

Deepwater Horizon Natural Resource Damage Assessment  
Alabama Trustee Implementation Group



Final  
Bon Secour National Wildlife Refuge Recreation  
Enhancements:  
Supplemental Restoration Plan

October 2022



## Table of Contents

1.0	Introduction.....	2
1.1	Relationship of this Supplemental Restoration Plan to the RP III/EA .....	3
1.1.1	Purpose and Need.....	4
1.1.2	Proposed Action and Alternatives.....	4
1.2	OPA Compliance .....	5
1.3	NEPA Compliance.....	5
1.4	Public Involvement.....	5
1.5	Administrative Record.....	6
1.6	Next Steps .....	6
2.0	Restoration Planning Process .....	6
2.1	Summary of Recreational Use Injury Addressed and Project Screening Process ...	7
2.2	Reasonable Range of Restoration Alternatives .....	7
2.2.1	Mobile Street Boardwalk Project .....	8
2.2.2	Centennial Trail Boardwalk Project.....	10
2.2.3	Natural Recovery/No Action.....	11
3.0	OPA Evaluation .....	11
	Summary of OPA Analysis .....	14
4.	NEPA Summary .....	14
4.1	Affected Environment Summary .....	14
4.2	Environmental Consequences Summary – Mobile Street Boardwalk.....	15
4.3	Environmental Consequences Summary - Centennial Trail Boardwalk .....	15
4.4	No Action Alternative.....	16
4.5	Cumulative Impacts .....	16
5.0	Compliance with Other Laws and Regulations .....	16
6.0	Literature Cited.....	19
7.0	List of Preparers and Reviewers .....	20
	APPENDIX A: Public Comment on the Draft SRP .....	21

## 1.0 Introduction

In this “Final Bon Secour National Wildlife Refuge Recreation Enhancements: Supplemental Restoration Plan” (SRP) the Alabama Trustee Implementation Group (AL TIG) evaluates the allocation of additional funding for recreational enhancements in the Bon Secour National Wildlife Refuge (BSNWR). The intent is to review the restoration benefits of two projects previously evaluated by the Alabama Trustee Implementation Group (AL TIG) in light of the increased costs since the time of their evaluation, and the original selection of one of those projects for implementation, in 2019. The AL TIG is considering two action alternatives and a no action alternative. The action alternatives are the “Bon Secour National Wildlife Refuge Recreation Enhancement - Mobile Street Boardwalk” (hereafter referred to as Mobile Street Boardwalk project) and the “Bon Secour National Wildlife Refuge Recreation Enhancement - Centennial Trail Boardwalk” (hereafter referred to as Centennial Trail Boardwalk project). Both are located within the BSNWR and both were originally evaluated as part of the *Deepwater Horizon Oil Spill Alabama Trustee Implementation Group Final Restoration Plan III and Environmental Assessment: Provide and Enhance Recreational Opportunities; and Birds* (RP III/EA<sup>1</sup>). In the RP III/EA, the estimated cost to implement the Mobile Street Boardwalk project was \$1,189,899, and the estimated cost to implement the Centennial Trail Boardwalk was \$1,711,771. Due to unforeseen circumstances, including the COVID-19 pandemic’s effect on the availability and cost of labor and materials, hurricane damage since the original proposal, and a better understanding of the two projects’ complexity and need for engineering and design, the estimated cost to implement either project has increased. Full design and implementation of the Mobile Street Boardwalk project is now estimated to cost \$3,227,212, and the Centennial Trail Boardwalk project is now estimated at \$7,944,282. In this Final SRP, the AL TIG reevaluates both projects and their increased budgets under the Oil Pollution Act (OPA) natural resource damage assessment (NRDA) evaluation standards (15 CFR 990.54) and selects the Mobile Street Boardwalk project for additional funding and completion. Funding will be allocated from the AL TIG’s settlement funding in the Provide and Enhance Recreational Opportunities Restoration Type.

In the RP III/EA, the AL TIG evaluated seven projects under the Provide and Enhance Recreational Opportunities Restoration Type, including the Centennial Trail and Mobile Street Boardwalk projects at BSNWR. The RP III/EA conditionally selected the Mobile Street Boardwalk project pending funding availability. The subsequent *Addendum to Alabama Trustee Implementation Group Final Restoration Plan III and Environmental Assessment* (Addendum<sup>2</sup>) approved the use of up to \$1.6M in earned interest for Alabama TIG projects under the Provide and Enhance Recreational Opportunities Restoration Type, which allowed the TIG to move forward with the Mobile Street Boardwalk project. The RP III/EA and Addendum are consistent with the 2016 Deepwater Horizon Oil Spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement (PDARP/PEIS<sup>3</sup>), prepared by the Deepwater Horizon (DWH) natural resource trustees. All three documents are hereby incorporated by reference. The PDARP/PEIS provides information on the restoration context and background regarding the DWH oil spill, the NRDA settlement, related authorities and regulations, and the continuing restoration effort.

The AL TIG is responsible for restoring the natural resources and services within the Alabama Restoration Area that were injured by the DWH oil spill and response activities. The AL TIG includes

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<sup>1</sup> The RP III/EA can be found at <https://www.gulfspillrestoration.noaa.gov/sites/default/files/DWH-ARZ003892.pdf>

<sup>2</sup> The RP III Addendum can be found at: [https://www.gulfspillrestoration.noaa.gov/sites/default/files/2021-01%20AL%20TIG%20RP%20III%20Addendum\\_Final.pdf](https://www.gulfspillrestoration.noaa.gov/sites/default/files/2021-01%20AL%20TIG%20RP%20III%20Addendum_Final.pdf)

<sup>3</sup> The PDARP/PEIS, Record of Decision and Consent Decree can be found at <https://www.gulfspillrestoration.noaa.gov/restoration-planning/gulf-plan>.

two state trustee agencies and four federal trustee agencies:

- Alabama Department of Conservation and Natural Resources (ADCNR)
- Geological Survey of Alabama (GSA)
- U.S. Department of the Interior (DOI), represented by the U.S. Fish and Wildlife Service (USFWS), the National Park Service (NPS), and the Bureau of Land Management (BLM)
- National Oceanic and Atmospheric Administration (NOAA), on behalf of the U.S. Department of Commerce (DOC)
- U.S. Department of Agriculture (USDA)
- U.S. Environmental Protection Agency (EPA)

DOI is the Implementing Trustee.

