

National Park Service  
U.S. Department of the Interior

Gulf Islands National Seashore  
Florida and Mississippi



# **Gulf Islands National Seashore**

## **Fort Pickens Ferry Support Facilities and Shuttle Service**

### **Environmental Assessment**

June 2015



**United States Department of the Interior  
National Park Service**

**Gulf Islands National Seashore  
Florida and Mississippi**

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Gulf Islands National Seashore (the national seashore) is located along 160 miles of the Gulf of Mexico in Escambia, Santa Rosa, and Okaloosa Counties in Florida, and Jackson, Harrison, and Hancock Counties in Mississippi. The national seashore was established to “preserve for public use and enjoyment certain areas possessing outstanding natural, historic, and recreational values” (16 US Code [USC] 459h) and encompasses 139,175 acres in Florida and Mississippi, approximately 82% of which is water (NPS 2014a). The Fort Pickens Area in the Florida District, is a fragile, 7-mile long section of barrier island separating Pensacola Bay from the Gulf of Mexico. It comprises the westernmost section of Santa Rosa Island and is adjacent to the community of Pensacola Beach.

The National Park Service (NPS) proposes to improve landside facilities near the ferry pier and to implement a shuttle service within the Fort Pickens Area. The purpose of the proposed facilities and shuttle service is to improve the visitor experience and provide a second arrival experience at the national seashore other than via road access in the Fort Pickens Area, particularly for visitors arriving by ferry.

This document examines two alternatives: a no-action alternative (alternative 1) and one action alternative (alternative 2). The National Park Service has identified alternative 1 as the environmentally preferable alternative that least damages the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources.

The action alternative would result in adverse impacts on floodplains, wildlife, special status species, cultural landscape, historic structures, and archeological resources. The action alternative would result in beneficial impacts on site access and circulation, visitor use and experience, and NPS operations.

**Note to Reviewers and Respondents:**

If you wish to comment on this environmental assessment, you may mail comments within 30 days of release of this document to the name and address below or you may post them electronically at <http://parkplanning.nps.gov/guis>. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment, including your personal identifying information, may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from

public review, we cannot guarantee that we will be able to do so. Requests for further information can be directed to the address below:

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# ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
EO	Executive Order
ESA	Endangered Species Act of 1973
FAC	Florida Administrative Code
FEMA	Federal Emergency Management Agency
FWC	Florida Fish and Wildlife Conservation Commission
National Register	National Register of Historic Places
NMFS	National Marine Fisheries Service
NPS	National Park Service
the national seashore	Gulf Islands National Seashore
PV	photovoltaic
USC	United States Code
USFWS	US Fish and Wildlife Service

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# 1

## PURPOSE AND NEED

The National Park Service (NPS) proposes to improve landside facilities near the ferry pier and to implement a shuttle service within the Fort Pickens Area. The purpose of the proposed facilities and shuttle service is to improve the visitor experience in the Fort Pickens Area, particularly for visitors arriving by ferry.

Gulf Islands National Seashore (the national seashore) is located along 160 miles of the Gulf of Mexico in Escambia, Santa Rosa, and Okaloosa Counties in Florida, and Jackson, Harrison, and Hancock Counties in Mississippi. The national seashore was established to “preserve for public use and enjoyment certain areas possessing outstanding natural, historic, and recreational values” (16 US Code [USC] 459h) and encompasses 139,175 acres in Florida and Mississippi, approximately 82% of which is water (NPS 2014a).

The Fort Pickens Area is in the Florida District of Gulf Islands National Seashore and is a fragile, 7-mile long section of barrier island separating Pensacola Bay from the Gulf of Mexico. It comprises the westernmost section of Santa Rosa Island and is adjacent to the community of Pensacola Beach. The Fort Pickens Area is a destination for some 700,000 visitors annually and is one of the largest tourist draws for the heavily tourist-dependent economy of the Pensacola and Pensacola Beach area. In addition to Fort Pickens historic sites and the fort grounds, the Fort Pickens Area provides visitors with recreational opportunities for swimming, beach activities, fishing, shelling, hiking, bicycling, camping, and educational programs focused on its diverse marine and land ecosystems.

Passenger ferry access to Fort Pickens has been proposed since 1978 as part of the first general management plan for Gulf Islands National Seashore, and the updated general management plan calls for water access to the Fort Pickens Area (NPS 2014a). In addition to providing access, ferry service will enable visitors to experience the marine resources of the national seashore from the water. The landside shuttle service would provide visitors with an overall enhanced visitor experience and mobility options to various points of interests and recreational destinations within the Fort Pickens Historic District. The proposed project also aligns well with planning efforts by the local communities. A ferry system in Pensacola Bay will provide additional travel options and alleviate traffic congestion and will be a much-desired part of the tourist-driven economy of the Pensacola metropolitan area.

The natural processes that affect Santa Rosa Island, including hurricanes, have caused repeated damage to Fort Pickens Road, which is currently the primary means of access to the Fort Pickens Area. In order to maintain access to the area despite road closures, a ferry pier was constructed in 2012 in the same location

as the former engineers wharf. As part of the restoration actions after the Deepwater Horizon Oil Spill, funds were appropriated for the purchase of two ferry vessels for the Pensacola Bay (DOI 2014b). The new ferry service will provide access to the Fort Pickens Area and support regional connectivity, particularly when Fort Pickens Road is closed due to storm damage or sand overwash. The actions proposed in this environmental assessment are intended to improve the experience for those visitors arriving to the Fort Pickens Area via this ferry service, which is anticipated to begin in 2017.

This environmental assessment evaluates two alternatives: a no-action alternative and one action alternative. The environmental assessment considers the potential impacts these alternatives would have on the natural resources, cultural resources, and human environment. This document has been prepared in accordance with the National Environmental Policy Act of 1969, as amended; regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1508.9); and NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making. An assessment of effect will be prepared concurrently with but separately from this environmental assessment to comply with section 106 of the National Historic Preservation Act of 1966, as amended. In addition, a biological assessment has been prepared to comply with the Endangered Species Act of 1973 and is attached to this document as appendix C.

## **PURPOSE OF AND NEED FOR ACTION**

The purpose of the project is to provide a high quality visitor experience in two ways: (1) providing a gateway experience through improved landside facilities near the ferry pier and (2) providing access to visitor amenities within the Fort Pickens Area. The improvements identified as part of this project are specifically targeted at supporting the Pensacola Bay ferry passengers, and are intended to inform the national seashore's concessions contract prospectus.

Action is needed at this time because the Pensacola Bay ferry service is anticipated to begin in 2017, and facilities adjacent to the ferry pier do not provide a desirable gateway experience. The facilities immediately surrounding the ferry pier include three historic buildings, which currently function as national seashore storage facilities/workshops. There is a passenger shade shelter nearby, but the connections between the shelter, the pier, the visitor center, the restrooms, and other sites are unclear due to the lack of wayfinding and orientation. The existing public restroom facilities near the museum would serve all visitors, including ferry passengers, and these restrooms are approximately a quarter of a mile from the ferry pier. The nearest signs offering orientation to Fort Pickens can be found at the sidewalk on the opposite (southern) end of the parking lot near the ferry pier, approximately 400 feet away.

Additionally, action is needed at this time because visitors arriving by ferry would currently need to walk or bring their own bicycles to access areas beyond the immediate vicinity of the ferry pier. Some visitors may be able to walk longer distances or bring personal bicycles, but many others may not be able or willing to walk or provide a personal bicycle. The ability of visitors to move around the Fort Pickens Area and its environs may be further hindered by any beach accessories (e.g., towels, umbrellas, chairs, etc.) they may have and/or want to take with them. There is currently no transportation system in place to support movement of visitors beyond the immediate vicinity of the ferry pier.

## **PURPOSE AND SIGNIFIGANCE OF GULF ISLANDS NATIONAL SEASHORE**

Congress authorized Gulf Islands National Seashore as a unit of the National Park Service in the Act of January 8, 1971 “for the recognition of certain historic values at Fort San Carlos, Fort Redoubt, Fort Barrancas, and Fort Pickens in Florida, and Fort Massachusetts in Mississippi, and for other purposes” (Public Law 91-660). The purpose of the national seashore is to preserve areas possessing outstanding natural, historic, and recreational values for public use and enjoyment (NPS 2014a).

The significance of Gulf Islands National Seashore includes the following five components:


- In contrast to the surrounding urban development of the northern Gulf Coast, Gulf Islands National Seashore possesses a rare combination of recreational, educational, and scenic opportunities on publicly accessible natural coastal areas.
- Gulf Islands National Seashore preserves and protects the natural processes of an extensive range and variety of terrestrial and marine ecosystems within a very dynamic and rapidly changing landscape of the northern Gulf Coast.
- Represented by Horn and Petit Bois islands, Gulf Islands National Seashore preserves one of the few nationally designated barrier island wilderness areas in the national park system.
- Gulf Islands National Seashore contains one of the most complete collections of structures relating to the evolution of seacoast defense in the United States. Publicly accessible sites represent a continuum of development from the Spanish colonization of the 18th century through World War II.
- The terrestrial and submerged cultural resources located throughout Gulf Islands National Seashore represent a continuum of human occupation and use that is important in enhancing the knowledge of past habitation along the northern Gulf Coast.



## **PROJECT AREA DESCRIPTION**

Gulf Islands National Seashore’s Fort Pickens Area is approximately 15 miles from Pensacola, Florida. The project area includes approximately 350 acres of the western end of Santa Rosa Island managed by the National Park Service (figures 1 and 2). The project area can be accessed by water, but public docks are not available within the national seashore. The majority of visitors access the national seashore on Fort Pickens Road by way of Pensacola Beach, Florida. Fort Pickens Road is closed an average of 10 to 12 times each year due to weather events that overwash the roadway with sand. In addition to the roadway and natural resources, cultural resources, the facilities in the Fort Pickens Area include many historic structures such as the brick fort and concrete gun batteries which were built between 1829 and the 1940s, as well as other historic structures which were associated with the fort and have been adaptively reused as the museum, restrooms, and residences.

