habitat quality of all non-developed areas will be maximized and the habitats will be connected by landscaping with native dune plants. The landscaping plan will be reviewed and approved by the U.S. Fish and Wildlife Service.
- **Dune vegetation**: All dune vegetation used in dune restoration will be native to the specific Walton County dunes and grown from northwest Florida plant stock. Vegetation will be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. Planting must be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. No irrigation lines or pipes will be installed. If dunes are impacted during implementation of the projects, they will be restored by planting the appropriate vegetation or installing sand fence
- **Refuse**: Sturdy animal-proof garbage containers will be installed and maintained to prevent the invasion of house mice and predators (cats, raccoons, fox, and coyotes).
- **Lighting**: No lighting will be used on the dune walkover. Any lighting for pavilions or other features will be wildlife friendly and will comply with Walton County's Wildlife Conservation Zone Lighting ordinance using best available technology.

- Bayside Ranchettes dock construction
  - BMPs for erosion control will also be implemented and maintained at all times during upland construction to prevent siltation and turbid discharges into surface waters. Methods could include but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.
- Should the parking area improvements result in an increase in the area of impermeable surface a site stormwater management plan will also be developed to control impacts from water flowing from the site to the Bay.
- Rule 62B-41.007, Fla. Admin. Code, which is titled Design, Siting, and Other Requirements, requires additional measures to protect beaches and dunes, which will be adhered to in the development of this project.

- In addition to construction BMPs and dune walkover conservation measures, two of the sites (Palms of Dune Allen West, and Bayside Ranchettes) are within the Coastal Construction Control Line (CCCL). The CCCL program is designed to protect the coastal system from improperly sited and designed structures that can erode, destabilize, or destroy the beach and dune system, with the overall goal of balancing development and the health of these natural systems. The following environmental-related permit obligations/best practices will be followed for the above referenced projects:
    - The contractor will use extreme care to prevent any impacts to the beach and dune system, marine turtles, their nests and habitat, or adjacent property and structures.
    - The construction will not result in removal or destruction of native vegetation, which will either destabilize a frontal, primary, or significant dune or cause a significant impact to the beach and dune system from increased erosion by wind or water.
    - The construction will not direct discharges of water or other fluids in a seaward direction and in a manner that will result in significant impacts. For the purposes of this rule, construction will be designed to minimize erosion-induced surface-water runoff within the beach and dune system and to prevent additional seaward or off-site discharges associated with a coastal storm event.
    - Construction traffic will not occur and building materials will not be stored on vegetated areas seaward of the control line unless specifically authorized by the permit.
    - The contractor will not disturb existing beach and dune topography and vegetation except as expressly authorized in the permit, and will restore any disturbed topography or vegetation prior to completing the project.
    - All fill material placed seaward of the control line will be sand, which is similar to that already existing on the site in both coloration and grain size.
    - The construction will not result in removal or disturbance of in situ sandy soils of the beach and dune system to such a degree that a significant impact to the beach and dune system will result from either a) reducing the existing ability of the system to resist erosion during a storm or b) lowering existing levels of storm protection to upland properties and structures.
    - If not specifically authorized elsewhere in the permit, no operation, transportation, or storage of equipment or materials are authorized seaward of the dune crest or rigid coastal structure during the marine turtle nesting season. The marine turtle nesting season is May 1 through October 31.
- Permit-required erosion control measures will be implemented at all of the project sites, and contractors will use BMPs to control erosion and minimize compaction.
    - Implementation of stormwater and sediment control plans.
    - Contractors will take special precautions when working within the CCCL and around coastal dune lake habitats.
- BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation, such as following speed limits and prohibiting idling unless necessary to run

equipment. The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:

- Shut down idling construction equipment, if feasible.
- Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
- Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
- Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.

10.5.23.2.2 Measures to Mitigate Impacts to Biological Resources

- At all project sites, no lighting will be installed on the boardwalks. Any other lighting used (in parking areas, sidewalks, signage, etc.) will be required to comply with Walton County's Wildlife Conservation Zone lighting zone ordinance using the best available technology. Any parking lot lighting should be fully-shielded, wildlife-friendly lighting.
- At all project sites, should work be undertaken between May 1 and October 31 the following conservation measures will be followed:
    - The existing, local, sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by project construction prior to project implementation each day.
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
- At all project sites, if construction occurs between August and May:
    - Shorebird surveys will be conducted in the project area;
    - Within the project area a 300-foot wide buffer zone will be established where piping plovers or red knots congregate in significant numbers;
    - Any and all construction will be prohibited in the buffer zone.
- At all project sites except Bayside Ranchettes:
    - All construction personnel will be notified of the potential presence of Choctawhatchee Beach Mice and reminded of the criminal and civil penalties associated with harassing, injuring, or killing these mice.
    - A qualified, permitted, biologist will survey the project sites before work commences and flag potential beach mouse burrows and tracks for avoidance.
    - Only hand tools will be used within a five-foot radius of a burrow opening or any observed mice tracks.

- Equipment and vehicles will avoid the dune by 10 foot from the toe of the dune.
- Construction noise will be kept to the minimum feasible.
- Construction will occur during the day only.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.
    - Prior to bringing any equipment (including personal gear, machinery, vehicles or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present, the equipment, vehicles, or personal gear shall be cleaned until they are free from mud, soil, seeds, and vegetation. This inspection will occur each time equipment, vehicles, and personal gear are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species.
    - Inspect sites periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction.
    - Remove trash or anything that will attract nuisance wildlife to work areas daily.
- Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.
- Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area.

- Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented and adhered to for the Bayside Ranchettes Park project.
- All walkover construction will follow the recent guidance for such work issued by the USFWS Panama City Field Office (USFWS 2013).
- If native plants are destroyed during the project, appropriate native plants will be planted in the same location.
- If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.
- Bayside Ranchettes dock construction
    - As part of final dock design effort, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Should the site assessment for the project identify SAV in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented.
        - Among other elements that will result should these guidelines need to be implemented, there will requirements that pilings be placed a minimum of 10 feet apart and there will be requirements for the height of the pier and spacing of decking materials.
    - The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to during all in-water construction activity.

    - Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented and adhered to during all in-water construction activity. The project will adhere to all applicable permit conditions and federal, state, and local requirements for the protection of marine mammals during construction.
- The projects will install and maintain sturdy animal-proof garbage containers to prevent the invasion of house mice and predators (cats, raccoons, fox, and coyotes) while providing a place for visitors to dispose of refuse.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007). Care will be taken to minimize noise and physical disruptions near areas where foraging or resting migratory birds are encountered. Work will occur during daylight hours only.
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices to mitigate invasive species will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.23.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The project area could be isolated by construction fencing to prevent incidental access.

10.5.23.3 Performance Criteria, Monitoring, and Maintenance

Ed Walline:

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objectives are to enhance and/or increase recreational beach use opportunities by improving the facilities at the Ed Walline beach access point. Performance monitoring will evaluate: 1) the replacement of the pavilions; 2) the replacement of the restroom fixtures; and 3) the update of all interior plumbing. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facilities are open and available.

Gulfview Heights:

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objectives are to enhance and/or increase recreational beach use opportunities by improving the existing facilities at the beach access point. Performance monitoring will evaluate: 1) the replacement of the restroom fixtures; 2) the update of all interior plumbing; and 3) the repair of all soffits on pavilions. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facilities are open and available.

Palms of Dune Allen:
As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate construction of the dune walkovers. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the dune walkover is open and available

Bayside Ranchettes Park:
As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. Project objective is to enhance and/or increase recreational beach use opportunities by improving recreational opportunities at the park. Performance monitoring will evaluate: 1) the construction of a parking area; 2) the construction of a picnic table; 3) the construction of a dock; and 4) the construction of steps into the water allowing access to the bay. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the park is open and available.

All Components

Long-term monitoring and maintenance of the improved facilities will be completed by Walton County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Walton County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Walton County will monitor the recreational use activity at the site. Walton County staff will visit the site twice a year to count the number of users at the beach access point. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.24 Gulf County Recreation Projects: Indian Pass Boat Ramp and Highland View Boat Ramp

The Gulf County Recreation Projects: Indian Pass Boat Ramp project component was not included in the Final Phase III ERP/PEIS.

The Gulf County Recreation Projects: Highland View Boat Ramp project will improve the existing Highland View boat ramp in Gulf County. As part of this project, the amenities at this boat ramp site will be upgraded. No work to the ramp itself if planned. This work will 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 will 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).As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Gulf County Highland View Boat Ramp project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Gulf County Recreation Projects: Highland View Boat Ramp Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources,

tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Gulf County Recreation Projects: Highland View Boat Ramp Project will not substantially contribute to adverse cumulative effects to resources. The Gulf County Recreation Projects: Highland View Boat Ramp Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.24.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.24.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.24.2.1 Measures to Mitigate Impacts to the Physical Environment

- All permit conditions, including mitigation measures for siltation, erosion, turbidity, and release of chemicals, will be strictly adhered to. During construction, BMPs and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. FDEP permit conditions require erosion and turbidity mitigation measures, which may include the following:
    - Installation of floating turbidity barriers.
    - Installation of erosion control measures along the perimeter of all work areas.
    - Stabilization of all filled areas with sod, mats, barriers, or a combination.

    - Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures modified, and the FDEP will be notified.

- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permit conditions typically spill containment protection and mitigation measures such as:
    - Prohibiting boat repair or fueling facilities over the water.
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- Boat wakes created by additional boat traffic that could increase shoreline erosion will be controlled through no-wake or speed zones to mitigate shoreline erosion.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation. No air quality-related permits will be required.

10.5.24.2.2 Measures to Mitigate Impacts to Biological Resources

- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- No work (including staging or storing of equipment) will occur on sandy beach areas that could be used by nesting sea turtles.
- Repairs and construction will occur in the existing project footprint, and no material will be staged, stored, or dumped on the beach. Any sand or gravel material brought to the project site and not used during construction will be removed and will not be placed on the beach.
- Lighting is not proposed in this project; however, should it become necessary, lighting will follow the most recent version of the FWC's Lighting Technical Manual.
- The Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented during any in-water activities.
- All construction conditions identified in the Sea Turtle and Smalltooth Construction Conditions (NOAA 2006) will be implemented and adhered to during project construction.

- If construction occurs between August and May:
    - Shorebird surveys (for piping plover and red knot) will be conducted in the project area;
    - Within the project area a 300-foot wide buffer zone (no work zone) will be established where piping plover or red knot congregate in significant numbers.
    - Any and all construction will be prohibited in the buffer zone.
- Project activity will not extend into designated critical habitat or expand beyond existing developed areas.
- If project activities occur during shorebird/seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/seabirds or rookeries and their recommendations will be implemented.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting migratory birds are encountered. Work will occur during daylight hours only.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.24.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The project area will be isolated by construction fencing to prevent incidental access.
- Construction could occur at any time but will ideally take place during the time of year when recreation use is lowest to minimize impacts to boat ramp users.
- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids.

10.5.24.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. Performance monitoring will evaluate: 1) the renovation of the existing pier structure; 2) the renovation and expansion of the parking area; and 3) the new restroom facilities. Specific performance criteria include: 1) the completion of the construction as designed and permitted,

and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the human use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.25 Gulf County Recreation Projects: Improvements at Beacon Hill Veterans' Memorial Park

The Gulf County Recreation Project – Improvements at Beacon Hill Veterans' Memorial Park project will improve and enhance the existing facilities at the Beacon Hill Veterans' Memorial Park Gulf County. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Gulf County Beacon Hill Veterans' Memorial Park Improvements project is intended to enhance and/or increase recreational beach use opportunities by improving the park. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational beach use opportunities by improving the park.

