National Park Service
U.S. Department of the Interior

Cape Hatteras National Seashore
North Carolina

FINDING OF NO SIGNIFICANT IMPACT
Construct Accessible Hunt Blind/Wildlife Viewing Platform
Environmental Assessment

Recommended:

3/8/19

David E. Hallac — Date
Superintendent, Cape Hatteras National Seashore

Approved:

3/13/19

Robert A. Vogel — Date
for Regional Director, Southeast Region, National Park Service

INTRODUCTION

In compliance with the National Environmental Policy Act (NEPA), the National Park Service (NPS) has prepared an Environmental Assessment (EA) to examine alternative actions and environmental impacts associated with the construction of a new accessible waterfowl hunt blind/wildlife viewing platform and boardwalk within Cape Hatteras National Seashore's federally authorized hunting area.

The purpose of the EA was to evaluate several alternatives in order to identify a location for an accessible waterfowl hunt blind/wildlife viewing platform and boardwalk that will avoid or minimize impacts to sensitive ecological features. This boardwalk will enhance the Seashore's visitor opportunities by providing an accessible hunt blind and wildlife-viewing platform, in compliance with the 1968 Architectural Barrier Act (ABA), that is located within a wetland environment for all visitors.

The construction of this new boardwalk and platform will be developed and constructed in collaboration with NPS partners on Bodie Island.

The statements and conclusions reached in this finding of no significant impact (FONSI) are based on documentation and analysis provided in the EA and associated decision file. To the extent necessary, relevant sections of the EA are incorporated by reference below.

The NPS presented two alternatives, the no action alternative (Alternative A) and the proposed action Alternative B - Construct a New Accessible Hunt Blind and Wildlife-Viewing Platform and Boardwalk. Under the No Action alternative, the NPS will not construct an accessible hunt blind and wildlife-viewing platform. The Seashore will continue with current management and no changes will occur to the proposed project area. Hunting blinds within the federally authorized hunting area will continue to be constructed and be used by hunters during hunting season as consistent with the Code of Federal Regulations. However these, blinds will not be ABA accessible or provide easy access to wildlife watchers or the general public.

In addition to the locations of the boardwalk as described in Alternative B, two other potential locations were proposed and surveyed and described on pages 14-15. These locations were eventually dismissed from further consideration because they were either too close to the highway or required extensive vegetation and greater disturbance and fill to the wetlands than Alternative B.

SELECTED ALTERNATIVE

Based on the analysis presented in the EA, the NPS has selected Alternative B - Construct a New Accessible Hunt Blind and Wildlife-Viewing Platform and Boardwalk. The selected alternative was identified in the EA as the NPS preferred alternative and is described below and on pages 10-14 of the EA.

The selected alternative will construct a new 250-265 foot long accessible boardwalk from a paved pull-off area along Highway 12 to open water. This proposed action will be located within the federally authorized hunt area on Bodie Island. This area was near the location where a former wildlife viewing platform had been previously constructed and therefore the area had been previously disturbed and is within the federally authorized waterfowl hunting area as stated in 36 CFR Section 7.58. The viewing platform was removed several years ago after many storms damaged the facility. Currently the site has a paved pull-off area and the grass is regularly mowed around the pull off to maintain the road shoulders along the highway.

A concrete parking area (25 feet x 60 feet) will be constructed in the upland area adjacent to the current pull- off area to accommodate five vehicles, including one accessible parking space. The elevated walkway, or boardwalk, will be composed of timber, composite or concrete decking, and support joists supported by 6"x 6" piles/piers. The boardwalk will be 72 inches in width for the entire length to accommodate various sized groups and meet minimum accessible passing requirements. The pilings will be driven or jetted six feet into the ground with at least four feet remaining above ground and water for the construction of the walkway. Driven/jetted actions will be performed by a backhoe or excavator with a compressor and water jet.

The pilings will be the foundation upon which the boardwalk will be constructed. The elevation of the boardwalk will be approximately three feet above the ground and water and constructed to allow future floodwaters to raise and lower through the structure. Support brackets will be added to the cut pilings for the beams and the timber boardwalk will be built upon these beams. The boardwalk will end at the pond where the eight foot by 14 foot covered platform will be constructed eight to ten feet from the edge of the vegetation and approximately 3 feet above the open water.

The platform will be open to allow for a 180-degree view of the open pond and marsh area. A 20-foot wide construction corridor will be created temporarily along one side of the boardwalk only to allow for a work zone during the 90-120 day construction period. The number of passes will be strategically limited to as few as possible.

Benches will be installed inside the covered platform along with stairs to allow access to the water from the platform. Interpretive wayside signs/ panels will also be installed near the parking area and on the completed boardwalk or covered platform.

Construction of the boardwalk, platform and parking area will be performed in the winter months. Prior to construction activities, the majority of the site will be cleared with weed eaters or other appropriate power tool to cut back the tall grasses and small shrubs to identify the limits of the work zone. The minimal removal of a couple of woody shrubs may be required depending on the final design of the boardwalk. State rare plant species are within the project area and will be avoided to the extent practicable. Staging of material and equipment will be within the site where the parking area is proposed to go and along the previously mowed areas. Ingress and egress for the construction of the boardwalk will only occur on one side of the boardwalk within the 20 foot wide work zone.

Timber mats, or other suitable materials will be placed directly on the herbaceous vegetation to adequately support the expected construction vehicle loads within the work zone. At the conclusion of the project, the materials used to construct the work zone (e.g., timber mats) will be removed to allow the area to naturally re-seed and return to pre-construction conditions.