### 1.1 Relationship of this Supplemental Restoration Plan to the RP III/EA

In the final RP III/EA, the AL TIG selected seven projects for implementation, allocating funds from two restoration types identified in the DWH Consent Decree: Provide and Enhance Recreational Opportunities and “Birds”. One of the projects conditionally selected for implementation in the final RP III/EA and funded through the RP III Addendum under the Provide and Enhance Recreational Opportunities Restoration Type is the Mobile Street Boardwalk project. The Centennial Trail Boardwalk project was also evaluated in the RP III/EA but was not selected for funding. Both projects’ recently updated cost estimates indicate a substantial increase in the cost to complete. This Final SRP supplements the RP III/EA’s evaluation under the OPA NRDA regulations by re-evaluating both of the BSNWR recreation projects analyzed in the RP III/EA against the OPA NRDA evaluation standards to determine whether the projects would still provide adequate restoration benefits to appropriately compensate for lost recreational use from the DWH oil spill at their additional estimated costs (See Section 1.2). The final RP III/EA included a Finding of No Significant Impact (FONSI). As neither the proposed activities, nor the Affected Environment for either project evaluated in the RP III/EA, have changed, the NEPA analysis contained in RP III/EA and the associated FONSI are still valid, and no additional NEPA analysis would be needed to implement either project. That NEPA analysis is incorporated by reference herein and summarized below in Chapter 4.

**Table 1: AL TIG DWH Settlement Restoration Category allocations, funds committed, and funding proposed in this SRP.**

<b>Restoration Type</b>	<b>Total AL TIG Settlement Funds</b>	<b>Interest Earned Allocated to this Restoration Type</b>	<b>Funding Committed to Date</b>	<b>Additional Funds Proposed in this SRP</b>
<b>Provide and Enhance Recreational Opportunities</b>	\$110,505,305	\$1,600,000 <sup>4</sup>	\$107,502,921 <sup>5</sup>	\$2,037,313 <sup>6</sup>

<sup>4</sup>The RP III Addendum increased the AL TIG’s original settlement amount for the Provide and Enhance Recreational Opportunities Restoration Type to include \$1.6 million in earned interest funds.

<sup>5</sup> Reflects cancellation of the Perdido River Land Acquisition (Molpus Tract) allocation of \$4,792,540.

<sup>6</sup> Reflects the revised total cost of the preferred alternative (\$3,227,212) less the project funding already approved in the RP III Addendum (\$1,189,899).

### **1.1.1 Purpose and Need**

The purpose of this action is to continue to implement restoration in Alabama intended to make the public whole for recreational use losses that occurred as a result of the DWH oil spill. To meet that goal, the AL TIG conditionally selected implementation of the Mobile Street Boardwalk project at BSNWR in its RP III/EA.

This purpose and need falls within the general scope of the purpose and need identified in the RP III/EA and is consistent with the Final PDARP/PEIS, as it focuses on the restoration of injuries to Alabama’s natural resources and services arising from the DWH oil spill—specifically, Provide and Enhance Recreational Opportunities—using funds made available through the DWH Consent Decree (see Final PDARP/PEIS [DWH Trustees 2016: Chapter 10]). Additionally, this purpose and need is consistent with the AL TIG’s identification of the BSNWR as a location where restoration can occur “in-place, in-kind” because BSNWR’s beaches were oiled during the spill and visitors could not use the beaches during response activities (see Chapter 2, Section 2.3.1, of the RP III/EA). The Mobile Street Boardwalk project was conditionally approved in the final RP III/EA as, among the alternatives, it was one of the projects found to best meet the purpose and need for restoration of lost recreational use in the Alabama Restoration Area.

The project activities necessary for both the Mobile Street Boardwalk and Centennial Trail Boardwalk projects have not changed since publication of the RP III/EA. However, since publication of the RP III/EA, completion of either of these projects has been determined to require substantial additional funding as the result of increased costs of labor and materials, continued decline of the existing trails, and additional, unanticipated engineering and design (E&D) and construction contracting costs. Accordingly, this Final SRP evaluates the two BSNWR projects as potential restoration for recreational use losses in Alabama at the new estimated project costs.

### **1.1.2 Proposed Action and Alternatives**

In the Draft SRP, the AL TIG proposed to implement their preferred alternative, completion of the Mobile Street Boardwalk project, through the allocation of additional restoration funding from the Provide and Enhance Recreational Opportunities Restoration Type. The Mobile Street Boardwalk project was conditionally approved for funding in the RP III/EA and selected for funding in the RP III Addendum. In this Final SRP, the AL TIG selects the Mobile Street Boardwalk project as its preferred alternative for funding and implementation.

The AL TIG also evaluates a non-preferred alternative, the Centennial Trail Boardwalk project in this Final SRP. This alternative was originally evaluated in the AL TIG’s RP III/EA but was not selected for implementation due to its cost relative to other alternatives considered. However, it remains a viable restoration alternative.

These two projects were described in RP III/EA Sections 2.6.6 and 2.6.7, respectively. They were analyzed under the OPA NRDA evaluation standards in Sections 3.1.7 and 3.1.8, and their NEPA analyses were presented in Sections 4.2.3 and 4.2.4. These descriptions and analyses are incorporated by reference and summarized below in Chapters 2, 3, and 4.

In the PDARP/PEIS, the DWH Trustees analyzed the Natural Recovery/No Action Alternative programmatically (Section 3.7, DWH Trustees 2016a) and found that it would not meet the purpose and need of restoring lost natural resources and their services. Pursuant to NEPA, a No Action Alternative for the Provide and Enhance Recreational Opportunities Restoration Type was included in RP III/EA

(Section 4.3.4) as “a benchmark, enabling decision-makers to compare the magnitude of environmental effects of the action alternatives” (see 40 C.F.R. § 1502.14(d)). That analysis is incorporated by reference and summarized below in Section 2.3 (Natural Recovery) and Chapter 4 (No Action).

## **1.2 OPA Compliance**

As an oil pollution incident, the DWH oil spill is subject to the provisions of OPA, which addresses oil pollution incidents in navigable waters, adjoining shorelines, and the exclusive economic zone of the United States. A primary goal of OPA is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving an oil discharge (or substantial threat of an oil discharge). Under the authority of OPA, federal and state Trustees are designated on behalf of the public to assess natural resource injuries resulting from the incident and to work to make the environment and public whole for those injuries. Pursuant to OPA, the DWH Trustees began the NRDA process following the DWH oil spill. See the PDARP/PEIS for detailed information on the provisions of OPA and the Trustees’ application of the NRDA regulations to the assessment and restoration of resources injured by the DWH oil spill and related response efforts. Additionally, Chapter 3.0 of this document provides a summary of the OPA analysis the AL TIG completed in RP III/EA, and analysis of the two potential BSNWR recreational use projects under the OPA NRDA criteria, given their revised cost estimates, is provided herein.