The Trustees evaluated the Gulf County Recreation Projects: Improvements at Beacon Hill Veterans' Memorial Park Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Gulf County Recreation Projects: Improvements at Beacon Hill Veterans' Memorial Park Project will not substantially contribute to adverse cumulative effects to resources. The Gulf County Recreation Projects: Improvements at Beacon

Hill Veterans' Memorial Park Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.25.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.25.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.25.2.1 Measures to Mitigate Impacts to the Physical Environment

- Because project plans are not yet finalized, all efforts will be made to design the project elements to have the least possible effect on the local hydrology, and best management practices (BMPs) will be implemented. BMPs that may be implemented and will help avoid potential adverse impacts to water quality include:
    - All construction will be performed in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.
    - The contractor will submit a plan for control of surface water runoff in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.
    - All construction adjacent to open water will be separated and confined by appropriate siltation screens and turbidity barriers to protect the quality of open water. However, for this project, no construction will occur adjacent to open water.
    - Upon completion of construction, the site will be cleared of all construction materials and restored to its natural state as shown on the plan drawings.
    - The contractor will be responsible for assuring compliance with all permit requirements.
- In addition to construction BMPs, the contractor will implement BMPs for adequate erosion control. Erosion control measures will be in place prior to any land alteration, and will be used throughout the construction process until soils are stabilized. Erosion control BMPs are as follows:

    - To protect against wind and stormwater runoff erosion, the contactor will place as appropriate hay bales and silt fencing with wire fence reinforcement, with sediment to be removed when it reaches approximately one-half the height of the barrier (.
    - Silt fences will be of optimal design and materials for adequate sediment control.
    - Side slopes created during construction will be stabilized at the earliest possible date to avoid erosion with adequate use of compacted soil and staked hay bales.
    - Any disturbed area not to be paved, sodded, or built upon will have a minimum vegetative cover of 80% and be mature enough to control soil erosion and survive severe weather conditions prior to final inspection.
    - Sod will be sufficiently grown and maintained to secure a dense stand of live grass.
    - The road surface at the entrance will require a maintained condition of slope to prevent tracking or flow of mud onto the existing public roadway.
- A wetlands permit will be required for the project and will stipulate appropriate BMPs and mitigation.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Noise may disturb wildlife and humans using the area, but will be kept to a minimum via BMPs such as working only during daytime hours, turning equipment off when idling, etc.

10.5.25.2.2 Measures to Mitigate Impacts to Biological resources

- The presence of threatened or endangered plants will be considered during the design phase of the project. Care will be taken to site park improvements in areas that minimize disturbance to vegetation.
- Construction of facilities will occur in areas within the park that had been previously cleared or built on as part of the original park construction.
- No trees associated with the park nor any of the surrounding forested areas will be cleared as part of facilities' construction and operation (including design and layout of nature trails).
- Any new lighting will be sea-turtle/wildlife friendly.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or The National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- Precautions during construction will be used to protect any migratory birds that may be feeding, loafing, or resting in or near the project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence.
- Soil disturbance may encourage the encroachment of invasive or nuisance species. Those undeveloped areas disturbed during construction will be monitored, and invasive species will be removed.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/

vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.25.2.3 Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.

10.5.25.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving the Beacon Hill Veterans' Memorial Park. Performance monitoring will evaluate: 1) the construction of pavilions; 2) the construction of restrooms; 3) the building of a nature trail; 4) the construction of a new parking area; and 5) the construction of a small amphitheater. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the park is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the recreational use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the park. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.26 Gulf County Recreation Projects: Windmark Beach Fishing Pier Improvements

The Gulf County Recreation Project – Windmark Beach Fishing Pier Improvements project will construct a fishing pier at Windmark Beach in Gulf County. The improvements include constructing a fishing pier into the Gulf of Mexico. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of their natural resources along Florida's Panhandle was denied or severely restricted. The Gulf County Windmark Beach Fishing Pier Improvements project is intended to enhance and/or increase recreational fishing opportunities by constructing a fishing pier. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources

injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing opportunities by constructing a fishing pier.

The Trustees evaluated the Gulf County Recreation Projects: Windmark Beach Fishing Pier Improvements Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Gulf County Recreation Projects: Windmark Beach Fishing Pier Improvements Project will not substantially contribute to adverse cumulative effects to resources. The Gulf County Recreation Projects: Windmark Beach Fishing Pier Improvements Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.26.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, USFWS Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the NMFS Endangered Species Act, Marine Mammal Protection Act, National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.26.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during

the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.26.2.1 Measure to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- During construction BMPs for erosion control will also be implemented and maintained at all times during upland activity to prevent siltation and turbid discharges into surface waters. Methods could include, but are not limited to, the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site. The direct goal of these actions is to limit sediment discharges into the water that will adversely affect turbidity.
- BMPs, including those to prevent degradation of ambient water quality parameters, will be used throughout construction activities. These may include monitoring the integrity of turbidity control screens and/or other devices to control erosion, sedimentation, and turbidity during piling installation and any excavation activities required for pier construction.
- Upland soils will be disturbed during construction as well, but those will be re-contoured and stabilized after construction is completed.
- BMPs will be employed to contain suspended solids and as conditioned by state and federal permits, and all areas potentially disturbed by construction must be contained using turbidity screens or similar devices to protect ambient water quality parameters.
- These noise levels will be kept to a minimum by BMPs such as turning boats off during idling and working only during daylight hours.

10.5.26.2.2 Measures to Mitigate Impacts to Biological Resources

- Should work be undertaken between May 1 and October 31 the following measures will be implemented:
    - All construction personnel will be notified of the potential presence of sea turtles and proposed critical habitat and reminded of means to protect them and the criminal and civil penalties associated with harassing, harming, or killing sea turtles (all life stages).
    - The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests.

    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.
- Any lighting will be required to be consistent with the guidance provided in the most current edition of the FWC's Lighting Technical Manual.
- Avoid driving over the wrack line or areas of dense seaweed, as these habitats may contain sea turtle hatchings or baby birds that are difficult to see.
- The nearest, existing staging, access and egress areas, travel corridors, pathways, and roadways shall be used (including those provided by the State, local government, land managers, trustee, or private property owner, with proper permissions).
- If driving on the beach, vehicles will enter at designated access, proceed directly to the hard-packed sand near or below the high tide line and stay below the tide line when driving long distances.
- No new staging areas, access or egress, or travel corridors shall be created.
- Avoid driving on the upper beach whenever possible, and never drive over any dunes or beach vegetation.
- Use the smallest footprint possible to complete the project.
- When complete, all pier pilings will incorporate pointed covers to discourage birds from perching on the pier which will help prevent increased predation on nearby nesting birds, eggs, and chicks.
- Several fishing line collection units should be placed along the pier to reduce snagging injures to all birds, especially pelicans.
- During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to.
- The final orientation of the pier will also be evaluated as part of the effort to develop final plans. As part of this assessment, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Should the site assessment for the project identify SAV in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented. Among other elements this will require placing pilings for the dock expansion a minimum of 10 feet apart. Orientation options for the fishing pier will also consider site specific features such as sand bars off the point and the bathymetry of the area.
- The Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Surveys for red knot (and piping plover if present) will be conducted on a regular basis (between August and May) during the construction period. Where either species congregates, an exclusion zone will be placed around the birds and no work will occur with 150 feet of the exclusion zone until the bids move on their own volition.
- The dune crossover will be constructed using following the USFWS most current best management practice guidelines for dune walkover construction (USFWS, 2013c).

- All construction personnel will be notified of the potential presence of St. Andrew Beach Mouse and reminded of the criminal and civil penalties associated with harassing, injuring, or killing this species.
- A qualified, permitted, biologist will survey the project sites before work commences and flag potential beach mouse burrows and tracks for avoidance.
- Construction noise will be kept to the minimum feasible, and construction will occur during the day only.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.
- Remove trash or anything that will attract nuisance wildlife to work areas daily.
- Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.
- Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area.
- If native dune plants are destroyed during the project, appropriate native plants will be planted in the same location. The USFWS Panama City Field Office will be contacted regarding dune planting to balance habitat for birds and beach mice.
- If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.
- BMPs will include installation of protective barrier fencing to prevent construction disturbances (limited land clearing for project site access and work staging areas) to the existing dune systems.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or The National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- During the design phase of the project, coordination with the USFWS Panama City Field Office and FWC will occur so that the pier and the walkover can be sited and designed to avoid being placed in habitat used by colonial migratory birds.
- Care will be taken to minimize noise and physical disruptions near where foraging or resting birds are encountered.
- If FWC or PCFO determines that visitor use may impact nesting shorebirds/seabirds, additional BMPs (e.g., signage or roping a protective area that excludes visitors) will be provided.
- If project activities occur during shorebird/seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/seabirds or rookeries and their recommendations will be implemented.
- These noise levels will be kept to a minimum by BMPs such as turning boats off during idling and working only during daylight hours.
- BMPs for construction and in-water work will be followed to minimize impacts and disturbance to species.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In

general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

  - Prior to bringing any equipment (including personal gear, machinery, vehicles or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present, the equipment, vehicles, or personal gear shall be cleaned until they are free from mud, soil, seeds, and vegetation. This inspection will occur each time equipment, vehicles, and personal gear are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species.
  - Inspect sites periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction.

- Staging of most construction materials will occur in the existing parking area although some materials may be delivered by barge.
- Additionally, a kiosk/booth will be placed at the entrance to the pier with additional information for best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash cans, not feeding dolphins) designed to limit potential adverse impacts to species.
  - The signage in this kiosk will include the NMFS "Dolphin Friendly Fishing and Viewing Tips" sign with NMFS' "Protect Dolphin" signs along the pier and signage/notices not feed gulls.
- No fish cleaning stations will be included in the design and construction of these piers to help mitigate/avoid issues of species attraction to the pier.
- Finally, prior to the opening of the pier to the public, fixed signs that are consistent with National Oceanic and Atmospheric Administration (NOAA) and State of Florida guidelines with instructions on what to do in the event of hooking a listed species (e.g., sea turtle) will be placed at the entrance to the fishing pier and strategically at fixed intervals along its length.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site (specifically to include "no gull feeding") or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the

completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.

10.5.26.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The fishing pier construction will be conducted and maintained in accordance with state and federal permits for the project area in Gulf County. All permit conditions and requirements will be implemented. Therefore, potential adverse impacts to land and marine management resources will not be expected.
- The project will incorporate solid waste and recyclable material collection receptacles to enhance or encourage proper solid waste disposal practices to prevent pollution of the waters located in the project area.

10.5.26.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by constructing a fishing pier at Windmark Beach. Performance monitoring will evaluate the construction of the fishing pier. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the fishing pier is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Gulf County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Gulf County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Gulf County will monitor the recreational use activity at the site. Gulf County staff will visit the site twice a year to count the number of users at the fishing pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.27 Bald Point State Park Recreation Areas

The Bald Point State Park Recreation Areas project will improve the existing visitor areas at Bald Point State Park in Franklin County. The project activity will 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Bald Point State Park Recreation Areas project is intended to enhance and/or increase recreational boating and beach use opportunities by improving the

existing visitor areas. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas.

The Trustees evaluated the Bald Point State Park Recreation Areas Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Bald Point State Park Recreation Areas Project will not substantially contribute to adverse cumulative effects to resources. The Bald Point State Park Recreation Areas Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.27.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, USFWS Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consultations have been initiated for the NMFS Endangered Species Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS stated that this project does not require further ESA consultations with NMFS. Since that time, NMFS has requested that the Trustees reinitiate consultation. The consultation has been initiated.