Total amount of disturbance from the temporary construction of the facilities and the permanent installation of the boardwalk, platform and parking area are described in the following table:

Table 1: Amount of total disturbance for the selected alternative

Facility	Square Feet	Acres	Type of disturbance
Pilings	30	.0007	Permanent
Boardwalk (shading)	1,180	.0271	Permanent
Parking Area	1,500	.0344	Permanent
Construction Work Zone	10,863	.2493	Temporary

During the hunting season(s), the boardwalk and hunt blind will be available to permitted hunters Monday through Saturday. The boardwalk will have a chain or gate installed that will only be accessible to permitted hunters. Since North Carolina does not allow waterfowl hunting on Sundays during the hunt season(s), the boardwalk and hunt blind will be open and available to all visitors for wildlife viewing and photography on Sundays.

Proposed actions under Alternative B will be constructed by a contractor. Completion of the project will take approximately 3-4 months, depending on the weather.

Under this alternative, the treatment and monitoring of *Phragmites australis* (Common reed) will occur within the newly established boardwalk area and around the open pond area to enhance and restore any degraded wetland habitat from the establishment or spread of *Phragmites* from project activities.

The construction of this new accessible hunt blind will not modify current hunting areas, regulations or seasons. This alternative is located further away from other existing hunt blind locations than other alternative locations considered.

In addition, the project will implement a number of best management practices to minimize the degree and/or severity of adverse effects on wetlands and floodplains and visitor use and experience.

RATIONALE FOR THE DECISION

The NPS has selected Alternative B because it best meets the project purpose and need for the project by selecting a location that will avoid or minimize impacts to sensitive ecological features. This project will enhance the Seashore's visitor opportunities by providing an ABA accessible hunt blind and wildlife-viewing platform within a wetland environment for all visitors. This project will work towards providing permanent hunt blinds within the Seashore's federally authorized hunting area.

BEST MANAGEMENT PRACTICES

The NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of the park's natural and cultural resources, best management practices (BMPs) will be implemented as part of the selected alternative and can be found on pages 15-18 of the EA. The BMPs are also listed in Attachment B of this document.

FINDING OF NO SIGNIFICANT IMPACT

As described in the EA, project actions will not have any measureable adverse impacts to threatened and endangered species or to cultural resources. Only the impacts to wetlands, floodplains and visitor's use and experience were fully analyzed in the EA. The potential for significant adverse impacts on these resources has been analyzed, taking into account the context and the relevant intensity considerations required by CEQ Regulations at 40 CFR 1508.27(b), including: impacts that may be both beneficial and adverse and whether the action is related to other actions with individually insignificant but cumulatively significant impacts. As described below, the National Park Service has determined there will be no significant adverse impacts to park resources. This determination is consistent with the purpose and significance of Cape Hatteras National Seashore.

Construction-related activities will cause less than .10 acres of permanent and temporary adverse impacts to wetlands and, as such, the proposed actions are exempt from the requirement to develop a Wetlands Statement of Findings and compensation requirements according to section 4.2.1 of Procedural Manual #77-1: Wetland Protection. However, all portions of the boardwalk will occur within the 100-year floodplain due to the project's proximity to Roanoke Sound and, as such, a Floodplain Statement of Findings was developed and approved by the Water Resources Division (Attachment C).

The action will create long-term and short-term environmental effects associated with the occupancy and modification of wetlands and floodplains; but avoid the direct and indirect support of floodplain development and actions that could adversely affect the natural resources and functions of wetlands and floodplains or increase flood risks. Wetlands and floodplains will be protected during construction from extra sediments and other issues by the use of in water-construction management practices, such as silt curtains, so adverse impacts will be limited. Staging areas and work zone will be allowed to revegetate naturally after construction is complete.

While the selected alternative will pose some minor temporary inconveniences during construction activities from temporary closures and sounds the long-term improvements to provide parking, a boardwalk and hunt blind, the overall project will have a moderate benefit to visitors to the Seashore. Visitor use and experience will have direct adverse impacts from construction activities and beneficial impacts as a result of improvements to hunting and wildlife viewing facilities. In the long-term, the quality of the visitor experience will improve with the availability of the new facilities for visitors on Bodie Island.

There will be no significant impacts on public health, public safety, or unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence was identified. Implementation of the NPS selected alternative will not violate any federal, state, or local environmental protection law.

A public scoping meeting was held August 21, 2018 during the 30-day public scoping period for the project. Eight correspondences were received. The majority of the comments were in favor of the project. A 30-day public review of the completed EA was posted to the NPS Planning, Environment and Public Comment (PEPC) website from December 10, 2018 through February 20, 2018. The partial government shutdown occurred during the public comment period and the comment period was extended to allow for a full 30-day public review. Eleven correspondences were received during the EA review period. Comments received were not substantive and the majority were in support of the project or were editorial. However, a few

comments, which questioned project actions or were a frequent comment, are addressed in Attachment D. All notices were sent to park stakeholders and interested parties, federal and state agencies, local and state governments and local and state newspapers. Planning information was also posted on the park's website and social media sites.

The state historic preservation office (SHPO) was notified of the project and concurred with the park's determination of No Adverse Effect on October 1, 2018.

The North Carolina Division of Coastal Management was notified of the project and submitted a federal consistency determination on February 4, 2019 and concurred with the park's determination that the project is consistent with North Carolina's approved coastal management program.

CONCLUSION

The selected alternative will not have a significant effect on the human environment in accordance with Section 102(2)(c) of NEPA. Therefore, an EIS is not required for this project and will not be prepared.

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Attachment A – Non-Impairment Determination

Attachment B – Best Management Practices

Attachment C – Floodplain Statement of Findings

Attachment D – Response to Public Comments

Attachment A – Non-Impairment Determination

INTRODUCTION

This non-impairment determination has been prepared for the selected alternative, as described in the Finding of No Significant Impact to Construct a Accessible Hunt Blind and Wildlife Viewing Platform Environmental Assessment (EA).