## **1.3 NEPA Compliance**

Federal trustees must comply with NEPA, 42 U.S.C. § 4321 *et seq.*, and its regulations, 40 C.F.R. § 1500 *et seq.*, when planning restoration projects. NEPA requires federal agencies to analyze the likely environmental impacts of their actions/decisions and to provide public involvement opportunities. In accordance with 40 C.F.R. § 1501.5, the AL TIG designated DOI as the lead federal agency responsible for NEPA compliance in the RP III/EA. DOI remains the lead federal agency for this SRP.

The potential environmental consequences from the completion of the action alternative evaluated in this Final SRP—full implementation of the Mobile Street Boardwalk or Centennial Trail Boardwalk projects—fall entirely within the scope of the environmental consequences evaluated in the RP III/EA. The potential addition of funding for the projects does not “make a substantial change relevant to environmental concerns,” and there are no “significant new circumstances or information relevant to environmental concerns” related to the potential action alternatives that are not documented in the RP III/EA (see 40 C.F.R. § 1502.9(c)(1); 43 C.F.R. § 46.120). Thus, no additional NEPA analysis would be necessary for implementation of either project. Chapter 4.0 below summarizes Sections 4.2.3 and 4.2.4 of the RP III/EA and affirms that no additional NEPA analysis is necessary for either potential project.

## **1.4 Public Involvement**

In developing the RP III/EA, on December 19, 2018, the AL TIG posted a webstory on the Trustees’ website soliciting project ideas from the public from which to develop a reasonable range of alternatives for a draft plan. The AL TIG then notified the public that it was beginning to draft the plan, and formally solicited public comment on the draft RP III/EA through a 30-day public comment period that began on September 3, 2019. Section 6 of the final RP III/EA provides detail on the public comment process and includes a summary of all relevant public comments received on the draft RP III/EA and AL TIG responses, including any comments/responses on the Mobile Street Boardwalk project. One commenter expressed support for both BSNWR trail projects. Several other commenters expressed support for the RP III/EA as a whole. No comments were received in opposition to either of the BSNWR projects.

The Draft SRP was available to the public for a comment period of 30 days which began on July 19, 2022 with the Draft Plan’s Notice of Availability in the Federal Register (87 FR 43049), and ended on August 18, 2022. Comments on the Draft SRP could be submitted during the comment period either online or through U.S. Mail.

Only one comment was received during the public comment period; that commentor indicated general support for the preferred alternative and noted the preferred alternative as more desirable than the non-preferred (the Centennial Trail Boardwalk project) because of the Mobile Street Boardwalk’s higher visitor use, potential benefits to endangered species habitat, and direct beach access. The commenter did note that certain environmental factors (such as hurricane damage) have resulted, among other factors, in the increase in project costs analyzed in this SRP. Additionally, the commenter opined that “environmental concerns”, including the threat of hurricanes and presence of endangered species (Alabama beach mouse) habitat, persist and should be taken into account during further project planning and implementation. The AL TIG is concerned about the restoration and protection of natural resources, including protected species habitat, and will continue to evaluate and work to avoid potential negative environmental impacts during project design and implementation. An ESA review of the proposed project has been completed and a “not likely to adversely affect” determination has been made. Further, the AL TIG will ensure compliance with all applicable environmental laws and regulations.

Given that only one comment was received, and it was generally supportive of the preferred Mobile Street Boardwalk project, no substantive changes have been made to the SRP from Draft to Final in response to public comment. The full text of the comment can be found in Appendix A, below.

## **1.5 Administrative Record**

Pursuant to 15 C.F.R. § 990.45, the Trustees opened a publicly available Administrative Record for the DWH Oil Spill NRDA, including restoration planning activities, concurrently with the publication of the 2010 Notice of Intent to Conduct Restoration Planning (75 Fed. Reg. 60800). DOI is the lead federal Trustee for maintaining the Administrative Record, which can be found at <http://www.doi.gov/deepwaterhorizon/adminrecord>. Information about AL TIG restoration project implementation is being provided to the public through the Administrative Record and other outreach efforts, including at <http://www.gulfsplrestoration.noaa.gov>.

## **1.6 Next Steps**

This Final SRP is intended to provide decision-makers and the public with information and analysis documenting the AL TIG’s decision to proceed with implementing the Mobile Street Boardwalk project using additional DWH NRDA funds above the originally approved amount. Once this plan is fully approved and the additional funding is received, the boardwalk will be contracted for engineering and design.

## **2.0 Restoration Planning Process**

NRDA restoration under OPA is a process that includes evaluating injuries to natural resources and natural resource services to determine the types and extent of restoration needed to address the injuries. This Final SRP is consistent with the PDARP/PEIS, a programmatic document developed by the DWH Trustees to provide high-level guidance for identifying, evaluating, and selecting DWH restoration projects. According to the OPA NRDA regulations, trustees are to consider a reasonable range of restoration alternatives (15 C.F.R. § 990.53(a)(2)) and evaluate the alternatives based on the OPA NRDA

evaluation standards (15 C.F.R. § 990.54(a)). The AL TIG's RP III/EA summarizes the restoration planning process for the AL TIG, including the TIG's project screening process and the resulting reasonable range of alternatives for that restoration plan. That process informs the OPA actions evaluated in this Final SRP, as discussed below.

## **2.1 Summary of Recreational Use Injury Addressed and Project Screening Process**

Alternatives considered in this document are intended to partially compensate for DWH oil spill-related recreational use losses in the Alabama Restoration Area. Chapter 4 of the Final PDARP/PEIS summarizes the injury assessment and documents the nature, degree, and extent of injuries from the incident to both natural resources and the services they provide. In general, the DWH lost recreational use injury assessment covered two broad categories of recreation—shoreline use and boating. Shoreline use refers to recreational activities at locations near beaches and other shoreline areas and includes swimming, sunbathing, surfing, walking, kayaking, and fishing from the shore or shoreline structures (i.e., piers). It also includes fishing at sites that are considered coastal but are not directly on the beach. Specifically excluded from the shoreline use assessment are recreational boating, commercial activities, and DWH oil spill response. For more information on the impacts on recreational opportunities caused by the DWH oil spill, see Section 4.10 of the PDARP/PEIS. Restoration projects proposed in the AL TIG's RP III/EA were designed to address lost opportunities for shoreline and boating recreation in the Alabama Restoration Area resulting from the incident.