10.5.27.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.27.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- Careful consideration will be given to the design of the park improvements to have the least effect on waters and wetlands within the park. All efforts will be made to design the project elements to have the least effect possible on the local hydrology.
- State water quality standards as required by the Clean Water Act will not be exceeded. The FDEP Wetland and Environmental Resource Field permits require the implementation of best management practices for turbidity and erosion.
- BMPs may include, but will not necessarily be limited to the following:
    - Installation of floating turbidity barriers
    - Installation of erosion control measures along the perimeter of all work areas
    - Stabilization of all filled areas with sod, mats, barriers, or a combination
    - Storing and fueling vehicles away from aquatic areas
    - Re-vegetation of exposed soils when construction activities are complete
- All dredging activities will be done in compliance with FDEP and USACE permit conditions. These will typically include the following:
    - Taking measures to prevent spoil material from entering waters of the state
    - Monitoring turbidity at the dredge and spoil disposal sites
    - Taking immediate corrective actions if a disposal site leaks or breaks
    - After recontouring, replanting vegetation of the size, densities, and species as is present in the adjacent areas if the area dredged is vegetated
- Available best management practices will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Machinery and equipment used during construction will generate noise. This noise may disturb wildlife and humans using the area but will be kept to a minimum using best management practices.

10.5.27.2.2 Measures to Mitigate Impacts to Biological Resources

- All conditions and mitigation measures contained in the permit will be followed for installation of the floating boat dock/kayak launch.
- Due to the prevalence of both weeds and rare plants in the park, preconstruction vegetation surveys and pre/post-construction weed treatments will likely be required.
- Precautions will be taken to avoid colonies of Geoffrey's blazing starplants, which are listed as endangered by the State of Florida.
- Care will also be taken to site any park improvements where disturbance to vegetation will be minimized. Vegetation that could be used for nesting migratory birds will be removed during the non-breeding season.
- Soil disturbance may encourage the encroachment of invasive or nuisance species. Those undeveloped areas disturbed during construction will be monitored and invasive species removed.

- Precautions during construction will be used to protect any migratory birds that may be feeding, loafing, or resting in or near the project area. Such precautions include minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence.
- If visitors are likely to approach migratory bird nesting areas through use of the project area after implementation (as determined by Park staff, Florida Fish and Wildlife Conservation Commission or the U.S. Fish and wildlife Service), educational signage will be posted at strategic locations. Signage will remind visitors of important migratory bird areas within the Park and any necessary precautions to avoid impacts to the species and their habitats. Signage will be coordinated with the Florida Fish and Wildlife Conservation Commission and the Panama City Ecological Services Field Office.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.

10.5.27.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.
- If a release should occur, it will be contained and cleaned up promptly in accordance with all applicable regulations and the incident will be reported to appropriate agencies.

10.5.27.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and beach use opportunities by improving the existing visitor areas. Performance monitoring will evaluate: 1) the construction of the visitor day-use are including picnic pavilions; 2) the construction of an integrated system of boardwalks; 2) the construction of a restroom with an aerobic treatment system and associated septic system drainfield; and 4) the construction of a floating dock and a canoe/kayak launch area. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the visitor area is open and available.

Long term maintenance of the improved facilities will be completed by Bald Point State Park staff as part of their regular public facilities maintenance activities. Corrective actions necessary after completion and signoff of the project will also be undertaken by park staff. Funding for this post-construction maintenance is not included in the project cost estimate and will be assumed by Bald Point State Park.

During and following the post construction performance monitoring period, the State of Florida park staff will monitor the recreational use activity at the site. Park staff keeps track of visitation and usage at the park and will provide visitation numbers by the month. This use information is kept by the Florida Department of Environmental Protection.

10.5.28 Enhancement of Franklin County Parks and Boat Ramps: (Abercrombie Boat Ramp Project, Waterfront Park, Indian Creek Park, Eastpoint Fishing Pier Improvements, and St. George Island Fishing Pier Improvements)

The Enhancement of Franklin County Parks and Boat Ramps: Abercrombie Boat Ramp Project component was not included in the Final Phase III ERP/PEIS.

The Enhancement of Franklin County Parks and Boat Ramps – Waterfront Park project will improve the existing Waterfront Park in Apalachicola. The improvements include enhancing existing parking and adjacent tie-up docks to enhance water access. In addition an existing onsite building will be enhanced to serve as an information center and dock master office. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Franklin County Waterfront Park project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the waterfront park. The project will enhance and/or increase opportunities for the public's use and

enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Enhancement of Franklin County Parks and Boat Ramps – Indian Creek Park project will improve the existing Indian Creek Park boat launch facility in Franklin County. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Franklin County Indian Creek Park project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat launch facility. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Enhancement of Franklin County Parks and Boat Ramps – Eastpoint Fishing Pier Improvement project will add restroom facilities to the base of the existing public East Point Fishing Pier in Franklin County. The improvements include not only constructing new restrooms, but a holding tank that will be pumped out regularly. In addition, signage will be installed/updated to provide users of the ramp with information on sensitive species and areas, as well as on appropriate actions to take with species interactions (e.g., what to do if a sea turtle or nesting migratory bird is encountered).As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Franklin County Eastpoint Fishing Pier Improvement project is intended to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses caused by the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Enhancement of Franklin County Parks and Boat Ramps – St. George Island Fishing Pier Improvements project will enhance the existing public St. George Island public Fishing Pier in Franklin County. The improvements include constructing restrooms and a holding tank that will be pumped out regularly since there is no central wastewater facility on the island. The improvements also include renovating the existing bulkhead that leads up to the pier and protects the road to the pier. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Franklin County St. George Island Fishing Pier Improvements project is intended to enhance and/or increase recreational fishing opportunities by improving the fishing pier. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects will enhance and/or increase recreational fishing and boating opportunities by improving the existing boat ramp area, fishing piers, and the waterfront park.

The Trustees evaluated the Enhancement of Franklin County Parks and Boat Ramp Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Enhancement of Franklin County Parks and Boat Ramp Project will not substantially contribute to adverse cumulative effects to resources. The Enhancement of Franklin County Parks and Boat Ramp Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.28.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

For the Waterfront Park component, the St. George Island Fishing Pier Improvements component, and the Indian Creek Park component, the Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

For the Eastpoint Fishing Pier Improvement component, the Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

The Final Phase III ERP/PEIS evaluated the environmental consequence of the proposed project on proposed terrestrial Loggerhead CH. Shortly after the Trustees released the Final Phase III ERP/PEIS, USFWS designated final Loggerhead CH. DOI requested the USFWS adopt the conference report as an informal consultation for final Loggerhead CH. The USFWS' informal consultation for loggerhead CH was completed on September 22, 2014 resulting in a concurrence that the project, as proposed, would not result in adverse modification or destruction of final Loggerhead CH. Accordingly, the Trustees have

determined that the final Loggerhead CH designation does not represent significant new information that requires supplemental environmental consequences analysis pursuant to NEPA.

10.5.28.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.28.2.1 Measures to Mitigate Impacts to the Physical Environment

- Best management practices (BMPs) for erosion control will be implemented and maintained at all times during construction to prevent siltation and turbid discharges into waters of the state. This may include the use of filter fences (staked or floating), sedimentation screens, erosion control blankets or other appropriate erosion and turbidity control measure
- BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts associated with construction activities.
- BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours.

10.5.28.2.2 Measure to Mitigate Impacts to Biological Resources

- **ALL**
    - Care will be taken to minimize noise and physical disruptions during construction near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
    - No work will occur in adjacent vegetated areas where upland birds could be nesting.
    - If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
    - During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to along with the conditions identified in the *Standard Manatee Conditions for In-water Work* (USFWS, 2011) will be followed.
    - Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the projects will be implemented. In general, best management practices will primarily address risk

associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

  - Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.

- **Waterfront Park**
  - As part of the engineering and site assessment for the dock placement, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Should SAV be identified in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented. Among other elements this will require pilings for the dock expansion be placed a minimum of 10 feet apart.

10.5.28.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Construction waste will be removed by the contractor to an appropriate landfill using dump trucks, roll-off dumpsters, or trailers.
- All hazardous materials handled during construction will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- BMPs in accordance with OSHA and state and local requirements will be incorporated into construction activities on site to ensure the proper handling, storage, transport and disposal of all hazardous materials.

- Personal protective equipment will be required for all construction personnel and authorized access zones will be established at the perimeter of the worksite during construction.
- Soil and sediment stabilization measures will be incorporated into project design as needed in areas where the potential exists for erosion to occur in order to protect resources and ensure public health and safety.

10.5.28.3 Performance Criteria, Monitoring, and Maintenance

Waterfront Park

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the waterfront park. Performance monitoring will evaluate: 1) the improvements to the existing parking area and tie-up docks; 2) the enhancement of an existing building onsite to serve as an information area and dock master office at Waterfront Park; and 3) the construction of the kiosk. Specific success criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the waterfront park is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin County will also be responsible for long-term maintenance of parking area, docks, and enhanced facility and will inspect them regularly. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

The State of Florida Trustees and the Department of the Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

Indian Creek Park

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the existing boat ramp. Performance monitoring will evaluate: 1) the construction of the new restrooms and connecting them to a nearby existing central wastewater facility; 2) the renovation of the existing boat ramp and bulkhead; 3) the renovation of the existing parking area to enhance access and

use; and 4) the construction of the kiosk. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin County will also be responsible for long-term maintenance of boat ramp and its restored bulkhead associated with the boat ramp and will inspect it regularly. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

Eastpoint Fishing Pier

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by improving the public fishing pier. Performance monitoring will evaluate: 1) the construction of the new restrooms and holding tank, and 2) construction of the kiosk. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the visitor area is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Regular pump-out of the holding tank will be contracted out and paid for by Franklin County. In addition in the event of a tropical storm or hurricane the facility's holding tank will be pumped out and the restrooms closed to public use to prevent discharge of sewage into the bay. Franklin County will also be responsible for contracting for garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

St. George Island Fishing Pier

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by improving the existing fishing pier. Performance monitoring will evaluate: 1) the construction of the restrooms and holding tank; 2) the renovation of the bulkhead; and 3) the construction of the kiosk. Specific success criteria include: 1) the completion of the construction as designed and permitted, 2) and enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the fishing pier is open and available.

Long-term monitoring and maintenance of the improved facilities, after completion of the project, will be undertaken by Franklin County as part of their regular public facilities maintenance activities. Franklin

County will also be responsible for long-term maintenance of the restored bulkhead and will inspect it regularly. Regular pump-out of the holding tank will be contracted out and paid for by Franklin County. In addition in the event of a tropical storm or hurricane the facility's holding tank will be pumped out and the restrooms closed to public use to prevent discharge of sewage into the bay. Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by Franklin County.

All Components

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Franklin County will monitor the recreational use activity at the site. Franklin County will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.29 Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements (Cash Bayou and Sand Beach)

The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements Cash Bayou project will improve public access at Cash Bayou in the Apalachicola River Wildlife and Environmental Area. The improvements include constructing a fishing and wildlife observation structure and parking area. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Cash Bayou project is intended to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project will improve public access at Sand Beach in the Apalachicola River Wildlife and Environmental Area. The improvements include constructing an elevated boardwalk that will be built on an existing, periodically wet interpretative trail. As a result of the *Deepwater Horizon* oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements: Sand Beach project is intended to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts may occur to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects will enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area.

The Trustees evaluated the Enhancement of Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection).Based on the cumulative impact analysis, the Enhancement of Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements Project will not substantially contribute to adverse cumulative effects to resources. The Apalachicola River Wildlife and Environmental Area Fishing and Wildlife Viewing Access Improvements Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.29.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

For the Cash Bayou component, the Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

For the Sand Beach component, the Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.29.2 Mitigation Measures

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific

resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.29.2.1 Measures to Mitigate Impacts to the Physical Environment

- During the construction process typical site maintenance BMPs (e.g., hay bailing to control runoff, fueling vehicles and equipment away from the water) will be followed to avoid runoff-related impacts to the aquatic environment.
- Specific mitigation measures will be implemented during construction to minimize erosion and overall soil impacts. These will include following established best management practices (BMPs) such as the implementation of an erosion control and storm water management plan, the installation of sediment traps prior to commencement of construction activities; and ongoing construction monitoring to ensure compliance.
- BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours.