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of the Interior and the NPS to manage units "to conserve the scenery, natural and historic objects, and wild life in the System units and to provide for the enjoyment of the scenery, natural and historic objects, and wild life in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (54 U.S.C. 100101).

NPS *Management Policies 2006* (NPS 2006), Section 1.4.4, explains the prohibition on impairment of park resources and values:

> "While Congress has given the Service the management discretion to allow impacts within parks, that discretion is limited by the statutory requirement (generally enforceable by the federal courts) that the Park Service must leave park resources and values unimpaired unless a particular law directly and specifically provides otherwise. This, the cornerstone of the Organic Act, establishes the primary responsibility of the National Park Service. It ensures that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them."

An action constitutes impairment when its impacts "harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values" (NPS 2006, Section 1.4.5). To determine impairment, the NPS must evaluate the "particular resources and values that will be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts: (NPS 2006, Section 1.4.5).

National park system units vary based on their enabling legislation, natural and cultural resources present, and mission. Likewise, the activities appropriate for each unit and for areas in each unit also vary. For example, an action appropriate in one unit could impair resources in another unit.

As stated in the NPS *Management Policies 2006* (sec. 1.4.5), an impact on any park resource or value may constitute an impairment, but an impact will be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

The significance and importance of each resource, based on the Seashore's enabling legislation, is discussed under the analyzed resource sections below.

The resource impact topics carried forward and analyzed for the NPS selected alternative in the environmental assessment and for which an impairment determination is contained in this attachment was wetlands and floodplains. Each resource or value for which impairment is assessed and the reasons why impairment will not occur is described below.

Wetlands and Floodplains

As noted in the Seashore's enabling legislation, part of the significance of the Seashore is the preservation of the barrier island ecosystem, which encompasses a variety of wetlands environments as well as being located within a 100-year floodplain. The Seashore's federally authorized hunting area is located within a wetland environment therefore any new construction for hunting, will have an effect to both wetlands and floodplains. The analysis in the EA found on page 23 indicated less than .10 acres of direct long-term impacts will occur to the emergent freshwater marsh wetlands within the project area from the construction of a new accessible hunt blind and wildlife-viewing platform. Overall, direct long-term adverse impacts will occur to .0351 acres from the construction of the parking area and installation of the elevated pilings. NPS will minimize direct and indirect impacts by implementing best management practices (BMPs). Heavy equipment used in the wetlands will be placed on timber mats, or other measures will be taken to minimize soil and plant root disturbance and to preserve preconstruction elevations. The number of passes within the work zone will be strategically limited to as few as possible. Care will be taken to avoid any rutting caused by vehicles or equipment. Measures will be employed to prevent or control spills of fuels, lubricants, or other contaminants from entering the wetland. Alternatives to standard pressure treated lumber for the boardwalk will be researched, as treated lumber could leach contaminants into the environment. If a suitable alternative is identified, it will be incorporated into the design of the boardwalk. Appropriate erosion and siltation controls (i.e. silt fencing, coir logs, etc.) will be installed and maintained during construction, and all exposed soil or fill material will be permanently stabilized at the earliest practicable date. Any water vessels used for construction (i.e., barge or powered boat for platform construction) will be decontaminated prior to use in the open pond so they are free of any vegetation, animals, mud, and any other organic material that is not native to the pond. Where plantings or seeding may be needed, native plant material will be obtained and used in accordance with NPS policies and guidance. Management techniques will be implemented such as reseeding with native plants to foster rapid development of target native plant communities and to

eliminate invasion by exotic or other undesirable species. Minimizing shade impacts, to the extent practicable, shall be a consideration in designing boardwalks and similar structures within the wetland. The action will be consistent, to the maximum extent practicable, with state coastal zone management programs.

Because impacts to wetlands and floodplains will be localized, limited to filling 30 ft^2 of wetlands and affecting a 0.0351-acre area from the installation of an elevated boardwalk with platform and the construction of a 1,500 ft^2 parking area, the NPS has determined that the selected alternative will not result in an impairment of wetlands and floodplains.

Conclusion

In conclusion, as guided by this analysis, good science and scholarship, advice from subject matter experts and others who have relevant knowledge and experience, and the results of public involvement activities, it is the Superintendent's professional judgment that there will be no impairment of park resources and values from implementation of the selected alternative. The NPS has determined that implementation of the selected alternative will not constitute an impairment of the resources or values of Cape Hatteras National Seashore. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by the public and others, and the professional judgment of the decision maker guided by the direction of NPS *Management Policies 2006*.

Attachment B – Best Management Practices

General Construction

- The NPS will ensure the contractor will comply with all local, state, and federal laws, and regulations.
- All designs, including proposed materials and placement of temporary matting, will be reviewed and approved by NPS staff prior to construction.
- The project will include a pre-construction meeting and a final inspection meeting, in addition to regularly scheduled project meetings and site visits throughout the project.
- All construction generated debris (excluding vegetation) will be removed from the Seashore to an approved landfill.
- Equipment will be free of any fluid leaks (fuel, oil, hydraulic fluid, etc.) upon arrival to the work site and will be inspected at the beginning of each shift for leaks. Leaking equipment will be removed off site for necessary repairs before the commencement of work.
- All construction equipment that will leave paved roads will be pressure-washed prior to entering the Seashore and shall be clean of any soil, plant matter, or other materials. NPS natural resource specialists or the project manager shall inspect the vehicles prior to entry into the project area.
- Fueling of any type, whether equipment or vehicles, will be done either on impervious surfaces such as concrete or asphalt, or deploy a spill containment pad.
- Equipment, material, and supply storage will be within approved areas only.
- Parking of personal vehicles will be within designated areas only.
- Construction zone will be clearly marked. Fencing or other type of NPS approved temporary barriers will be installed prior to work commencing. At completion of action/project all temporary marking/fencing/flagging will be removed.
- To reduce noise and pollution emissions, construction equipment will not idle any longer than is necessary for safety and/or mechanical reasons.
- Construction activities will be restricted to daylight hours to reduce impacts from noise and eliminate impacts from artificial lighting.

