UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
PROGRAM PLANNING AND INTEGRATION
Silver Spring, Maryland 20910

NOV 19 2014

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

TITLE: Final Environmental Assessment for Dauphin Island Audubon Bird Sanctuary Site Improvements in Dauphin Island, Alabama

LOCATION: Dauphin Island, Alabama

SUMMARY: Under the Coastal Zone Management Act (CZMA), NOAA's Office of Ocean and Coastal Resource Management provides financial assistance to approved state coastal management programs, including the Alabama Coastal Area Management Program (ACAMP), to protect, restore, and responsibly develop coastal areas. Under Section 306A of the CZMA, funds may be used for low-cost construction projects to improve public access to coastal resources. One of the "areas for preservation and restoration" designated by ACAMP is the 155-acre Dauphin Island Audubon Bird Sanctuary, where there is a trail system that includes both foot paths and boardwalks. In 2011, a wildfire destroyed boardwalks and damaged vegetation across more than 60 acres at the Sanctuary. NOAA proposes to provide CZMA funding to ACAMP for improvements at the Sanctuary: rebuilding two boardwalks and one observation platform in locations where they had existed prior to the fire, installing new interpretive signs throughout the trail system, and planting native vegetation in parts of the Sanctuary affected by the fire. ACAMP would partner with the Dauphin Island Park and Beach Board, the local agency that owns the Sanctuary, to complete the project.

Most of the construction activities would be carried out by hand, without heavy machinery, and they would occur during the winter, outside the peak growing season and peak seasons for bird migrations and nesting. NOAA's evaluation of potential impacts of the proposed project indicates that it would have minimal adverse environmental impacts in the short term and a number of beneficial impacts in the long term. Boardwalks would provide access to trails for individuals with disabilities, improve pedestrian safety, and provide a raised surface so people do not need to walk through habitats in the trail areas. Vegetation in the areas where the boardwalks would be installed has been degraded by people walking through these areas; the elevated boardwalks will improve environmental conditions. Most other species that could be impacted by the construction

zone. Replanting native vegetation would improve habitat quality. Installing new interpretive signs would enhance the educational value of visiting the Sanctuary, while having minimal adverse environmental impacts.

RESPONSIBLE OFFICIAL:

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The environmental review process led us to conclude that this action will not have a significant adverse effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting environmental assessment (EA) is enclosed for your information.

Although NOAA is not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,

Patricia A. Montanio
NOAA NEPA Coordinator

Enclosure

FINAL ENVIRONMENTAL ASSESSMENT **October 2013**

Dauphin Island Audubon Bird Sanctuary Site Improvements

Dauphin Island, Alabama

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Ocean and Coastal Resource Management

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Background 2
1.2 Summary of Proposed Action and Alternatives 2
1.3 Findings 3
2.0 PURPOSE AND NEED 5
1.1 Purpose 5
1.2 Need 6
3.0 ALTERNATIVES 7
3.1 Preferred Alternative 7
3.2 No Action Alternative 8
3.3 Alternatives Considered but Eliminated by the Project Partners 9
4.0 AFFECTED ENVIRONMENT 9
4.1 Physical Environment 9
4.2 Biological Environment 10
4.2.1 Plant Communities 10
4.2.2 Wildlife 11
4.3 Cultural Environment 13
4.4 Socioeconomic Environment 14
4.4.1 Population and Economy 14
4.4.2 Local Land Use 14
4.4.3 Visitor Use of the Sanctuary 15
5.0 ENVIRONMENTAL CONSEQUENCES 15
5.1 Physical Environment 16
5.2 Biological Environment 16
5.3 Cultural Environment 19
5.4 Socioeconomic Environment 19
5.5 Other Environmental Consequences 19
6.0 COMPLIANCE WITH OTHER ENVIRONMENTAL AND ADMINISTRATIVE REVIEW REQUIREMENTS 21
7.0 CONCLUSION: FINDING OF NO SIGNIFICANT IMPACT 26
8.0 PREPARERS OF REPORT 31
9.0 REFERENCES 31
10.0 LIST OF AGENCIES AND PERSONS CONSULTED 33
11.0 APPENDICES 34

APPENDICES

Appendix A-1: Species and Natural Communities of Conservation Concern Documented from Dauphin Island Bird Sanctuary 35
Appendix A-2: Species and Natural Communities of Conservation Concern Documented within 5 km of Dauphin Island Bird Sanctuary 36
Appendix B: U.S. Fish and Wildlife Service CBRA Compliance Letter 39
Appendix C: U.S. Fish and Wildlife Service Endangered Species Act Compliance Letter 40
Appendix D: Alabama Historical Commission Project Review Letter 41

LIST OF FIGURES

Figure 1: Location of Dauphin Island Audubon Bird Sanctuary 1
Figure 2: Boardwalk and signs at the Sanctuary 3
Figure 3: Swamp Overlook Trail area 4
Figure 4: Tupelo Swamp Trail area 5
Figure 5: Trail system at the Sanctuary 6
Figure 6: Locations of proposed boardwalk reconstruction projects 7
Figure 7: Sanctuary trail through flatwood forest 10

LIST OF TABLES

Table 1: Anticipated Consequences to Physical Environmental Resources 16
Table 2: Anticipated Consequences to Biological Environmental Resources 18
Table 3: Anticipated Consequences to the Socioeconomic Resources 19

1.0 INTRODUCTION

The Alabama Coastal Area Management Program (ACAMP) is a federal-state partnership between the National Oceanic and Atmospheric Administration's (NOAA's) Office of Ocean and Coastal Resource Management (OCRM) and the Alabama Department of Conservation and Natural Resources (ADCNR). ACAMP was approved by NOAA under the Coastal Zone Management Act (CZMA) in 1979. In accordance with the CZMA, NOAA provides funding to approved state coastal zone management programs that can be used for a number of purposes, including program administration (under Section 306 of the Act) and low-cost construction projects (under Section 306A of the Act) to provide or enhance public access to coastal areas, among other purposes.

NOAA proposes to fund, through the ACAMP, site improvements at the Dauphin Island Audubon Bird Sanctuary, in Dauphin Island, Alabama (see Figure 1). These improvements would include rebuilding two boardwalks that were destroyed by a fire in August 2011, constructing an overlook platform along one of the boardwalks (to replace an observation platform destroyed by the fire), planting native vegetation in parts of the Sanctuary damaged by the fire, and installing new educational signage along trails throughout the Sanctuary.

Figure 1: Location of Dauphin Island Audubon Bird Sanctuary (outlined in red) (DIPBB 2013)

This Environmental Assessment (EA) will assess the impacts and alternatives associated with providing federal funding for the proposed public access improvements at Dauphin Island Audubon Bird Sanctuary. The analysis provided in this EA addresses two alternatives: (1)

providing funding that would enable the installation of educational signage, the rebuilding of two boardwalks (the Tupelo Swamp Boardwalk and Swamp Overlook Boardwalk) and one overlook platform along the Swamp Overlook Boardwalk, and the planting of native vegetation (the preferred alternative), and (2) a No Action alternative. Another alternative, which involved reconstructing a third boardwalk with a pavilion along it and erecting a pavilion along the Tupelo Swamp Boardwalk—in lieu of replanting native vegetation—was initially considered by ACAMP. This alternative is not analyzed in detail because it was obviated; using other resources, the third boardwalk has already been reconstructed, and a pavilion was built in the Old Bird Banding Area in lieu of along the Tupelo Swamp Boardwalk.

This EA document has been prepared in conformance with requirements for implementation of the National Environmental Policy Act (NEPA) and NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the NEPA, and analyzes the potential for significant environmental impacts to the human environment by the proposed action, along with the alternatives.

1.1 Background

Dauphin Island is a barrier island about 14 miles in length that is situated approximately 3 miles from the Alabama mainland, on the western side of the mouth of Mobile Bay and north of the Gulf of Mexico. The American Bird Conservancy identified Dauphin Island as a Globally Important Bird Area (American Bird Conservancy 2001). Located on the southeastern side of Dauphin Island, along Pelican Bay, is a 155-acre site encompassing multiple habitat types known as the Dauphin Island Audubon Bird Sanctuary ("the Sanctuary"). Created in 1961, the Sanctuary is owned and managed by the Dauphin Island Park and Beach Board (DIPBB), a local agency dedicated to providing family recreation opportunities.

A stopover point for hundreds of species of migratory birds that fly over the Gulf of Mexico each year, the Sanctuary contains the largest segment of protected forest on Dauphin Island. The Sanctuary is popular with visitors, including bird watching enthusiasts and thousands of students who visit every year to participate in educational programs, some of which are run by neighboring Dauphin Island Sea Laboratory (Hill 2012). In 2012, the Sanctuary's trail system was designated as a National Recreation Trail by the National Park Service (National Recreation Trails Program (NRTP), n.d.a.). Points within the Sanctuary are also included as part of the Alabama Coastal Birding Trail (Alabama Coastal Birding Trail 2012). The Sanctuary was identified as an "area for preservation and restoration" at the time the ACAMP was established, making it eligible for Section 306A funding.

1.2 Summary of Proposed Action and Alternatives

NOAA's OCRM proposes to provide funding to ACAMP to rebuild two boardwalks (the Swamp Overlook Boardwalk, which would be 200 linear feet, and the Tupelo Swamp Boardwalk, which would be 400 linear feet) and an overlook platform along the Swamp Overlook Boardwalk (which would be 10 feet by 10 feet), replant native vegetation in areas affected by a 2011 wildfire, and install new educational signs along the trail system. ACAMP would contract with DIPBB to carry out the work, and the Dauphin Island Sea Laboratory would help develop the

interpretive signs along the trail system. Both boardwalks would be elevated and would be 6 feet wide. DIPBB plans for boardwalk construction to occur in the winter, outside peak growing season and when it is not peak season for visiting migratory birds. Figure 2 shows an existing boardwalk and signage at the Sanctuary. The proposed boardwalks would be of similar design.

Figure 2: Boardwalk and signs at the Sanctuary (NRTP, n.d.b.)

The proposed action is the preferred alternative. NOAA also considered and analyzed a No Action alternative, which would involve NOAA not funding any elements of the proposed project. Under this scenario, the various elements of the project would only be carried out if other funds could be obtained to support them.

One other alternative was considered by DIPBB and ACAMP, but not analyzed. Originally, DIPBB proposed using the requested funding to reconstruct three boardwalks (the Swamp Overlook Boardwalk, Tupelo Swamp Boardwalk, and the East Beach Boardwalk), build two pavilions (along the latter two boardwalks), rebuild an overlook platform with benches along the Swamp Overlook Boardwalk, and install signs, but not carry out any replanting activities. However, the East Beach Boardwalk has already been rebuilt, using volunteer labor and another funding source, and a pavilion was recently built in another part of the Sanctuary, rather than along the Tupelo Swamp Boardwalk. Thus, DIPBB recommended changes to the proposed project, in line with the current proposed action.

1.3 Findings

The preferred alternative would have a number of beneficial impacts to the environment, accessibility, and visitors' recreational and educational experiences at the Sanctuary. Currently, visitors still walk through the areas where there had been boardwalks (shown in Figure 3), which

has the potential to disturb plants and animals. Reconstruction of the boardwalks would encourage visitors to stay on them, rather than straying into nearby areas, and would provide access for individuals with disabilities. The boardwalks would allow visitors to pass through without treading directly on the ground, which compacts soils and can damage plants and animals. The new overlook platform would allow small groups of visitors to stop and enjoy the views; a similar platform was destroyed by the fire. Installing new signs along the trails would improve educational opportunities for visitors. Planting native species would increase the amount of native vegetation present and enhance habitats for species that live within or visit the Sanctuary, including migratory birds.

Figure 3: Swamp Overlook Trail area (DIPBB 2013)

The No Action alternative would result in minor continued adverse impacts to soil, plants, and animals due to the continued use of existing paths. A few minor adverse impacts to the natural environment could result from implementing the preferred alternative. There could be minor soil compaction from bringing in a front-end loader to drive in pilings for the observation platform; all other construction will be done by hand. Construction might result in noise in localized areas. Elevating the boardwalks and observation platform would reduce shading of plants beneath them; people walking along the routes where the boardwalks will be installed have already damaged many of the plants that would be impacted by the boardwalks. Construction would occur during the winter and would not have any significant impacts on birds or other wildlife. Overall, any adverse environmental impacts would be minimal and are not significant. The preferred alternative is compatible with all applicable laws and regulations. No historic properties would be affected by the proposed project, and aesthetics will not be impaired.

Significant individual and cumulative environmental effects would not result from implementing the proposed action, and preparation of a Finding of No Significant Impact is warranted.