10.5.29.2.2 Measures to Mitigate Impacts to Biological Resources

- **ALL**
    - Precautions during construction will be used to protect any migratory birds that may be in or near the project area. Such precautions include: avoiding the removal of trees and shrubbery during nesting season, minimizing construction noise to the extent practicable, using care to avoid birds when operating machinery or vehicles near birds, and general contractor awareness of bird presence. Work will be conducted during daylight hours only.
    - If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
    - Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational

materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

- **Cash Bayou**
  - During all in-water construction activity, the best management practices identified within the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented. Disturbance to any EFH and species using the habitat in areas adjacent to locations where the project (Cash Bayou) is to take place will be brief and insignificant with risks further mitigated by following identified best management practices during construction.
  - On March 17, 2014 NOAA concurred that as long as the structure complied with the *Dock Construction Guidelines in Florida for Docks or Other Minor Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001)* the project is not likely to adversely affect EFH and disturbance to any EFH will be brief and insignificant (Fay, 2014).
- **Sand Beach**
  - No new trail will be constructed and no trees will need to be removed to build the boardwalk.

10.5.29.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- A construction phase solid waste management plan will be implemented to manage the collection, recycling, and disposal of all construction and demolition waste and non-construction related waste generated during construction activities.
- All hazardous materials handled during construction including paints, solvents, chemicals, and petroleum products will be contained, and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- In the event of a discharge of oil or release of hazardous substances, all spills will be reported to the FDEP and all federal and state regulations will be followed during the cleanup.
- BMPs in accordance with the Occupational Safety and Health Administration (OSHA) and state and local requirements will be incorporated into construction activities to ensure proper handling, storage, transport and disposal of all hazardous materials.
- All waste generated during construction will be disposed of in the appropriate waste or recycling receptacles on-site will be taken off-site and disproved in an approved waste disposal site by the construction contractor.
- All occupational and safety regulations will be followed to ensure safety of all workers and the public.

- During construction, soil and sediment stabilization measures will be incorporated into project design as needed in areas where the potential for erosion exists in order to protect resources and public health and safety.

10.5.29.3 Performance Criteria, Monitoring, and Maintenance

Cash Bayou

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the Apalachicola River Wildlife and Environmental Area. Performance monitoring will evaluate: 1) the construction of a 700 square-foot fishing and wildlife observation structure, and 2) the construction of a parking area. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the facility is open and available.

Sand Beach

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use and wildlife viewing opportunities by improving access to the wildlife and environmental area. Performance monitoring will evaluate the construction of a 6-foot-wide boardwalk on the periodically wet 1/4-mile Sand Beach interpretive trail. Specific success criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boardwalk is open and available.

All Components

Long-term monitoring and maintenance of the improved facilities will be completed by Florida Fish and Wildlife Conservation Commission (FWC) and Franklin County as part of their regular public facilities maintenance activities. FWC or Franklin County will also be responsible for contracting for or control of garbage pick-up and litter control at the site. Franklin County will also be responsible for long-term maintenance of the observation platform and parking area and will inspect them regularly. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be assumed by FWC and Franklin County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, FWC and Franklin County will monitor the recreational use activity at the site. FWC and Franklin County staff will visit the site twice a year to count the number of users at the new fishing and wildlife observation structure. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.30 Navarre Beach Park Gulfside Walkover Complex, Coastal Access and Dune Restoration

The Navarre Beach Park Coastal Access and Dune Restoration Project will 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 will increase access opportunities to the waters

of the sound for recreational boaters. The enhancement of the recreational experience from these infrastructure improvements will also be complemented by the restoration of a roughly 1 acre parcel of degraded dune habitat in the project area. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Navarre Beach Coastal Access project is intended to enhance and/or increase recreational boating and beach use opportunities by constructing new infrastructure for recreational opportunities. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear.See15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

The Navarre Beach Park Gulfside Walkover Complex Project will enhance access to the shoreline at Navarre Beach Park to enhance recreational use of the natural resources. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Navarre Beach Park Gulfside Walkover Complex project is intended to enhance and/or increase recreational beach use opportunities by improving beach access. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. These projects will enhance and/or increase recreational boating and beach use opportunities by constructing new infrastructure for recreational opportunities and by improving beach access.

The Trustees evaluated the Navarre Beach Park Coastal Access and Dune Restoration Project and the Navarre Beach Park Gulfside Walkover Complex Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Navarre Beach Park Coastal Access and Dune Restoration Project and the Navarre Beach Park Gulfside Walkover Complex Project will not substantially contribute to adverse cumulative effects to resources. The Navarre Beach Park Coastal Access and Dune Restoration Project and the Navarre Beach Park Gulfside Walkover Complex Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.30.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

For the Navarre Beach Park Coastal Access and Dune Restoration component, the Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

For the Navarre Beach Park Gulfside Walkover Complex component, the Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.30.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.30.2.1 Measures to Mitigate Impacts to Physical Environment

- Two new boardwalks will be added to the coastal access site, one going to the Canoe/Kayak launch, and the other to the sound beach area. Construction of these will minimize disturbance to adjacent naturally vegetated areas. Dune walkover shall be constructed at a height (minimum 3 feet above grade) that will accommodate natural dune growth and associated vegetation.
- No storage of equipment or materials shall occur on the beach or dunes throughout the entire year.

- Minimal use of sand fences is encouraged. When used, the fence must be used for restoration of dune blowouts. Post and rope are preferred for beach visitor access, pedestrian traffic control, and wildlife exclusion zones (i.e., bird wintering areas). If used for dune restoration, any fence shall be placed in a sea turtle–compatible design and be made of biodegradable material.
- No activity, except as needed to repair the walkover, shall occur on existing healthy dunes during any time of the year. Limit activities in this area to maintenance and restoration of the habitat. Use appropriate signs to designate and indicate the purpose of the conservation area, if necessary. If dunes are impacted, they should be restored by planting the appropriate vegetation or installing a sand fence.
- To protect the environmental functions of Florida's beaches, only beach compatible fill shall be placed on the beach or in any associated dune system. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Such material shall be predominately of carbonate, quartz or similar material with a particle size distribution ranging between 0.062mm (4.0^{ϕ}) and 4.76mm (-2.25^{ϕ}) (classified as sand by either the Unified Soils or the Wentworth classification), shall be similar in color and grain size distribution (sand grain frequency, mean and median grain size and sorting coefficient) to the material in the existing coastal system at the disposal site and shall not contain:
    - Greater than 5 percent, by weight, silt, clay or colloids passing the #230 sieve (4.0^{ϕ});
    - Greater than 5 percent, by weight, fine gravel retained on the #4 sieve (2.25^{ϕ});
    - Coarse gravel, cobbles or material retained on the 3/4 inch sieve in a percentage or size greater than found on the native beach;
    - Construction debris, toxic material or other foreign matter; and
    - Not result in cementation of the beach.
- If rocks or other non-specified materials appear on the surface of the filled beach in excess of 50% of background in any 10,000 square foot area, then surface rock should be removed from those areas. These areas shall also be tested for subsurface rock percentage and remediated as required. If the natural beach exceeds any of the limiting parameters listed above, then the fill material shall not exceed the naturally occurring level for that parameter.
- Permit-required erosion control measures will be implemented at all of the sites, and contractors will use BMPs to control erosion, turbidity, and minimize compaction.
- This project will use the construction BMPs to minimize erosion-related construction impacts as well as impacts to surface water, groundwater, and wetlands.
- Contractors will take special precautions when working within the CCCL and around coastal dune lake habitats.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation. The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project.
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.

- Encourage the use of the proper size of equipment for the job to maximize energy efficiency.
- Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.

10.5.30.2.2 Measure to Mitigate Impacts to Biological Resources

- All dune vegetation to be used in dune restoration shall be native to the specific county dunes and grown from northwest Florida plant stock. Vegetation shall be planted with an appropriate amount of fertilizer (if needed) and anti-desiccant material, as appropriate, for the plant size. Planting must be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. No irrigation lines or pipes shall be installed.
- The USFWS Panama City Field Office will be contacted regarding dune plantings to balance habitat for listed and migratory birds and beach mice.
- Install and maintain sturdy animal-proof garbage containers to prevent the invasion of house mice and predators (such as cats, raccoons, fox, and coyotes).
- No lighting is proposed for the project. If lighting should become necessary, it will follow the most recent edition of the FWC's Lighting Technical Guidance.
- The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to during all in-water construction activity.
- The Standard Manatee Conditions for In-Water Work (USFWS 2011) will be implemented during any in-water activities.
- Surveys for piping plovers and red knots will be conducted on a regular basis from August through May during construction. Where either species congregates, an exclusion zone will be placed around the birds and no work will occur within 150 feet of the exclusion zone until the birds move on their own volition.
- All Conservation Measures for Dune Walkover Construction (USFWS 2013) will be implemented and adhered to during project construction.
- Should work be undertaken between May 1 and October 31 the following measures will be implemented:
    - The local sea turtle nesting surveyor will conduct daily sea turtle nesting surveys will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day.
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.

- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- The following environmental-related permit obligations/BMPs will be followed for the above referenced projects:
    - The contractor will use extreme care to prevent any adverse impacts to the beach and dune system, marine turtles, their nests, and habitat, or adjacent property and structures.
    - The construction will not result in removal or destruction of native vegetation that will either destabilize a frontal, primary, or significant dune or cause a significant adverse impact to the beach and dune system due to increased erosion by wind or water.
    - The construction will not direct discharges of water or other fluids in a seaward direction and in a manner that will result in significant adverse impacts. Construction shall be designed so as to minimize erosion-induced surface water runoff within the beach and dune system and to prevent additional seaward or off-site discharges associated with a coastal storm event.
    - Construction traffic shall not occur, and building materials shall not be stored on vegetated areas seaward of the control line unless specifically authorized by the permit.
    - The contractor shall not disturb existing beach and dune topography and vegetation except as expressly authorized in the permit, and will restore any disturbed topography or vegetation prior to completing the project.
    - All fill material placed seaward of the control line shall be sand that is similar in both coloration and grain size to material already existing on the site.
    - The construction will not result in removal or disturbance of in situ sandy soils of the beach and dune system to such a degree that a significant adverse impact to the beach and dune system will result from either reducing the existing ability of the system to resist erosion during a storm or lowering existing levels of storm protection to upland properties and structures.
    - If not specifically authorized elsewhere in the permit, no operation, transportation, or storage of equipment or materials is authorized seaward of the dune crest or rigid

coastal structure during the marine turtle nesting season. The marine turtle nesting season is May 1 through October 31.

- If Gulf Coast lupine were to occur in the project area, measures will be taken in coordination with the FWC to adequately manage the species in the context of the project.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- If project activities occur during shorebird/seabird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/seabirds or rookeries and their recommendations will be implemented.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- Select a USFWS approved design alternative for the project (including any necessary parking) to minimize impacts to least tern nesting areas. Coordinate with the park or other appropriate parties to recommend means to mitigate other potential impacts to least terns.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the projects will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. Outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.30.3 Performance Criteria, Monitoring and Maintenance

Coastal Access and Dune Restoration

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and beach use opportunities by constructing new infrastructure for recreational opportunities. Performance monitoring will evaluate: 1) the construction of the two new beach access boardwalk; 2) the construction of a new canoe/kayak boat launch facility and boardwalk; and 3) the restoration of approximately 1 acre of degraded beach dune habitat. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the new visitor use infrastructure is open and available.