Sections 2.3.1, 2.5, and 2.6 of the RP III/EA describe how the AL TIG used the information found in PDARP/PEIS Appendix 5.D, OPA/NRDA evaluation criteria found at 15 C.F.R. § 990.54, and additional AL TIG goals and objectives, to evaluate the projects within the Provide and Enhance Recreational Opportunities Restoration Type for screening and project selection purposes. Ultimately, the AL TIG selected five (5) recreation projects for implementation in RP III/EA, including the Mobile Street Boardwalk project. Of the two recreation projects analyzed but not selected in AL TIG's RP III/EA, the Centennial Trail Boardwalk project was similar in location and intent to the Mobile Street Boardwalk and is still a viable project. For that reason, the AL TIG determined the Centennial Trail Boardwalk project should also be reevaluated in this SRP as a viable alternative to the Mobile Street Boardwalk project.

## **2.2 Reasonable Range of Restoration Alternatives**

Based on the screening process described above, the AL TIG identified a reasonable range of restoration alternatives for this SRP: the Mobile Street Boardwalk and Centennial Trail Boardwalk projects. Both of these projects would replace or repair public boardwalks at BSNWR and enhance directional and informational signage to facilitate public use, consistent with the BSNWR's Comprehensive Conservation Plan and visitor use objectives. Evaluation of both alternatives under the OPA NRDA regulations and NEPA was included in the RP III/EA, is incorporated by reference, and is summarized below, with updated project information where applicable. Figure 1 shows the location of both of these alternatives within BSNWR.



**Figure 1: Location of BSNWR and the two action alternatives.**



## 2.2.1 Mobile Street Boardwalk Project

The AL TIG described the Mobile Street Boardwalk project in section 2.6.6 of the RP III/EA. The Mobile Street boardwalk and parking lot, a beach access point, typically hosts an estimated 57,000 annual visitors. This heavy use and several hurricanes over the years have degraded this infrastructure such that it is at the end of its service life. USFWS has been able to maintain the site to allow the boardwalk to remain open; however, continued degradation could lead to closure. Construction would include demolition of the existing boardwalk and replacement with a boardwalk 6 feet wide and approximately 500 feet long. A larger platform toward the north end would facilitate access compliant with the Americans with Disabilities Act (ADA). The boardwalk's height would be variable, would be designed to meet ADA criteria, and would allow for clearance of the existing dune system. A kiosk and one (1) wayfinding sign would be installed in the parking lot, and other wayfinding signs would be installed along Mobile Street and Highway 180 to facilitate visitor access. The parking lot is approximately 10,000 square feet with room for approximately 30 parked cars. The parking lot currently retains water after rain events, has potholes, and is degraded by erosion, limiting access and affecting adjacent habitat. To address these issues, proper drainage would be installed, the surface would be leveled, and gravel would be added. This project does not include any in-water work. It is anticipated that this project would continue to support visitation at historical levels, while also attracting additional

annual visitors (RP III/EA, pp. 2-19). Construction is anticipated to take 1-3 months.

The project description has not changed since the release of RP III/EA in December 2019, nor has the anticipated length of construction. However, shortly after the release of RP III/EA, the COVID-19 pandemic hampered maintenance on the boardwalk by steeply curtailing all field work in 2020. Additionally, Hurricane Sally, which made landfall in September 2020, badly damaged the boardwalk and contributed substantially to ongoing damage from the maintenance deferral, and continued inundation of the structure by sand and debris from recurring storms. Because of the added complexity of rebuilding the hurricane-damaged boardwalk, the project was re-estimated to include contract costs for E&D instead of the originally anticipated in-house design. The need for the project to be contracted for design/build instead of completed in-house, coupled with the economic fluctuations that accompanied the COVID-19 pandemic, which delayed the project and drove labor and materials costs much higher than were originally estimated, have resulted in a substantial estimated cost increase.

The revised estimated cost to complete the project is \$3,227,212, which includes the original cost estimate of \$1,189,899 and an additional \$2,037,313. The revised cost estimate reflects the additional costs of contracting E&D and construction, and the increased cost of materials and labor in February 2022. Some project activities have already occurred, including the completion of archaeological surveys.

**Figure 2: Mobile Street Boardwalk overtaken by sand.**



**Figure 3: Mobile Street Boardwalk wheelchair ramp (right) completely overtaken by the dunes.**



### **2.2.2 Centennial Trail Boardwalk Project**

Section 2.6.7 of the RP III/EA described the Centennial Trail Boardwalk project. This project would repair and/or replace approximately 1,158 feet of the Centennial Trail Boardwalk. The Centennial Trail historically hosted an estimated 7,000 visitors annually and connected to other popular trails on the refuge. However, because of safety concerns caused by dilapidated trails, the Centennial Trail Boardwalk

is currently closed. The wooden boardwalks along this trail have degraded over the years and have succumbed to rot and rust. Construction would include deconstruction/demolition and replacement of segments of boardwalk approximately 6 feet wide and totaling a length of approximately 1,158 feet. The wooden boardwalks along the Centennial Trail would be replaced with composite material, which has a longer life span than wood in harsh coastal environments and would be easier to maintain by BSNWR staff and volunteers.

Because the Centennial Trail Boardwalk is a similar project with similar engineering, construction, materials, and labor needs in the same area as the Mobile Street Boardwalk, it is expected that the cost of construction for this project would have increased commensurately with the Mobile Street Boardwalk given the increase in costs is driven largely by economic fluctuations and contracting considerations. The revised cost estimate for the Centennial Trail Boardwalk is \$7,944,282, which includes the original cost estimate of \$1,711,771 and an additional \$6,232,511. The revised cost estimate reflects the additional costs of full geotechnical surveys, contracting E&D and construction, and the increased cost of materials and labor in February 2022. It does not include an estimate for the cost of an archaeological survey in this project area, though one would be required if this project were selected.