2.0 PURPOSE AND NEED

2.1 Purpose

NOAA proposes to provide funding to ACAMP for construction activities at the Dauphin Island Audubon Bird Sanctuary to improve accessibility, environmental conditions, and the quality of visitors' experiences. Replanting native vegetation that was burned or damaged during the wildfire in 2011 would restore native species and improve the quality of the habitats within the Sanctuary. Rebuilding the Tupelo Swamp Boardwalk and Swamp Overlook Boardwalk, both destroyed by the fire, would create a raised surface, accessible to individuals with disabilities, for visitors and staff to use to minimize pedestrian impacts to adjacent flora and fauna. The proposed project would also improve visitor safety. For example, when the ground is wet, the boardwalks would prevent people from walking along slippery or muddy areas (see Figure 4). Installing an overlook platform along the Swamp Overlook Boardwalk would create a vantage point where small groups of visitors could stop to observe the surrounding habitat. Finally, installing new signs along the trails would allow some aging signs in these areas to be removed, would increase the educational value of walking along the trails, and would better inform visitors about the habitats, species, and resources present at the Sanctuary.

Figure 4: Tupelo Swamp Trail area (DIPBB 2013)

2.2 Need

A number of boardwalks at the Sanctuary were built in 1998 or thereafter (DIPBB 2013). Figure 5 shows the trail system at the Sanctuary, as of approximately 2010. The August, 2011, wildfire destroyed several boardwalks and much of the vegetation in burned areas. Since the fire, visitors have continued to walk through areas where boardwalks once provided raised pathways; individuals can wander into nearby areas and disturb species. The Tupelo Swamp trail is popular because it goes along Gaillard Lake. The Swamp Overlook Boardwalk gives visitors a vantage point from which to observe wetland areas.

The boardwalks need to be rebuilt to reduce disturbances to Sanctuary habitat. Replanting native vegetation in fire-affected areas could mimic the type of natural regeneration that would occur after a fire and would increase the density or distribution of desirable native plants species present, thereby enhancing habitats for migratory birds and other species that live within or visit the Sanctuary. The overlook platform would encourage visitors to stop and take in the views surrounding them, and it would allow groups using the boardwalk to stand together to hear from experts on guided walks. In addition, the current signage at the Sanctuary is showing wear and needs to be replaced by durable signs on metal posts, according to the Draft Management Plan for the Sanctuary (DIPBB 2013).

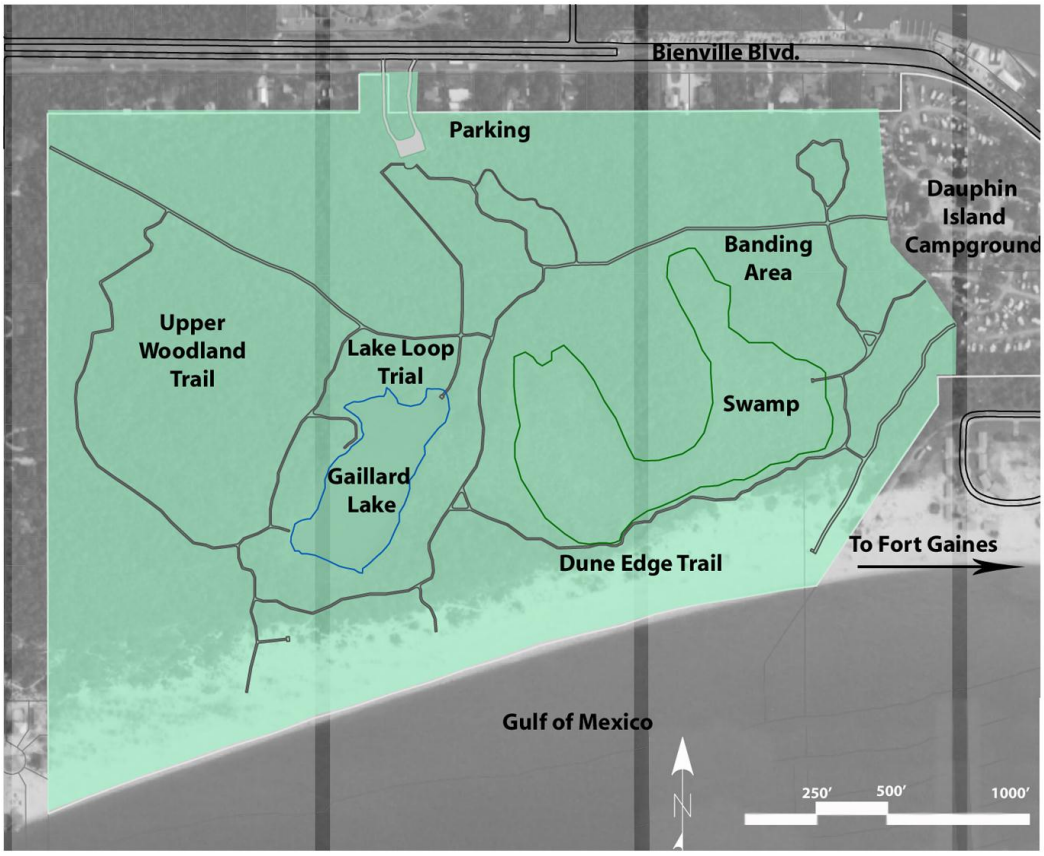

Figure 5: Trail system at the Sanctuary (NRTP, n.d.c.)

3.0 ALTERNATIVES

3.1 Preferred Alternative

NOAA proposes to provide funding to ACAMP to enable new educational signage to be installed along the trail system at the Sanctuary; the Tupelo Swamp Boardwalk and the Swamp Overlook Boardwalk to be rebuilt, the latter with an overlook platform with benches (to replace a similar platform destroyed by a wildfire in 2011); and native vegetation to be replanted in parts of the area burned or damaged by the fire. ACAMP would contract with DIPBB to carry out the work. This is the preferred alternative of NOAA, ACAMP, and DIPBB. On Figure 6, Site 1 identifies where the Tupelo Swamp Boardwalk would be replaced, and Site 2 is where the Swamp Overlook Boardwalk would be replaced.

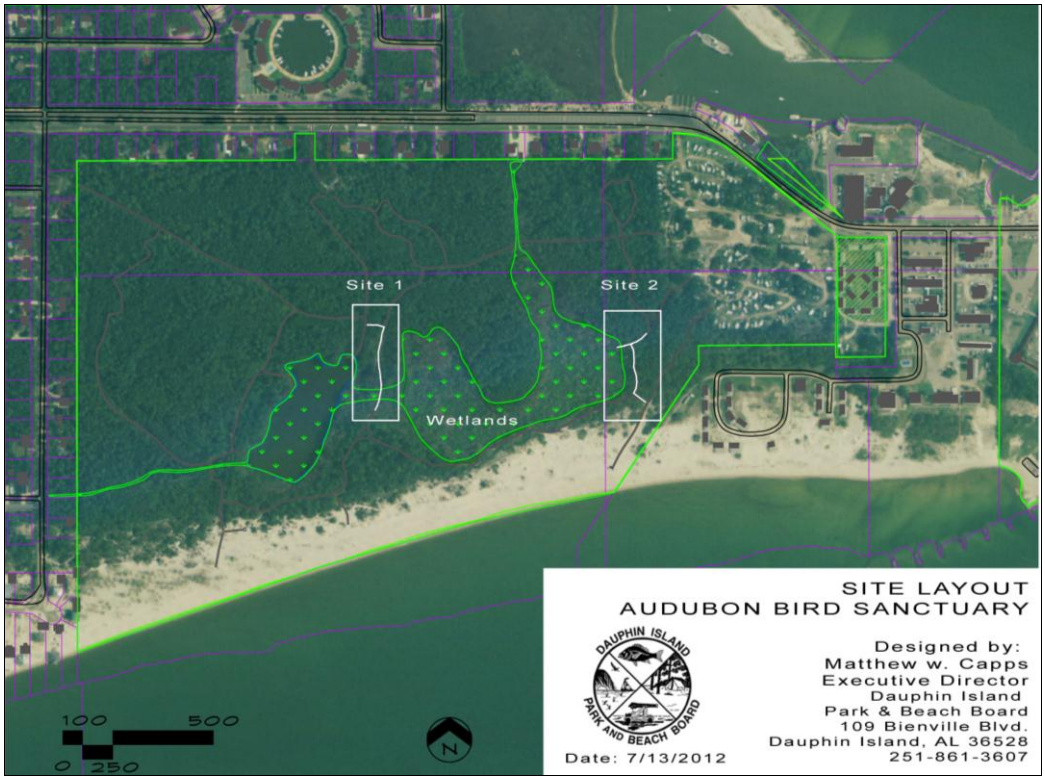

Figure 6: Locations of proposed boardwalk reconstruction projects (ACAMP 2013)

The boardwalks would comply with Americans with Disabilities Act Accessibility Guidelines. Both boardwalks would be located primarily in upland areas, but extend slightly into wetlands, as shown in Figure 6. The proposed locations would have the least impact on the species that live in the Sanctuary because there were boardwalks of the same size in the same locations previously. Although those areas burned in 2011, Figures 3 and 4 show that people can still walk through the open areas left behind. Portions of these trail areas are difficult to access without boardwalks, however (A. Gohres, ACAMP, personal communication, July 3, 2013).

Rebuilding the boardwalks would also facilitate access by individuals with disabilities or who wish to push strollers to parts of the Sanctuary they could not otherwise experience.

Except in areas where they cross wetlands, the boardwalks would be 6 feet wide, raised 6 to 12 inches above the ground, and supported by posts that are 4 inches by 4 inches. Where they cross wetland areas, the boardwalks would be elevated 8 inches to 3 feet above the ground, and they would be supported by piles that are six inches by six inches (A. Gohres, ACAMP, personal communication, September 10, 2013). The observation platform along the Swamp Overlook Trail would be 10 feet long by 10 feet wide and elevated 3 feet, with railings along the sides. The observation platform would be supported by poles that are 1 foot in diameter. The proposed project would not require any U.S. Army Corps of Engineers (USACE) permits. Most of the project will be constructed by hand, except to the extent a front-end loader would be needed to place some of the posts for the viewing platform. The equipment would be moved along only a carefully-determined route to minimize impacts, such as soil compaction. DIPBB would check the front-end loader for fluid leaks before and after deploying the equipment. Boardwalk construction would occur during the winter, avoiding peak bird migration and nesting seasons (A. Gohres, ACAMP, personal communication, July 3, 2013). The boardwalks would be made of wood that has been pressure-treated, a process that introduces chemicals to ward off insects, microorganisms, and decay (A. Gohres, ACAMP, personal communication, July 17, 2013).

Signs would be installed by hand throughout the trail system, including along the rebuilt boardwalks, and would be mounted on metal bases. The approximately ten signs envisioned would be designed in cooperation with Dauphin Island Sea Laboratory and would cover such topics as wetlands, water quality and aquifers, fire-adapted landscapes, invasive species, etc. Replanting would occur in areas burned in 2011, east of Gaillard Lake and south of the trail that goes through the Banding Area, as shown in Figure 5. The plants would be selected in consultation with the Alabama Forestry Commission and U.S. Fish and Wildlife Service (USFWS) from a list of native species found in the Sanctuary. The anticipated replanting effort has been described by ACAMP as small-scale and not intended to cover all areas burned by the fire (A. Gohres, ACAMP, personal communication, July 17, 2013).

3.2 No Action Alternative

Under the No Action alternative, NOAA would not provide funding for the proposed project and ACAMP and DIPBB would take no action to construct boardwalks and observation platforms, install new signage, or replant native vegetation unless other funds could be obtained to fund those efforts. Visitors would continue to walk along the areas where there were boardwalks previously, impacting nearby flora and fauna. Near the former Swamp Overlook observation platform and along part of the Tupelo Swamp trail, visitors would continue to cross through small portions of wetlands. There would be no observation platform from which to observe the swamp. Old signage would remain where it was previously installed, and visitors would not be educated about many of the topics the new signs would address. Vegetation in areas impacted by the 2011 fire would have to recover on its own, which might not result in as high-quality a habitat as could be created with intervention to plant additional native species.