Post-construction performance monitoring in the restored dunes will initially focus on plant survival. Plants that do not survive to 90 days post-planting will be replaced. At least 80% of plants must survive after 6 months or replanting will occur.

Long-term monitoring and maintenance of the improved facilities will be completed by Santa Rosa County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Santa Rosa County.

During the one year construction performance period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the construction performance monitoring period, Santa Rosa County will monitor the recreational use activity of the site. Santa Rosa County will visit the site twice a year to count the number of users at the boardwalks and the canoe/kayak launching facility. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

Walkover Complex

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving beach access. Performance monitoring will evaluate: 1) the construction of an entrance, driveway, and parking area; 2) the construction of a restroom facility; 3) the construction of pavilions with boardwalk connections; 4) construction of a lifeguard tower; and 5) the construction a dune walkover that will provide access to the beach. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the walkover complex and associated facilities are open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Santa Rosa County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the project cost and will be provided by Santa Rosa County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Santa Rosa County will monitor the recreational use activity at the site. Santa Rosa County staff will visit the site twice a year to count the number of users at the park walkover complex. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.31 Gulf Breeze Wayside Park Boat Ramp

The Gulf Breeze Wayside Park Boat Ramp Improvements project will improve the existing boat ramp at Wayside Park in the City of Gulf Breeze, Santa Rosa County, FL. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Gulf Breeze Wayside Park Boat Ramp Improvements project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the

boat ramp area. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area.

The Trustees evaluated the Gulf Breeze Wayside Park Boat Ramp Improvements Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Gulf Breeze Wayside Park Boat Ramp Improvements Project will not substantially contribute to adverse cumulative effects to resources. The Gulf Breeze Wayside Park Boat Ramp Improvements Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.31.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.31.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to

implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.31.2.1 Measures to Mitigate Impacts to the Physical Environment

- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- Soil, debris, vegetation, and old parking lot material will be removed from the site as a part of construction and repair activities. After completion of the project, soil surfaces will not be exposed, and planting of additional vegetation in the project area is not planned.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.

10.5.31.2.2 Measures to Mitigate Impacts to Biological Resources

- During all in-water construction activity, the conditions and guidelines of the Sea Turtle and Smalltooth Sawfish Construction Conditions (NMFS, 2006) will be implemented and adhered to during project implementation.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- During construction, all appropriate BMPs will be followed to minimize the potential impacts of construction activities on EFH and species in the area.

- Best Management Practices to control the spread of invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.31.2.3 Measure to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will require mechanical equipment that uses oil, lubricants, and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.

10.5.31.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the boat ramp area. Performance monitoring will evaluate: 1) the repair of an existing boat ramp and seawall cap; 2) the construction of a public restroom facility; and 3) the repair and enhancement of the parking area to improve access. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boat ramp facility is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Gulf Breeze as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Gulf Breeze.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Gulf Breeze will monitor the recreational use activity at the site. The City of Gulf Breeze staff will visit the site twice a year to count the number of users at the boat ramp. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

During construction, the following monitoring practices will be implemented:

a. Every day, before the start of construction activities, the turbidity screen is checked and repaired if necessary.

b. The foreman or other designated individual checks the area inside the screen and the screen itself to see if any protected species (manatees, dolphins, small tooth sawfish etc.) have gotten trapped within the work area or in the screen. If so then appropriate (FWC) personnel are notified to request removal. No work is begun until the animal, fish or bird is removed.

c. During the work day the work area and area adjacent to the work are is monitored to make sure protected species have not ventured into the area. If so then work is stopped until the animal moves out of the area.

d. At the end of the day the area is checked for debris, sediment and possible spillage and these are properly removed and disposed of before shutting down the site.

e. If a storm is anticipated that might damage the turbidity screen it is removed and stored until the storm event has passed and seas have resided.

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

The Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area project will improve public access and enjoyment of natural resources at the Escribano Point portion of the Yellow River Wildlife Management Area. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area project is intended to enhance and/or increase recreational use and wildlife viewing opportunities by improving the recreational use of the land. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase the recreational use and wildlife viewing opportunities by improving the recreational use of the land.

The Trustees evaluated the Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public

health and safety and shoreline protection). Based on the cumulative impact analysis, the Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area Project will not substantially contribute to adverse cumulative effects to resources. The Developing Enhanced Recreational Opportunities on the Escribano Point Portion of the Yellow River Wildlife Management Area Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.32.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.32.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.32.2.1 Measures to Mitigate Impacts to the Physical Environment

- Construction equipment and materials staging will be located on previously disturbed sites or sites that will be disturbed as a result of construction.
- Specific mitigation measures will be implemented during construction to minimize erosion and overall soil impacts. These will include following established best management practices (BMPs) such as the implementation of an erosion control and stormwater management plan, the installation of sediment traps prior to commencement of construction activities, and on-going construction monitoring to ensure compliance.
- BMPs along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts.

- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.
- Available BMPs will be employed to reduce the release of GHGs during implementation.
- Mitigation measures that serve to limit noise during construction include: limiting activity at project sites to daytime hours; limiting truck traffic ingress/egress to the site to daytime hours; promoting awareness that producing prominent discrete tones and periodic noises (e.g., excessive dump truck gate banging) should be avoided as much as possible; and requiring that work crews seek pre-approval for any weekend activities, or activities outside of daytime hours.

10.5.32.2.2 Measures to Mitigate Impacts to Biological Resources

- If suitable habitat for red-cockaded woodpecker is discovered within the project area during site surveys, the suitable habitat will be avoided by all construction and management activities by an adequate buffer as determined by the USFWS Panama City Ecological Services Field Office (PCFO). If avoidance is not possible or management activities in suitable habitat are desired, standard surveys will be conducted to determine if the habitat is supporting any red-cockaded woodpeckers or presence can be assumed. If red-cockaded woodpeckers are present (or assumed to be), no habitat trees will be removed. In addition, PCFO will be contacted for other avoidance and minimization measures to ensure any potential effects are insignificant and discountable. If no such avoidance and minimization measures are practicable, Section 7 consultation will be reinitiated to address potential effects.
- If suitable habitat or other evidence of Eastern indigo snake is discovered within the project area during site surveys, the most recent version of the U.S. Fish and Wildlife Service's "Standard Protection Measures for the Eastern Indigo Snake" will be implemented. The current version is available at: http://www.fws.gov/verobeach/ReptilesPDFs/20130812_EIS%20Standard%20Protection%20Measures_final.pdf
- Suitable habitat for reticulated flatwoods salamander will be avoided during all construction activities. If suitable habitat may be impacted during hydrological restoration the following conservation measures will be implemented:
    - standardized surveys to determine if salamanders are actually present or presence can be assumed;
    - if the species is present (or assumed to be present) hydrologic restoration will occur after the breeding season has ended and salamanders have left breeding habitat; and
    - no currently connected wetland habitats will be isolated from each other due to changes in hydrological regimes or road maintenance.
- Surveys will identify any gopher tortoise burrows. If burrows are within the construction zone or area for hydrologic restoration and cannot be avoided through establishing a protective buffer (size determined by PCFO and Florida Fish and Wildlife Conservation Commission (FWC)), standard procedures (obtained from PCFO) will be implemented to relocate the tortoise within the project site but away from the areas of construction or restoration.
- Conduct species specific surveys to identify any occurrences of Panhandle lily and Gulf sweet pitcher plant on the project site. If found on site, contact PCFO and FWC to determine if avoidance or minimization measures may be appropriate.

- Survey for other at-risk species including, but not limited to: gopher frog, Florida pine snake, birds, and plant species. If found on site, contact PCFO and FWC to determine if avoidance or minimization measures may be appropriate.
- A land management plan detailing restoration and access-related activities will be developed for the area. This plan will be provided to PCFO for review. If PCFO determines that any species may be adversely affected the plan will be revised to minimize impacts to an insignificant and discountable level or Section 7 consultation will be reinitiated so that the potential effects from the plan can be evaluated and formal consultation completed if necessary.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- If trees or shrubbery must be removed, these areas will be cleared outside of migratory bird nesting season or inspected for active nests. If no active nests are found, vegetation may be removed. If active nests are found, vegetation can be removed after the nest successfully fledges.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. Outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.32.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- All hazardous materials handled during construction including paints, solvents, chemicals and petroleum products will be contained and appropriate barriers will be in place to ensure the protection of adjacent water resources from potential spills and leaks.
- In the event of a discharge of oil or release of hazardous substances all spills will be reported to the FDEP and all federal and state regulations will be followed during the cleanup.
- BMPs in accordance with the Occupational Safety and Health Administration (OSHA) and state and local requirements will be incorporated into construction activities to ensure proper handling, storage, transport and disposal of all hazardous materials.
- All waste generated during construction will be disposed of in the appropriate waste or recycling receptacles on-site will be taken off-site and disproved in an approved waste disposal site by the construction contractor.
- All occupational and safety regulations will be followed to ensure safety of all workers and the public.
- During construction soil and sediment stabilization measures will be incorporated into project design as needed in areas where the potential for erosion exists in order to protect resources and public health and safety.

10.5.32.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use and wildlife viewing opportunities by improving the recreational use of the Escribano Point portion of the Yellow River Wildlife Management Area. Performance monitoring will evaluate: 1) the hurricane debris removal and road repair; 2) the construction of an entrance kiosk, information, parking and facilities; 3) the improvements of the north beach hammock parking;4) the construction of the interpretive, fishing and picnicking facilities; 5) the construction of the primitive camping sites; 6) the construction of the wildlife viewing facilities; 7) the construction of the Escribano Point parking, interpretive, fishing and picnicking facilities; and 8) the installation of the bear-proof containers for trash and storing food at campsites. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the visitor area of the wildlife management area is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by FWC as part of its regular public facilities maintenance activities. The project cost includes $500,000 for five years of management costs.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, FWC will monitor the recreational use activity at the site. FWC staff will visit the site twice a year to count the number of users at the wildlife management area. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.33 Norriego Point Restoration and Recreation Project

The Norriego Point Restoration and Recreation project will involve stabilizing, enhancing and re-establishing recreational activities available at Norriego Point. Improvements will 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Norriego Point Restoration and Recreation project is intended to enhance and/or increase recreational boating and beach use opportunities by stabilizing and re-establishing Norriego Point. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and beach use opportunities by stabilizing and re-establishing Norriego Point.

The Trustees evaluated the Norriego Point Restoration and Recreation Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Norriego Point Restoration and Recreation Project will not substantially contribute to adverse cumulative effects to resources. The Norriego Point Restoration and Recreation Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.33.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.33.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.33.2.1 Measures to Mitigate Impacts to the Physical Environment

- All permit conditions will be strictly adhered to, including mitigation measures for siltation, erosion, turbidity, and release of chemicals. During construction, BMPs and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. FDEP

permit conditions require erosion and turbidity mitigation measures, which include the following:

  - Installation of floating turbidity barriers;
  - Installation of erosion control measures along the perimeter of all work areas;
  - Stabilization of all filled areas with sod, mats, barriers, or a combination; and
  - Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures will be modified, and the FDEP will be notified.

- The project will comply with state water quality standards and other aquatic resource protection requirements.
- FDEP permit conditions require spill containment protection and mitigation measures as follows:
  - Boat repair or fueling facilities over the water will be prohibited.
  - Prohibited activities include hull cleaning and painting, and discharges or release of oils, greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- A wetlands permit is required for the project and will stipulate appropriate BMPs and mitigation requirements.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.

10.5.33.2.2 Measures to Mitigate Impacts to Biological Resources

- No lighting is currently proposed for this project. If lighting were to become necessary, the most recent edition of FWC's Lighting Technical Plan will be followed.
- During all in-water construction activity, the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) will be implemented and adhered to during project implementation.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Creation of least tern habitat.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection,

pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. Outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.33.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The construction process will also limit recreational activities near construction areas for a short time to protect public safety.
- Project construction will require mechanical equipment that uses oil, lubricants, and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids, and to avoid releases and spills.