The project area includes the following key facilities:

- Mine loading building (building 15)
- Mine storage building (building 16)
- Engineer’s shop (building 17)


**Project Area (353.47 Acres)**

**NORTH**  
  
  
**2,000 Feet**

Source: Esri, DigitalGlobe, GeoEye, I-cubed, USDA, USGS, AEX, Aerial, IGN, IGP, swisstopo, and the GIS User Community

GULF  
OF  
MEXICO

PENSACOLA BAY



# Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

National Park Service  
U.S. Department of the Interior  
Gulf Islands National Seashore



FIGURE 1  
Project Area



## Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 2  
Project Area - Ferry Arrival Detail

- Walkway between buildings 15 and 16
- Existing road for tram
- Shade shelter(s)
- Fort Pickens
- Fort Pickens parking lot
- Museum
- Battery 234
- Battery Worth
- Campground Store
- Battery Langdon

## PROJECT BACKGROUND

Previous and related planning studies have been completed for the national seashore, as have specific plans for the ferry service. These plans were reviewed to provide additional information and guidance for the proposed action. In addition, internal and public scoping was undertaken to allow agencies and interested parties to provide additional information regarding specific portions of the proposed action. These documents and the scoping efforts are summarized below.

## PREVIOUS AND RELATED PLANNING STUDIES

Several plans and studies have informed and contributed to the development of the alternatives for the *Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment*. These include the following documents which are discussed below:

- *Environmental Assessment: Restore Visitor Access to Fort Pickens Area, Santa Rosa Island* (NPS 2006a)
- *Fort Pickens/Gateway Communities Alternative Transportation Study* (NPS 2009)
- *Fort Pickens Pier and Ferry Service Environmental Assessment* (NPS 2011)
- *Final General Management Plan / Environmental Impact Statement* (NPS 2014a)
- *Pensacola Bay Ferry Service: Ferry and Shuttle Transportation Feasibility Study* (NPS 2014b)
- *Final Programmatic and Phase III Early Restoration Plan and Draft Early Restoration Programmatic Environmental Impact Statement* (DOI 2014a)

The *Environmental Assessment: Restore Visitor Access to Fort Pickens Area, Santa Rosa Island* (NPS 2006a) addressed the restoration of Fort Pickens Road after its closure due to hurricanes in 2004 and 2005. The road restoration affected access to the area considered in this environmental assessment.

The *Fort Pickens/Gateway Communities Alternative Transportation Study* (NPS 2009) determined the feasibility of alternative modes of transportation in the project area, centering on variations and combinations of water-based transportation and land-based shuttle systems. This study concluded that ferry service to Fort Pickens, commercial use authorization services, seasonal trolley service to Fort

Pickens, intra-national-seashore circulation, and Escambia County Area Transit service to Fort Pickens were all viable alternative transportation options for the Fort Pickens Area.

The *Fort Pickens Pier and Ferry Service Environmental Assessment* (NPS 2011) evaluated the addition of a ferry pier at Fort Pickens, which was constructed in 2012. The pier met the need for the national seashore to fulfill its enabling legislation by providing an additional means of accessing national seashore resources and recreation opportunities, which is particularly critical when Fort Pickens Road closes due to flooding, sand overwash, and storm damage.

The *Final General Management Plan / Environmental Impact Statement* (NPS 2014a) laid out the initial planning and management policy for the national seashore. The general management plan included a management strategy for sustainability that calls for the establishment of alternative transportation options. All alternatives, including the selected alternative, called for the national seashore to maintain Fort Pickens Road as long as is feasible and to implement a passenger ferry service.

The *Pensacola Bay Ferry Service: Ferry and Shuttle Transportation Feasibility Study* (NPS 2014b) evaluated several alternatives for ferry service and shuttle service in the Fort Pickens Area. The recommendations from this study further developed the purpose of and need for action and served as the basis for alternatives development in this environmental assessment.

In response to the Deepwater Horizon Oil Spill, one action included in the selected alternative, as articulated in the “Record of Decision” (DOI 2014b), for the *Final Programmatic and Phase III Early Restoration Plan and Draft Early Restoration Programmatic Environmental Impact Statement* (DOI 2014a) is the “Gulf Islands National Seashore Ferry Project” which analyzes the impacts of the purchase of ferry vessels and the connected actions at the Pensacola and Pensacola Beach sites.

## SCOPING

The scoping process is initiated at the beginning of a National Environmental Policy Act project to identify the range of issues, resources, and alternatives to address in the environmental assessment. Typically, both internal and public scoping are conducted to address these elements. Public scoping includes any interested agency or agency with jurisdiction by law or expertise and interested members of the general public to obtain early input.

Formal scoping for the *Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment* began in September 2014, when staff from the National Park Service and their consultants conducted internal scoping. The National Park Service hosted a public open house the evening of September 30, 2014 at the national seashore headquarters at Naval Live Oaks. During the meeting, the National Park Service solicited public input on the site improvements proposed to better accommodate ferry service to the Fort Pickens Area. The meeting also provided the public with information on the purpose and need of the project, the ferry system overview, preliminary site concepts for the Fort Pickens Area, the planning process that would be followed, and instructions on how to provide feedback. The National Park Service posted the same information provided at the meeting on the national seashore’s Planning, Environment, and Public Comment website and encouraged the public to provide comments

during the public comment period, from September 17, 2014 to October 17, 2014. Public comments largely fell into one of six main themes: visitor access, visitor experience, park resources, feasibility, park operations, and ferry service. Some commenters questioned the need for the ferry and/or shuttle service, while others were fully supportive of the need for a ferry. Some visitors also expressed ideas and concerns that the ferry service would change visitor use and experience. For further public scoping information, see “Chapter 5: Consultation and Coordination.”

Following the public scoping effort, 15 tribes and several agencies were contacted; agencies included the US Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, the National Marine Fisheries Service, and The Florida Department of Environmental Protection. For further scoping and public participation information, see “Chapter 5: Consultation and Coordination” and “Appendix A: Relevant Correspondence.”

## ISSUES AND IMPACT TOPICS

### PLANNING ISSUES AND CONCERNS

During the scoping process, specific considerations and concerns were identified as critical to this project at the Fort Pickens Area. Along with the purpose and need for the proposed action, these topics guided the development of alternatives and contributed to the selection of impact topics, as identified in the next section.

***Providing visitors with a cohesive gateway experience.*** The National Park Service strives to provide interpretation of the national seashore’s natural and cultural resources as well as an introduction to relevant safety and resource protection information to all visitors to units of the national park system. Where possible, the National Park Service also enhances gateway experiences through improvements for visitor comfort and accessibility where visitors can easily access information as well as amenities such as restrooms and adequate parking. Currently, access to the Fort Pickens Area by water-based transportation does not provide a clear entrance, nor does it provide wayfinding and orientation information. The National Park Service orients visitors to the national seashore’s resources at the entrance fee booth and the museum. While the museum is not far from the ferry pier, it is not visible from the pier. Any proposals made in this plan would seek to orient visitors and to provide visitors with a cohesive gateway experience.

***Maintaining continued access to the Fort Pickens Area.*** The natural processes that affect Santa Rosa Island, a barrier island, have resulted in both short- and long-term closures of Fort Pickens Road. Short-term closures of the main access to the Fort Pickens Area occur 10 to 12 times each year when storm events overwash sand onto the roadway, making the road impassible until national seashore staff can clear sand off the road. Long-term closures result from severe storms such as the hurricanes in 2004 that damaged Fort Pickens Road so severely that it was closed until 2009. As with all national parks, Gulf Islands National Seashore belongs to the public, who should have opportunities to enjoy the resources in the national seashore. Additionally, the *Final General Management Plan / Environmental Impact*

*Statement* calls for implementation of a passenger ferry service (NPS 2014a). Any proposals made in this plan would seek to provide visitors with reliable access to the Fort Pickens Area.

***Designing improvements to be resilient to weather patterns.*** After regular or severe weather events, the ability to restore visitor access and services is a priority for the seashore and could be critical to the success of concessions operations. Over time, the topography within the floodwalls has been altered in a way that inhibits drainage in some areas. As such, the floor of the mine storage building is lower than the land surrounding the building, and rain events frequently cause flooding within this building. Additionally, this area is subject to hurricanes. After previous hurricanes, the flood waters receded outside the floodwall, but the flood waters within the floodwall lingered. Any proposals made in this plan would seek to provide improvements which are designed within the context of the climate of the Gulf coast, for the ease of resuming operations, and in accordance with *Addressing Climate Change and Natural Hazards: Facility Planning and Design Considerations* (NPS 2015a).

## REGULATORY ISSUES AND MANAGEMENT CONCERNS

Based on discussions with NPS staff and planning team members, implementation of the *Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment* would not require any changes to existing legislation or management policies. Prior to the implementation of the proposed action, the National Park Service would need to obtain appropriate local, state, and federal approval for some of the proposed activities. A select list of permits, approvals, and regulatory requirements associated with the proposed action are as follows:

- Federal Consistency Determination concurrence for an action in the coastal zone from the Florida Coastal Management Program
- Concurrence from the State Historic Preservation Officer per section 106 of the National Historic Preservation Act
- Concurrence from the US Fish and Wildlife Service and National Marine Fisheries Service per section 7 of the Endangered Species Act

A more detailed and complete list can be found in “Chapter 5: Consultation and Coordination.”

## IMPACT TOPICS RETAINED FOR ANALYSIS

Impact topics are resources of concern within the project area that could be affected, either beneficially or adversely, by the range of alternatives presented in this environmental assessment. They were identified based on the issues raised during scoping; site conditions; federal laws, regulations, Executive Orders, NPS *Management Policies 2006* (NPS 2006b), and Director’s Orders; and staff knowledge of the national seashore’s resources.

Impact topics identified and analyzed in this environmental assessment are listed below along with a brief rationale for the selection of each impact topic. They include floodplains, wildlife, special status species, cultural landscape, historic structures, archeological resources, site access and circulation, visitor use and

experience, and NPS operations. Each impact topic is further discussed in detail in “Chapter 3: Affected Environment.”

***Floodplains.*** Executive Order 11988, “Floodplain Management,” and NPS Director’s Order 77-2: *Floodplain Management*, require an examination of impacts on floodplains and potential risk involved in placing facilities within floodplains. Nearly all of the project area is within the 100-year floodplain, and the additions of two new buildings qualify as Class I actions under Director’s Order 77-2. Therefore, the impact topic of floodplains is addressed, and a Statement of Findings for floodplains has been prepared and is included in appendix B.