3.3 Alternatives Considered but Eliminated by the Project Partners

Originally, DIPBB proposed reconstructing three boardwalks (the Tupelo Swamp Boardwalk, Swamp Overlook Boardwalk, and East Beach Boardwalk), rebuilding an observation platform at the Swamp Overlook Boardwalk, building two pavilions (one along the East Beach Boardwalk and the other to collect rainwater for a bird bath along the Tupelo Swamp Boardwalk), and installing signs, but not replanting any vegetation. However, the East Beach Boardwalk was subsequently rebuilt, using volunteer labor. Also, a pavilion that collects rainwater for a bird bath was built in the Old Bird Banding Area of the Sanctuary, rather than along the Tupelo Swamp Boardwalk. Thus, DIPBB and ACAMP deleted the East Beach Boardwalk and pavilion, as well as the Tupelo Swamp Boardwalk pavilion, from the proposed project and added replanting native vegetation. Since the East Beach Boardwalk and the pavilion to collect rainwater for a naturally-fed birdbath have already been constructed, they are not considered further in this EA.

4.0 AFFECTED ENVIRONMENT

This chapter presents a description of the environment at the proposed project site, as required by NEPA, including some of its physical, biological, cultural, and socioeconomic characteristics.

4.1 Physical Environment

Freshwater marsh covers approximately 12 acres of the Sanctuary. This originally included two shallow marsh basins, separately by higher land now traversed by the Tupelo Swamp Trail. The western basin was artificially deepened in the 1950s when muck was excavated to be used as topsoil for a nearby golf course. The excavated area became known as Gaillard Lake; it is now approximately 4.5 acres in size and approximately 4 feet deep. The eastern marsh basin is still fairly undisturbed, and the Swamp Overlook Boardwalk would be to the east of it. More information about the hydrology of the site is incorporated by reference from the Draft Management Plan (DIPBB 2013), as permitted by NEPA regulations at 40 C.F.R. § 1502.21. Some of the Sanctuary is within the floodplain, in the zones designated AE and X by the Federal Emergency Management Agency.

There are approximately 3,250 feet of beachfront at the Sanctuary. Near the beachfront, there are dunes that reach elevations of up to 30 feet in some areas, separating the beach from the forested interior of the Sanctuary. Throughout the rest of the Sanctuary, topographic relief is gentle, slopes are 0-2 percent, and elevations are only a few feet above sea level in most places. The soil type found across most (77%) of the Sanctuary is loamy sand, where flatwood trees and some marsh are found. In other marsh areas covering 6% of the Sanctuary, the soil type is loam. Along the beach and dunes, there are Fripp sands, covering 14% of the Sanctuary. Gaillard Lake covers the other approximately 3% of the site. The Tupelo Swamp Trail appears to traverse Grady loam and Osier loamy sand. The Swamp Overlook boardwalk appears to be in an area where there is Pactolus loamy sand (DIPBB 2013; Soil Conservation Service 1978; see also http://websoilsurvey.sc.egov.usda.gov).

On August 28, 2011, a wildfire consumed approximately 60-80 acres of the Sanctuary, primarily in the southeastern portion between Gaillard Lake and the eastern property boundary. It destroyed many of the pines in the interior flatwoods, several sections of boardwalk, and the original Swamp Overlook observation platform. In the dune areas, some areas that burned contained mature scrub live oak (DIPBB 2013).

4.2 Biological Environment

4.2.1 Plants

The Sanctuary provides diverse habitats. The natural communities present can be divided into a few types: beach and dune, maritime pine-live oak flatwoods, freshwater marsh, and Gaillard Lake. The white sand beach and dunes have sea oats growing on them. These give way to a sparse covering of pines, scrubby live oaks, rosemary, seaside goldenrod, and lichens further inland. Approximately 300 feet inland, on average, the flatwood forests begin (see Figure 7). These forests are dominated by slash pine, with some longleaf pine and live oak mixed in. The understory includes yaupon, wax myrtle, southern magnolia, and other vines and woody species. The ground cover in the flatwoods includes saw palmetto and invasive cogongrass. In the freshwater marsh areas, the dominant tree was originally swamp tupelo. Tupelo gum trees are also present. Chinese tallow (also known as popcorn tree) has invaded wetland areas from neighboring properties. The plants that grow in the lake have not been catalogued. Prior to being excavated in the 1950s, Gaillard Lake used to dry seasonally. Species bordering it include tall pines to its north and west; to its east and south, there is a tupelo swamp (DIPBB 2010).

Figure 7: Sanctuary trail through flatwood forest (NRTP, n.d.d)

The only inventory of plant species present in the Sanctuary is a 2013 vascular plant species inventory included as an appendix to the Draft Management Plant. It includes 355 species, including invasive species (most notably cogongrass and Chinese tallow). The inventory is incorporated by reference and carries disclaimers that it is incomplete and that not all species have been verified (DIPBB 2013).

The Alabama Natural Heritage Program (ALNHP) collects and manages data about the status and distribution of species and ecosystems of conservation concern in Alabama and tracks where the species have been recorded. A variety of species and natural communities on the ALNHP inventory are found in Mobile County. At NOAA's request, ALNHP generated lists of species and natural communities of conservation concern in Alabama that have been identified within the Sanctuary and within 5 kilometers of the Sanctuary, respectively (M. Barbour, ALNHP, personal communication, July 19, 2013).

The ALNHP inventory reports that one plant species of conservation was once recorded in the Sanctuary: pond seedbox (a flowering plant, observed at the Sanctuary in 1966). In Alabama, pond seedbox is considered critically imperiled. However, the pond seedbox is not included in the 2013 vascular plant inventory, suggesting that it is no longer present at the Sanctuary. There was only one other location within 5 kilometers of the Sanctuary where pond seedbox has been reported to the ALNHP. In 2012, a patch of it was observed in a wet swale at the island's golf course. Four other flowering plant species that are considered critically imperiled by ALNHP have also been reported within 5 kilometers of the Sanctuary. Of these, two are on the Sanctuary's plant inventory: coastal-sand frostweed and night-flowering wild petunia (M. Barbour, ALNHP, personal communication, July 19, 2013; DIPBB 2013). The ALNHP list of species and natural communities of conservation concern documented at the Sanctuary is included as Appendix A-1, and the list of species and natural communities of conservation concern documented within 5 kilometers of the Sanctuary is included as Appendix A-2.

ALNHP also lists the coastal rosemary/woody-goldenrod scrub natural community as being found within the Sanctuary. ALNHP indicates this natural community might be globally imperiled, but its conservation status is not ranked in Alabama. Some of the species typically found in this community have been recorded at the Sanctuary. The only other natural community of conservation concern within 5 kilometers of the Sanctuary (but not at the Sanctuary itself) is the needlerush high marsh (M. Barbour, ALNHP, personal communication, July 19, 2013).

4.2.2 Wildlife

The 155 acres of habitat in the Sanctuary are best known for supporting hundreds of species of neotropical migratory birds that visit before or after crossing the Gulf of Mexico in the spring and fall. These include warblers, vireos, thrushes, flycatchers, gnatcatchers, wrens, kinglets, and tanagers (DIPBB 2013). In fact, Dauphin Island has been identified as a Globally Important Bird Area by the American Bird Conservancy (American Bird Conservancy 2001). Wild Bird Magazine selected Dauphin Island as one of the top four locations in North America from which to observe migratory birds in the spring (NRTP n.d.a.). Hawks, falcons, other birds of prey,

various waterfowl, and shorebirds (including herons, sandpipers, and terns) are also commonly found in the Sanctuary. A complete list of birds that might be encountered on Dauphin Island is available from Dauphin Island Bird Sanctuaries (DIBS), Inc. (DIBS 2010). In addition to temporarily hosting many migratory birds, there are also year-round populations of some birds in the Sanctuary. Some birds breed at the Sanctuary (DIPBB 2013). Although butterflies, including migratory species like monarchs, commonly visit Dauphin Island, there is no inventory of butterflies found at the Sanctuary. A list of butterfly and moth species that have been spotted in Mobile County is available, however (Butterflies and Moths of North America n.d.).

No threatened or endangered species protected by the federal government under the Endangered Species Act (ESA) are known to occur within the Sanctuary, and there is no federally-designated critical habitat within the Sanctuary. There are no known bald or golden eagles' nests at the Sanctuary, but there are osprey nests.

There is no state law in Alabama comparable to the ESA. However, the state has regulations governing hunting, fishing, and animal possession. Regulation 220-2-.92 identifies non-game species that are illegal to capture, kill, sell, or otherwise possess without a permit. These include approximately nine types of mammals (mostly rodents and bats), 22 types of amphibians and reptiles, 32 fish species, and 19 types of birds (ADCNR 2008). There are 17 bird species protected by this regulation that could potentially found on Dauphin Island or nearby (e.g., on adjacent islands) (DIBS 2010). These include the Mississippi sandhill crane, the American white pelican, a few other waterbirds (e.g., reddish egret and wood stork), a few shorebirds (including 3 plover species), six raptor species, etc. Since the only inventory of reptiles and amphibians within the Sanctuary is more than 40 years old, and there are no mammal or fish inventories, it is uncertain whether any other animals covered by Regulation 220-2-.92 live within or visit the Sanctuary.

In 1970, an inventory of reptiles and amphibians on Dauphin Island mentioned alligators (which are still known to be present), box turtles, and other turtle species (pond sliders, Florida cooters, and common snapping turtles). It also mentioned at least three types of snakes, only one of which is thought to still be present: the non-venomous pinewoods snake. The fish in Gaillard Lake have not been inventoried, but considering that this location used to dry seasonally before the lake was excavated, the number of fish species present is thought to be limited. Although DIPBB does not allow fishing in Gaillard Lake, largemouth bass and bluegill have been introduced to it (DIPBB 2013).

ALNHP's list of species and communities of conservation concern identifies Dauphin Island's bird assemblage because of the Sanctuary's large area of protected forest and because Dauphin Island is the first place birds can make landfall after crossing the Gulf of Mexico. The ALNHP list of species and natural communities of conservation concern identified within 5 miles of the Sanctuary also includes Loggerhead sea turtles (a listed species under the ESA), a snake and terrapin of state conservation concern (both protected by Regulation 220-2-.92), and 9 bird species, most of which are also listed on the Field Checklist for Birds of Dauphin Island (DIBS 2010). The only bird species recorded within 5 kilometers of the Sanctuary that is federally-protected is the piping plover, which has been reported on Little Dauphin Island and Pelican Island, but not Dauphin Island.

4.3 Cultural Environment

Dauphin Island was visited or inhabited by Native Americans seasonally for centuries before being colonized by the French in 1699. The island was briefly the capitol of the French Louisiana Territory, but the capitol was moved to the mainland after a 1717 hurricane. After being held by both the British and the Spanish in the late 18th Century, American forces captured Dauphin Island in the early 19th Century (Cox 2011).

The U.S. government began constructing Fort Gaines on the eastern end of Dauphin Island, including in the area that is now the Sanctuary, around 1820 (Cox 2011). The Fort was held by Confederate troops during the Civil War, and the battlefields during the Battle of Mobile Bay in 1864 extended onto land now within the Sanctuary (NRTP n.d.a.). The Fort was also used during the Spanish American War, World War I, and World War II. After the Fort fell out of commission, the U.S. government sold it and adjoining land to the City of Mobile, and it was ultimately transferred to DIPBB. Part of the land became the Sanctuary, and the Fort is still preserved, less than half a mile away. It houses original cannons used in battle, a restored blacksmith shop, and a set of tunnels leading to bastions. The National Trust for Historic Preservation identified Fort Gaines as one of the 11 most endangered Historic Places in 2011 because the beach that it is on is eroding rapidly, at a rate as high as 9 feet per year (National Trust for Historic Preservation 2013). Although there are some facilities between the Sanctuary and Fort Gaines, Sanctuary visitors can walk to the fort along the beach.

Most development on Dauphin Island did not occur until after the 1950s, after a bridge connecting it to the mainland was built. When this period of development began, DIPBB was established to provide recreational opportunities. In 1954, the area that became the Sanctuary was slated for conversion into a golf course. The Sanctuary was logged and cleared in anticipation of creating fairways. Instead, the golf course was built 2 miles away, and the wetland area now known as Gaillard Lake was partly excavated to provide topsoil for the golf course. The site was established by DIPBB as a Bird Sanctuary in 1961 in part as a result of the leadership of Dr. Wilson Gaillard, an avid birder and conservationist who recognized the importance of establishing a refuge on the island for migratory birds and butterflies. In 1988, when the Town of Dauphin Island was created, it designated the entire island a bird refuge (DIBS 2010; Dauphin Island History Archives 2010).

From 1967 to 1992, a formal agreement was in place between the DIPBB and the National Audubon Society to recognize the Sanctuary as part of the national system of Audubon wildlife sanctuaries. DIPBB collaborates with many other partners on Sanctuary management, planning, and maintenance activities, including DIBS (originally called Friends of the Dauphin Island Audubon Bird Sanctuary), the Dauphin Island Sea Laboratory, ACAMP, Weeks Bay Foundation, and other local, state, and national organizations (DIPBB 2013). DIBS has raised more than $1 million to purchase other properties on the island for habitat conservation.