Archeological Resources

- In the unlikely event activities unearth cultural resources, work will be stopped in the area of discovery and the Seashore will consult with the Seashore Cultural Program Manager, State Historic Preservation Office (SHPO) in accordance with §36 CFR 800.13, Post Review Discoveries.
- In the unlikely event that human remains are discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (1990) will be followed.

Floodplains and Wetlands

- Heavy equipment used in wetlands will be placed on timber mats, or other measures will be taken to minimize soil and plant root disturbance and to preserve preconstruction elevations.
- The number of passes within the work zone will be strategically limited to as few as possible.
- Care will be taken to avoid any rutting caused by vehicles or equipment.
- Measures will be employed to prevent or control spills of fuels, lubricants, or other contaminants from entering the wetland.
- Alternatives to standard pressure treated lumber for the boardwalk will be researched, as treated lumber could leach contaminants into the environment. If a suitable alternative is identified, it will be incorporated into the design of the boardwalk.
- Appropriate erosion and siltation controls (i.e. silt fencing, coir logs, etc.) will be installed and maintained during construction, and all exposed soil or fill material will be permanently stabilized at the earliest practicable date.
- Any water vessels used for construction (i.e., barge or powered boat for platform construction) will be decontaminated prior to use in the open pond so they are free of any vegetation, animals, mud, and any other organic material that is not native to the pond.
- Where plantings or seeding may be needed, native plant material will be obtained and used in accordance with NPS policies and guidance. Management techniques will be implemented such as reseeding with native plants to foster rapid development of target native plant communities and to eliminate invasion by exotic or other undesirable species.
- Minimizing shade impacts, to the extent practicable, should be a consideration in designing boardwalks and similar structures.
- Action will be consistent, to the maximum extent practicable, with state coastal zone management programs.

Soils and Vegetation

- To eliminate impacts on special-status plant species *(Eleocharis rostellata and Ludwigia alata)* the boardwalk will be designed or realigned to avoid these species, to the extent practicable.
- Construction zones will be identified (i.e. flagging, construction tape, etc.) to confine activity to the minimum work area required.
- All construction vehicles (including tires, chassis, etc.) will be washed prior to entry into the Seashore and project area to reduce the spread of invasive and exotic plants.
- Soil disturbance shall be minimized to the greatest extent possible to reduce disturbance to native plants and reduce the potential for the introduction or spread of invasive non-native plant species.

- Vegetation material removed during the project that is unusable for revegetation efforts shall be cut and shredded onsite for use as mulch in the project area.
- Southeastern Coastal Network Inventory and Monitoring (SECN I&M) Program will begin mapping, monitoring and treatment of *Phragmites australis*.

Wildlife

- Construction personnel will be oriented on appropriate behavior in the presence of wildlife and the proper handling and disposal of food and/or other attractants.
- Daily site inspections should be performed prior to construction activities to ensure reptiles and amphibians (e.g. snakes, freshwater turtles, frogs) or other wildlife species who may be in the project area are not harmed. A resource management staff member should be consulted, if wildlife are present during project activities.
- Construction activities should occur after November 1 and before April 1 to reduce impacts to breeding migratory bird species.

Environmental Assessment to Construct an Accessible Hunt Blind and Wildlife Viewing Platform

FLOODPLAINS STATEMENT OF FINDINGS

for

Executive Order 11988: Floodplain Management

Director's Order 77-2: Floodplain Management

Recommended:

2/22/19

David E. Hallac — Date
Superintendent, Cape Hatteras National Seashore

Certification of Technical Adequacy and Servicewide Consistency:

F. Edwin Harvey — 2/28/2019

Forrest (Ed) Harvey — Date
Chief, Water Resources Division, National Park Service

Approved:

3/13/19

Robert A. Vogel — Date
Regional Director, Southeast Region, National Park Service

for

INTRODUCTION

The National Park Service (NPS) has prepared this Floodplain Statement of Findings (FSOF) in compliance with Executive Order 11988 *Floodplain Management* and Directors Order 77-2. NPS would undertake a federal action for the construction of a new accessible boardwalk and hunt blind/ wildlife viewing platform within the legislated boundary of Cape Hatteras National Seashore (CHNS or "Seashore") along State Highway 12 on Bodie Island.

The purpose of the proposed project is to construct an accessible hunt blind that would have minimal impacts to the Seashore's natural and cultural resources, including natural and beneficial floodplain values. This boardwalk would enhance the Seashore's visitor opportunities by providing an accessible hunt blind and wildlife viewing platform for all visitors. This project would meet the federal requirement of providing permanent hunt blinds within the Seashore's federally authorized hunting area and would enhance the Seashore's visitor use experiences by creating a wildlife-viewing platform within a wetland environment.

These objectives are consistent with the enabling legislation for the park which authorizes the park to allow hunting within the seashore (U.S. Public Law 40 Stat. 755). The proposed project represents a key opportunity to meet the Secretarial Order 3356, signed September 15, 2017, directs bureaus within the Department of the Interior, to expand and improve access for hunting, fishing and outdoor recreation on Bureau of Land Management (BLM), United States Fish and Wildlife Service (USFWS) and National Park Service (NPS) land. This secretarial order also directs these agencies to improve wildlife habitat. By constructing a new accessible hunt blind/wildlife viewing platform and boardwalk the Seashore would comply with this Secretary Order.