***Wildlife.*** NPS policy is to protect the natural abundance and diversity of all naturally occurring wildlife communities. The NPS *Management Policies 2006* (NPS 2006b), NPS Director’s Order 77: *Natural Resources Management*, and other NPS policies provide general direction for the protection of wildlife and wildlife habitat. The project area contains a variety of species, many of which are adapted to the dynamic processes that govern barrier island ecosystems and would not be noticeably affected by the proposed action. However, individuals of some species could be affected by changes in land use patterns; therefore, the impact topic of wildlife is addressed.

***Special Status Species.*** The Endangered Species Act (ESA) mandates that all federal agencies consider the potential impacts of their actions on species listed as threatened or endangered in order to protect the species and preserve their habitats. The US Fish and Wildlife Service (USFWS) Information, Planning, and Conservation decision support system is a conservation planning tool for streamlining the environmental review process. National seashore staff has reviewed the species listed for the project and has conducted a review of the project area for the presence of special status species and habitat. The National Park Service has coordinated with the US Fish and Wildlife Service and National Marine Fisheries Service on this project and has incorporated mitigation measures to avoid impacts on special status species that could result from changes in land use. Because special status species are known to exist within the project area, the impact topic of special status species is addressed. Also see “Appendix C: Biological Assessment.”

***Cultural Landscapes.*** As described in Director’s Order 28, a cultural landscape is “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person, or exhibiting other cultural or aesthetic values (NPS 1998a). The cultural landscape at Fort Pickens is within an historic district eligible for listing in the National Register of Historic Places, which includes not only the National Register-listed Fort Pickens but also the other historic structures and resources that comprise this district. The cultural landscape would include not only all of these contributing structures, but also characteristics such as spatial organization, circulation, vista and views, and small-scale features. Changes to visitor wayfinding, orientation, and use of the Fort Pickens Area would have impacts on the landscape within the boundary of the eligible historic district. Therefore, the impact topic of cultural landscapes is addressed.

***Historic Structures.*** As described in Director’s Order 28, a historic structure is defined as “a constructed work, usually immovable by nature or design, consciously created to serve some human act” (NPS 1998a). In order for a structure or building to be listed in or eligible for listing in the National Register, it must possess historic integrity of those features necessary to convey its significance, particularly with

respect to location, setting, design, feeling, association, workmanship, and materials. The action alternative includes rehabilitation and adaptive reuse of historic buildings in the Fort Pickens Area which is a historic district eligible to the National Register of Historic Places. Therefore, the impact topic of historic structures is addressed.

***Archeological Resources.*** Archeological resources are the material remains of past human activity. These material remains are analyzed using several methods including, but not limited to, scientific tests, oral interviews, and ethnographic data. Many archeological remains relating to the history of the Fort Pickens Area have been identified within the project area. In addition, these remains indicate that unknown resources could exist within the project area. The proposed action could result in changes to the condition of these resources. Therefore, the impact topic of archeological resources is addressed.

***Site Access and Circulation.*** Safe and efficient access and circulation of all visitors at Gulf Islands National Seashore is important to an enjoyable visitor experience and efficient NPS operations. Visitors arriving by ferry currently have limited options for access to and circulation between the facilities in the Fort Pickens Area. The proposed action would include wayfinding to facilitate circulation and would also include a shuttle service which would change site access and circulation further. Therefore, the impact topic of site access and circulation is addressed.

***Visitor Use and Experience.*** Enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks (NPS 2006b). The National Park Service strives to provide opportunities for forms of enjoyment that are uniquely suited and appropriate to the natural and cultural resources found in parks. In particular, the lack of visitor amenities for ferry passengers (including but not limited to orientation, restrooms, and transportation options) is a driving need behind this project. The proposed action includes the addition of orientation and wayfinding signs, additional facilities for visitor orientation and comfort, and improved access to recreational and educational opportunities. Therefore, the impact topic of visitor use and experience is addressed.

## IMPACT TOPICS DISMISSED FROM FURTHER ANALYSIS

***Soils and Topography.*** NPS *Management Policies 2006* (NPS 2006b) and other NPS policies provide general direction for the protection of soils. Because of the frequent changes to soils and topography at Fort Pickens due to natural occurrences, disturbance for utility trenching and grading for accessibility improvements would not noticeably alter local soil characteristics. Similarly, changes in topography as a result of this project would not be readily apparent. Therefore, the impact topic of soils and topography was considered but dismissed from further analysis.

***Prime and Unique Farmlands.*** The CEQ NEPA regulations (40 CFR 1508.27) require federal agencies to assess the impacts of their actions on soils classified by the Natural Resources Conservation Service as prime or unique farmland soils. According to the Natural Resources Conservation Service, there are no unique farmland soils within the project area. Therefore, the impact topic of prime and unique farmland soils is dismissed from further analysis.

**Vegetation.** The NPS *Management Policies 2006* (NPS 2006b) and other NPS and seashore policies provide general direction for the protection of vegetation. The action alternative proposes the construction of a few structures and the installation of associated utility lines. The new building at the ferry landing area would be built offset from a historic foundation, and a small amount of vegetation in that area would be removed. The new utility lines associated with ferry landing area improvements would be constructed in areas that are currently paved or in areas that are sparsely vegetated and frequently trampled. A new restroom near Battery 234 would be constructed, and a small amount of vegetation would be removed in this sparsely vegetated area. The utility lines associated with the new restroom would be installed adjacent to the roadbed, where vegetation is generally set back from the road. New utilities near Battery Langdon would be installed within existing driveways, and new surface treatment would be installed on top of an existing roadbed. Though components of the action alternative would result in the removal of or temporary impact on vegetation, the affected vegetation would be negligible within the context of existing vegetation in the Fort Pickens Area. Therefore, the impact topic of vegetation is dismissed from further analysis.

**Water Quality.** NPS *Management Policies 2006* (NPS 2006b) states that the National Park Service will “take all necessary actions to maintain or restore the quality of surface waters and ground waters within the parks consistent with the Clean Water Act and all other applicable federal, state, and local laws and regulations.” The proposed project uses a preexisting ferry dock, so the characteristics of the project area will remain unchanged. Therefore, the impact of water quality was considered but dismissed from further analysis.

**Coastal Resources.** NPS *Management Policies 2006* states that the National Park Service will allow natural shoreline processes (such as erosion, deposition, dune formation, overwash, inlet formation, and shoreline migration) to continue naturally, without interference (NPS 2006b). Increased visitor use (for beach access) in the vicinity of Batteries 234 and Cooper may result in some changes to the coastal resources. However, impacts were deemed to be negligible in the context of a highly dynamic coastal environment. Therefore, the impact of coastal resources was considered but dismissed from further analysis.

**Wetlands.** Executive Order 11990, “Protection of Wetlands” and NPS Director’s Order 77-1: *Wetland Protection* require an examination of impacts on wetlands. According to national seashore data, wetlands exist on the southern side of Fort Pickens Road near Batteries 234 and Cooper. However, impacts from utility trenching would disturb a total of less than 0.1 acre.

The minor wetland crossing for underground utility lines qualifies for an exception from the Statement of Findings and compensation requirements, as outlined in section 4.2.1.e of NPS Procedural Manual #77-1: *Wetland Protection* (NPS 2012). Directional drilling is not practicable in the project area because of the porous and unstable sandy soils. In order to meet the exemption criteria, restoration actions and best management practices would be implemented to mitigate any potential impacts; mitigation measures are detailed in chapter 2. Therefore, the impact topic of wetlands was considered but dismissed from further analysis.

**Ethnographic Resources.** Guidance for identification of ethnographic resources is found in National Register Bulletin 38: *Guidelines for Evaluating and Documenting Traditional Cultural Properties* (NPS

1998b). Ethnographic resources are defined by the National Park Service as a “site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it (NPS 1998b). Ethnographic resources are equivalent to the term “Traditional Cultural Property.” A Traditional Cultural Property is eligible for inclusion in the National Register, “because of its association with cultural practices or beliefs of a living community that are rooted in the community’s history, and which are important in maintaining the continuing cultural identity of the community” (NPS 1998b). There are no properties that meet the definition of a Traditional Cultural Property within the project area. Therefore the impact topic of ethnographic resources was dismissed from further analysis.

***Museum Objects.*** NPS *Management Policies 2006* require park managers to “collect, protect, preserve, provide access to, and use objects, specimens, and archival and manuscript collections in the disciplines of archeology, ethnography, history, biology, geology, and paleontology to aid in understanding among park visitors, and to advance knowledge in the humanities and science” (NPS 2006b). The project area does not currently possess any facilities used to house the national seashore’s collections. Therefore, the impact topic of museum objects was dismissed for further analysis.

***Environmental Justice.*** Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental impacts of their programs and policies on minorities and low income populations and communities. According to the Environmental Protection Agency, environmental justice is the “...fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal state, local, and tribal programs and policies.”

The goal of “fair treatment” is not to shift risks among populations, but to identify potentially disproportionately high and adverse impacts and identify alternatives that may mitigate these impacts. Environmental justice was considered but dismissed from further analysis for the following reasons:

- The national seashore staff and planning team solicited public participation as part of the planning process and gave equal consideration to all input from persons regardless of age, race, income status, or other socioeconomic or demographic factors.
- Implementation of the proposed action would not result in any identifiable adverse human health impacts. Therefore, there would be no direct or indirect adverse impacts on any minority or low-income population.
- The impacts associated with implementation of the proposed action would not disproportionately affect any minority or low-income population or community.
- Implementation of the proposed action would not result in any identified impacts that would be specific to any minority or low-income community.

***Air Quality and Greenhouse Gas Emissions.*** The national seashore is located in an area currently in attainment of all EPA-regulated pollution limits. There would be a slight temporary increase in vehicle

emissions during construction for the proposed project. After the construction phase, there would be no emissions from the electric shuttles, and minimal emissions from the ferries. Therefore, the impact topic of air quality and greenhouse gas emissions was considered but dismissed from further analysis.