4.4 Socioeconomic Environment

4.4.1 Population and Economy

As of 2010, Dauphin Island had approximately 1,200 residents. The majority of these residents (97%) are Caucasian. The median age in 2010 was 53. More than a third of the island's population was aged 60 or over (U.S. Census Bureau 2011). The primary industry on Dauphin Island is tourism. The town estimates that, at its busiest, the island sometimes hosts on the order of 9,000 tourists or more (Town of Dauphin Island 2013a). Dauphin Island has the highest per capita income of any municipality in Mobile County (approximately $28,000). As of 2011, the median household income was approximately $59,000, and the mean household income was $69,000. Less than 10% of people who lived on Dauphin Island in 2011 had incomes during the preceding year that placed them below the poverty line (U.S. Census Bureau 2012). These data indicate that the number of minority and/or low-income Dauphin Island residents is very small.

4.4.2 Local Land Use

Dauphin Island is located approximately 35 miles south of Mobile. It is connected to the Alabama mainland by a 3-mile bridge. The bridge separates Mobile Bay from the Mississippi Sound. There is also ferry service to Fort Morgan, in Gulf Shores, Alabama, approximately 3.5 miles to the east of Dauphin Island. The western 8 miles of Dauphin Island are undeveloped and privately owned, whereas the eastern 6 miles of the island are developed (Town of Dauphin Island 2013b). There are just over 2,000 acres of land within the Town of Dauphin Island (a little more than 3.1 square miles). Approximately 25% of the town is undeveloped, approximately 41% is devoted to parks and recreation, and another 27% is residential. The remainder of the land in the town is devoted primarily to governmental, institutional, and commercial uses (Town of Dauphin Island 2013a).

The Dauphin Island Audubon Bird Sanctuary is a 155-acre parcel located near the southeastern corner of Dauphin Island. It is to the east of Audubon Street and to the south of Bienville Boulevard. Some of the lots to the north and west of the Sanctuary have houses on them. Pelican Bay is to the south of the Sanctuary. To its east, the primary features are a campground operated by the DIPBB, Dauphin Island Sea Laboratory (which has an Estuarium open to the public), and Fort Gaines. Northeast of the Sanctuary is a commercial ferry landing.

Dauphin Island is considered a coastal barrier, which protects parts of the mainland from some of the impacts of severe storms and facilitates an estuarine environment to its north. The Coastal Barrier Resources Act (CBRA) of 1982 was passed by the U.S. Congress to reduce Federal incentives to develop certain identified coastal barrier resources, in recognition that Federal investments can encourage development on coastal barriers and contribute to the loss of important natural resources; threats to human life, health, and property; and the outlay of millions of dollars to construct infrastructure and other structures that may have to be rebuilt after damaging storms. While most federal expenditures and financial assistance are prohibited in designated coastal barrier resources units, there are a number of exceptions. These include projects consistent with the purposes of the CBRA funded under the CZMA, as well as projects for the maintenance, replacement, reconstruction, or repair (but not expansion) of publicly-

owned or publicly-operated roads, structures, and facilities. The 1990 Coastal Barrier Improvement Act expanded the original Coastal Barrier Resources System and created a category of coastal barriers called "otherwise protected areas" (OPAs). OPAs can be designated on undeveloped coastal barriers where areas have been established by government agencies or certain other organizations to serve as wildlife refuges, sanctuaries, recreational areas, or for natural resource conservation purposes. The only prohibition related to Federal expenditures within OPAs is a prohibition on Federal flood insurance. The Dauphin Island Audubon Bird Sanctuary is within an OPA designated under the Coastal Barrier Resources System, which is administered by the USFWS. In January of 2013, a USFWS representative sent a letter to ACAMP indicating that replacement of the boardwalks destroyed by fire and installation of signage at the Dauphin Island Audubon Bird Sanctuary did not conflict with the intentions of CBRA, given the applicable exceptions provided for by the legislation (see Appendix B).

4.4.3 Visitor Use of the Sanctuary

The Sanctuary is a popular attraction on Dauphin Island. Approximately 3,000 visitors, on average, come to the Sanctuary to observe migratory birds in the spring and fall. At nearby Dauphin Island Sea Laboratory, an outreach program called Discovery Hall offers education on marine topics to students of all ages, teachers, and others; the Discovery Hall Program brings an average of 9,000 students to the Sanctuary each year for educational tours. In addition, numerous tourists and local residents visit the Sanctuary for recreation, hiking (including along foot trails), accessing the beach, educational purposes, and to view wildlife, unfragmented habitat, and the coast (ACAMP 2013).

There are approximately 3 miles of trails at the Sanctuary, including a 1,000-foot accessible boardwalk from the parking lot to Gaillard Lake completed in 1998 and a finger pier that extends into the Lake (see NRTP n.d.c.). There are also an observation platform at the edge of the sand dunes and two osprey nesting towers (DIPBB 2013). The Sanctuary is listed part of the Alabama Coastal Birding Trail, established in the 1990s to promote both birding and tourism (Alabama Coastal Birding Trail 2012). In 2012, the trails in the Sanctuary were formally recognized as exemplary trails of local and regional significance and designated National Recreation Trails by the U.S. Secretary of the Interior (NRTP n.d.a.). Not all of the current trails are accessible to individuals with disabilities, and segments of the trails can become muddy when wet (see Figure 4) or otherwise difficult to traverse. Rebuilding the boardwalks and the observation platform would therefore enhance recreational opportunities for a broader segment of the population while reducing impacts to the species that live in or visit the Sanctuary.

5.0 ENVIRONMENTAL CONSEQUENCES

This section outlines likely environmental consequences of the No Action alternative and the preferred alternative, which involves replacing two boardwalks, a viewing platform, and native vegetation, as well as installing new signage. This section also addresses planned methods to mitigate a few of the potential impacts (i.e., mitigation measures). All anticipated consequences of both alternatives are expected to be minor, and many of the anticipated impacts of the preferred alternative would be beneficial. This aligns with the NOAA Restoration Center’s 2006

analysis of trail projects designed to achieve similar goals of reducing erosion and enhancing public access (NOAA 2006). In short, neither the proposed project nor the No Action alternative is anticipated to have any significant impacts.

5.1 Physical Environment

No physical alterations of the landscape are part of the preferred alternative or the No Action alternative. The proposed small-scale construction that is part of the preferred alternative is not intended to alter floodplains or soils; the only impacts would come from driving 4- to 6-inch wide lumber into the ground to support the new boardwalks in locations where there were previously boardwalks, driving supports for metal signs into the ground manually, and using a front-end loader to drive a few poles that would be one foot in diameter into the ground to support the platform that will be along the Swamp Overlook Boardwalk. Minor adverse impacts to soils would continue under the No Action alternative. Table 1 summarizes anticipated consequences to the physical environment.

Table 1: Anticipated Consequences to Physical Environmental Resources

Physical Resource	Preferred Alternative	No Action Alternative
Hydrology	While part of the proposed project would be constructed in the floodplain, any impacts to hydrology would be minor and short-term. The boardwalks will be raised and pile-supported. Planting native species could improve hydrology in the long-term.	No impacts.
Soils	In the short term, some compaction could occur during the construction phase, primarily along the route used by the front-end loader. Some holes will have to be dug for posts to support the boardwalks, platform, and signs. Once completed, the proposed project would be beneficial to soils because installing the boardwalks would greatly reduce the number of people who walk directly on the ground.	Minor adverse effects would continue from people walking directly on the ground, disturbing and compacting soils.

5.2 Biological Environment

Given the very small area, relative to the size of the Sanctuary as a whole, where infrastructure improvements (boardwalks, the observation platform, and new signs) are proposed, installation of these components would be anticipated to have only minor impacts to plant species and wetlands. Construction will occur in the winter, not during prime growing season. Some shading by the boardwalks and platform would be anticipated; however, they will be constructed in areas where there were previously boardwalks and that visitors continue to walk through, meaning that most habitat that would be impacted by shading is likely low-quality. Some light will be able to reach plants beneath the boardwalks from the side because the boardwalks will be elevated 0.5 feet to 1.5 feet in upland areas and 1.5 feet to 3.0 feet where they cross wetland areas. The 10 foot by 10 foot observation platform will be wider than the boardwalks, and elevating it 3 feet above the ground will allow considerable light to reach the plants beneath it.

Overall impacts to vegetation will be beneficial in areas where native species will be replanted. The small-scale replanting effort will be undertaken in accordance with input from the Alabama Forestry Commission and USFWS.

Small portions of the proposed project would cross wetlands (see Figure 6); in these areas, the boardwalk segments will be elevated 1.5 to 3 feet on pilings. Specifically, the observation platform along the Swamp Overlook Boardwalk will be elevated 3 feet because it extends into a wetland area and the Tupelo Swamp Boardwalk will be elevated 1.5 feet where it crosses wetlands. ACAMP and DIPBB consulted with the USACE about whether any permits associated with the Clean Water Act would be needed for the project. USACE's Regulatory Division in South Alabama confirmed that the boardwalks would cross federally-regulated wetlands and waters, but that no permit would be required based on the proposed configuration (L. Turney, USACE, South Alabama Branch, personal communication, September 3, 2013; A. Gohres, ACAMP, personal communication, September 10, 2013). DIPBB plans to ensure that equipment is brought into the area carefully to minimize the potential for temporary, minor impacts on wetlands or other habitats from the movement of the front-end loader that will be used to install the supports for the platform.

Although there are a few federally-listed endangered or threatened species that could be found within Mobile County (including piping plover recorded on neighboring uninhabited islands and loggerhead sea turtles seen within 5 kilometers of the site), none are known to occur within the Sanctuary. Piping plover most commonly utilize beaches, sandflats, and mudflats (USFWS n.d.). Loggerhead sea turtles nest on beaches between April and September; the proposed project will occur after their nesting season ends (USFWS 2012). In short, both federally-listed species prefer habitat directly on the coast, and the proposed boardwalks would be constructed in the part of the Sanctuary separated from the coast by large sand dunes, after the end of the nesting season. On October 18, 2012, a USFWS Field Supervisor in Alabama confirmed that no endangered species, threatened species, or critical habitat are known to occur in the project area (see Appendix C).

More than a dozen bird species that could visit the Sanctuary (both migratory birds most likely to be present during spring and fall migrations and birds that could be present at the Sanctuary year-round) are protected by Alabama Regulation 220-2-.92 and/or identified by ALNHP as of conservation concern. NOAA conferred with a representative of the USFWS Migratory Bird Program, who indicated that the proposed project did not present any significant concerns related to migratory birds. USFWS also indicated that proposed activities are fully compatible with migratory bird conservation and education goals and objectives (D. Demarest, USFWS, personal communication, August 8, 2013). Boardwalk construction will occur during the winter, when potential for disturbing breeding or nesting migratory birds is minimal. The front-end loader is the only piece of heavy machinery that will be used, and it will only be operated long enough to drive in the pilings to support the observation platform. In the short term, the noise in the small portions of the Sanctuary where construction would occur could temporarily drive birds and other mobile species away, but they could return after construction noise ends. Any noise or other habitat disturbances would be short-term and minor, particularly since most installation will be done by hand. DIPBB will monitor for any potential impacts on migratory birds during project construction. In particular, the Executive Director of the DIPBB plans to invite local

birdwatchers to walk with him through project sites before and during construction to identify habitat areas that should be protected and to check for any habitat impacts while work is ongoing. Also, ACAMP consulted the Alabama Division of Wildlife and Freshwater Fisheries, which indicated it thought that rebuilding boardwalks would not impact birds (A. Gohres, ACAMP, personal communication, July 3, 2013).

Table 2 summarizes potential consequences to biological resources. The No Action alternative would permit minor adverse effects to wetlands, vegetation, and wildlife to continue.