Brief Site Description

In 1937, Cape Hatteras became the first national seashore. It was designated to preserve dynamic barrier islands and its unique vegetation, wildlife and coastal processes, and to provide recreation and enjoyment for the public. Stretching over 70 miles from north to south, Cape Hatteras National Seashore crosses three islands: Bodie, Hatteras, and Ocracoke. The islands are linked by North Carolina Highway 12 and by the Hatteras Inlet Ferry. Although not part of the park, the islands are also inhabited by eight villages predating the park that reflect the history of the Outer Banks region. The project area is located on Bodie Island, the northern most district of the Seashore. The district incorporates approximately 5,714 acres and 1,500 acres have been designated for waterfowl hunting. This district consists of six miles of shoreline and encompasses a large expanse of low-lying interior land compromised of marsh lands with many medium to large ponds. This district incorporates one of the Seashores three historic lighthouses as well as a day use area, 120-site campground, a public boat ramp and a concession operated marina.

Brief Description of the Proposed Action

Under Alternative B (the alternative preferred by the National Park Service) of the Environmental Assessment to Construct a New Accessible Hunt Blind and Wildlife Viewing Platform, the park would construct a new 250-265 foot long accessible boardwalk from a paved pull-off area along Highway 12 to open water (Figure 1). A concrete parking area (25 feet x 60 feet) would be constructed adjacent to the current pull- off area for five vehicles, including one accessible parking space. Total permanent disturbance of the project area would be .0684 acres.

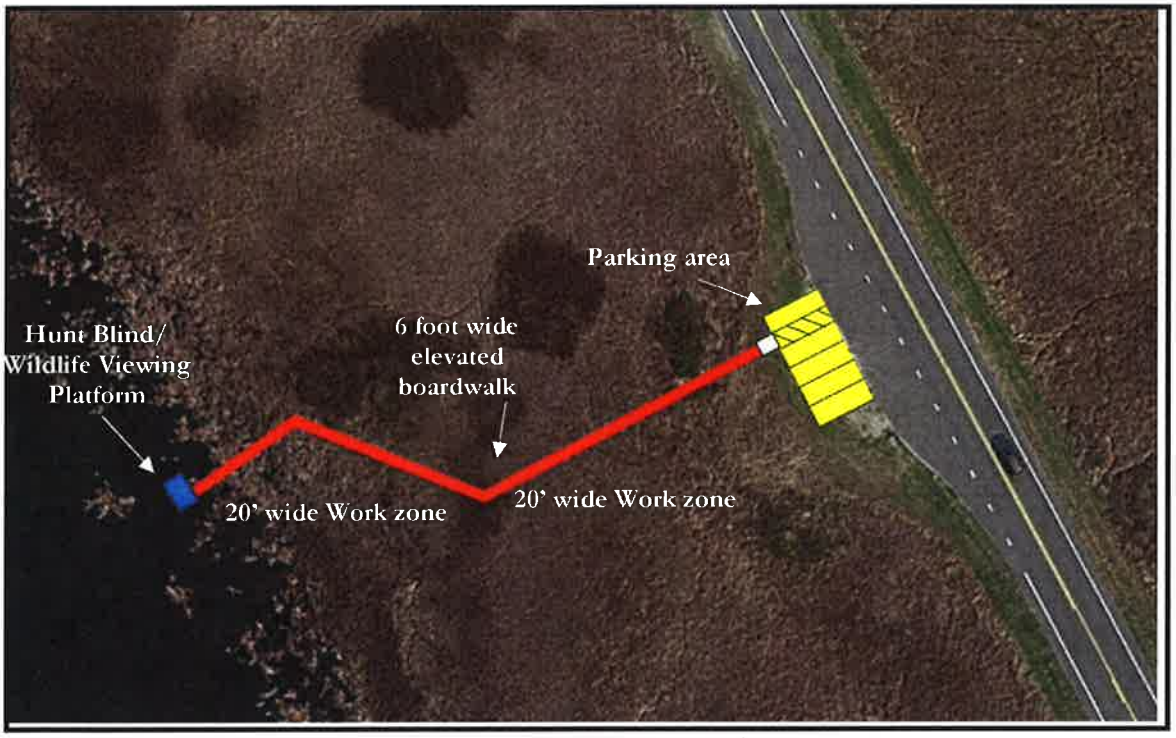

Figure 1: Alternative B Conceptual Diagram

The elevated walkway, or boardwalk, would be composed of timber, composite or concrete decking, and support joists supported by 80-100 6"x 6" piles. The boardwalk would be 60 inches in width for the entire length to accommodate various sized groups and meet minimum accessible passing requirements (Figure 3). The pilings would be driven or jetted six feet into the ground with at least four feet remaining above ground for the construction of the walkway. Driven/jetted actions would be performed by a backhoe or excavator with a compressor and water jet.

The pilings would be the foundation upon which the boardwalk would be constructed. The elevation of the boardwalk would be 2-3 feet above the ground and water and constructed to allow future flood waters to raise and lower through the structure causing minimal to no damage to the structure. Support brackets would be added to the cut pilings for the beams and the timber boardwalk would be built upon these beams. The

boardwalk would end at the pond where the eight foot by 14 foot covered platform would be constructed (Figure 2).

The platform would be open to allow for a 180 degree view of the open pond and marsh area. A 20-foot wide construction corridor would be created temporarily along one side of the boardwalk only to allow for a work zone during the 90-120 day construction period.