***Energy Use and Conservation.*** The proposed project would require consumption of additional resources, but the national seashore will mitigate this consumption where possible with the use of a solar-powered electric shuttle, five kilowatt solar inverter recharging station, and modern energy efficient items. Therefore, the impact topic of energy use and conservation was considered but dismissed from further analysis.

# 2

## ALTERNATIVES

This chapter provides information on the alternatives considered for the proposed action, including a discussion of the alternatives development process and a brief explanation of those alternative elements considered and dismissed from further study. Descriptions of the No-Action Alternative and the New Landside Development and Shuttle Service Alternative selected for detailed analysis are provided. Finally, summary comparisons of the alternatives and their potential impacts are provided.

### DEVELOPMENT OF ALTERNATIVES

Three previous planning efforts and related studies, all of which were completed in 2014, guided the development of the alternatives presented in this document. One of the projects included in the selected alternative for the *Final Programmatic and Phase III Early Restoration Plan and Draft Early Restoration Programmatic Environmental Impact Statement* (DOI 2014a) is the “Gulf Islands National Seashore Ferry Project,” which completed the compliance for a Pensacola Bay ferry service. As part of the implementation of the ferry service, the national seashore will issue a new concessions contract for the operation of the ferry service. Ferry support services could be included in the new concessions contract or in the existing concessions contract. The record of decision for the national seashore’s *General Management Plan/Environmental Impact Statement* (NPS 2014a) included an alternate transportation system within the Fort Pickens Area. The national seashore also conducted the *Pensacola Bay Ferry Service: Ferry and Shuttle Transportation Feasibility Study* (NPS 2014b), which evaluated the feasibility of both the Pensacola Bay ferry service and the Fort Pickens Area shuttle service. The data gathered and developed as part of the feasibility study was used to inform the preliminary site design proposed in this environmental assessment.

A number of plans were developed during preliminary site design, and the national seashore participated in a choosing by advantages (CBA) workshop to narrow the range of design options to a single, comprehensive action alternative. Representatives from the national seashore, the NPS Southeast Regional Office, and the NPS Denver Service Center were involved in the development of alternative 2. In the process of developing the landside improvements, the planning team considered many elements and combinations of elements prior to identifying alternative 2 as the preferred alternative at the choosing by advantages workshop. Alternative elements considered but dismissed are included later in this chapter.

## ALTERNATIVE 1: NO ACTION

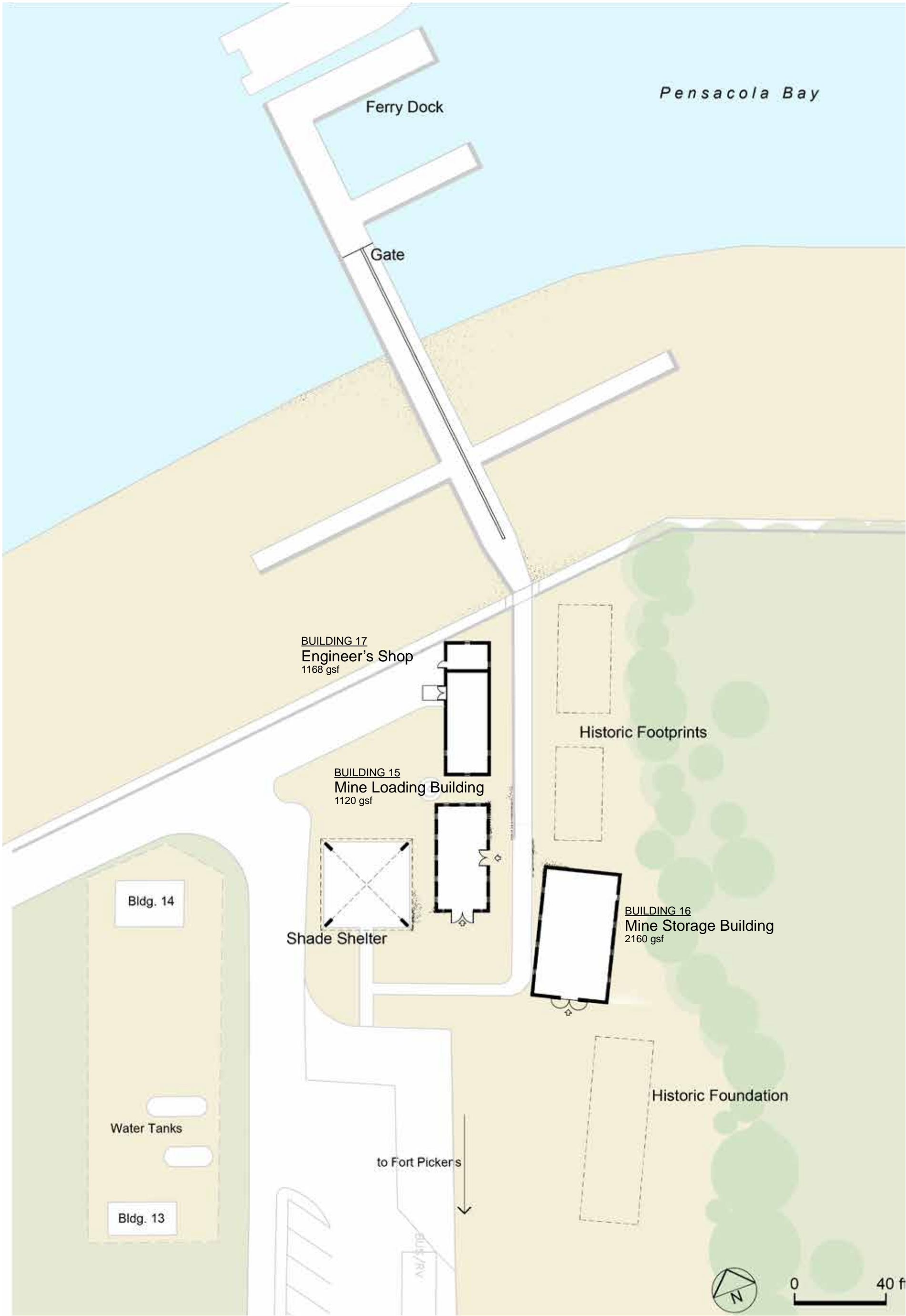
Under the no-action alternative, visitors would access the Fort Pickens Area by ferry, privately-owned watercraft, and Fort Pickens Road. Ferry operators would provide ferry service to the Fort Pickens Area using existing public facilities (figure 3). The ferry dock and shade shelter are the two existing structures currently reserved for use by ferry operations. The engineer's shop, the mine loading building, and the mine storage building (figure 3) are currently used by the national seashore's facility management division as workshops and storage space. No improvements or developments are proposed for the area surrounding the ferry pier, and no additional visitor services would be implemented.

Upon arrival to the Fort Pickens Area, ferry passengers would disembark from the ferry vessel onto the existing ferry pier. Visitors could access the beach via ramps on the bay side of the sea wall or could continue on the pier, over the seawall, to the sidewalk between the mine loading building and the mine storage building. Ferry passengers could access the resources in the Fort Pickens area on foot or by bicycle (or similar self-propelled vehicle) which they would bring with them on the ferry or rent from a portable facility in the ferry landing area. No orientation or wayfinding information is proposed for this area as part of the proposed action, though the national seashore could install signs and similar wayfinding information over time. The national seashore may also coordinate with the concessioner to provide orientation and wayfinding information on the ferry vessel. The nearest restroom facilities to the ferry pier would be the existing facilities on the north side of Fort Pickens and the existing facilities on the south end of the firehouse.

From the ferry pier, visitors would be within half a mile of a number of attractions in the Fort Pickens Area including

- Fort Pickens;
- The auditorium and museum;
- The snack bar in the firehouse;
- Batteries Trueman, Payne, Cullum, Sevier, and Van Swearingen;
- The fishing pier;
- The Florida National Scenic Trail;
- Bayside beaches; and
- Gulfside beaches.

Visitors who bring or rent bicycles would also have access to Batteries 234, Cooper, Worth, and Langdon; the Fort Pickens campground; and more bayside and gulfside beaches, including Langdon Beach, the only lifeguarded beach in the Fort Pickens Area. Rental bicycles would be limited in number, and not all ferry passengers would bring their own. While all ferry passengers would be able to access these areas, pedestrians would be less likely to walk to these areas, particularly Langdon Beach, which is a 5-mile round-trip walk from the ferry pier. Additionally, Fort Pickens Road does not have an adjacent sidewalk or trail.



Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 3  
Alternative 1: No Action



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## **ALTERNATIVE 2: NEW LANDSIDE DEVELOPMENT AND SHUTTLE SERVICE**

Under alternative 2, the national seashore would improve facilities and provide additional visitor services. Visitors would continue to access the Fort Pickens Area by ferry, privately-owned watercraft, and Fort Pickens Road. Improvements would largely be focused on facilities adjacent to the ferry pier and shuttle support infrastructure but could also include a new restroom facility near Battery 234. All improvements would meet NPS accessibility requirements and Architectural Barriers Act (ABA) Accessibility Standards.