Table 2: Anticipated Consequences to Biological Environmental Resources

Biological Resource	**Preferred Alternative**	**No Action Alternative**
Wetlands	Very small portions of the boardwalks are proposed to cross through wetlands. In these areas, they will be elevated on pilings, which will reduce the potential for shading impacts. Construction could cause minor, temporary impacts.	Minor adverse effects would continue from people walking directly through the wetlands, instead of on boardwalks.
Plants	Impacts would be minor, and most would be temporary (during construction). Installing posts or pilings might sever some plant rhizomes or compress plants, but most affected plants would recover. The closer the boardwalks are to the ground, the less light that can reach species beneath them, so there could be longer-term impacts beneath portions of the 6-foot wide segments of the boardwalk. However, since people currently walk on trails where the boardwalks would be constructed, most plants are already damaged in these areas. Also, where the boardwalks cross over wetland areas, they will be elevated considerably higher than other trail segments, to reduce shading. Beneficial impacts could occur from replanting native species.	Minor adverse effects would continue from people walking through areas where there were previously boardwalks; effects include damage to vegetation and habitats.
Wildlife	Minor, short-term impacts could occur during construction, which will not occur during peak nesting season or migration season. (For example, birds and other wildlife might be disturbed in localized areas by the brief periods of noise, but could move elsewhere until construction is complete.) Mitigation measures such as monitoring project impacts on birds are planned. Replanting native species could improve habitat for wildlife over the long term. Installing pilings in the soil or sediment might harm, kill, or push deeper a limited number of invertebrates and similar organisms, but only at the location of support posts. New infrastructure could allow wildlife to perch, bask, travel, or roost on it, which could result in positive or negative impacts that are hard to predict due to predator-prey interactions and other factors.	Minor adverse effects would continue in limited areas where people walk directly on the ground, which could impact invertebrates, among other species.

5.3 Cultural Environment

Both the proposed project and the No Action alternative are anticipated to have no impact on cultural or historical artifacts or resources. The nearest documented historic resource is Fort Gaines, which is within half a mile of the Sanctuary. NOAA determined that the proposed project would have no adverse effect on historic properties, and submitted this finding to the Alabama Historical Commission, which concurred on June 21, 2013 (see Appendix D).

5.4 Socioeconomic Environment

No changes to land uses or development patterns will result from the proposed project. Minor changes to visitor use of the Sanctuary are anticipated from the proposed project and are described in Table 3. The preferred alternative is expected to have a minor positive impact on the socioeconomic environment, especially the experience of visitors to the Sanctuary. The No Action alternative would keep some individuals with disabilities from being able to use trail segments that would be reconstructed under the preferred alternative and would result in less favorable educational opportunities than the preferred alternative.

Table 3: Anticipated Consequences to Socioeconomic Resources

Socioeconomic Resource	Preferred Alternative	No Action Alternative
Recreational Uses	Beneficial impacts would result from replacement of the boardwalks, platform, native plants, and signage. Access to and vantage points from which to observe Sanctuary resources would be improved, especially for individuals with disabilities. Use of boardwalks instead of foot trails would also improve visitor safety. Educational opportunities would also be improved because the new signs would cover broader topics than existing signage.	Negative impacts would continue because some individuals with disabilities are unable to use the trails where the boardwalks used to be. People also would not be as well informed about the resources at the Sanctuary and on Dauphin Island because the existing signage is old and addresses fewer issues.

5.5 Other Environmental Consequences

As this project is designed to restore and enhance areas burned by a wildfire, it is inherently beneficial. During construction, however, there will likely be minor environmental consequences associated with equipment use, noise and other minor disruptions. The potential consequences of the proposed project are outlined below. These types of consequences would not occur from the No Action alternative.

Air Quality Impacts

Extremely small amounts of air pollutants (e.g., carbon monoxide) associated with the use of a front-end loader to install pilings for the observation platform might be released during

construction. No long-term air quality impacts are anticipated at the site or in the surrounding environment.

Water Quality Impacts

The wood used for the boardwalks and observation platform will be treated with chemicals to resist decay, microorganisms, and insects. Small amounts of chemical contaminants in the wood or metals in the metal posts supporting the new signs could leach out into adjacent soil, sediment, or water, but in such small quantities and in such localized areas that effects would be minor. No other potential water quality impacts of the project are anticipated.

Aesthetics and Visual Impacts

The only aesthetics impacts anticipated from the proposed project would be considered beneficial, from most standpoints. The areas where infrastructure will be installed are already disturbed because there were boardwalks in the same locations prior to the 2011 fire. Since natural colors and materials will be used, the boardwalks and platform will blend in with other Sanctuary infrastructure and the surrounding environment. On the 60-80 acres impacted by the wildfire, vegetation was damaged or destroyed, which had aesthetics impacts. Some of these impacts are still evident. Replanting native vegetation should improve aesthetics by increasing the amount of healthy vegetation in affected areas.

The new boardwalks, observation platform, signage, and native vegetation will improve visitor access to scenic resources along the Tupelo Swamp and Swamp Overlook trails. The observation platform will provide an excellent vantage point from which to observe the swamp. Thus, the project would have beneficial impacts to scenic vistas.

Noise Impacts

There would be a minor increase in noise levels within the Sanctuary at the project sites during the construction phase of the project. These impacts are expected to be short-term and limited to active periods of construction. The noise from installing the supports for the viewing platform using a front-end loader would not last long The rest of the construction would be carried out by hand, and associated noise would not travel far.

Cumulative Impacts

The proposed infrastructure replacement and small-scale replanting set no precedents for future actions that would significantly affect the quality of the environment, and there will not be significant cumulative impacts. There were previously boardwalks and an observation platform in the locations where new ones will be installed. Since there are trails in the locations where the boardwalks would be rebuilt, there is already continuing visitor use of the areas where improvements would occur. Considering these factors, the proposed project is unlikely to substantially increase visitation to the Sanctuary or the project areas. The net long-term effects of the proposed project would be beneficial because it would reduce the likelihood of visitors

wandering off the trails and disturbing even more natural habitat, which is currently easy to do in the areas where the boardwalk is missing.

The new boardwalks and observation platform combined will extend across 3,700 square feet (the proposed project would fund an observation platform that is 100 square feet and 3,600 square feet of boardwalk). The existing boardwalks at the Sanctuary together cover less than 7,500 square feet. The completion of the proposed project would result in there being less than 12,000 square feet (approximately one-quarter of an acre) of boardwalk in the Sanctuary. The entire area of the Sanctuary is more than 155 acres. Thus, the boardwalks would cumulatively extend over less than 0.2 percent of the Sanctuary, so any minor adverse impacts would extend across only a very small portion of the Sanctuary. The Draft Management Plan for the Sanctuary does not recommend any new boardwalk projects, beyond repair and reconstruction of the boardwalks damaged by the fire. The only other potential construction project suggested in the Draft Management Plan is creating a small covered shelter with seating for groups of up to 30 people (DIPBB 2013).

The proposed small-scale replanting within a portion of the 60-80 acres burned within the Sanctuary would be guided by expert input. The project would not reforest the entire area burned in the 2011 fire. Furthermore, it would not set a precedent for future replanting, the need for which will be reevaluated in the future, according to the Draft Management Plan (DIPBB 2013). The new signs would be installed in areas that are already disturbed. The new signs are intended to address currently-known needs for updated or new informational signs along trails used by visitors. Should a need for additional signs be identified in the future, the proposed project does not set a precedent that suggests that ACAMP or federal funding would be available. ACAMP and NOAA evaluate proposed CZMA projects individually every year.

Irreversible and Irretrievable Commitments of Resources

There will be no changes to land use within the Sanctuary over the long term because boardwalks previously existed in the areas where they will be rebuilt. The primary irretrievable consequences of the proposed project would be the time, money, and human effort to plan and implement the project. If another fire were to burn the infrastructure that is rebuilt, or if it were to be damaged by future unforeseen events, it would be difficult to recapture any of the financial resources invested.

6.0 COMPLIANCE WITH OTHER ENVIRONMENTAL AND ADMINISTRATIVE REVIEW REQUIREMENTS

Clean Air Act

The Clean Air Act (42 U.S.C. § 7401, *et seq*.) directs the U.S. Environmental Protection Agency to set limits on air emissions to ensure basic protection of health and the environment. The fundamental goal is the nationwide attainment and maintenance of the National Ambient Air Quality Standards (NAAQS). Primary NAAQS are designed to protect human health. Secondary NAAQS are designed to protect the public welfare (for example, to prevent damage to soils, crops, vegetation, water, visibility, and property).

Compliance: Most construction will be carried out by hand. Use of a front-end loader would only make de minimus impacts on air quality in the immediate vicinity. Any machinery used would be operated in compliance with all applicable state rules and local requirements.

Clean Water Act (CWA)

The Clean Water Act (33 U.S.C. § 1251, *et seq.*) is the principal law governing pollution control and water quality of the Nation's waterways. Section 404 of the law authorizes a permit program for the beneficial uses of dredged or fill material in navigable waters. The U.S. Army Corps of Engineers administers the program.

Compliance: The project will be carried out in compliance with federal and state requirements, including those associated with the CWA. ACAMP coordinated with the Alabama Department of Environmental Management (ADEM), which indicated that no state permit would be required. ACAMP and DIPBB also consulted with USACE, which indicated in a letter dated September 3, 2013, that no CWA permits would be required because no fill material is being placed in the wetland areas and, in these areas, the boardwalks and observation platform will be elevated on pilings 1.5 to 3 feet (L. Turney, USACE, South Alabama Branch, personal communication, September 3, 2013; A. Gohres, ACAMP, personal communication, September 10, 2013).

Coastal Barrier Resources Act (CBRA)

Originally passed in 1982 and reauthorized multiple times, CBRA (16 U.S.C. § 3501 *et seq.*; 12 U.S.C. § 1441 *et seq.*) was enacted to address issues related to coastal barrier development and to minimize the loss of human life, wasteful federal expenditures, and damage to fish, wildlife and other natural resources by restricting federal financial assistance in designated coastal barriers, with some exceptions.

Compliance: The Dauphin Island Audubon Bird Sanctuary is within a designated "otherwise protected area" in the Coastal Barrier Resources System, which means that it is not eligible for Federal flood insurance. Even if it were in a full "System unit," where there would be additional prohibitions related to investing federal funds, there is an exception for investments under the CZMA that are consistent with the objectives of CBRA. In January of 2013, a USFWS representative sent a letter to ACAMP indicating that replacement of the boardwalks destroyed by fire and installation of signage at the Sanctuary did not conflict with the intentions of CBRA (see Appendix B).

Coastal Zone Management Act (CZMA)

The goal of the CZMA (16 U.S.C. § 1451, *et seq.*) is to preserve, protect, develop and, where possible, restore and enhance the Nation's coastal resources. Pursuant to the CZMA (16 U.S.C. § 1455) and NOAA regulations (15 C.F.R. Part 923), NOAA approved the State of Alabama's CZMA management program on September 25, 1979. NOAA provides, subject to annual Congressional appropriations, annual implementation grants to states with federally-approved CZMA management programs. The annual implementation grants include activities and projects under CZMA §§ 306, 306A and 309 (16 U.S.C §§ 1455, 1455a and 1456b), which are reviewed and approved by the appropriate State CZMA agency(ies) and NOAA as part of the annual federal CZMA grant submission and approval process. CZMA § 306A (16 U.S.C §§ 1455a) land acquisition and construction projects included in a state's annual CZMA implementation grant may also require additional state and/or federal permits.

Compliance: The project will be in full compliance with this Act. The ACAMP is administered by two state agencies, ADCNR and ADEM. ADCNR issues CZMA grants, whereas ADEM issues state permits and administers the CZMA federal consistency provision for Alabama. State agencies or local governments responsible for CZMA § 306A projects that are part of Alabama's approved annual CZMA implementation grant will also obtain any required ADEM permit or other state or local permits prior to completion of the project. If a CZMA § 306A project also requires a federal permit (e.g., a Clean Water Act § 404 permit from the U.S. Army Corps of Engineers), then the state agency or local government 306A project proponent will also provide a consistency certification to ADEM, pursuant to CZMA § 307(c)(3)(A) (16 U.S.C § 1456(c)(3)(A)) and 15 C.F.R. Part 930, Subpart D, and obtain ADEM's CZMA federal consistency concurrence.

Department of Commerce Pre-award Notification Requirements for Grants and Cooperative Agreements

Published by the Department of Commerce in the Federal Register, October 1, 2001 (at 66 FR 49917) and amended October 30, 2002, (at 67 FR 66109) are requirements applicable to all federal financial assistance awards issued by the Department.

Compliance: Special Award Conditions on the financial assistance award that would fund the proposed project require compliance with these requirements.

Endangered Species Act

The federal Endangered Species Act (16 U.S.C. § 1531, *et seq.*; 50 C.F.R. Parts 17, 222, 224) directs all federal agencies to conserve endangered and threatened species and their habitats and encourages such agencies to utilize their authority to further these purposes. Under the Act, NOAA's National Marine Fisheries Service and USFWS publish lists of endangered and threatened species and their critical habitat. Section 7 of the Act requires that federal agencies consult with these two agencies to minimize the effects of federal actions on endangered and threatened species.