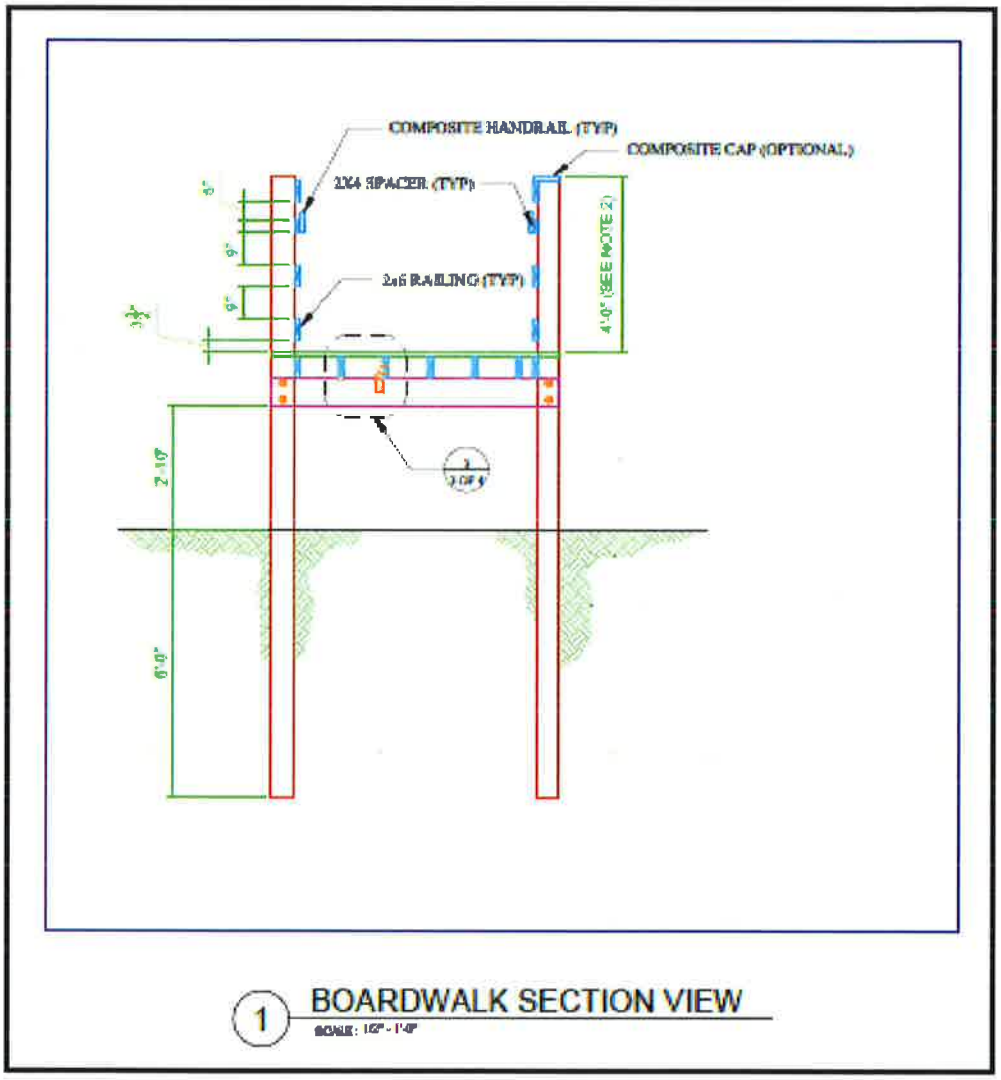

Figure 2: Proposed Boardwalk Section View. Note the 2' 10"-foot freeboard of the boardwalk deck above natural grade.

Benches would be installed inside the covered platform along with stairs to access to the water from the platform. Interpretive wayside signs/ panels would also be installed near the parking area and along the completed boardwalk.

Construction of the boardwalk, platform and parking area would be performed in the winter months. Prior to construction activities, the majority of the site would be cleared with weed eaters or other appropriate power tool to cut back the tall grasses and small shrubs to identify the limits of the work zone. The minimal removal of a couple of woody shrubs may be required depending on the final design of the boardwalk. State rare plant species are within the project area and would be avoided to the extent practical.

Timber mats, or other suitable materials would be placed directly on the herbaceous vegetation to adequately support the expected construction vehicle loads within the work zone. At the conclusion of the project, the materials used to construct the work zone (e.g., timber mats) would be removed to allow the area to naturally re-seed and return to pre-construction conditions.

Under this alternative, the treatment and monitoring of *Phragmites australis* (common reed) would occur within the newly established boardwalk area to enhance and restore any degraded wetland habitat from project activities.

Under this alternative, the improvements proposed would encourage visitor use of this area of Bodie Island, enhancing recreational opportunities and public exposure to the natural environment.

General Characterization of Floodplain Values and of the Nature of Flooding and Associated Floodplain Processes in the Area

Floodplains with the Seashore perform important natural functions, including temporary storage of floodwaters, dissipation of storm water runoff, moderation of peak flows, groundwater recharge, prevention of erosion, and maintenance of water quality. In general, natural buffers, such as the sandy beach, dunes, and vegetation in the vicinity of the project area help maintain the natural functions of the floodplain. In the project area, the wetland vegetation along the sound acts as natural barriers to dissipate wave energy and protect the back dune area from flooding and erosion.