### **2.2.3 Natural Recovery/No Action**

In accordance with OPA NRDA regulations, the PDARP/PEIS considered a "... natural recovery alternative in which no human intervention would be taken to directly restore injured natural resources and services to baseline" (15 C.F.R. § 990.53(b)(2)). Under a natural recovery alternative, no additional restoration would be done by DWH Trustees to accelerate the recovery of injured natural resources or to compensate for lost services. The DWH Trustees would allow natural recovery processes to occur, which could result in one of four outcomes for injured resources: 1) gradual recovery, 2) partial recovery, 3) no recovery, or 4) further deterioration. Although injured resources could presumably recover to at or near baseline conditions under this scenario, recovery would take much longer compared to a scenario in which restoration actions were undertaken. Given that technically feasible restoration approaches are available to compensate for interim natural resource and service losses, the DWH Trustees rejected this alternative from further OPA evaluation within the PDARP/PEIS (incorporated by reference herein). Based on this determination the AL TIG did not further evaluate natural recovery as a viable alternative under OPA and natural recovery is not considered further here. A No Action Alternative was included in the RP III/EA analysis for each Restoration Type pursuant to NEPA to serve as a "benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives."

## **3.0 OPA Evaluation**

According to the OPA NRDA regulations, trustees are to consider a reasonable range of restoration alternatives (15 C.F.R. § 990.53(a)(2)) and evaluate the alternatives according to the OPA NRDA evaluation standards (15 C.F.R. § 990.54(a)). Chapter 2 describes the screening and identification of a reasonable range of alternatives for evaluation under OPA. Sections 3.1.7 and 3.1.8 of the RP III/EA describe the AL TIG's OPA NRDA evaluation of the Mobile Street Boardwalk and Centennial Trail Boardwalk projects based on the OPA NRDA evaluation standards. The AL TIG used that evaluation to identify its preferred restoration alternatives (15 C.F.R. § 990.54(b)). Table 1 below summarizes the RP III/EA analysis for the six evaluation standards and updates the analyses for three of them: "Trustee Goals and Objectives", "Cost to Carry Out the Alternative", and "Benefits More than One Natural Resource or Service".

**Table 2: OPA/NRDA Analysis Summary and Updates**

<b>Evaluation Standards</b>	<b>OPA NRDA Analysis for the Mobile Street Boardwalk</b>	<b>OPA NRDA Analysis for Centennial Trail Boardwalk</b>
<b>Trustee Goals and Objectives Update</b>	<p>This alternative would advance the AL TIG’s goal of increasing coastal recreation in Alabama by enhancing existing recreational infrastructure at BSNWR. The refuge is located on the Fort Morgan Peninsula, which experienced oiling during the DWH oil spill (NOAA, 2019a). The recreational opportunities that would be created by this alternative are the types of uses that were lost as a result of the spill (i.e., lost user-days of shoreline recreation, including swimming, walking, shorefishing, kayaking, and bird watching). Recreational shoreline visitors, the user population affected by the spill, would directly benefit from this alternative. Because the beaches at BSNWR were oiled, the alternative represents “in-place, in-kind” restoration and is fully consistent with OPA objectives for compensatory restoration.</p>	<p>This alternative would advance the AL TIG’s goal of increasing coastal recreation in Alabama by enhancing existing recreational infrastructure at BSNWR. The refuge is located on the Fort Morgan Peninsula, which experienced oiling during the DWH oil spill (NOAA, 2019a). The recreational opportunities that would be created by this alternative are the types of uses that were lost as a result of the spill (i.e., lost user-days of shoreline recreation, including swimming, walking, shorefishing, kayaking, and bird watching). Recreational shoreline visitors, the user population affected by the spill, would directly benefit from this alternative. Because the beaches at BSNWR were oiled, the alternative represents “in-place, in-kind” restoration and is fully consistent with OPA objectives for compensatory restoration. Compared to the Mobile Street boardwalk alternative, however, this project, would benefit only a small fraction of the number of visitors.</p>
<b>Cost to Carry Out the Alternative Update</b>	<p>The updated cost to implement the project is \$3,227,212. These funds would be directed solely to the oversight, planning, engineering/design, construction, and monitoring of recreational infrastructure that either maintains or increases access to coastal natural resources. While the cost estimate has increased substantially, the USFWS developed the updated cost estimate based on the current price of labor and materials. The estimates indicate that the alternative could be implemented at a reasonable cost. Adherence to DOI contracting procedures is expected to further ensure the reasonableness of the costs. No land acquisition would be required for this alternative; the federal government already owns the site. USFWS would continue to bear all future costs of maintaining BSNWR with costs included in the budget for this alternative.</p>	<p>The updated cost to implement the project is \$7,944,282. These funds would be directed solely to the oversight, planning, engineering/design, construction, and monitoring of recreational infrastructure that either maintains or increases access to coastal natural resources. While the cost estimate has increased substantially, the USFWS developed the updated cost estimate based on the current price of labor and materials. The estimates indicate that the alternative could be implemented at a reasonable cost. Adherence to DOI contracting procedures is expected to further ensure the reasonableness of the costs. No land acquisition would be required for this alternative; the federal government already owns the site. USFWS would continue to bear all future costs of maintaining BSNWR with costs included in the budget for this alternative.</p>

<b>Likelihood of Success</b>	The alternative’s goal of maintaining and increasing public recreational access to and enjoyment of BSNWR has a high likelihood of success. USFWS has demonstrated experience implementing a project of this type. It already successfully manages the Mobile Street Boardwalk infrastructure, which is now reaching the end of its useful life and needs to be reconstructed. Use data collected by the agency indicates sufficient public demand for the proposed components of this alternative.	The alternative’s goal of maintaining and increasing public recreational access to and enjoyment of BSNWR has a high likelihood of success. USFWS has demonstrated experience implementing a project of this type. Use data collected by the agency indicates sufficient public demand for the proposed components of this alternative.
<b>Avoids Collateral Injury</b>	Implementation of this alternative is not expected to result in either short- or long-term collateral injuries to natural resources that would outweigh the restoration benefits of this project. A thorough environmental review of this alternative, including review under applicable environmental regulations, is described in Chapter 4 of the RP III/EA, and summarized below.	Implementation of this alternative is not expected to result in either short- or long-term collateral injuries to natural resources that would outweigh the restoration benefits of this project. A thorough environmental review of this alternative, including review under applicable environmental regulations, is described in Chapter 4 of the RP III/EA, and summarized below.
<b>Benefits More Than One Natural Resource or Service Update</b>	The primary NRDA benefit of this alternative is to provide and enhance recreational access and uses. The alternative would also contribute to preserving and restoring threatened and endangered species (e.g., Alabama beach mouse, piping plover) through the construction of infrastructure explicitly designed to enhance and support the protection of the habitats on which they depend (e.g., through prevention of erosion associated with the existing parking lot).	The primary NRDA benefit of this alternative is to provide and enhance recreational access and uses. Natural resources, including wetlands, coastal, and nearshore habitats, would benefit from the use of sustainable, long-lasting composite materials for the boardwalk, and from keeping foot traffic out of sensitive areas and onto the boardwalk.
<b>Effects on Public Health and Safety</b>	Adverse impacts on public health and safety are not expected to result from implementing this alternative. To minimize public health impacts, USFWS would continue to provide maintenance and upkeep to ensure the safety of the proposed boardwalk. No major changes are expected to traffic patterns as a result of parking improvements, and consequently, no traffic impacts are anticipated. Porous pavement would be used and provide suitable cover for ADA-compliant access.	Adverse impacts on public health and safety are not expected to result from this alternative. To minimize public health impacts, USFWS would continue to provide maintenance and upkeep to ensure the safety of the boardwalk.