Compliance: An October 18, 2012, communication from USFWS to ACAMP indicated that no federally threatened or endangered species or critical habitat are known to occur within the project area (see Appendix C). No impacts to NOAA trust resources are anticipated. Therefore, NOAA concludes that the proposed project would not affect listed species or critical habitat.

Environmental Justice

To be consistent with the President's Executive Order on Environmental Justice 12898 (February 11, 1994), Executive Order 12948 (Amendment to Executive Order No. 12898), and the Department of Commerce's Environmental Justice Strategy, applicants must ensure that their projects will have no disproportionately high and adverse human health or environmental effects on minority or low income populations.

Compliance: There are no minority or low-income populations on Dauphin Island. Some Sanctuary visitors probably come from Mobile County, where African-Americans make up 35% of the population and other minorities represent 5% of the population. This project is consistent in use and type with existing zoning and land use regulations, and no adverse impacts are expected. In fact, minority and low-income visitors to the Sanctuary would benefit from the proposed project. The new boardwalks would improve access for all visitors to different habitats within the Sanctuary, and the new signage would allow visitors to better appreciate the resources

present by describing important characteristics of wetlands, sand dunes, fire-adapted landscapes, aquifers, species found at the Sanctuary, etc.

Executive Order 11990 − Protection of Wetlands, Executive Order 11988 – Floodplain Management, and Flood Disaster Protection Act

Executive Order 11990 requires federal agencies to avoid the adverse impacts associated with the destruction or loss of wetlands, to avoid new construction in wetlands if alternatives exist, and to develop mitigation measures if adverse impacts are unavoidable. Executive Order 11988 requires federal agencies to avoid, to the extent possible, long and short-term adverse impacts associated with the occupancy and modification of floodplains. Pursuant to the Flood Disaster Protection Act, the NFIP prohibits the use of funds for acquisition or construction of buildings in special flood hazard areas in communities that are not participating in the Flood Insurance Program (as identified in the NFIP's Community Status Book).

Compliance: NOAA's Guidance Manual on Compliance with Implementing Executive Orders 11988 and 11990 (issued in 2012) outlines an evaluation process for projects that extend into floodplains and wetlands. However, the evaluation process does not apply to most projects that entail minor modification of existing facilities or structures in a floodplain or wetland to improve safety or environmental conditions, as long as certain conditions are met. The proposed project conforms to the exception for minor modification of existing structures. Rebuilding the Tupelo Swamp Boardwalk and the Swamp Overlook Boardwalk segments would create minor modifications to other segments of boardwalks within the Dauphin Island Audubon Bird Sanctuary that already exist. As noted above, the proposed project would improve the safety of the trails and reduce any environmental impacts visitors currently create by walking through these areas. Although part of the Sanctuary is in the AE flood zone, Dauphin Island does participate in the NFIP (Federal Emergency Management Agency, 2013). No buildings will be constructed in the floodplain; the proposed project would include erecting boardwalks, a platform, and signage, parts of which would be in the floodplain. The Town of Dauphin Island does not require a special floodplain development permit for this project (A. Gohres, ACAMP, personal communication, September 10, 2013).

Executive Order 13089 – Coral Reef Protection

Among other things, Executive Order 13089 directs federal agencies whose actions may affect U.S. coral reef ecosystems to identify their actions that may affect U.S. coral reef ecosystems, utilize their programs and authorities to protect and enhance the conditions of these ecosystems, and ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems (to the extent permitted by law).

Compliance: The proposed project will not affect any coral reef ecosystems. There are no coral reef ecosystems in the immediate vicinity of Dauphin Island. A reef-type ecosystem exists considerably further to the south, on the order of 75 miles from Dauphin Island, at a formation called the Alabama Pinnacles (or the Mississippi-Alabama Pinnacles). However, this formation and other coral reef ecosystems are sufficiently far from the site that they would not be adversely affected by minor construction activities at the Sanctuary.

Executive Order 13112 − Invasive Species
The purpose of Executive Order 13112 is to prevent the introduction of invasive species, respond to and control invasions in a cost-effective and environmentally sound manner, and to provide for restoration of native species and habitat conditions in ecosystems that have been invaded.
Compliance: The preferred alternative will not remove or introduce any invasive species to the Sanctuary; instead, it will reestablish native species, some of which were destroyed by fire.

Executive Order 13158 − Marine Protected Areas (MPAs)
Executive Order 13158 requires Federal agencies to identify actions that affect natural or cultural resources that are within MPAs. It further requires Federal agencies, in taking such actions, to avoid harm to the natural and cultural resources that are protected by MPAs.
Compliance: The nearest MPA in the National System of Marine Protected Areas is Bon Secour National Wildlife Refuge, which consists of 5 separate units. Four of the units are on the east side of Bon Secour Bay. In addition, Little Dauphin Island, an uninhabited island immediately the north of Dauphin Island, is part of the Bon Secour National Wildlife Refuge and hence protected by Executive Order 13158. The proposed project is not anticipated to have impacts beyond the Sanctuary's boundaries and therefore would not affect Little Dauphin Island or other parts of Bon Secour National Wildlife Refuge.

Magnuson-Stevens Fishery Conservation and Management Act
The Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801, *et seq*.) as amended and reauthorized by the Sustainable Fisheries Act (Public Law 104-297), established a program to promote the protection of essential fish habitat (EFH) in the review of projects conducted under federal permits, licenses, or other authorities that affect or have the potential to affect such habitat. After EFH has been described and identified in fishery management plans by the regional fishery management councils, federal agencies are obligated to consult with the National Marine Fisheries Service with respect to any action authorized, funded, or undertaken or proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any EFH.
Compliance: There is no EFH at the sites within the Sanctuary where work is proposed, and no direct or secondary impacts to EFH will occur from the project. Although portions of the boardwalks could go through wetlands and plants could be planted in wetland areas, these areas are isolated freshwater wetlands, not connected to the Gulf of Mexico, Mobile Bay, or the Mississippi Sound. While there would be no EFH impacts, the National Marine Fisheries Service's Southeast Regional Office was informed about the proposed project.

Marine Mammal Protection Act
The Marine Mammal Protection Act (16 U.S.C. § 1361, *et seq*.) establishes a moratorium on the taking and importation of marine mammals and marine mammal products, with exceptions for scientific research, allowable incidental taking, subsistence activities by Alaskan natives, and hardship. The Act provides authority to manage and protect marine mammals, including maintenance of the ecosystem.
Compliance: The preferred alternative will have no impact on marine mammals.

Migratory Bird Treaty Act (MBTA)
The Migratory Bird Treaty Act (16 U.S.C. § 715, *et seq.*) provides for the protection of migratory birds. For example, it regulates capturing or killing migratory birds, their import and export, scientific collection, and possession for educational purposes. The Act does not specifically protect migratory bird habitat, but USFWS may suggest consideration of time of year restrictions for construction or remedial activities at sites where it is likely migratory birds may be nesting or project schedules that would avoid the nesting seasons of migratory birds.
Compliance: Because the Sanctuary is widely used by migratory birds, NOAA consulted with USFWS to ensure compliance with the MBTA. A representative of the USFWS Migratory Bird Program indicated that the proposed project did not present any significant concerns related to the take of migratory birds. USFWS also indicated that proposed activities are fully compatible with the goals and objectives of the MBTA, including promoting the long-term conservation of migratory birds and public recreation and education related to migratory birds (D. Demarest, USFWS, personal communication, August 8, 2013). DIPBB plans for boardwalk construction to occur during the winter, when potential for disturbing breeding or nesting migratory birds is minimal, and most of the construction activities will not require heavy machinery which could disturb birds or surrounding habitats. DIPBB will monitor for any potential impacts on migratory birds during project construction.

National Historic Preservation Act
The purpose of the National Historic Preservation Act (16 U.S.C. § 470, *et seq.*) is to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes by specifically providing for the preservation of historical and archeological data which might otherwise be lost or destroyed.
Compliance: In consultation with ACAMP, NOAA determined that the proposed action would have no adverse effect on historic properties and submitted this finding to the Alabama Historical Commission. The Commission concurred with NOAA's assessment on June 21, 2013, noting that the proposed work should create no adverse effect to properties listed on or eligible for the National Register of Historic Places (see Appendix D).

Rivers and Harbors Act
The Rivers and Harbors Act of 1899 (33 U.S.C. § 401, *et seq.*) regulates development and use of the nation's navigable waterways. Section 10 of the Act prohibits unauthorized obstruction or alteration of navigable waters and vests the USACE with authority to regulate discharges of fill and other materials into such waters.
Compliance: Neither the proposed project, nor its anticipated impacts, will extend into navigable waters. The USACE administers requirements related to the Rivers and Harbors Act, and its Regulatory Division in South Alabama reviewed the project in the summer of 2013 (L. Turney, USACE, South Alabama Branch, personal communication, September 3, 2013).

7.0 CONCLUSION: FINDING OF NO SIGNIFICANT IMPACT

The National Oceanic and Atmospheric Administration proposes to fund installing educational signage, rebuilding two boardwalks (the Tupelo Swamp Boardwalk and Swamp Overlook Boardwalk) and one overlook platform along the Swamp Overlook Boardwalk, and planting

native vegetation at Dauphin Island Audubon Bird Sanctuary, designated an "area for preservation and restoration" under the Alabama Coastal Area Management Program. A No Action alternative was also considered. One other alternative was identified, but not analyzed further because it was obviated: this alternative would have allowed three boardwalks to be rebuilt, one observation platform and two pavilions to be constructed along the boardwalks, and new signage to be installed. However, this alternative was not analyzed further because the third boardwalk and pavilions were built using other funding sources.

Significant individual and/or cumulative environmental effects would not result from implementation of the preferred alternative, and preparation of a Finding of No Significant Impact (FONSI) is warranted.

NOAA Administrative Order (NAO) 216-6 (revised June 20, 1999) provides eleven criteria for determining the significance of the impacts of a proposed action. These criteria are discussed below as they relate to the proposed project.

a. Has the agency considered both beneficial and adverse effects? (A significant effect may exist even if the Federal agency believes on balance the effect will be beneficial.)

The agency has considered both beneficial and adverse effects, and no significant effects are anticipated. The beneficial effects include making the Tupelo Swamp and Swamp Overlook trails accessible to a larger number of people (e.g., individuals with disabilities or who wish to push strollers) by rebuilding boardwalks, helping reduce impacts to the areas near the trails by encouraging people not to stray from the boardwalks, creating an area for contemplation of the habitat (the observation platform), increasing the number of interpretive signs and enhancing the educational experience for visitors, and improving habitats by planting native species in areas damaged by a wildfire. Adverse effects could include impacts to a small number of plants and animals in areas where construction would occur, but these impacts would be minimal and largely temporary. Most impacted species would be able to relocate to or recolonize areas outside the construction zone. Planned mitigation measures include carrying out most of the construction without heavy machinery, during the winter. None of the anticipated effects are considered significant individually or cumulatively. The only other possible construction project being proposed at the Sanctuary is a covered shelter near the parking lot with seating for 30 people. Shading impacts of that project, if constructed, would be minor, given the size of the Sanctuary.

b. To what degree would the proposed action affect public health and safety?

The proposed project would have a beneficial effect on public health and safety in the Tupelo Swamp and Swamp Overlook trail areas by rebuilding boardwalks and a platform to create a smooth, level surface for people to traverse during a variety of weather conditions, thereby eliminating the use of trails that can be unsafe where they are muddy, uneven, etc.

c. To what degree would the proposed action affect unique characteristics of the geographic area in which the proposed action is to take place?

None. The new educational signage will help visitors better appreciate the unique characteristics of the Sanctuary. These characteristics extend beyond the areas where the boardwalks would be installed. The proposed infrastructure will be very similar, in its design and location, to previously-existing infrastructure and will not detract from the unique characteristics of the Sanctuary. Migratory birds passing through the Sanctuary will not be affected significantly because the project would not be constructed during times of year when large numbers of migratory birds would be passing through or nesting and because any birds in the area would be expected to temporarily move away from construction activities. Efforts to replant native vegetation species would be designed to enhance the unique characteristics of habitats impacted by the 2011 fire.

d. To what degree would the proposed action have effects on the human environment that are likely to be highly controversial?

None. There is no controversy associated with the project. It would enable replacement of infrastructure and plants destroyed by the wildfire, and the new signage would enhance the experience of visitors walking along Sanctuary trails. Visitors support the project and look forward to its completion (A. Gohres and P. Hinesley, ACAMP, personal communication, June 4, 2013).

e. What is the degree to which effects are highly uncertain or involve unique or unknown risks?