The park supports a number of natural features that reduce flooding severity. For example, dunes along the seashore impede storm surge, and ponds and other depressions also function to store water during over wash or large precipitation events. Flooding on the Seashore can range from minor over wash events during high tides to major flooding from hurricanes and other coastal storms. Excessive precipitation can also flood low elevation areas across the park. Major storms can drive ocean storm surges completely across the island, dramatically changing habitats and the entire landscape. As storm winds and waves scour sand away from the ocean beaches, sediments are deposited along the sound side. Many of the highest points on the islands are within the relict dune fields. Soils are sandy and the vegetation cover is often incomplete. The amount of natural vegetation cover present and the amount of impervious surface within a floodplain

influences the degree of retention or effective function a floodplain can provide. The more vegetation and less impervious surface that is present within the floodplain, the better the floodplain can serve to protect the surrounding area from soil erosion and flooding. The ecological value of a heavily vegetated floodplain also increases because it provides more suitable habitat for wildlife (EMI 2008). The dynamic Bodie Island floodplain provides habitat for migrant water birds and helps reduce sound-side wind and wave impacts from storm effects. As a benefit when the sound floods, it brings an abundance of invertebrates, fish, and plants into the fresh water pond adjacent to the project area which then provides food for resting and feeding waterfowl (FEMA 1992).

JUSTIFICATION FOR USE OF THE FLOODPLAIN

Description of Why the Proposed Action Must be Located in the Floodplain

The entire island is within the 100-yr floodplain, therefore, any development on the island would have a floodplain location. This proposed study area is the only practicable location for the proposed action as the focus of this particular NPS site is the national seashore and protection measures are prescribed rather than relocation. Further, the proposed action will not significantly affect natural surface water flows or natural floodplain functions of the project area. The purpose of the project is to improve visitor access with minimal impacts to the natural and cultural environment.

The project area is within the 100-year floodplain, as shown on Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) Panel: 375356 for Dare County, NC (Figure 3). The Federal Emergency Management Agency defines geographic areas as flood zones according to varying levels of flood risk. The zone reflects the severity or type of flooding in the area, as depicted on Figure 3. The zone, labeled "AE" on the Federal Emergency Management Agency map, is within the 100-year floodplain and ranges in elevation from 8-10 ft. National Geodetic Vertical Datum of 1988 (NAV88). This zone encompasses the project area. The major source of flooding in this area would be flooding from storm surge or over wash from the direction of the Roanoke sound.

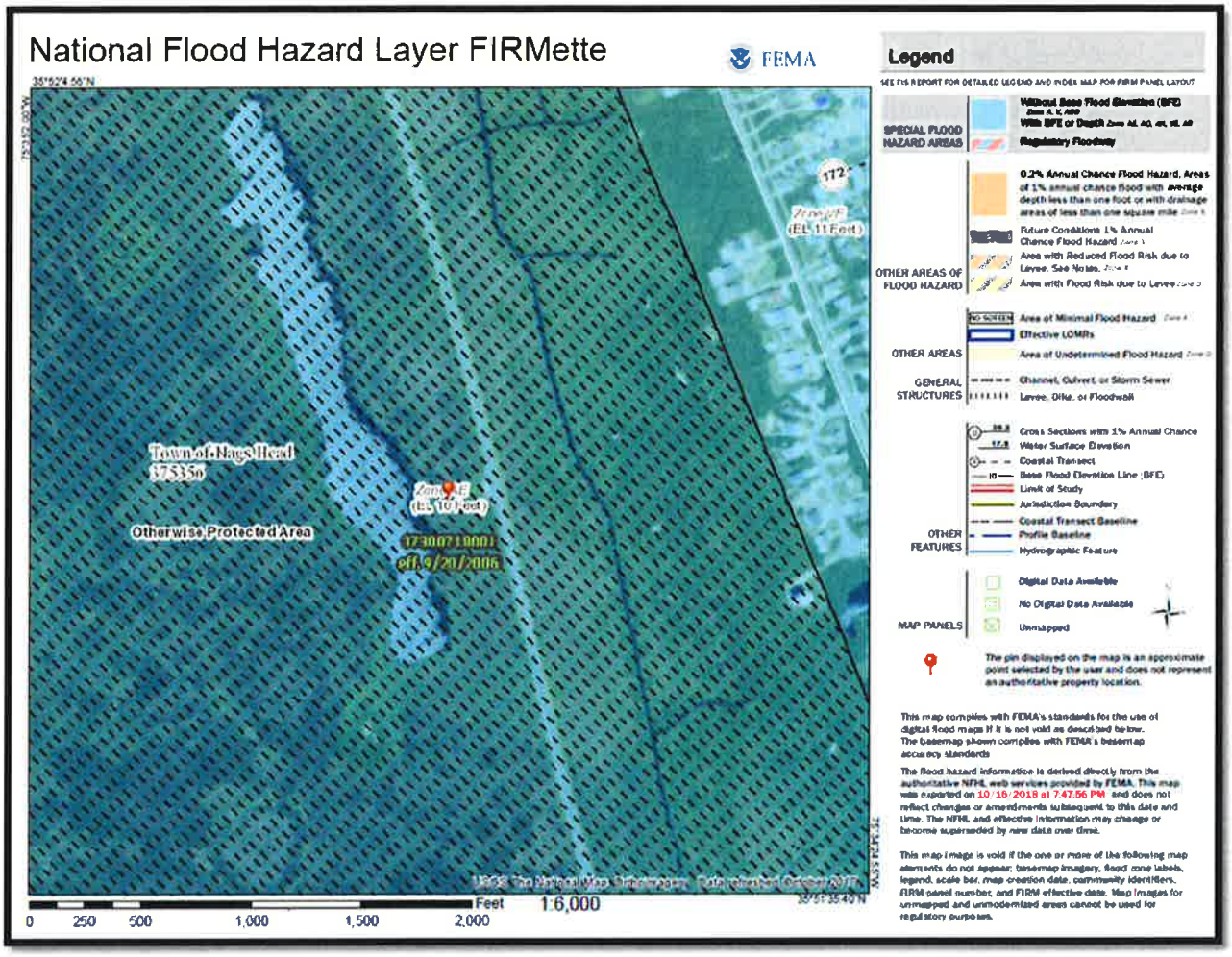

Figure 3: FIRM panel for Project Site

Measures to mitigate flood Hazard to Human Life, Property, natural/beneficial floodplain values

Conditions associated with normal flooding at this location are not considered particularly hazardous to people or property. More extreme flooding generally occurs in the project area as a result of hurricanes and storm surge making weather/marine warnings and evacuation a practical option for protection of human life. A Severe Weather Plan is in place for the park and is updated annually. The mitigation provided in the project scope in elevating the boardwalk and removing exotic plant species in order to amending adverse impacts from the construction of new infrastructure within wetland and helps restore natural and beneficial floodplain values. The minimal infrastructure associated with this action is sacrificial with an expected life of 30 years, and intended only to support the mission of the National Seashore. As such, loss of the capital

investments (property) resulting from a severe flood event would be considered an acceptable loss.