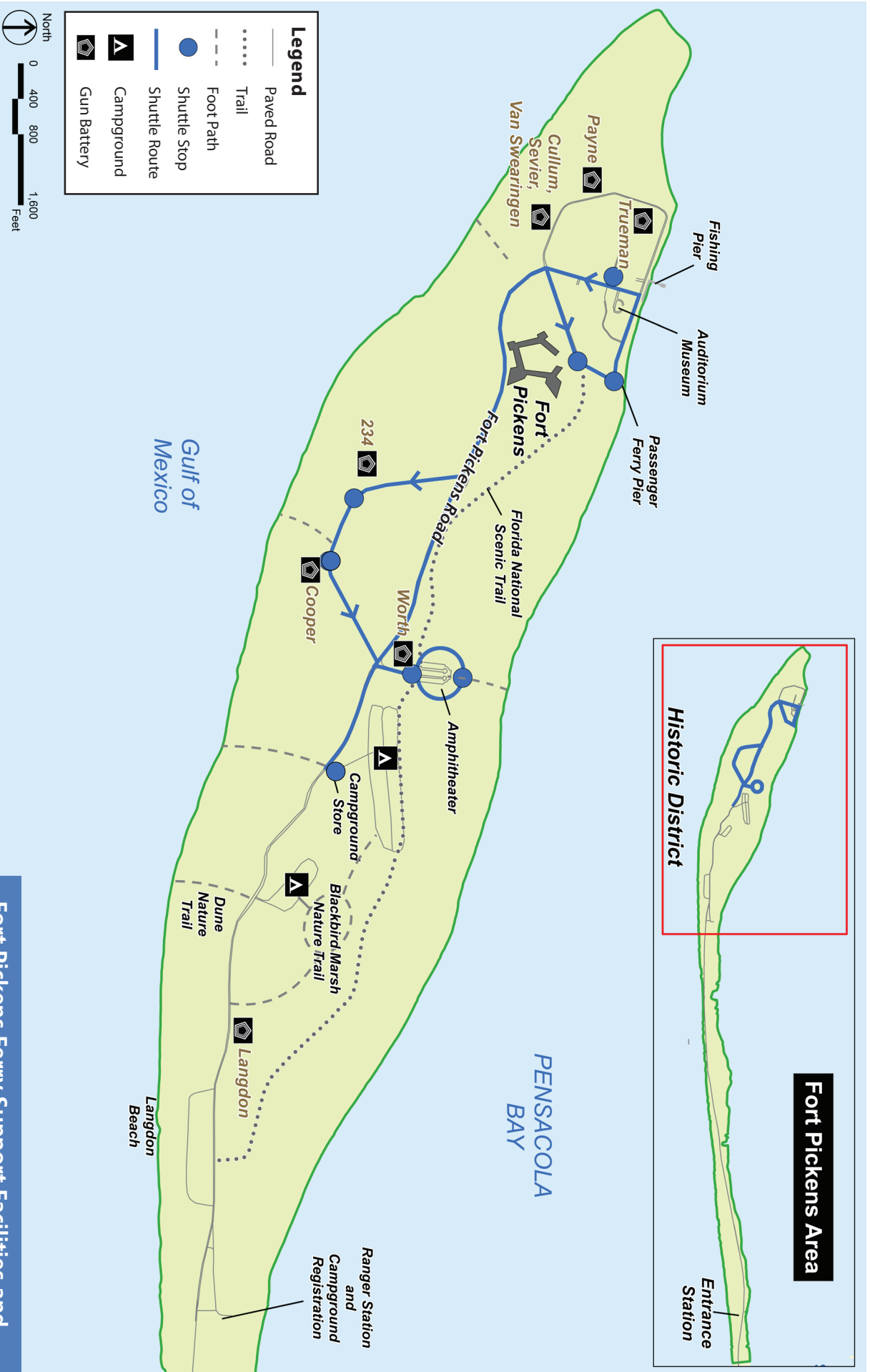
### **LANDSIDE DEVELOPMENT**

Under alternative 2, visitor services would be provided in three rehabilitated historic buildings, in one new building, and through a shuttle service (figures 4 and 5). The action alternative was designed to improve visitor services in the Fort Pickens Area through 11 programmatic elements:

1. Ferry departure queuing—A designated place for departing visitors to wait for the ferry
2. Landside orientation—Wayfinding and informational signs to direct arriving visitors to the various points of interest
3. Restrooms—Conveniently located facilities for visitors, particularly those who arrive and depart by ferry
4. Point of sale—Location for concession operations including ticket sales, equipment rentals, sales, etc.
5. Rental equipment pick-up/return—An area visible, but removed, from the mine storage building, where visitors could pick up and drop off rental equipment, such as bicycles
6. Shuttle stops—Highly visible stops at key locations in the Fort Pickens Area (figure 4)
7. Gathering areas—Areas in the ferry landing area where large groups could gather before departing or after arriving
8. Educational exhibits—Interpretive displays about the history of and resources in the Fort Pickens Area
9. Food service—Simple and quick food options for ferry passengers
10. Concessioner storage—Areas for the concessioner to store merchandise and items necessary for operations in the Fort Pickens Area
11. Indoor and outdoor dining areas—Designated indoor and outdoor dining areas in the ferry landing area

The locations of these programmatic elements are identified on figure 5, and the improvements are described in more detail in the following sections.

As under alternative 1, ferry passengers would disembark from the ferry vessel onto the existing ferry pier upon arrival to the Fort Pickens Area. Visitors could access the beach via ramps on the bay side of the sea wall or could continue on the pier, over the seawall, to the sidewalk between the mine loading building



**Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment**

**FIGURE 4**

**Alternative 2: Proposed Shuttle Route**



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**U.S. Department of the Interior**

**Gulf Islands National Seashore**



Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 5  
Alternative 2: Ferry Landing Area Improvements





**Fort Pickens Ferry Landing – Perspective Drawing from Ferry Dock**



**Fort Pickens Ferry Landing – Perspective Drawing from Seawall**



**Fort Pickens Ferry Landing – From Fort**



**Fort Pickens Ferry Landing – New Building**

and the mine storage building. The sidewalk would lead to an open area, from which a new plaza would be visible to the southwest. The new plaza would provide orientation information for arriving visitors with the possible installation of a 6-foot triangular orientation kiosk. A shuttle stop would be located immediately southwest of the plaza. Visitors could continue to Fort Pickens from the plaza by way of the existing path.

The improved ferry landing area would provide gathering areas and would delineate departure queuing for departing ferry passengers. Visitors departing from the Fort Pickens Area could wait under the existing shade shelter, which has seating for up to 150 people, or in the open area south of the mine loading building and east of the new plaza. Any new plantings introduced in the plaza area would be coordinated in future project design phases to align with the previous historic character of the area. New paving at the plaza would be minimized to honor historic fabric but would need to meet accessibility and drainage needs.

## **Rehabilitation of Historic Buildings**

Under alternative 2, the three historic buildings adjacent to the ferry pier would be rehabilitated to accommodate visitor services. As shown in figure 5, the engineer's shop, the mine loading building, and the mine storage building would be adaptively reused to support visitor services and concessioner operations. All rehabilitation of historic buildings would follow the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67) to limit any impacts on the historic fabric.

The engineer's shop (building 17) would be used for park and concessioner storage. The existing telecommunications infrastructure would remain in its current location.

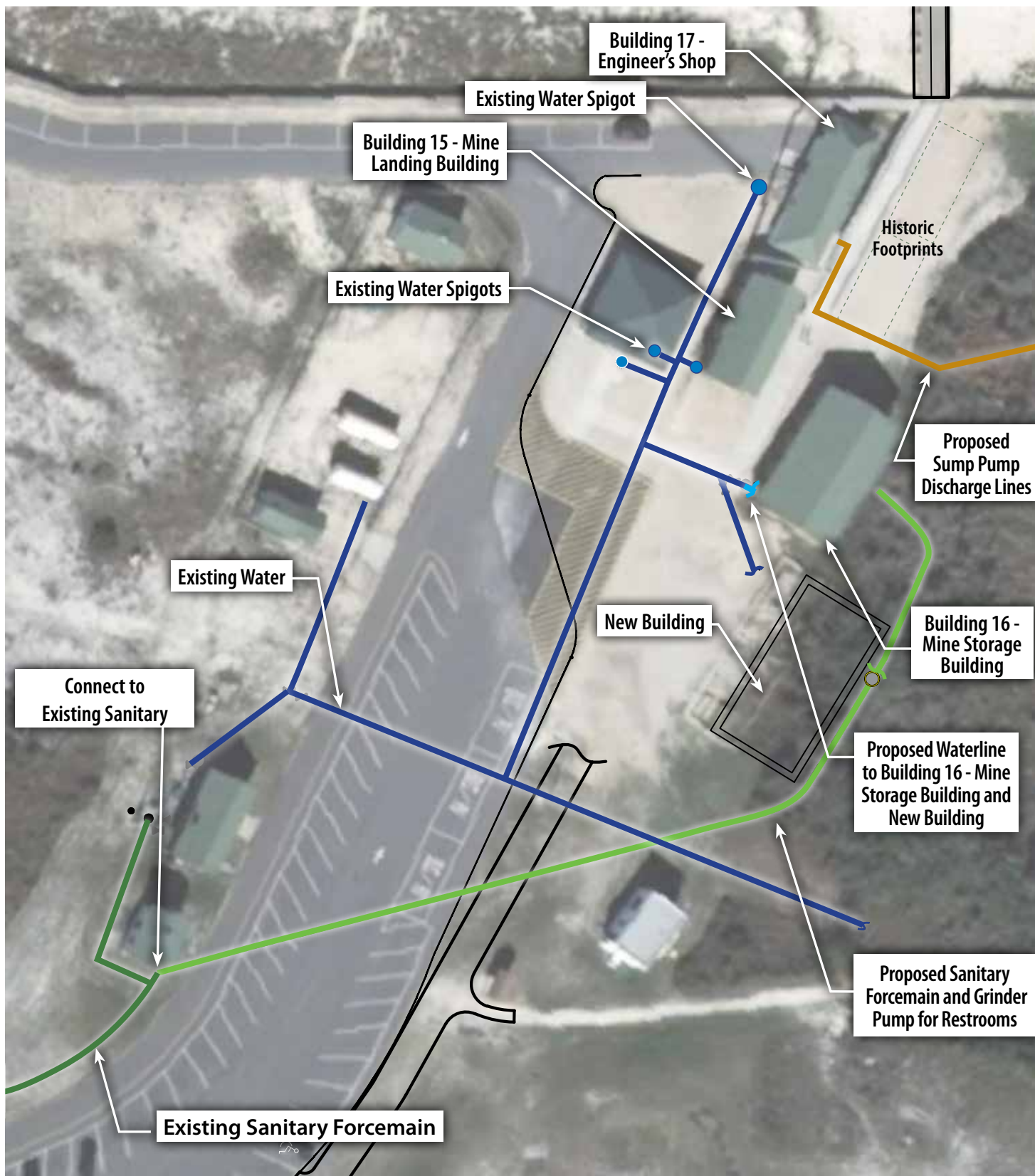
The mine loading building (building 15) would be used for exhibits on the historical significance of Fort Pickens, and would include the following changes to the structure. The building would provide approximately 1,000 square feet of space for exhibits; as examples, exhibits could include wall-mounted and free-standing interpretive displays. Interpretive displays and exhibits could be informed by the historic structures reports that the national seashore is currently drafting. There would be visual access to notable features such as the crane and steel rail assembly, automobile lift, ceiling, and brick walls, as well as other notable architectural elements in the existing structure. The following actions would rehabilitate the mine loading building for adaptive reuse:

- New, all-glass doors would be installed at both the eastern and southern entry points. The existing doors would remain operational but would not be used by visitors for entry into the mine loading building.
- With consideration for both visitor and staff comfort and preservation of historic fabric, the mine loading building would be minimally air conditioned and heated to provide comfortable working conditions for staff.
- Windows would be stabilized consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). The interior sides of the windows would be covered with a removable, clear cover which would prevent condensation and provide insulation.
- New sidewalks would be constructed to create an accessible entrance.
- The walls and roof would be cleaned and repaired consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67).