None. The proposed action presents no unknown risks, as there has been equivalent infrastructure and vegetation to which the proposed action can be compared. Until the 2011 wildfire, there were boardwalks and an observation platform of similar design in the same locations. The only vegetation species to be replanted will be native species typically found in environments similar to those in the Sanctuary; the species to be planted will be selected based on input from the Alabama Forestry Commission and USFWS. Signs similar to those proposed to be installed at the Sanctuary already exist at Dauphin Island Sea Laboratory and remain in good condition over time. The proposed new signage will have minimal impacts, similar to those of the signs at Dauphin Island Sea Laboratory that they will be modeled after. It is highly certain that the new boardwalks and observation platform and additional native vegetation will have similar impacts to those of the previous boardwalks, observation platform, and vegetation. Any adverse impacts would be minimal.

f. What is the degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

None. The only trail improvements recommended in the Sanctuary's Draft Management Plan are replacement of boardwalks burned during the fire. The proposed infrastructure and vegetation would replace previously-existing infrastructure and vegetation in the same locations and therefore does not establish a precedent. NOAA approves funding for small construction projects consistent with Section 306A of the CZMA every year, including projects that have included boardwalk construction, signage installation, and native species planting. However,

each project that ACAMP proposes to fund is reviewed individually, both by ACAMP and by NOAA.

g. Does the proposed action have individually insignificant but cumulatively significant impacts?

No. Adverse effects could include impacts to a small number of plants and animals in areas where construction would occur, but these impacts would be minimal and largely temporary. Most impacted species would be able to relocate to areas outside the construction zone. Considering the small area that all the boardwalks and signage at the Sanctuary cumulatively cover, individual and cumulative impacts are likely to be insignificant.

h. What is the degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources?

None. NOAA determined that the proposed action would have no adverse effect on historic properties and submitted this finding to the Alabama Historical Commission. The Alabama Historical Commission concurred with this determination on June 21, 2013 (see Appendix D).

i. What is the degree to which endangered or threatened species, or their critical habitat, as defined under the Endangered Species Act of 1973, are adversely affected?

None. No threatened or endangered species protected by the federal government under the Endangered Species Act are known to occur within the Sanctuary, and there is no federally-designated critical habitat within the Sanctuary. USFWS concurred with this determination on October 18, 2012 (see Appendix C).

j. Does the proposed action have a potential to violate Federal, state, or local law for environmental protection?

No. The Dauphin Island Park and Beach Board is not subject to any Town of Dauphin Island permitting requirements, so no local permits are needed. DIPBB consulted with the Alabama Department of Environmental Management to ensure that no state permits were required (A. Gohres, ACAMP, personal communication, July 17, 2013). Compliance with federal requirements is documented in the preceding section (6.0) of this EA. USACE was one of several federal agencies consulted to ensure that no federal permits were required. Given project review at the state and federal level, no violation of environmental protection laws is threatened.

k. Will the proposed action result in the introduction or spread of a non-indigenous species?

No. The project will only result in the introduction of additional native plants; no non-indigenous species will be introduced at the Sanctuary.

Finding of No Significant Impact
Environmental Assessment
Dauphin Island Audubon Bird Sanctuary Site Improvements

NOAA has prepared the attached Environmental Assessment (EA) for the Dauphin Island Audubon Bird Sanctuary Site Improvements, which conforms to the procedural and technical requirements set forth in NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act (NEPA), and NEPA. The proposed action is to approve providing funding to the Alabama Coastal Area Management Program, under Section 306A of the Coastal Zone Management Act, for enhancements at the Dauphin Island Audubon Bird Sanctuary, which would benefit visitor access, educational opportunities, and habitats. The EA assesses the potential environmental impacts of the reconstruction of two boardwalks and an observation platform, the installation of new signs along the trail system, and replanting native species in areas affected by a 2011 wildfire, which is the preferred alternative for NOAA, the Alabama Coastal Area Management Program, and the Dauphin Island Park and Beach Board, which owns the Sanctuary.

Having reviewed the EA, I have determined that the project assessed within will not have a significant impact on the quality of the human environment. Therefore, the preparation of an Environmental Impact Statement for the proposed action is not required by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

for W. Russell Callender

Holly A. Bamford, Ph.D.
Assistant Administrator for
Ocean Services and Coastal Zone Management

11/14/2013
Date

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9.0 REFERENCES

Alabama Coastal Area Management Program (ACAMP). 2012. Section 306A Project Checklist: DIPBB – Site Improvements and Educational Signage for Dauphin Island Audubon Bird Sanctuary. December 5, 2012.

ACAMP. 2013. Section 306A Project Checklist: DIPBB – Site Improvements and Educational Signage for Dauphin Island Audubon Bird Sanctuary. February 8, 2013.

Alabama Coastal Birding Trail. 2012. Dauphin Island-Bayou La Batre Loop. www.alabamacoastalbirdingtrail.com/trails/dauphin_island_loop.asp

Alabama Department of Conservation and Natural Resources (ADCNR). 2008. Alabama Regulation 220-2-.92, Nongame Species Regulation. http://www.outdooralabama.com/research-mgmt/regulations/reg220-2-92nongame.cfm

American Bird Conservancy. 2001. First 100 Globally Important Bird Areas Designated by American Bird Conservancy. http://www.abcbirds.org/newsandreports/releases/010626_list.pdf

Butterflies and Moths of North America. n.d. Butterflies and Moths of Mobile County, Alabama. Undated. http://www.butterfliesandmoths.org/checklists?species_type=All&tid=237

Cox, Dale. 2011. Dauphin Island, Alabama - Historic Sites & Points of Interest. http://www.exploresouthernhistory.com/dauphinisland.html

Dauphin Island Bird Sanctuaries (DIBS), Inc. 2010. Field Checklist: Birds of Dauphin Island. www.coastalbirding.org/checklist/dichecklist.pdf

Dauphin Island History Archives. 2010. Dauphin Island Audubon Bird Sanctuary. http://www.dauphinislandhistory.org/birding/bird_sanc_pandb.htm

Dauphin Island Park and Beach Board (DIPBB). 2010. Dauphin Island Audubon Bird Sanctuary. http://dauphinisland.org/bird.htm

DIPBB. 2013. Draft Management Plan for the Audubon Bird Sanctuary, Dauphin Island, Alabama. June 12, 2013.

Federal Emergency Management Agency. 2013. Community Status Book Report: Alabama, Communities Participating in the National Flood Program. September 16, 2013. http://www.fema.gov/cis/AL.html

Hill, Emily. 2012. Dauphin Island Sea Lab Hosts Summer Excursions for Public to Explore Salt Marsh, Beach Habitats. June 5, 2012. http://blog.al.com/live/2012/06/dauphin_island_sea_lab_hosts_s.html

National Oceanic and Atmospheric Administration (NOAA). 2006. Supplemental Programmatic Environmental Assessment of NOAA Fisheries' Implementation Plan for the Community-based Restoration Program, A Process for Habitat Restoration Grants. http://www.habitat.noaa.gov/pdf/s_pea_june_2006_final_62306.pdf

National Recreation Trails Program (NRTP). n.d.a. Featured National Recreation Trails: Dauphin Island Audubon Bird Sanctuary Trail System, AL. Undated. www.americantrails.org/nationalrecreationtrails/trailNRT/Dauphin-Island-Audubon-Trail-AL.html

NRTP. n.d.b. View of the Boardwalks. Undated. http://www.americantrails.org/NRTDatabase/trailDocuments/3768_99_IMG_0297.jpg

NRTP. n.d.c. Dauphin Island Audubon Bird Sanctuary Trail System, Trail Map Available. Undated. http://www.americantrails.org/NRTDatabase/trailPhotos/3768_99_BirdSancturayTrailMap.jpg

NRTP. n.d.d. Additional Views of Our Trails. Undated. http://www.americantrails.org/NRTDatabase/trailDocuments/3768_99_IMG_0301.jpg

National Trust for Historic Preservation. 2013. 11 Most Endangered Historic Places [of 2011]: Fort Gaines. http://www.preservationnation.org/issues/11-most-endangered/locations/fort-gaines-1.html#.Ud3bkPnvhWA

Soil Conservation Service. 1978. Soil Survey for Mobile County, Alabama. U.S. Department of Agriculture.

Town of Dauphin Island. 2013a. Town of Dauphin Island: Comprehensive Plan 2030. Adopted January 8, 2013. http://townofdauphinisland.org/wide.asp?action=search&ID=71&searchin=category&keyword=&keyword2=&keyword3=39&submit=Search

Town of Dauphin Island. 2013b. Town of Dauphin Island [homepage]. http://www.townofdauphinisland.org

U.S. Census Bureau. 2011. Profile of General Population and Housing Characteristics: 2010, Town of Dauphin Island, Alabama. http://factfinder2.census.gov/bkmk/table/1.0/en/DEC/10_DP/DPDP1/1600000US0119744

U.S. Census Bureau. 2012. 2007-2011 American Community Survey 5-Year Estimates, Town of Dauphin Island, Alabama. http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/11_5YR/DP03/1600000US0119744

U.S. Fish and Wildlife Service (USFWS). n.d. Piping Plover. Undated. http://ecos.fws.gov/docs/life_histories/B079.html

USFWS. 2012. Loggerhead Sea Turtle. February 2012. http://www.fws.gov/northflorida/seaturtles/turtle%20factsheets/loggerhead-sea-turtle.htm

10.0 LIST OF AGENCIES AND PERSONS CONSULTED

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11.0 APPENDICES

Appendix A-1

Species and Natural Communities of Conservation Concern Documented from Dauphin Island Bird Sanctuary

Taxonomic Group	EO ID	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	SWAP Status	EO Rank	Last Observed	Element Occurrence Data
Bird Assemblage		Bird migratory stop-over site	Bird migratory stop-over site								The largest segment of protected forest on the Island and the first landfall for neo-tropical migrant birds after their long flight across the Gulf from Central and South America each spring.
Flowering Plants	3811	*Ludwigia arcuata*	Pond Seedbox	G4G5	S1				H	1966-05-30	Specimen collected - "In wet ditch near Fort"
Natural Communities	8468	*Ceratiola ericoides - (Chrysoma pauciflosculosa) / Polygonella polygama / Cladonia leporina* Shrubland	Coastal Rosemary - Woody-goldenrod Scrub	G2?	SNR				B	1999-10-20	This coastal scrub community is dominated by *Ceratiola ericoides* and has a scattered canopy of *Pinus elliottii*. Other plant species present include *Chrysoma pauciflosculosa, Conradina canescens, Quercus geminata, Helianthemum arenicola, Lechea sessiliflora, Paronychia erecta, Triplasis purpurea, Seymeria cassioides, Polygonella gracilis*, and *Ipomoea imperati*.

Appendix A-2

Species and Natural Communities of Conservation Concern Documented within 5 km of Dauphin Island Bird Sanctuary

Taxonomic Group	EO ID	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	SWAP Status	EO Rank	Last Observed	Element Occurrence Data
Birds	1292	*Ammodramus maritimus*	Seaside Sparrow	G4	S2		SP	P2	C	2000	Clay reports the species breeding throughout most of island but population estimates (size) unknown.
Birds	3253	*Ammodramus nelsoni*	Nelson's Sparrow	G5	S3N		SP	P2	C	2001-04-22	2001-04-22: Several individuals observed; 1958-12-27: 34 observed during Christmas Bird Count (Imhof 1976; specific locality not noted).
Birds	1653	*Charadrius alexandrinus*	Snowy Plover	G4	S1B,S2N		SP	P1	C	1998-07-29	Throughout the Pelican Island complex, small aggregations of 3-6 individuals observed outside of breeding season; 19 February, 14 March, and 6 August 1997 (Clay, 1997). Clay (1998) reported 8 individuals observed on 29 July 1998. 1997-08-06: 5 observed
Birds	4897	*Charadrius alexandrinus*	Snowy Plover	G4	S1B,S2N		SP	P1	C	1996-09-20	1996-05-07: 2 birds observed. 1996-06-21: a lone snowy plover was seen. 1996-07-08:2 birds observed on the east end. 1996-09-20: 8 birds observed; No nests observed, but estimate 0-3 nests.
Birds	7300	*Charadrius alexandrinus*	Snowy Plover	G4	S1B,S2N		SP	P1	D	1995-09-14	On July 19, 11 birds were observed, 3 which appeared to be fledged young. On June 20, 1995, 7 adults were observed. On September, 14, 9 birds observed.
Birds	4707	*Charadrius melodus*	Piping Plover	G3	S1N	LT	SP	P1	C	1999-03-17	Little Dauphin has been one of the traditionally favored wintering areas for plovers in Alabama, and has traditionally been the site supporting the largest number of piping plovers. The number of piping plovers observed in a single day on the island
Birds	3929	*Charadrius melodus*	Piping Plover	G3	S1N	LT	SP	P1	H	1997-08-06	Pelican Island(s) has been one of the traditionally favored wintering areas for plovers in Alabama. In the 1990s PI East was a small island east of the main Pelican Island. The number of piping plovers observed in a single day on this island during
Birds	7598	*Charadrius melodus*	Piping Plover	G3	S1N	LT	SP	P1	C	1997-07-29	Pelican Island has been one of the traditionally favored wintering areas for plovers in Alabama, and has traditionally supported the largest number of piping plovers following Little Dauphin Island. The number of piping plovers observed in a single day
Birds	71	*Charadrius wilsonia*	Wilson's Plover	G5	S1		SP	P1	D	1999-06-17	1999-06-17: male and female observed defending a small territory, suggestive of breeding. Clay (1997) reported an agitated pair on 21 May and a female performing distraction display on 12 June 1997; pair seen again on 23 June 1997 - all sightings occurre
Birds	6859	*Gelochelidon nilotica*	Gull-billed Tern	G5	S2B,S4N		SP		C	2000	Clay (pers. comment) has reported seeing less 25-50 pairs nesting annually.
Birds	6452	*Haematopus palliatus*	American Oystercatcher	G5	S1		SP	P2	D	1997-08-06	1999-07: 1 nest assumed. Clay (1997) reported 2 nests from the Pelican Island complex with sightings of 1-6 individuals on 6 visits between 29 April and 6 August 1997. No sign of nesting in 1995. 1995-07-19: 2 adults observed. 1996-05-17: 2 nest probable