All portions of the boardwalk would occur within the 100-year floodplain due to the project's proximity to Roanoke Sound. The permanent concrete elements of the parking area would result in minor impacts to the 100-year floodplain due to the increase in impervious surface area. Approximately 1,500 square feet (ft^2) (0.0344 acre) of concrete will be constructed within the floodplain. However, the proposed parking area would not alter the current elevations of the area and is not anticipated to reduce flood storage capacity; thus, no specific mitigation would be required.

As stated previously, the boardwalk would be elevated 2-3 feet about the surface of the ground to maintain natural wetland hydrology, including fluctuating water levels that may occur from typical to extreme storm events. The boardwalks would be located away from rare or endangered vegetation and routed around large trees in order to avoid removal. A total of .0069 acres (300 ft^2) of fill would occur within the wetland due to the installation of the pilings.

SUMMARY

The National Park Service finds that the efforts to construct an accessible hunt blind and wildlife viewing platform is essential for public use and wildlife habitat, despite the fact that the actions would be located in flood-prone areas. The National Park Service also finds that in constructing this facility, there are no practicable alternatives to locate the project outside of the floodplain since the entire study area is within the 100-year floodplain. Conditions associated with normal flooding at this location are not considered particularly hazardous to people or property and weather/marine warnings in conjunction with a Severe Storm Plan and associated closure/evacuation procedures are currently in place for protection of human life for more extreme flooding events. The design of the proposed action would allow natural surface water flows and natural and beneficial floodplain values to continue. To mitigate risks to property, the design elements are minimal and utilize sacrificial infrastructure. This project is consistent with the policies and procedures of NPS Director's Order #77-2 (Floodplain Management) and Executive Order 11988.

REFERENCES

Emergency Management Institute (EMI). 2008. Floodplain Management: Principles and Current Practices. Floodplain Natural Resources and Functions (Chapter 8). Available on the Internet at https://www.training.fema.gov/hiedu/aemrc/courses/coursetreat/fm.aspx.

Federal Environmental Management Agency (FEMA). 1992. Floodplain Management in the United States: An Assessment Report. Volume 1 Summary Report. Interagency Floodplain Management Taskforce.

National Park Service (NPS).2003. Procedural Manual 77-2 *Floodplain Management.*

Attachment D – Response to Public Comments

Eleven correspondences were received during the 30-day review period. Majority of comments were in favor of the project and no comments were substantive to warrant changes to the environmental assessment. However, a few comments that reasonably questioned the project or were a frequent comment are addressed below.

Affected Environment- Rare or Unusual Vegetation

Concern Statement: The project extends out into the pond with the potential for greater impacts such as the impacts of shells and other hunting paraphernalia dispensed into the area. The retrieval of downed game could impact threatened and endangered species protected from inadvertent trampling or takings.

> **Response:** A state Natural Heritage Program biologist was consulted regarding the scope of the project and assisted the park in conducting a survey of state rare and sensitive plant species within the project area. The NPS acknowledges there will be some trampling of vegetation during project construction but state sensitive plants will be identified and flagged for avoidance as stated in the EA on pages 13 and 17. No impacts to federally threatened and endangered species are expected to occur. Littering in the park is not permitted and visitors are expected to pack out their trash

Park Management Issues- Hunting

Concern Statement: This site is easily accessible to the public and the park should have some easy way to inform others that the hunt blind is in use. The hunt blind should also be available to those who may require assistance and are not just wheel chair bound.

> **Response:** The park will implement appropriate measures to identify (signage, chain, gate, etc.) when the blind has been permitted for hunting and is in use. Hunters who are disabled will have priority. The Seashore will develop protocols for use and issuing of permits for this accessible hunt blind.

Concern Statement: The authorization of hunting wildlife in the Seashore and the construction of an additional hunt blind should not be allowed.

> **Response:** This proposal is to determine if and where to construct an accessible hunt blind within a federally authorized waterfowl hunting area as authorized through the Code of Federal Regulations (36 CFR 7.58). Consideration of more or less hunting in the Seashore is beyond the scope of this proposal. This proposal is not to determine why hunting is appropriate in the Seashore nor does it authorize more hunting of wildlife. Cape Hatteras National Seashore provides hunt blinds within the authorized

hunt area as stated in 36 CFR Section 7.58 (a)(7): *Permanent blinds will be constructed exclusively by the Seashore and these will be built only on Bodie Island.*

Concern Statement: Gunshots in public areas would be heard where the public would rather be interacting with the natural scene.

Response: All proposed locations for a hunt blind were located within a federally authorized hunting area where waterfowl hunting currently occurs during hunting seasons. There is an expectation of hearing gunshots within an authorized hunt area.

Concern Statement: The close proximity to N.C. 12 is not a good reason to install a duck blind.

Response: All proposed locations for a hunt blind were located within a federally authorized hunting area located along NC 12. These locations were chosen due to their proximity to the highway and the need for an accessible parking area. This site had been previously disturbed from a pull-off area for a former wildlife viewing platform.