The mine storage building (building 16) would be used for several functions: concession sales, food service, dining areas, and exhibits, and there would be the following changes to the structure. The space for concession operations could be minimized to allow for the majority of the approximately 2,000-square-foot building to be used for dining space and merchandise display. Exhibits in the mine storage building would likely be wall-mounted to maximize concessions space. Interpretive displays and exhibits could be informed by the historic structures reports that the national seashore is currently drafting. There would be visual access to notable features such as the historic mine beam, hoist, and crane; the ceiling; and the brick walls. The following actions would rehabilitate the mine loading building for adaptive reuse:

- A new floor would be installed 6–8 inches above the existing, historic floor in the mine storage building in order to make concession operations more resistant to flood damage. This elevation in the floor would preserve the required headroom under the historic craneway, and no change to the head height at the door is anticipated. The raised floor would incorporate cast-in-place concrete installed using bond breakers to allow its removal without damaging existing fabric.
- New, all-glass doors would be installed at the southern entry point and would be structurally attached to the existing jam and head door openings, with any attachment to the existing historic fabric being removable. The existing doors would remain operational but would not be used by visitors for entry into the mine storage building.
- With consideration for both visitor and concessioner comfort and preservation of historic fabric, the mine storage building would also be minimally air-conditioned and heated to provide comfortable working conditions for concessioner staff.
- Windows would be stabilized consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). The interior sides of the windows would be covered with a removable, clear cover which would prevent condensation and provide insulation. The interior operable glass window assembly would allow the building occupants to control the humidity and condensation through the ability to open and close the windows. The assembly would be attached to the head, jamb, and sill in a minimal nature and would be fully removable, allowing the window opening to be returned to its original condition. No insulation would be provided at the window or wall assemblies.
- New sidewalks and curbing would be constructed to create an accessible entrance, as well as provide effective site drainage. These features would be designed to avoid damaging the historic fabric of the site.
- The walls and roof would be cleaned and repaired consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67).

The three historic buildings would require utility upgrades for their intended uses under alternative 2 (figure 6). The buildings currently have electric service, and improvements would be limited to upgrading panels and rewiring buildings to current codes. The engineer's shop would be equipped with a sump pump. Site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall and/or use of the existing outfall.



## Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 6  
Alternative 2: Utilities Updates at the Ferry Landing Area



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## **Construction of New Buildings and Structures**

### ***New Ferry Landing Area Building***

The action alternative would include the construction of a new building, which would provide restrooms, rental storage, and an outdoor dining area. This building would be built above a historic foundation and would be elevated to minimize breaches in the historic foundation and to lessen the risk of flood damage. The new restrooms would provide closer and more visible facilities for ferry passengers. The rental storage area would protect concessioner property when not in use. The new building would include picnic tables under a roofed structure. This dining area could be an open-air building as shown in the renderings on pages 23 and 24. Construction could be phased if funding is not immediately available. A visitor information area with a possible 6-foot kiosk may be installed near the ferry pier to assist visitors arriving by ferry in orientation and wayfinding.

Utilities for the new building would be connected to nearby existing infrastructure. Electric service would be connected from the nearby transformer. Water to the new restrooms would connect to an existing water line and be run around the building to a convenient point of entry into the building from the east. The restrooms would require a new grinder pump station be constructed, similar to the five existing grinder pumps located in the Fort Pickens Area. The grinder pump would be placed near the back of the restroom building and a 1.5-inch sewer forcemain run approximately 400 feet to the existing forcemain located across the parking lot (on the south side of the paint locker [building 10]). As part of the utility construction, site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall. In an effort to minimize the risk of encountering archeological resources related to the historic rail line, the number of times the proposed utility lines cross the rail lines or the existing foundation would be minimized to the extent possible. Utility lines would be routed under the existing rail lines where present.

### ***Interpretive Elements near Fort Pickens***

The pedestrian walkway to Fort Pickens from the ferry landing area is a focal point of the site. The walkway would be in line with the historic narrow gauge rail line that ran from the mine storage and mine loading buildings through the fort gate. The walkway would be approximately 15 feet wide, approximately 10 feet wider than the historic rail line. The walkway would be constructed of a hardened surface designed to avoid damaging the historic fabric of the railroad and may be designed to express the historic rail lines. Along the walkway, the National Park Service would place interpretive signs and displays such as weaponry (cannon, cannon balls, mines, ordinance, etc.) and benches. Interpretive features would be designed with sensitivity to the integrity of the surrounding cultural resources.

The walkway is intended to strategically draw visitors directly down the ferry landing ramp and towards the fort, helping to quickly disperse visitors in an efficient and orderly manner.

Some of the existing vehicle parking along the pedestrian walkway would be reconfigured, including relocating the accessible parking spaces near the fort in order to accommodate a shuttle stop at the fort, as depicted in figure 7. Additionally, a light pole, electrical transformer, and dumpster would be moved away from the walkway. Final locations would be determined in later phases of design.

### ***Restroom and Shelter near Battery 234***

In the future, a new restroom facility could be constructed near the Battery 234 shuttle stop (figures 8 and 9) to accommodate anticipated increase in use of this beach. The new facility would consist of basic men's and women's restrooms, each with a single toilet and sink. A frost-free water hydrant (see photo to the right) would be provided near the restroom for visitor and maintenance staff use. Figure 8 shows a design option which is more obtrusive on cultural resources in the area. Final design would be decided at a later date. The required utilities include water, sanitary, sewer and electric service to the comfort station. The proposed utilities would be routed along the western shoulder of the Battery 234 and Battery Cooper loop road to the intersection at Fort Pickens Road. The water would be connected to the existing 6-inch waterline located on the south side of Fort Pickens Road. Both the sanitary sewer and electric would be bored under Fort Pickens Road with the sewer connected to the existing 3-inch sewer forcemain located on the north side of Fort Pickens Road. The electrical service would be connected to the nearest point of service, also on the north side of Fort Pickens Road.



Frost-free Hydrant (Photo credit  
Simmons Manufacturing Company)

A shade shelter may also be constructed near the shuttle stop at Battery 234. This shelter would be approximately 12 feet by 15 feet in dimension. The structure would be roofed but would not have walls.

Any wayfinding or orientation signs would be designed with sensitivity to the integrity of the surrounding cultural resources.

### ***Campground Store Shade Shelter***

A new shade shelter would be constructed adjacent to the western side of the campground store (figure 10). The structure would have no walls and would be up to 18 feet by 18 feet in dimension. The shelter would provide a waiting area for shuttle passengers.

## **SHUTTLE SERVICE**

In addition to the improvements of the ferry landing area, the concessioner would provide a shuttle service within the Fort Pickens Area (figure 4). The national seashore would purchase a fleet of 5 electric shuttles, and 2 shuttles would provide service to 8 stops in the Fort Pickens Area in 15-minute intervals:

- Ferry landing area
- Auditorium and museum
- Battery 234
- Battery Cooper
- Battery Worth
- Worth Beach access
- Campground store
- Fort Pickens



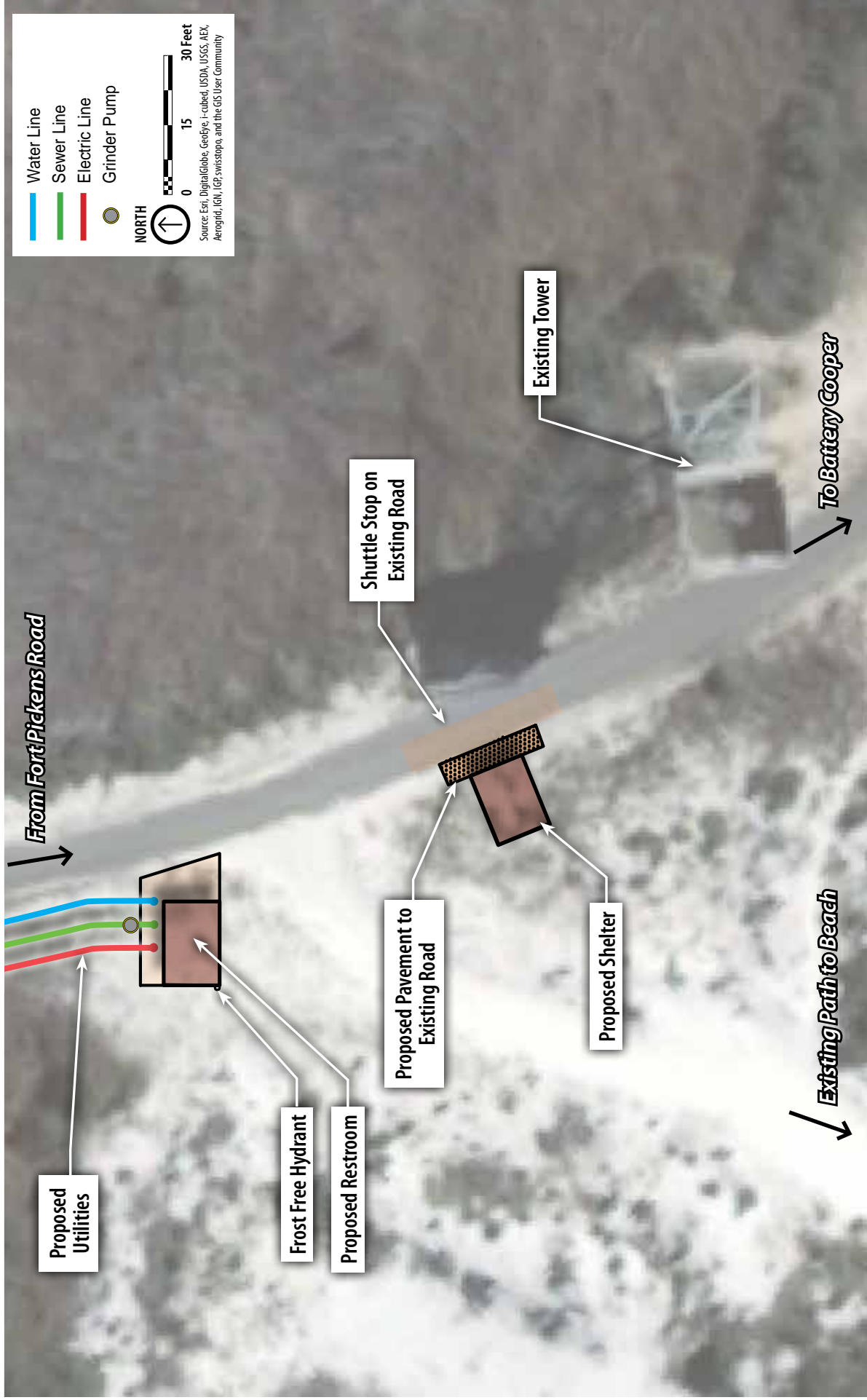
## Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 7  
Alternative 2: Proposed Reconfiguration  
of the Fort Pickens Parking Area