## **Summary of OPA Analysis**

The evaluation for both the Mobile Street and Centennial Trail Boardwalk projects is similar under three of the standards (“Likelihood of Success”, “Avoids Collateral Injury”, and “Effects on Public Health and Safety”). However, the Mobile Street Boardwalk project would better meet the “Trustee Goals and Objectives” and “Cost to Carry out the Alternatives” criteria because it would benefit more visitors at a lower overall cost. Under “Benefits to More than One Natural Resource or Service” it would have more potential to reduce impacts to protected species, such as the Alabama beach mouse, than the Centennial Trail Boardwalk project. Implementation of the Mobile Street Boardwalk project and the work proposed herein continues to be consistent with and support the mission and goals of the AL TIG and would also be consistent with and support the BSNWR management plans and initiatives. The proposed action, adding additional funding for the Mobile Street Boardwalk project, is consistent with the Provide and Enhance Recreational Opportunities Programmatic Goal and Restoration Type in the PDARP/PEIS, and if selected for implementation, would be funded from the Provide and Enhance Recreational Opportunities Restoration Type allocation.

The AL TIG would continue to include applicable best practices for the Mobile Street Boardwalk project as referenced in Section 6.15 and Appendix 6A of the PDARP/PEIS and the RP III/EA. Additional best practices may be recommended for site-specific restoration measures and management activities in different locations due to differences in relevant conditions.

## **4. NEPA Summary**

Sections 4.2.3 and 4.2.4 of the RP III/EA presented the affected environment and environmental consequences of the Mobile Street Boardwalk and Centennial Trail Boardwalk projects. That analysis is incorporated by reference and summarized below. The potential actions to add funding to ensure completion of either the Mobile Street Boardwalk or Centennial Trail Boardwalk project do not “make a substantial change relevant to environmental concerns,” and there are no “significant new circumstances or information relevant to environmental concerns” related to the proposals that are not documented in the RP III/EA (see 40 C.F.R. § 1502.9(c)(1)). Thus, no additional NEPA analysis is necessary for either project. As the affected environment for each alternative is quite similar, those summaries are combined below, with any differences pointed out, to reduce redundancy.

### **4.1 Affected Environment Summary**

BSNWR consists of 7,500 acres of public land and is located in Baldwin County along Highway 180. Most of BSNWR is located on the Fort Morgan Peninsula and provides the public with more than 7 miles of trails, two beach access locations, and a kayak launch into Little Lagoon. Agricultural and industrial runoff affect water quality in the refuge (USFWS, 2005, p. 4), and soils are well-drained, sandy, and generally covered in lichen and leaf litter. Habitats in the refuge include dunes, grasslands, strand, maritime hammocks, wetlands, and tidal marshes. These habitats represent some of the best remaining stopover and staging habitat for neotropical migratory songbirds. The refuge also provides crucial habitat for beach nesting birds and migratory and wintering shorebirds. ESA-listed species that could occur near the potential project areas, as described in the RP III/EA, include the Alabama beach mouse, loggerhead sea turtle, green sea turtle, Kemp’s ridley sea turtle, piping plover, and red knot. Wood stork could also occur in the potential project areas (RP III/EA page 4-10).

Mobile Street Boardwalk Project – BSNWR contains designated critical habitat for Alabama beach mouse and nesting loggerhead sea turtles. Part of the Mobile Street Boardwalk project falls within this

designated critical habitat.

Centennial Trail Boardwalk Project – Unlike the Mobile Street Boardwalk alternative, no elements of the Centennial Trail Boardwalk would occur within designated critical habitat for Alabama beach mouse or nesting loggerhead sea turtles, nor for any other ESA-listed species.

For a more detailed description of the affected environment for the Mobile Street and Centennial Trail alternatives, please refer to Chapter 8 of the Phase IV ERP/EA (Bon Secour National Wildlife Refuge Trail Enhancement project) and the BSNWR Comprehensive Conservation Plan.

## **4.2 Environmental Consequences Summary – Mobile Street Boardwalk**

Sections 4.2.3 of the RP III/EA presented the affected environment and likely environmental consequences of the Mobile Street Boardwalk project. That analysis is summarized below:

**Physical Resources:** Short-term, adverse impacts are expected during the leveling and construction of a permeable parking lot and from boardwalk construction. Long-term, beneficial impacts on wetlands and water quality are expected from the reduction in erosion and sedimentation.

**Biological Resources:** Short-term, minor to moderate, adverse impacts are expected for terrestrial wildlife, including protected species. These impacts would be associated with noise and human presence during construction. Best management practices (BMPs) would be implemented during construction to minimize impacts. No effects to marine or estuarine resources or to federally managed fisheries are anticipated.

**Sociological Resources:** Archaeological surveys before construction would minimize potential for inadvertent discovery during construction. Short-term, minor, adverse impacts would occur on tourism and recreation, aesthetics, and visual resources during the construction period, with long-term benefits accruing for the same resources after project completion because of enhanced access to natural and scenic resources.

## **4.3 Environmental Consequences Summary - Centennial Trail Boardwalk**

Sections 4.2.4 of the RP III/EA presented the affected environment and likely environmental consequences of Centennial Trail Boardwalk project. That analysis is summarized below:

**Physical Resources:** Short-term, adverse impacts are expected from boardwalk construction. Long-term, beneficial impacts on wetlands and water quality are expected from the reduction in erosion and sedimentation.