10.5.33.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and beach use opportunities by improving by stabilizing and re-establishing Norriego Point. Performance monitoring will evaluate: 1) the construction of erosion control structures; 2) the construction of a picnic pavilion with restrooms, showers, and drinking fountains; 3) the construction of educational signage and a multi-use trail; 4) the construction of bike racks; and 5) the addition of vehicle parking areas along the access road the construction. Specific performance criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the point is open and available.

Long-term monitoring and maintenance will be completed by the City of Destin as part of their regular public facilities maintenance activities. Funding for this post construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Destin.

During the construction performance monitoring period, the Florida Trustees' Project Manager will go out twice a year to the site to record the number of users. Following the construction performance monitoring period, the City of Destin will monitor the recreational use activity at the site. The City of Destin will visit the site twice a year to count the number of users. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

10.5.34 Deer Lake State Park Development

The Deer Lake State Park Development project will improve the existing visitor areas at Deer Lake State Park in Walton County. The improvements will include adding a paved access road, parking, picnic shelters, restroom facilities, plantings (trees, grass, shrubs), and necessary utilities (water, sewer, and electrical). As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Deer Lake State Park Recreation Areas project is intended to enhance and/or increase recreational beach use opportunities by improving the park's visitor area. The project will enhance and/or increase

opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational beach use opportunities by improving the park's visitor area.

The Trustees evaluated the Deer Lake State Park Development Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Deer Lake State Park Development Project will not substantially contribute to adverse cumulative effects to resources. The Deer Lake State Park Development Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.34.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.34.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.34.2.1 Measures to Mitigate Impacts to the Physical Environment

- All construction will be performed in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.
- The contractor will submit a plan for control of surface water runoff in accordance with all local, state, and federal requirements and all permit requirements to protect the surrounding vegetation and natural condition.
- Upon completion of construction, the site will be cleared of all construction materials and restored to its natural state as shown on the plan drawings.
- The contractor will implement BMPs for adequate erosion control. Erosion control is necessary to prevent damage to adjacent property, natural features, site property, and work in progress. Erosion control measures will be in place prior to any land alteration and will be used throughout the construction process until soils are stabilized. Erosion control BMPs are as follows:
    - To protect against wind and stormwater runoff erosion, the contactor will place, as appropriate, hay bales and silt fencing with wire fence reinforcement, with sediment to be removed when it reaches approximately one-half the height of the barrier.
    - Silt fences will be of optimal design and materials for adequate sediment control.
    - Side slopes created during construction will be stabilized at the earliest possible date to avoid erosion with adequate use of compacted soil and staked hay bales.
    - Any disturbed area that will not be paved, sodded, or built upon will have a minimum vegetative cover of 80% and be mature enough to control soil erosion and survive severe weather conditions prior to final inspection.
    - Sod will be sufficiently grown and maintained to secure a dense stand of live grass.
    - The road surface at the entrance will maintain a condition of slope that will prevent tracking or flow of mud onto the existing public roadway (County Road 30A).
- All permit conditions, including mitigation measures for erosion and release of chemicals, will be strictly adhered to.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Required spill containment measures will be implemented for applicable construction activities.
- The following mitigation measures have been identified to reduce or eliminate GHG emissions from the project:
    - Shut down idling construction equipment, if feasible.
    - Locate staging areas as close to construction sites as practicable to minimize driving distances between staging areas and construction sites.
    - Encourage the use of the proper equipment size for the job to maximize energy efficiency.
    - Encourage the use of alternative fuels for generators at construction sites, such as propane or solar, or use electrical power where practicable.

10.5.34.2.2 Measures to Mitigate Impacts to Biological Resources

- No lighting will be installed on the boardwalks. Any other lighting used (in parking areas, sidewalks, signage, etc.) will be required to comply with Walton County's Wildlife Conservation Zone lighting ordinance using the best available technology. Any parking lot lighting should be fully shielded, wildlife-friendly parking lot lighting.
- Should work be undertaken between May 1 and October 31 the following conservation measures will be followed:
    - The existing, local, sea turtle nesting surveyor will conduct daily sea turtle nesting surveys and will assess the need for the relocation of sea turtle nests that could be affected by the project construction prior to project implementation each day.
    - If a sea turtle (either adult or hatchling) is observed, maintain at least 200 feet between the turtle and personnel.
    - All actions shall observe a 10-foot buffer from marked sea turtle nests. Between May 1 and August 31, actions with mechanized equipment or vehicles shall not begin prior to 9:00 am to ensure sea turtle monitoring surveys are completed for the day.
    - If altered, beach topography shall be restored in all areas to the natural beach profile by 20:00 hours each day. Restoring beach topography includes raking of tire ruts, filling pits or holes.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- If construction occurs within the period from August to May:
    - Shorebird surveys (including piping plover and red knot) will be conducted in the project area;
    - Within the project area, a 300-foot wide buffer zone where piping plover or red knot congregate in significant numbers will be established.
    - Any and all construction will be prohibited in the buffer zone.
- All construction personnel will be notified of the potential presence of Choctawhatchee Beach Mice and reminded of the criminal and civil penalties associated with harassing, injuring, or killing these mice.
- To minimize impacts to Choctawhatchee beach mice in burrows, a qualified, permitted, biologist will survey the project site before work commences and flag potential burrows and tracks so that they can be avoided.
- Only hand tools will be used within a five-foot radius of a burrow opening or any observed mice tracks.
- Equipment and vehicles will avoid the dune by 10 foot of the toe of the dune.
- Construction noise will be kept to the minimum feasible.
- Construction will occur during the day to minimize disturbance to nocturnal patterns.
- Equipment, vehicles, and project debris will not be stored in a manner or location where it could be colonized by mice.
    - Prior to bringing any equipment (including personal gear, machinery, vehicles or vessels) to the work site, inspect each item for mud or soil, seeds, and vegetation. If present,

the equipment, vehicles, or personal gear shall be cleaned until they are free from mud, soil, seeds, and vegetation. This inspection will occur each time equipment, vehicles, and personal gear are being prepared to go to a site or prior to transferring between sites to avoid spreading exotic, nuisance species.
    - Inspect sites periodically to identify and control new colonies/individuals of an invasive species not previously observed prior to construction.
    - Remove trash or anything that will attract nuisance wildlife to work areas daily.
- Project related trash or debris shall not be allowed to blow into open water, onto beaches or in the dunes.
- Appropriate waste/trash receptacles will be installed and maintained at boardwalks so that predators are not attracted to the area.
- All walkover construction will follow the recent guidance for such work issued by the USFWS Panama City field office (USFWS, 2013).
- If native plants are destroyed during the project, appropriate native plants will be planted in the same location to minimize effects to the vegetative composition of the area.
- If necessary (due to food source removal during construction and growing periods for replacement plants), supplemental beach mouse food sources will be provided.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the National Bald Eagle Management Guidelines will be followed (USFWS 2007).
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Trees will not be removed during songbird nesting season at Deer Lake.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. Outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.34.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials and to avoid releases and spills.
- If a release should occur, it will be handled promptly in accordance with all applicable regulations. The period of time during which a release could occur from construction activities will be short term, and any release will be expected to be minor.

- If hazardous materials are encountered in the project area during construction activities, appropriate measures for handling the materials will be used in accordance with applicable regulations. All occupational safety regulations and laws will be followed to ensure the safety of all workers and monitors. The project is not anticipated to affect the existing Park RCRA activities.

10.5.34.3 Performance Criteria, Monitoring and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational beach use opportunities by improving the visitor use areas at Dear Lake State Park. The improvements will include adding a paved access road, parking, picnic shelters, restroom facilities, plantings (trees, grass, shrubs), and necessary utilities (water, sewer, and electrical). Performance monitoring will evaluate: 1) the addition of a paved access road and parking; 2) construction of picnic shelters; 3) construction of restroom facilities; and 4) installation of planting and necessary utilities. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the visitor use area is open and available.

Long term maintenance of the improved facilities will be completed by Deer Lake State Park staff as part of their regular public facilities maintenance activities. Corrective actions necessary after completion and signoff of the project will also be undertaken by park staff. Funding for this post-construction maintenance is not included in the project cost estimate and will be assumed by Deer Lake State Park.

During and following the post construction performance monitoring period, the State of Florida park staff will monitor the recreational use activity at the site. Park staff keeps track of visitation and usage at the park and will provide visitation numbers by the month. This use information is kept by the Florida Department of Environmental Protection.

10.5.35 City of Parker- Oak Shore Drive Pier

The City of Parker Oak Shore Drive Pier project will construct a fishing pier at Oak Shore Drive in the City of Parker, Bay County Florida. The work includes construction of a 500 foot long fishing pier. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The City of Parker Oak Shore Drive Pier project is intended to enhance and/or increase recreational fishing opportunities by constructing a fishing pier. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational fishing opportunities by constructing a fishing pier.

The Trustees evaluated the City of Parker Oak Shore Drive Pier Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the City of Parker Oak Shore Drive Pier Project will not substantially contribute to adverse cumulative effects to resources. The City of Parker Oak Shore Drive Pier Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.35.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, USFWS Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the NMFS Endangered Species Act, Marine Mammal Protection Act, National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.35.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.35.2.1 Measures to Mitigate Impacts to the Physical Environment

- Orientation options for the fishing pier will also consider site specific features such as the generation of the shallow sand bars off the point and the Intracoastal Waterway which runs offshore of the point.
- During construction BMPs for erosion control will also be implemented and maintained at all times during upland activity to prevent siltation and turbid discharges into surface waters.

Methods could include, but are not limited to, the use of staked hay bales, staked filter cloth, sodding, seeding, and mulching; staged construction; and installation of turbidity screens around the immediate project site.

- Staging of most construction materials will occur in the parking area.
- Best management practices, such as the use of sediment curtains, will be used to minimize the dispersal of sediments during the installation of the pilings.
- On land, if any soils are disturbed, erosion and sedimentation into the bay will be minimized through the use of erosion control measures resulting in short-term negligible impacts.
- Best management practices to avoid, minimize, and control spills will be employed to minimize the risk of adverse impacts.
- Additionally, appropriate permits will be obtained prior to beginning construction and all conditions set forth, such as erosion control measures and a spill, prevention, control, and countermeasure plan, will be followed.

10.5.35.2.2 Measures to Mitigate Impacts to Biological Resources

- As part of this engineering and orientation assessment, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Existing information suggests SAV is in the area around the point where the pier will be constructed. Should the site assessment for the project identify SAV in the project area, the conditions in the Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented.
    - The SAV coverage at the point is not complete as the combination of current and other conditions leave an area off of the South of the point going out into deeper water where there is effectively a “path” that is free of SAV. The current plan is to construct the pier in this path to avoid impacts to SAV habitat at the site.
- Final construction plans will also consider and account for options that will minimize disruption to the aquatic environment including available BMPs (e.g., use of bubble curtains).
- The exact mix of equipment will be developed with the final construction plans and project bids but will take into account and be reviewed for critical considerations such as the depth of the site to avoid grounding in sensitive habitats (e.g., seagrass beds).
- The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to during all in-water construction activity.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- Prior to the opening of the pier to the public, fixed signs that are consistent with National Oceanic and Atmospheric Administration (NOAA) and State of Florida guidelines with instructions on what to do in the event of hooking a listed species (e.g., sea turtle) will be placed at the entrance to the fishing pier and strategically at fixed intervals along its length.
- Additionally, a kiosk/booth will be placed at the entrance to the pier with additional information for best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash cans, not feeding dolphins) designed to limit potential adverse

impacts to species. The signage in this kiosk will include the NMFS "Dolphin Friendly Fishing and Viewing Tips" sign with NMFS' "Protect Dolphin" signs along the pier.