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FIGURE 8  
Alternative 2: Proposed Restroom at Battery 234





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Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 9  
Alternative 2: New Utilities for Restroom at Battery 234



## Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 10  
Alternative 2: Proposed Shade Shelter  
at Campground Store



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Shuttles would comprise an electric tram unit and a passenger trailer, which together would accommodate up to 27 passengers. Passengers would be permitted to bring personal belongings on the shuttle; as such, shuttle capacity could be less than 27 passengers.

## **Battery Langdon**

The shuttles would be stored in Battery Langdon, specifically the east casemate chamber and the corridors leading to that chamber. The shuttles would enter via the existing concrete-paved driveway access to the rear (north) doors of the battery and exit through the doors facing the gulf (south) (figure 11). Four would typically be used each day, and one would be kept for use if one of the other four needed repairs.

At the end of each shift, drivers would be able to wash off the shuttles, if necessary, and would then park them inside Battery Langdon and plug in each vehicle. The charging would be done in-vehicle, using standard 110 volt power. A solar photovoltaics (PV) system would provide power. The solar PV system would be installed on a nearby picnic shelter. Parking for driver's personal cars would be at the adjacent picnic pavilion or at the nearby maintenance facility.

Renovation to accommodate the shuttles would include removal of debris inside the battery, upgrading the electrical service to accommodate the charging locations, modifying the non-historic doors to the casemate, and constructing a driveway from the front door to the parking lot on Fort Pickens Road. In addition, the concrete access road to the north doors of Battery Langdon would be repaired or replaced in kind. A water spigot connection would be provided at the edge of the pavement (figure 12) for washing the shuttles. The spigot would be connected via a 1-inch waterline to the existing 3-inch waterline located north of the road in the vicinity of the existing shelter. Wash water would only contain particulates that already exist within the Fort Pickens Area (e.g., salt and sand) because the electric shuttles would not leak fluids, and particulates in the wash water would be filtered through infiltration in the adjacent sand.

## **MITIGATION MEASURES**

The National Park Service would carry out mitigating measures to reduce or avoid adverse effects of the proposed action. The NPS project manager would ensure that the project remains confined within the parameters established in the compliance documents and that mitigation measures would be properly implemented. The following mitigation measures and any additional mitigation required by regulatory agencies would be refined and incorporated in all final design plans and documents.

- All construction activities would be conducted during daylight hours to avoid noise impacts on national seashore visitors and sensitive wildlife species who may also be sensitive to artificial light.
- In order to mitigate and minimize potential impacts on natural and cultural resources during construction, contractor employees would be instructed on the sensitivity of the general environment and their activities monitored by NPS staff. Corridors for construction vehicle movement would be established and defined on the ground. Staging of construction equipment would be restricted to the road corridor, parking lots, and other identified previously disturbed areas to avoid impacts on natural resources.





Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment

FIGURE 12  
Alternative 2: Proposed Updates near Battery Langdon

- The National Park Service, its concessioner, and/or its contractors would follow guidelines for avoiding impacts on special status species, including the following:
  - If construction activities are conducted during sea turtle and/or shorebird nesting season, the sea turtle and shorebird mitigation measures, as provided in the biological assessment (appendix C), would be followed.
  - Prior to the initiation of project activities all construction areas would be surveyed for the presence of wildlife and protected plant species which are at risk of impacts from construction related activities. Surveys would be conducted by a professional biologist familiar within the flora of northwest Florida and the habitats present within the construction area. Outside of shorebird nesting season, the survey areas would include all construction and mobilization areas, travel corridors, and a 50-foot buffer to prevent unintended impacts outside construction areas. If construction activities are conducted during shorebird nesting season, the buffer would be increased to 300 feet, as provided by the FWC shorebird protection measures. All wildlife and plant surveys would be conducted by a trained biologist familiar with the fauna and flora of northwest Florida and the habitats present within the project area. Upon the identification of at risk wildlife or protected plants, a mitigation plan would be developed. Depending upon the species, mitigation may involve relocation/transplanting, establishment of a buffer around the individual or nest, or delay of project activities until the individual has vacated the area.
  - Shuttle service would be limited to a maximum speed of 15 miles per hour.
  - Shuttle operators would be formally trained to recognize small, cryptic species to avoid vehicular strikes.
  - Inspection of buildings and construction areas for nests or special status species prior to construction activities.
  - Artificial lighting in and on newly constructed buildings would be turned off during sea turtle nesting season to prevent impacts on nesting turtles or hatchlings. If lighting is required at night, wildlife-friendly LED lighting and fixtures would be used.
- Impact on cultural resources would be avoided through implementation of the following mitigation measures:
  - Rehabilitation of the historic buildings will follow the Secretary of the Interior's Standards for Rehabilitation.
  - Additional archeological survey would be completed within the project area prior to implementation of the proposed action in any areas not previously tested for archeological resources. Depending on the results of these archeological investigations, further design modifications would be made to avoid archeological resources wherever possible.
  - If previously unknown archeological resources are discovered during construction, all work in the immediate vicinity (600 feet) of the discovery shall be halted until the resources are identified and documented and an appropriate mitigation strategy developed, if necessary, in accordance with pertinent laws and regulations, including the stipulations of the 2008 Programmatic Agreement Among the National Park Service (US Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.
- Impacts on wetlands during construction would be minimized through implementation of the following measures:

- Wetlands near construction areas would be delineated and avoided to the greatest extent practicable.
- Vehicular access within wetlands during construction would be provided by vehicles generating minimum ground pressure to minimize rutting and other environmental impacts. Wooden, composite, metal, or other non-earthen construction mats would be used when needed to prevent rutting or soil compaction. The maximum width of the access zone shall be 15 feet, and all construction mats shall be removed within 72 hours of the completion of construction.
- All disturbed areas will be returned to natural grade and revegetated using native species. The park would monitor for invasive species and eradicate, if needed.
- In areas where impacts to natural habitats are unavoidable, construction mats would be utilized, if feasible, to protect soils from disturbance by construction machinery. Habitats disturbed by machinery would be restored after construction is completed.
- Construction timing would avoid nesting season, if possible. This wording is intended to provide the park with flexibility, while recognizing the potential to reduce impacts.
- Use of sand fencing, mobi-mats, and/or a boardwalk would be used to protect dune habitat from the impacts of visitors traversing the dunes. If a boardwalk is warranted, environmental compliance for such a structure would be considered at that point.
- An erosion and sediment control plan would be prepared and approved before the start of construction activities. Best management practices such as sand fencing would be used to prevent and control soil erosion during construction.
- If applicable, a stormwater management plan would be developed and all necessary permits obtained.
- If additional sand is needed during construction for grading prior to construction, the island's sand budget would be maintained, and fill would be from compatible sources. Sand would not be used from outside of the national seashore boundary and would match the native grain size and color.
- If artificial lighting is deemed necessary, acceptable wildlife-certified LED lighting and fixtures, as is commonly used on the sea turtle nesting beaches in Florida (approved by FWC and USFWS) would be utilized. New lighting fixtures would also be compliant with night sky best management practices.

## **ALTERNATIVES/ELEMENTS CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS**

The *Pensacola Bay Ferry Service: Ferry and Shuttle Transportation Feasibility Study* (NPS 2014b) and the schematic planning effort conducted prior to this environmental assessment considered many other alternative elements that were ultimately not included in the action alternative presented above. Select elements and their reason for dismissal are described below.

## **EXCLUSIVE USE OF HISTORIC BUILDINGS IN THE FERRY LANDING AREA**

The National Park Service considered a site plan which involved only rehabilitation of historic buildings, updated utilities, and minimal additional infrastructure to support the shuttle service. However, providing a new bathroom facility at the ferry landing area is a priority for the national seashore, as is preserving the integrity of the historic buildings. Constructing a restroom within the mine storage building would have required damage to the historic fabric in order to have a water line, a sewer line, and ventilation. Additionally, constructing a restroom in mine storage building would have obscured the view and visitor understanding of the historic building. For these reasons, the National Park Service determined that a new building, sited within the footprint of a non-extant historic building to complement the spatial organization of the historic period would better accomplish the national seashore's goals.

## **FULL FOOD SERVICE**

The national seashore considered including a more extensive food service operation. However, a full commercial kitchen created additional challenges within the mine storage building with regard to code and building improvements. Therefore, the National Park Service determined that food service would be limited to operations that do not require a fire suppression system.

## **SHADE STRUCTURE OVER FERRY PIER**

The National Park Service considered constructing a shade structure over the departure queuing area of the ferry pier. This structure would have been a removable awning which would seasonally protect visitors from the sun or rain while they wait for the ferry. The historic landscape did not include such a structure; therefore, the new shade structure would have had an adverse impact on the cultural landscape. Additionally, the existing shade shelter provides both coverage and seating for ferry passengers. The National Park Service determined that a shade structure over the ferry pier would be unnecessary and detrimental to national seashore resources.