**Biological Resources:** Short-term, minor to moderate, adverse impacts are expected for terrestrial wildlife, including protected species. These impacts would be associated with noise and human presence during construction. No effects to marine or estuarine resources or to federally managed fisheries are anticipated.

**Sociological Resources:** Archaeological surveys before construction would minimize potential for inadvertent discovery during construction. Short-term, minor, adverse impacts would occur on tourism



and recreation, aesthetics, and visual resources during the construction period, with long-term benefits accruing for the same resources after project completion because of enhanced access to natural and scenic resources.

## **4.4 No Action Alternative**

Section 4.3.4 of the RP III/EA analyzed a No Action alternative for projects under the Provide and Enhance Recreational Opportunities Restoration Type. Relative to the types of actions that would occur during either of the BSNWR boardwalk projects, no adverse impacts to physical or biological resources were anticipated from taking no action. However, there would likely be moderate adverse impacts to tourism, recreation, aesthetics, and visual resources if existing recreational areas were not improved and public amenities were allowed to deteriorate further or were closed to protect public safety. This adverse impact would likely more strongly affect underserved communities, as this is one of few public beach access points in an area characterized by private homes and a state historic site with an entrance fee (Fort Morgan).

## **4.5 Cumulative Impacts**

The RP III/EA determined that when the range of proposed alternatives in the Final RP III/EA was analyzed in combination with other past, present, and reasonably foreseeable future actions, cumulative impacts on tourism and recreation would be short-term, minor, and adverse because most of the projects involve a construction process that would restrict use during construction, but that use restriction would cease once construction is completed. The proposed action evaluated in this SRP would not contribute substantially to adverse cumulative impacts because the construction is small in scale compared to other projects in the area. The range of alternatives in this SRP, when carried out in conjunction with other projects along the Alabama coast, could have long-term, beneficial cumulative impacts on tourism and recreation through restoration and enhancement of recreational amenities, which would provide an improved recreational experience for people who visit and recreate at BSNWR.

## **5.0 Compliance with Other Laws and Regulations**

Additional federal and state laws may apply to the proposed project considered in this Final SRP. Legal authority applicable to restoration project development was fully described in the context of the DWH restoration planning in the PDARP/PEIS, Section 6.9 Compliance with Other Applicable Authorities and Appendix 6.D, Other Laws and Executive Orders. That material is incorporated by reference here.

Federal environmental compliance responsibilities and procedures will follow the Trustee Council Standard Operating Procedures for Implementation of the Natural Resource Restoration for the Deepwater Horizon (DWH) Oil Spill<sup>7</sup>, provided in Section 9.4.6 of that document. Following these standard operating procedures, the AL TIG, through its Implementing Trustee for the Mobile Street Boardwalk project, would ensure that the status of environmental compliance (e.g., completed versus in progress) is tracked through the Restoration Portal. The AL TIG will keep a record of compliance documents (e.g., ESA biological opinions) and ensure that they are submitted for inclusion to the Administrative Record. The AL TIG will ensure compliance with all applicable laws and regulations.

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<sup>7</sup> Available at: <https://www.gulfspillrestoration.noaa.gov/sites/default/files/2021-08-02%20FINAL%20REVISED%20SOP%20clean%20copy%203.0.pdf>

The compliance status for the Mobile Street Boardwalk at the time of RP III/EA is shown in Table 2 below—all compliance is complete. The updated project costs described in this SRP do not change the analyses done in compliance documents for statutes listed as “complete” in Table 3 below. No additional compliance is needed for the project updates addressed in this SRP.

**Table 3: Current Status of federal regulatory compliance reviews and approvals for the preferred alternative, Mobile Street Boardwalk**

Relevant Environmental Law or Regulation	Status
Coastal Zone Management Act (CZMA)	Complete
Endangered Species Act - Section 7 (NMFS)	Complete - No Effect
Endangered Species Act - Section 7 (USFWS)	Complete - Not Likely to Adversely Affect
Magnuson-Stevens Fishery Conservation and Management Act (EFH) (NMFS)	Complete
Marine Mammal Protect Act (MMPA) (NMFS)	Complete
Marine Mammal Protection Act (MMPA) (USFWS)	Not Applicable
National Historic Preservation Act (NHPA)	Complete
Rivers and Harbors Act/Clean Water Act (USACE permit)	Not Applicable
Bald and Golden Eagle Protection Act	Complete
Coastal Barrier Resources Act	Complete

Examples of applicable laws or executive orders include, but are not necessarily limited to, those listed below. Additional detail on each of these can be found in the PDARP/PEIS (Chapter 6; DWH Trustees 2016a). Additional federal laws may apply to the preferred alternative considered in this Final SRP. Legal authorities applicable to restoration alternative development were fully described in the context of the DWH restoration planning in the PDARP/PEIS, Section 6.9 Compliance with Other Applicable Authorities and Appendix 6.D Other Laws and Executive Orders. That material is incorporated by reference here.

- Endangered Species Act (16 U.S.C. § 1531 et seq.)
- Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.)
- Marine Mammal Protection Act (16 U.S.C. § 1361 et seq.)
- Coastal Zone Management Act (16 U.S.C. § 1451 et seq.)
- National Historic Preservation Act (16 U.S.C. § 470 et seq.)
- Coastal Barrier Resources Act, as amended by Coastal Barrier Improvement Act (16 U.S.C. § 3501 et seq.)
- Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.)
- Bald and Golden Eagle Protection Act (16 U.S.C. § 668 et seq.)
- Clean Air Act (42 U.S.C. § 7401 et seq.)

- Federal Water Pollution Control Act (Clean Water Act (CWA), 33 U.S.C. § 1251 et seq.) and/or Rivers and Harbors Act (33 U.S.C. § 401 et seq.)
- Marine Protection, Research, and Sanctuaries Act (16 U.S.C. § 1431 et seq. and 33 U.S.C. § 1401 et seq.)
- Estuary Protection Act (16 U.S.C. §§ 1221-1226)
- Archaeological Resources Protection Act (16 U.S.C. §§ 470aa-470mm)
- Executive Order 11988: Floodplain Management (May 24, 1977), as amended.
- Executive Order 11990: Protection of Wetlands (May 24, 1977), as amended.
- Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Feb. 11, 1994), as amended.
- Executive Order 12962: Recreational Fisheries (June 7, 1995), as amended.
- Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks (Apr. 23, 1997), as amended.
- Executive Order 13112: Safeguarding the Nation from the Impacts of Invasive Species (Feb. 3, 1999), as amended.
- Executive Order 13175: Consultation and Coordination with Indian Tribal Governments (Nov. 6, 2000).
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds (Jan. 10, 2001).
- Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (Jan. 20, 2021).
- Executive Order 13990: Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis (Jan. 20, 2021).
- Executive Order 14008: Tackling the Climate Crisis at Home and Abroad (Jan. 27, 2021).
- Executive Order 14072: Strengthening the Nation's Forests, Communities, and Local Economies (Apr. 22, 2022).