- Trash receptacles will also be placed on the pier to help reposted on the fishing pier to help anglers comply with the recommendations as well as keep other trash out of the water that could otherwise cause adverse impacts on species.
- Monofilament recycling bins will be installed at regular intervals along the pier. These will be emptied regularly by city/county staff as part of the project maintenance activities, and fishing line recycled.
- Any lighting installed as part of the project will be wildlife friendly and comply with the guidance provided in the current edition of the FWC's *Lighting Technical Manual*.
- No fish cleaning stations will be included in the design and construction of these piers to help mitigate/avoid issues of species attraction to the pier.
- At the project site, there is an area with shallow sandbars off the point where shorebirds commonly feed. Design of this pier will be coordinated with FWC to minimize impacts and changes to the point and sand bars to the maximum extent practicable.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting seabirds are encountered. Work will occur during daylight hours only.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Potentially impacted seagrass plants may be required to be transplanted to other areas.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for

integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.35.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- To minimize impacts on the use of the boat ramp and parking, construction activities on the fishing pier will occur outside of the fishing season which occurs from April through September.
- For the fishing pier, in-water construction will occur outside of the Intracoastal Waterway and therefore will not impact boat movement within this waterway.
- During construction activities, staging and construction areas will be fenced off, and BMPs will be employed to ensure public safety both on land and on the water, as well as the safety of the construction workers.

10.5.35.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational fishing opportunities by constructing a fishing pier at Oakshore Drive in the City of Parker. Performance monitoring will evaluate the construction of the fishing pier. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the fishing pier is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by the City of Parker as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by the City of Parker.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, the City of Parker will monitor the recreational use activity at the site. City of Parker staff will visit the site twice a year to count the number of users at the fishing pier. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

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

The Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks project will provide additional recreational fishing opportunities for the public in Panama City in Bay County. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks project is intended to enhance and/or increase recreational boating and fishing opportunities by improving the city's marina. This project will enhance and/or

increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and fishing opportunities by improving the city's marina.

The Trustees evaluated the Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks Project will not substantially contribute to adverse cumulative effects to resources. The Panama City Marina Fishing Pier, Boat Ramp, and Staging Docks Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.36.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, USFWS Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the NMFS Endangered Species Act, Marine Mammal Protection Act, National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.36.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific

resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.36.2.1 Measures to Mitigate Impacts to the Physical Environment

- Appropriate permits will be obtained prior to beginning construction and all conditions set forth, such as erosion control measures and spill prevention, control, and countermeasure plan, will be followed.
- All USACE permit conditions relating to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act will be adhered to during project construction.
- During construction BMPs for erosion control will also be implemented and maintained at all times during upland activity to prevent siltation and turbid discharges into surface waters. Methods could include, but are not limited to, the use of staked hay bales.
- BMPs, such as the use of sediment curtains to contain resuspended sediments and erosion control measures will be employed to minimize impacts to the surrounding area.
- BMPs to avoid, minimize, and control spills will be employed to minimize the risk of adverse impacts.

10.5.36.2.2 Measures to Mitigate Impacts to Biological Resources

- Prior to the opening of the pier to the public, fixed signs that are consistent with National Oceanic and Atmospheric Administration (NOAA) and State of Florida guidelines with instructions on what to do in the event of hooking a listed species (e.g., sea turtle) will be placed at the entrance to the fishing pier and strategically at fixed intervals along its length.
- Additionally, a kiosk/booth will be placed at the entrance to the pier with additional information for best practices on catch and release and other fishing practices (e.g., placing cut line and hooks for disposal in trash cans, not feeding dolphins) designed to limit potential adverse impacts to species.
    - The signage in this kiosk will include the NMFS “Dolphin Friendly Fishing and Viewing Tips” sign with NMFS’ “Protect Dolphin” signs along the pier.
- Monofilament recycling bins will be installed at regular intervals along the pier. These will be emptied regularly by city/county staff as part of the project maintenance activities, and fishing line recycled.
- Any lighting installed on the pier or addressed as part of the project will be wildlife friendly and comply with the guidance provided in the current edition of the FWC’s *Lighting Technical Manual*.
- No fish cleaning stations will be included in the design and construction of these piers to help mitigate/avoid issues of species attraction to the pier.
- Final construction plans will also consider and account for options will minimize disruption to the aquatic environment including available BMPs (e.g., use of bubble curtains).
- The conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) will be implemented and adhered to during all in-water construction activity.
- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.

- Final dimensions of the docks will be determined during the final project design based on, among other information, the results of the SAV survey and the corresponding need to comply with any conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001 – See Appendix A).
- As with the pier, pilings will need to be placed for the staging dock. Options to minimize disruption to the aquatic environment, including available BMPs (e.g., use of bubble curtains), will be evaluated as final engineering plans are determined.
    - Following placement of the pilings and cross pieces from the water, work to construct the docks will generally proceed from shore and will not require additional in-water work unless pre-formed or pre-constructed sections are used and placed from workboats.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- Protective measures will also be implemented in the design phase and include the use of pointy, white, piling caps and containers for waste fishing gear.
- Trash receptacles will also be placed on the pier to help reposted on the fishing pier to help anglers comply with the recommendations as well as keep other trash out of the water that could otherwise cause adverse impacts on species.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/

vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.36.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- To minimize impacts on the use of the boat ramp, construction activities on the boat ramp will occur outside of the fishing season which occurs from April through September.
- For the fishing pier, in-water construction will occur outside of the Intracoastal Waterway and therefore will not impact boat movement within this waterway.
- Design of the fishing pier will include necessary lighting and handrails ensuring the safety of those that use it.
- During construction activities, staging and construction areas will be fenced off, BMPs will be employed to ensure public safety both on land and on the water, as well as the safety of the construction workers.

10.5.36.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and fishing opportunities by improving the marina. Performance monitoring will evaluate: 1) the construction of a 400-foot long pier; 2) the replacement of a poorly functioning boat ramp, and 3) the construction of new staging docks at the Panama City Marina. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the marina and fishing pier are open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Panama City as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Panama City.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Panama City will monitor the recreational use activity at the site. Panama City staff will visit the site twice a year to count the number of users at the marina. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

The State of Florida Trustees and the Department of Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed

via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

10.5.37 Wakulla Mashes Sands Park Improvements

The Wakulla County Mashes Sands Park Improvements project will improve recreation areas at the Wakulla County Mashes Sands Park. The 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. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Wakulla County Mashes Sands Park Improvements project is intended to enhance and/or increase recreational boating and beach use opportunities by improving the recreational opportunities at the park. This project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational boating and beach use opportunities by improving the recreational opportunities at the park.

The Trustees evaluated the Wakulla County Mashes Sands Park Improvements Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Wakulla County Mashes Sands Park Improvements Project will not substantially contribute to adverse cumulative effects to resources. The Wakulla County Mashes Sands Park Improvements Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.37.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance

with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.37.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.37.2.1 Measures to Mitigate Impacts to the Physical Environment

- Construction materials will be staged in existing disturbed areas (e.g., parking lot areas).
- Construction Best Management Practices (BMPs) are as follows:
    - The contractor will submit plan for control of surface water runoff in accordance with all local, state, and federal requirements and all requirements of permits obtained so as to protect the surrounding vegetation and natural condition (discussed in greater detail below).
    - All construction adjacent to open water will be separated and confined by appropriate siltation screens and turbidity barriers so as to protect the quality of such open water.
    - Upon completion of construction, the site will be cleared of all construction materials and restored to its natural state as shown on the drawings.
    - All construction will be performed in accordance with all local, state, and federal requirements and all requirements of permits obtained so as to protect the surrounding vegetation and natural condition.
    - The contractor will be responsible for assuring compliance with all permit requirements.
- Implementation of stormwater management controls for the project.
- All permit conditions, including mitigation measures for siltation, erosion, turbidity, and release of chemicals, will be strictly adhered to.
- During construction, BMPs and boom placement along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts. Florida Department of Environmental Protection (FDEP) permit conditions require erosion and turbidity mitigation measures, which include the following:
    - Installation of floating turbidity barriers.

    - Installation of erosion control measures along the perimeter of all work areas.
    - Stabilization of all filled areas with sod, mats, barriers, or a combination.
    - Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures modified, and the FDEP will be notified.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Impacts from chemicals that could be released from sources such as construction equipment and boats are expected to be negligible. Required spill containment measures will be implemented for applicable construction activities. FDEP permit conditions require spill containment protection and mitigation measures as follows:
    - Prohibiting boat repair or fueling facilities over the water.
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.

10.5.37.2.2 Measures to Mitigate Impacts to Biological Resources

- While any dock renovations should be constructed within the existing footprint, as part of final design effort, a survey of submerged aquatic vegetation (SAV) in the area will be completed. Should the site assessment for the project identify SAV in the project area, the conditions in the *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat* (U.S. Army Corps of Engineers/National Marine Fisheries Service, 2001) will be implemented.
- During all in-water construction activity the conditions and guidelines of the *Sea Turtle and Smalltooth Sawfish Construction Conditions* (NOAA, 2006) and the *Standard Manatee Conditions for In-Water Work* (USFWS, 2011) will be implemented and adhered to.
- Educational signage will be posted at all ramps reminding visitors of nearby trust resources and any protective measures that may be necessary to avoid and minimize impacts in their habitats either at the project site or when visiting nearby islands. This signage will be developed in coordination with FWC and the Panama City Ecological Services Field Office. The State of Florida Trustees and DOI recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient to evaluate the effectiveness of conservation measures, then, an in-person survey will be taken of a sample of recreational users at the project location at the same time as the planned twice annual performance monitoring of the project by the same party performing such monitoring.
- Predator-proof waste receptacles will be placed and maintained in strategic locations at each of the new facilities in this project.

- All construction conditions identified in the Standard Manatee Conditions for In-water Work (USFWS 2011) will be implemented and adhered to during project construction.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting birds are encountered. Work will occur during daylight hours only.
- If necessary, breeding areas may need to be posted (during breeding season) to further identify sensitive areas that visitors must avoid (Oystercatchers and Wilson's plovers).
- If project activities occur during shorebird nesting season (February 15 to August 31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds/marsh birds or rookeries and their recommendations will be implemented.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.37.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will require mechanical equipment that uses oil, lubricants, and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids.
- If a release should occur, it will be contained and cleaned up promptly in accordance with all applicable regulations, and the incident will be reported to appropriate agencies.

10.5.37.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational boating and beach use opportunities by improving the recreational opportunities at the park. Performance monitoring will evaluate: 1) the construction of the observation platforms; 2) the construction of the boardwalks; 3) the construction of the walking paths; 4) the improvements to the boat ramp area; 5) the improvements to the picnic areas, 6) the renovation of the parking area; 7) the renovation of the restroom facility; and 8) the construction of a canoe/kayak launch site. Specific performance criteria include: 1) completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the park is open and available.

Long-term monitoring and maintenance of the improved facilities will be completed by Wakulla County as part of their regular public facilities maintenance activities. Funding for this post-construction maintenance is not included in the previously provided value for the project cost and will be accomplished by Wakulla County.

During the one year construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the one year construction performance monitoring period, Wakulla County will monitor the recreational use activity at the site. Wakulla County staff will visit the site twice a year to count the number of users at the park. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

The State of Florida Trustees and the Department of Interior recognize the need to evaluate the effectiveness of conservation measures designed to avoid or minimize impacts to sensitive species or their habitats. To assess the public's awareness of the educational signage intended to minimize impacts of use associated with the improved facilities, readers will be invited to take an online survey accessed via a QR code on the sign. The Florida Trustees and DOI will determine the adequacy of this method of assessing public awareness six months after the completion of construction. If the online surveying is insufficient, concurrent with the twice annual performance monitoring, and performed by the same party, a survey will be taken of a sample of recreational users at the project location.