Appendix A-2 (continued)

Taxonomic Group	EO ID	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	SWAP Status	EO Rank	Last Observed	Element Occurrence Data
Birds	4749	*Haematopus palliatus*	American Oystercatcher	G5	S1		SP	P2	B	1997-07-03	Clay (1997) reported two nests from the island with 6 individuals observed on 23 May and 2 birds seen on 3 July 1997. 1995-05-08: 2 birds observed; 1996-05-09: 2 nests probable, 4 adults observed-2 along west end, 1 at flats, and 1 along east beach;
Birds	1223	*Rynchops niger*	Black Skimmer	G5	S2B,S4N		SP		B	2000	Clay (pers. comment) has observed a colony of 100+ on NW end of island and 50+ on SE end.
Birds	8523	*Sternula antillarum*	Least Tern	G4	S2B,S4N		SP		D	2000	Clay (pers. comment) has reported seeing less than 10 pairs nesting from year to year.
Flowering Plants	7560	*Helianthemum arenicola*	Coastal-sand Frostweed	G3	S1				H	1965-03-06	Moderately common.
Flowering Plants	8481	*Lilaeopsis carolinensis*	Carolina Lilaeopsis	G3G5	S1				H	1966-04-30	Infrequent
Flowering Plants	9537	*Ludwigia arcuata*	Pond Seedbox	G4G5	S1				C	2012-10-14	Uncommon (only a small patch observed) in wet swale of island's golf course near western head of lake. Specimen collected.
Flowering Plants	3811	*Ludwigia arcuata*	Pond Seedbox	G4G5	S1				H	1966-05-30	Specimen collected - "In wet ditch near Fort"
Flowering Plants	5318	*Ruellia noctiflora*	Night-flowering Wild-petunia	G2	S1				H	1987-06-05	
Flowering Plants	5377	*Sageretia minutiflora*	Tiny-leaved Buckthorn	G4	S1				C	1997-05-15	Approximately 40-45 plants were observed.
Natural Communities	8468	*Ceratiola ericoides - (Chrysoma pauciflosculosa) / Polygonella polygama / Cladonia leporina* Shrubland	Coastal Rosemary - Woody-goldenrod Scrub	G2?	SNR				B	1999-10-20	This coastal scrub community is dominated by *Ceratiola ericoides* and has a scattered canopy of *Pinus elliottii*. Other plant species present include *Chrysoma pauciflosculosa*, *Conradina canescens*, *Quercus geminata*,
Natural Communities	46	*Juncus roemerianus* - herbaceous vegetation	Needlerush High Marsh	G5	S2S3				C	1997-07	Brackish marsh dominated by *Juncus roemerianus*..
Reptiles	3308	*Nerodia clarkii clarkii*	Gulf Saltmarsh Watersnake	G4T4	S2		SP		H	1996-08-14	Four snakes hand-captured with aid of flashlight. Lengths between 580-900 mm, weight between 110-340 g, 2 snakes escaped before measurements. Total of 6 observed.
Reptiles	8112	*Nerodia clarkii clarkii*	Gulf Saltmarsh Watersnake	G4T4	S2		SP		E	1994-04-19	1 caught and released.
Turtles	4359	*Caretta caretta*	Loggerhead Sea Turtle	G3	S1	LT	SP	P1	C	1999-08-06	Summer, 1999: 3 confirmed nests, 10 false crawls and 5 strandings of loggerhead sea turtles. Nests were laid 14 June, 1 August, and 6 August 1999. Nests and false crawls were found from the inhabited middle of the island to the undeveloped western extreme
Turtles	4440	*Malaclemys terrapin pileata*	Mississippi Diamondback Terrapin	G4T3Q	S2		SP	P1	E	1996	1996: one individual observed on paved road just beyond marsh, near the end of Bienville Blvd. 1994-03-26: one individual observed and photographed at airport saltmarsh. 1968-04: two specimens collected (AUM 8839 and AUM 8840). 1961-07-15: a single specimen

Appendix A-2 (continued)

This information is provided by the Alabama Natural Heritage Program (ALNHP) (www.alnhp.org), a leading source of information about rare and endangered species and threatened ecosystems, and NatureServe (www.natureserve.org), a network connecting science with conservation. Any material supplied by ALNHP will not be published without prior ***written*** *permission, and without crediting the Alabama Natural Heritage Program as the source of material. All information remains the property of ALNHP and may not be transferred to or used by any other party or individual. The ALNHP will not be responsible for any inaccuracies in any data that it provides. Please be aware that the ALNHP's database cannot provide a conclusive statement on the presence, absence or condition of significant natural features in any part of Alabama. The response only summarizes the existing information regarding the natural features or the locations in question known to the ALNHP at the time of the request. These data are dependent on the research and observations of many scientists and institutions, and reflect our current state of knowledge. Many areas have never been thoroughly surveyed, however, and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. The information should never be regarded as the final statement on the site being considered, nor should it be regarded as a substitute for field surveys required for environmental assessments.*

Appendix B: U.S. Fish and Wildlife Service CBRA Compliance Letter

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

RECEIVED
AL DEPT OF CONSERVATION
FEB 1 2013
STATE LANDS
COASTAL SECTION

IN REPLY REFER TO:

JAN 31 2013

2013-TA-0197

Ms. Amy Gohres
ADCNR State Lands Division, Coastal Section
5 Rivers Delta Center
31115 Five Rivers Boulevard
Spanish Fort, AL 36527

Dear Ms. Gohres:

This letter is in response to your January 17, 2013, electronic message requesting a project review for an action affecting an "Otherwise Protected Area" of Unit AL-05P within the Coastal Barrier Resource System. Our comments are made pursuant to Section 6 of the Coastal Barrier Resource Act (CBRA).

The Dauphin Island Park and Beach Board (DIPBB) is proposing to restore the boardwalk infrastructure burned during a fire at Dauphin Island Bird Sanctuary in August 2011. DIPBB proposes to re-build 800 linear feet of boardwalk in the original locations of Tupelo Swamp and Swamp Overlook Boardwalk. Boardwalks will be six feet wide and ADA handicap accessible. Plans are to include educational and interpretive signs along the rebuilt boardwalk and at the East End Landing Site.

Section 6(a)6(F) of CBRA provides an exception for "the maintenance, replacement, reconstruction, or repair, but not the expansion, of publicly owned or publicly operated roads, structures, or facilities." Therefore, replacement of the boardwalk within its original footprint would not conflict with the intentions of CBRA.

Should your agency have additional questions, please contact Mr. Bruce Porter of my staff at (251) 441-5864.

Sincerely,

Dan Everson
Deputy Field Supervisor
Alabama Ecological Services Field Office

www.fws.gov

PHONE: 251-441-5181

TAKE PRIDE® IN AMERICA

FAX: 251-441-6222

Appendix C: U.S. Fish and Wildlife Service Endangered Species Act Compliance Letter

OCT 18 2012

STATE OF ALABAMA
DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
STATE LANDS DIVISION, COASTAL SECTION
5 Rivers ~ Alabama's Delta Resource Center
31115 – 5 Rivers Boulevard
Spanish Fort, Alabama 36527
(251) 621-1216
(251) 621-1331 Fax

ROBERT BENTLEY
GOVERNOR

N. GUNTER GUY, JR.
COMMISSIONER
CURTIS JONES
DEPUTY COMMISSIONER

PATRICIA J. POWELL, DIRECTOR
STATE LANDS DIVISION

PHILLIP E. HINESLEY
COASTAL SECTION CHIEF

October 10, 2012

Post-it® Fax Note 7671	Date 10-18-12	# of pages ▶
To Phillip Hinesley	From US FWS	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 621-1331	Fax #	

Mr. Bill Pearson
U. S. Fish and Wildlife Service
P.O. Drawer 1190
Daphne, Alabama 36526

Dear Larry:

The Alabama Department of Conservation and Natural Resources (ADCNR), in conjunction with the National Oceanic and Atmospheric Administration (NOAA), received the following project proposals under the Coastal Area Management Program.

- *City of Chickasaw: Birding Tower Construction at William Brooks Park*
- *Dauphin Island Park and Beach Board: Site Improvements and Educational Signage for the Dauphin Island Audubon Bird Sanctuary*
- *City of Foley: Wolf Creek Park Kayak Launch*

The project sites are located within the Alabama Coastal Area; therefore, a review by your department is required in order to determine whether or not the proposed projects will be in compliance with the Endangered Species Act and/or have a potential impact on threatened and/or endangered species.

I would appreciate your review and determination of these projects as soon as possible. However, if I do not receive a response from your department within thirty (30) days of the date of this letter, I will presume that you have determined that the projects, as proposed, will be in compliance with the Endangered Species Act.

I have enclosed the project descriptions, maps and site plans for all of the projects listed above. If you have any questions, please call me at (251) 626-1216.

Sincerely,

Phillip Hinesley
Coastal Section Chief

Enclosures

U.S. Fish and Wildlife Service
1208-B Main Street – Daphne, Alabama 36526
Phone: 251-441-5181 Fax: 251-441-6222

No endangered or threatened species or critical habitat are known to occur in the project area. As described, the project will have no significant impact on fish and wildlife resources. IF PROJECT DESIGN CHANGES ARE MADE, PLEASE SUBMIT NEW PLANS FOR REVIEW.

for William J. Pearson, Field Supervisor — Date 10-16-2012 #2

40th ANNIVERSARY 1972-2012 COASTAL ZONE MANAGEMENT ACT

The Alabama Department of Conservation and Natural Resources, State Lands Division, Coastal Section serves as the lead agency responsible for management of the Alabama Coastal Area Management Program, administered by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The goal of this program is to protect, restore and enhance our coastal resources

Appendix D: Alabama Historical Commission Project Review Letter

STATE OF ALABAMA
ALABAMA HISTORICAL COMMISSION
468 SOUTH PERRY STREET
MONTGOMERY, ALABAMA 36130-0900

FRANK W. WHITE
EXECUTIVE DIRECTOR

TEL: 334-242-3184
FAX: 334-240-3477

June 21, 2013

Rebecca Feldman
NOAA
Office of Ocean & Coastal Resource Management
Silver Spring, Maryland 20910

Re: AHC 13-0949 (AHC 13-0061 & AHC 13-0062)
Revised Projects
Dauphin Island Bird Sanctuary & Brooks Park in Chickasaw
Mobile County, Alabama

Dear Ms. Feldman:

Upon review of the revisions to the proposed projects, AHC 13-0061 and AHC 13-0062, we have determined that there should be no adverse effect to properties listed on or eligible for the National Register of Historic Places. Therefore, we continue to concur with these actions.

We appreciate your continued efforts on this project. Should you have any questions, please contact Greg Rhinehart at (334) 230-2662 or by e-mail at Greg.Rhinehart@preserveala.org. Please have the AHC tracking number referenced above available and include it with any correspondence.

Truly yours,

Elizabeth Ann Brown

Elizabeth Ann Brown
Deputy State Historic Preservation Officer

EAB/GCR/gcr