## 6.0 Literature Cited

Alabama Trustee Implementation Group (ALTIG):

2019 Deepwater Horizon Oil Spill Final Restoration Plan III and Environmental Assessment: Provide and Enhance Recreational Opportunities; and Birds. Available at:

<https://www.gulfspillrestoration.noaa.gov/sites/default/files/DWH-ARZ003892.pdf>.

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[https://www.gulfspillrestoration.noaa.gov/sites/default/files/2021-01%20AL%20TIG%20RP%20III%20Addendum\\_Final.pdf](https://www.gulfspillrestoration.noaa.gov/sites/default/files/2021-01%20AL%20TIG%20RP%20III%20Addendum_Final.pdf)

Deepwater Horizon Oil Spill Natural Resource Trustees (DWH Trustees):

2015 Deepwater Horizon Oil Spill Final Early Restoration Plan IV and Environmental Assessments.

Available at: <https://www.gulfspillrestoration.noaa.gov/wp-content/uploads/Final-Phase-IV-ERP-EA.pdf>.

2016 Deepwater Horizon Oil Spill: Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement. Available at:

<http://www.gulfspillrestoration.noaa.gov/restoration-planning/gulf-plan>.

United States Fish and Wildlife Service (USFWS)

2006 Bon Secour National Wildlife Refuge: Habitat Management Plan. July 2006. Available at:

<https://ecos.fws.gov/ServCat/DownloadFile/16116?Reference=16567>.

## 7.0 List of Preparers and Reviewers

Agency/Firm	Name	Position
Alabama Department of Conservation and Natural Resources	Amy Hunter	DWH Restoration Coordinator
Alabama Department of Conservation and Natural Resources	Jaime Miller	Coastal Restoration Specialist
State of Alabama/Rosen Harwood	Jane Calamusa	Attorney - Advisor
State of Alabama/WSP USA	Lori Fox	Policy Analyst
State of Alabama/Volkert	Bethany Kraft	Monitoring and Adaptive Management and Agency Compliance Lead
USDA	Ronald Howard	Senior Technical Advisor
USDA	Ben Battle	Gulf of Mexico Forest Restoration Program Manager
USDA	Craig Johnson	Program Specialist
USDA	Jon Morton	Biologist
USDA	Tanya Culbert	Management Analyst
USEPA	Chris McArthur	Environmental Engineer
NOAA	Stella Wilson	Marine Habitat Restoration Specialist
NOAA	Ramona Schreiber	DWH NEPA Coordinator
NOAA	Christy Fellas	Marine Habitat Resource Specialist
NOAA	Corinna McMackin	Attorney-Advisor
DOI	Sarah Shattuck	Attorney-Advisor
DOI	Katharine Bleau	Attorney-Advisor
DOI	Erin Plitsch	Fish and Wildlife Biologist
DOI	Robin Renn	DWH NEPA Coordinator
DOI	Amy Mathis	Restoration Planner
DOI	Michael Barron	Fish and Wildlife Biologist

# APPENDIX A: Public Comment on the Draft SRP

Correspondence ID: 1Project:110016Document:122159  
Address: Hendersonville, NC 28792  
United States of America  
Received: Aug,18 2022 21:00:35  
Correspondence Type: Web Form  
Correspondence: Given the structured focus of the project to "Provide and Enhance Recreational Opportunities and "Birds," the preferred choice of the Mobile Street Boardwalk does directly address the intended focus.

The choice emerges most clearly as this is a primary point of access to the recreational resources, and given the high level of visitation (57, 0000, with increases expected in the future), especially when contrasted with the Centennial Trail project with its lower visitation.

Without this action, the beach access becomes problematic for safety and environmental concerns as the boardwalk in its highly exposed location is nearing "the end of its service life" and these degraded infrastructure conditions have been additionally compromised and impacted by the hurricane events.

There is concern about the increase in costs, but these are unavoidable given the reality of the unavoidable intervention of hurricane and storm events with damage that requires additional consideration to realize the enhanced access to the affected recreational area, and the reality of multi-supply access issues from the Covid crisis.

The increased geotechnical costs address the critical need to reconstruct a facility that would be sustainable in this environment given weather vulnerabilities and intensified climate change impacts, and the fact that this is a NATIONAL WILDLIFE REFUGE, where such a recreational amenity does require special measures of low impact sustainability that does not incur potential inevitable impacts on sensitive habitat for species found only here.

The dune habitat requires special consideration. Recent hurricanes have affected the dunes over which the boardwalk would cross, and this dune habitat is critical for the Alabama beach mouse. The reconstruction must responsively address this situation and avoid negative impacts, and the geotechnical studies and the planning do factor here.

It is cited that visitation is expected to increase, so one does look at the 30 parking limit, wondering how soon that would have inadequate capacity, although then the critical issue of the impact of any larger amenity would become abridgment of critical habitat that the National Wildlife Refuge is mandated to protect.

One must recognize that without the Mobile Street Boardwalk project, one might encounter future unauthorized negative impacting access that leads to multi-category degradation of resources and impaired visitor safety.

The project is not without residual concern as this is a National Wildlife Refuge.

As stated:

"The potential addition of funding for the projects does not "make a substantial change relevant to environmental concerns," and there are no "significant new circumstances or information relevant to environmental concerns."

The "environmental concerns" exist, and the complexity of the project and its expense derive from that acknowledgment, and additional increased costs and perhaps other measures not yet stated or anticipated may become necessary.

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The Centennial Trail Boardwalk would seem a desirable recreational amenity, but it does not have the multiple aspects of the Mobile Street boardwalk with its major public access (expected to increase), the critical species

habitat, and the direct beach access.

However, inevitably, one might speculate that in the future, given projected coastal sea level changes and environmental alterations from climate change, the area might have some major importance.