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

The Northwest Florida Fort Walton Beach Educational Boardwalk project will 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 improvements include constructing a new educational and interactive boardwalk, expansion of an existing intertidal oyster reef, and restoration of a degraded salt marsh. As a result of the Deepwater Horizon oil spill and related response actions, the public's access to and enjoyment of the natural resources along Florida's Panhandle was denied or severely restricted. The Northwest Florida Fort Walton Beach Educational Boardwalk project is intended to enhance and/or increase recreational use opportunities by improving the boardwalks and enhancing adjoining natural resources and habitat. The project will enhance and/or increase opportunities for the public's use and enjoyment of the natural resources, helping to offset adverse impacts to such uses that resulted from the Spill. Thus, the nexus to resources injured by the Spill is clear. See 15 C.F.R. § 990.54(a)(2); and Sections 6a-6c of the Framework Agreement.

NEPA analysis of the environmental consequences suggests that while minor adverse impacts to some resource categories, no moderate to major adverse impacts are anticipated to result. The project will enhance and/or increase recreational use opportunities by improving the boardwalks and enhancing adjoining natural resources and habitat.

The Trustees evaluated the Northwest Florida Fort Walton Beach Educational Boardwalk Project in combination with other present and reasonably foreseeable future actions on Geology and Substrates, Hydrology and Water Quality, Air Quality and Greenhouse Gas Emissions, Noise, Living Coastal and

Marine Resources, and Human Uses and Socioeconomics (i.e. socioeconomics and environmental justice, cultural resources, infrastructure, land and marine management, aesthetics and visual resources, tourism and recreational use, and public health and safety and shoreline protection). Based on the cumulative impact analysis, the Northwest Florida Fort Walton Beach Educational Boardwalk Project will not substantially contribute to adverse cumulative effects to resources. The Northwest Florida Fort Walton Beach Educational Boardwalk Project, carried out in conjunction with other actions, have the potential to provide long-term beneficial cumulative impacts.

10.5.38.1 Compliance with Relevant Federal Environmental Laws, Regulations, and Executive Orders

The Trustees have completed consultations and reviews under the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act. Consistency reviews of the Phase III Early Restoration projects in Florida were initiated by the Federal Trustees under the Coastal Zone Management Act and have been completed for purposes of finalizing this Early Restoration Plan. Additional reviews may occur during permitting processes required for implementation. Compliance with the National Historic Preservation Act, Clean Water Act, and Rivers and Harbors Act has been initiated.

10.5.38.2 Mitigation Measures

Mitigation measures, including best management practices and conservation measures, required by consultations in adherence with applicable laws, regulations and executive orders listed above and developed during the NEPA process are listed below. These mitigation measures are categorized by whether they correspond to the physical environmental, biological resources, and human uses and socioeconomics. Note this list is not an exhaustive list of all existing policies, practices, and measures required by law, regulation, or agency policy that reduce the environmental impacts of designated activities, functions, or processes.

Throughout the design and implementation of this project, every practical attempt will be made to avoid and minimize potentially adverse environmental, social, and cultural impacts. The Trustees agree to implement the following conservation measures and BMPs, which include measures identified during the consultations noted above. Although conservation measures and BMPs are listed under specific resources that they are intended to benefit, they could also result in reduced impacts to other resources.

10.5.38.2.1 Measures to Mitigate Impacts to the Physical Environment

- The final oyster reef elevation and design will be selected to maximize shoreline protection and meet state regulatory requirements.
- As part of the final design the risk for creating a structure that poses an entrapment risk will be evaluated and addressed by ensuring gaps are left between constructed units – both new and existing. These gaps will be a minimum of 3 feet wide.
- All permit conditions will be strictly adhered to, including mitigation measures for siltation, erosion, turbidity, and release of chemicals. During construction, BMPs and boom placement

along with other avoidance and mitigation measures required by state and federal regulatory agencies will be employed to minimize any water quality and sedimentation impacts.

- FDEP permit conditions require erosion and turbidity mitigation measures, which include the following:
    - Installation of floating turbidity barriers.
    - Installation of erosion control measures along the perimeter of all work areas.
    - Stabilization of all filled areas with sod, mats, barriers, or a combination.
    - Stoppage of work if turbidity thresholds are exceeded. The soils will then be stabilized, work procedures modified, and the FDEP will be notified.
- The project will comply with state water quality standards and other aquatic resource protection requirements.
- Required spill containment measures will be implemented for applicable construction activities. FDEP permit conditions require spill containment protection and mitigation measures as follows:
    - Prohibiting boat repair or fueling facilities over the water.
    - Prohibiting vessels from being removed from the water for the purposes of maintenance or repair.
    - Prohibited activities include hull cleaning and painting, discharges or release of oils or greases, and related metal-based bottom paints associated with hull scraping, cleaning, and painting.
- Available BMPs will be employed to prevent, mitigate, and control potential air pollutants during project implementation.

10.5.38.2.2 Measures to Mitigate Impacts to Biological Resources

- All planting work (salt marsh restoration) will be conducted from the shoreline.
- The created marsh areas will be monitored for natural revegetation and to determine success and identify any corrective action needed.
- Potential impacts from construction operations may also be avoided by requiring compliance during all in-water activities with the *Sea turtle and Smalltooth Sawfish Construction Conditions* (NMFS, 2006) and *Standard Manatee Conditions for In-water Work* (USFWS, 2011).
- Project installation activities will use BMPs, including impact avoidance of existing seagrass habitat through the use of small vessels for construction of oyster reefs. Every effort will be made to access the oyster reef placement sites during periods of high tide using shallow draft vessels to minimize potential adverse impacts to seagrass habitat as a result of navigation.
- If bald eagles are found nesting within 660 feet of a construction area, then activities will need to occur outside of nesting season or the *National Bald Eagle Management Guidelines* will be followed (USFWS 2007).
- If project activities occur during shorebird nesting season (February 15 to August31), the FWC will be contacted to obtain the most recent guidance to protect nesting shorebirds or rookeries and their recommendations will be implemented.
- Care will be taken to minimize noise and physical disruptions near areas where foraging or resting seabirds are encountered. Work will occur during daylight hours only.

- Implement best management practices to mitigate any potential impacts to any EFH and species using the habitat in areas adjacent to project locations.
- Best Management Practices (BMPs) to control the spread of any invasive species present, and prevent the introduction of new invasive species due to the project will be implemented. In general, best management practices will primarily address risk associated with vectors (e.g., construction equipment, personal protective equipment, delivery services, foot traffic, vehicles/ vessels, shipping material). There are many resources that provide procedures for disinfection, pest-free storage, monitoring methods, evaluation techniques, and general guidelines for integrated pest management that can be prescribed based upon specific site conditions and vectors anticipated. In addition, to best management practices, outreach and educational materials may be provided to project workers and potential users/visitors to assist with adherence to required or recommended practices.

10.5.38.2.3 Measures to Mitigate Impacts to Human Uses and Socioeconomics

- Project construction will require mechanical equipment that uses oil, lubricants, and fuels. The contractor will be required to take appropriate actions to prevent, minimize, and control the spill of construction-related hazardous materials such as vehicle fuels, oil, hydraulic fluid, and other vehicle maintenance fluids.
- In addition, as work proceeds, the project area may be isolated by construction fencing to prevent incidental access.

10.5.38.3 Performance Criteria, Monitoring, and Maintenance

As part of the project cost, monitoring will be conducted to ensure project plans and designs were correctly implemented and to evaluate project performance. Monitoring has been designed around the project goals and objectives. The project objective is to enhance and/or increase recreational use opportunities by improving the boardwalks and enhancing the adjoining natural resources and habitat. Performance monitoring will evaluate: 1) the construction of new boardwalk sections along the Santa Rosa sound shoreline; 2) the expansion of an existing oyster reef by ~0.1 acre; and 3) the enhancement of approximately 0.4 acres of salt marsh. Specific success criteria include: 1) the completion of the construction as designed and permitted, and 2) enhanced and/or increased access is provided to the natural resources, which will be determined by observation that the boardwalks are open and available,

Long term monitoring and maintenance of the boardwalk facilities will be completed by the City of Ft. Walton Beach as part of their regular public facilities maintenance activities. No long-term monitoring activities are envisioned for the habitat enhancement components beyond compliance of design and performance standards. Funding for this post-construction maintenance is not included in the project cost estimate and the expense for these activities will be assumed by the City of ft. Walton Beach.

During the construction performance monitoring period, the Florida Trustees' Project Manager will go out twice to the site to record the number of users. Following the post construction performance monitoring period, the City of Ft. Walton Beach will monitor the recreational use activity at the site. The City of Ft. Walton Beach will visit the site twice a year to count the number of users at the boardwalk. The visitation numbers will then be provided to the Florida Department of Environmental Protection.

11 CONCLUSION

Through the Phase III ERP/PEIS, and documented in this ROD, the Trustees have analyzed alternatives, associated impacts, the extent to which the impacts could be mitigated, and have considered the objectives of the action. The Trustees have also considered public and agency comments received during the public review periods. In balancing the analysis and public interest, the Trustees have decided to select and implement their preferred alternative (Alternative 4) for the Programmatic Early Restoration Plan and to implement 44 projects as the Phase III Early Restoration Plan. The Trustees also conclude that all practical means to avoid, minimize, or compensate for environmental harm from the action have been adopted.

12 POINT OF CONTACT

Further information concerning this Record of Decision and associated Phase III ERP/PEIS authorized under this decision may be obtained by contacting:

Nanciann Regalado
U.S. Fish and Wildlife Service
1875 Atlanta, GA 20245
(678) 296-6805
nanciann_regalado@fws.gov

13 EFFECTIVE DATE

This Record of Decision for the Final Phase III ERP/PEIS will be effective for all Trustees when each listed signatory has signed.

FOR THE DEPARTMENT OF THE INTERIOR:

10/2/2014

Date

CYNTHIA K. DOHNER
Authorized Official, Department of the Interior

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY:

10/2/2014
Date

KENNETH J. KOPOCIS
U.S. Environmental Protection Agency
Principal Representative

FOR THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION:

OCT 0 2 2014

Date

DAVID G. WESTERHOLM
Director
Office of Response and Restoration
National Ocean Service
National Oceanic and Atmospheric Administration

OCT 0 2 2014

Date

EILEEN SOBECK
Assistant Administrator for Fisheries
National Oceanic and Atmospheric Administration

OCT 0 2 2014

Date

CRAIG O'CONNOR
Natural Resource Damage Trustee
Chief
Natural Resources Section
Office of General Counsel
National Oceanic and Atmospheric Administration

FOR THE U.S. DEPARTMENT OF AGRICULTURE:

10/2/2014
Date

ANN C. MILLS
Principal Representative for the
U.S. Department of Agriculture

FOR THE STATE OF ALABAMA:

10/2/2014
Date

N. GUNTER GUY, JR.
Principal Representative for Alabama Trustees

FOR THE STATE OF FLORIDA:

10/2/2014
Date

LARRY MORGAN
Senior Deputy General Counsel
Florida Department of Environmental Protection

FOR THE STATE OF LOUISIANA:

10/2/2014

Date

KYLE GRAHAM
Principal Representative for Louisiana Trustees

FOR THE STATE OF MISSISSIPPI:

10/2/2014
Date

GARY C. RIKARD
Principal Representative for Mississippi

FOR THE STATE OF TEXAS:

10/2/2014
_____
Date

_____
CARTER SMITH
Executive Director
Texas Parks and Wildlife Department

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