## **ENVIRONMENTALLY PREFERABLE ALTERNATIVE**

The environmentally preferable alternative is defined by the Council on Environmental Quality as "the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act [Section 101 (b)]." Alternative 1 would not cause any active change in the environment at the site. It would not require the construction of a new building, air conditioning in historic buildings, or the construction of a new bathroom facility near Battery 234. Although it would not meet the project's objectives for improving landside facilities and providing new visitor services, it would result in the least disturbance to the national seashore's existing resources. Therefore, alternative 1 was identified as the environmentally preferable alternative that least damages the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources.

## **NPS PREFERRED ALTERNATIVE**

Based on the planning efforts leading up to and included in this environmental assessment, the National Park Service has identified alternative 2 as the NPS Preferred Alternative. Alternative 2 best meets the project objectives to improve visitor experience by providing a gateway experience through improved landside facilities near the ferry pier and to provide access to visitor amenities within the Fort Pickens Area. Alternative 2 would provide a wide range of benefits to national seashore visitors while preserving and interpreting cultural resources.

## SUMMARY OF THE ALTERNATIVES

Table 1 shows a summary of the alternatives presented above.

TABLE 1. SUMMARY OF ALTERNATIVES

Alternative 1: No Action			Alternative 2: New Landside Development and Shuttle Service		
Visitor Flow					
Ferry Departure Queuing	Visitors could wait on the ferry pier, in the shade shelter, on the beach, etc. No additional wayfinding would be provided as part of this project.		Visitors would gather in the existing shade structure or adjacent to the plaza prior to queuing. Departure queuing would be delineated on the ferry pier to allow arriving passengers to disembark quickly and easily.		
Landside Orientation	No orientation would be provided at the site.		Orientation information would be installed in a new plaza which would be constructed just south of the mine loading building.		
Gathering Areas	The existing shade shelter would be used as a gathering area.		In addition to the existing shade shelter in the ferry landing area, a new gathering area would be designated adjacent to the new plaza, and a new shade shelter would be constructed immediately to the west of the campground store.		
Visitor Services					
Concessions Operations	<ul style="list-style-type: none"> <li>The concessioner would provide visitor services in ferry landing area through food trucks, trailers or trucks with rentals, or other, similar mobile means.</li> <li>Rental equipment would continue to be available in the campground store.</li> <li>The existing snack bar would remain in the firehouse.</li> </ul>		<p>The national seashore would issue a concessions contract, and the concessioner would provide the following new services at the ferry landing area:</p> <ul style="list-style-type: none"> <li>Point of sale for tickets, retail, food, rentals, etc. (mine storage building)</li> <li>Retail sales (mine storage building)</li> <li>Food service (mine storage building)</li> <li>Bicycle rentals (mine storage building and new building)</li> <li>Rental equipment (in new building)</li> </ul> <p>The concessioner would also provide a shuttle service within the Fort Pickens Area and would operate the ferry.</p>		

TABLE 1. SUMMARY OF ALTERNATIVES (CONTINUED)

		Alternative 1: No Action	Alternative 2: New Landside Development and Shuttle Service
Interpretive and Educational Exhibits		No new exhibits.	<ul style="list-style-type: none"> <li>The mine loading building could have wall-mounted and standing exhibits on cultural resources and the historical significance of Fort Pickens.</li> <li>The mine storage building could have wall-mounted exhibits near the dining area.</li> <li>The walkway between the ferry landing area and Fort Pickens could have interpretive features.</li> </ul>
Dining Areas		None.	The ferry landing area would have both indoor and outdoor dining areas. Indoor dining would be provided in the mine storage building, and outdoor dining would be picnic tables under the canopy of the new building.
Restrooms		All existing restrooms would remain. The restroom facilities nearest to the ferry pier are the one just north of Fort Pickens and another in the southern end of the firehouse.	One new restroom facility would be constructed in the new building at the ferry landing area, another new facility could be constructed near Battery 234, and all existing facilities would remain.
<b>Visitor Access</b>			
Access to Resources of the Fort Pickens Area		Ferry passengers would access attractions and resources on foot, by personal bicycle which they would bring on the ferry, or by renting bicycles are the ferry landing area.	<p>In addition to the options under alternative 1, a shuttle service would be implemented. Two shuttles would service eight stops:</p> <ul style="list-style-type: none"> <li>Passenger ferry pier</li> <li>Auditorium and museum</li> <li>Battery 234</li> <li>Battery Cooper</li> <li>Battery Worth</li> <li>Worth Beach access</li> <li>Campground store</li> <li>Fort Pickens</li> </ul> <p>Shuttles would arrive at each stop approximately every 15 minutes and could hold up to 27 passengers.</p>

TABLE 1. SUMMARY OF ALTERNATIVES (CONTINUED)

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
Construction		
New Construction and Necessary Improvements	None.	<ul style="list-style-type: none"> <li>▪ Utilities would be updated in the mine loading and mine storage buildings.</li> <li>▪ The new buildings at the ferry landing area would require water, sewer, and electric lines.</li> <li>▪ The electrical system in Battery Langdon would be replaced, and electrical lines would connect to new solar panels.</li> <li>▪ Water lines would extend to Battery Langdon for easier shuttle cleaning.</li> <li>▪ If constructed, the restroom near Battery 234 would require water, sewer, and electric lines.</li> </ul>

## SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Table 2 shows a summary of the environmental consequences which would result from each of the alternatives. See “Chapter 4: Environmental Consequences” for additional detail.

TABLE 2. SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
<b>Floodplains</b>	No impacts.	<ul style="list-style-type: none"> <li>New construction would displace a small amount of flood waters, thereby slightly diminishing the floodplain function of water storage.</li> </ul>
<b>Wildlife</b>	<ul style="list-style-type: none"> <li>Continued adverse impacts would result from continued human activity.</li> <li>It is likely that wildlife within the vicinity of Fort Pickens and Fort Pickens Road have become habituated to human activity along the road and paths and would not be seriously affected by the increase in use.</li> </ul>	<ul style="list-style-type: none"> <li>Nesting species of birds, bats, and other small mammals could be displaced (if living in the building) or otherwise disrupted by the noise associated with rehabilitation of historic buildings.</li> <li>New structures in the ferry landing area and near Battery 234 would remove small amounts of low-quality habitat.</li> <li>Artificial lighting could disturb activities of nocturnal species.</li> <li>The shuttle service could result in strikes and potential mortality.</li> <li>Increased noise and movement from increased visitor use near ferry pier and of the beaches near Batteries 234 and Cooper could disturb birds and lead to flushing birds from foraging or nesting areas.</li> </ul>
<b>Special Status Species</b>	<ul style="list-style-type: none"> <li>Continued adverse impacts would result from continued human activity.</li> <li>It is likely that special status species within the vicinity of Fort Pickens and Fort Pickens Road have become habituated to human activity along the road and paths and would not be seriously affected by the increase in use.</li> </ul>	<ul style="list-style-type: none"> <li>Nesting bird species may be temporarily affected by rehabilitation of historic buildings due to noise from heavy machinery.</li> <li>The noise from heavy equipment during construction could also affect foraging bird species.</li> <li>Some sandy bird nesting habitats could be displaced by new buildings.</li> <li>The shuttle system has a small potential for vehicle strikes of special status species.</li> <li>There could be localized disturbance from noise and increased human activity during the construction period and once new visitor use patterns are established near the ferry pier and on the beach near Battery 234.</li> </ul>

TABLE 2. SUMMARY OF ENVIRONMENTAL CONSEQUENCES (CONTINUED)

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
Cultural Landscape	No impacts.	<ul style="list-style-type: none"> <li>▪ The new building would minimally detract from the cultural landscape; however, the building would be partially constructed above a historic foundation to be more consistent with the spatial organization patterns from the period of significance.</li> <li>▪ The new walkway between the ferry landing area and Fort Pickens would adversely affect the cultural landscape by incorporating new materials to the site; however, the walkway would be constructed where a historic train track once ran, so the proposed flow patterns would reflect historic circulation patterns.</li> <li>▪ New benches, signage and exhibits would affect cultural landscape by incorporating new materials in the site.</li> <li>▪ If constructed, the new restroom near Battery 234 would detract from the cultural landscape in that area by introducing a new structure to the historic landscape.</li> <li>▪ Improvements around Battery Langdon, including PV panels and new driveways would slightly diminish the cultural landscape in this area by introducing new, non-historic features.</li> </ul>

TABLE 2. SUMMARY OF ENVIRONMENTAL CONSEQUENCES (CONTINUED)

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
Historic Structures	<ul style="list-style-type: none"> <li>The mine loading building, mine storage building, and engineer's shop would continue to flood regularly</li> </ul>	<p>Mine Loading Building and Mine Storage Building:</p> <ul style="list-style-type: none"> <li>The interiors of the buildings would be protected from condensation damage associated with installing climate control infrastructure.</li> <li>Installation of all glass doors would require some damage to the historic fabric.</li> <li>Re-grading around the exteriors of the buildings would minimize flooding during rain events.</li> <li>The walls would be cleaned and repaired, which would minimize future deterioration.</li> <li>Installation of new functions and their associated elements would change the utilitarian appearance of the buildings' interiors.</li> </ul> <p>Mine Storage Building (same as above, plus the following):</p> <ul style="list-style-type: none"> <li>The mine storage building would be adversely affected by the installation of the elevated floor. However, the floor would be removable and would prevent flood damage to the first 6-8 inches of the interior walls.</li> </ul> <p>Engineer's Shop:</p> <ul style="list-style-type: none"> <li>One small penetration for the sump pump would damage the historic fabric of the engineer's shop. However, installation of the sump pump would minimize the damage associated with flood waters.</li> </ul> <p>Battery Langdon:</p> <ul style="list-style-type: none"> <li>Electrical conduits would require minimal damage to the historic fabric where the conduits would be affixed to the walls.</li> <li>The walls would be cleaned and repaired, which would preserve the historic fabric of the building.</li> </ul>

TABLE 2. SUMMARY OF ENVIRONMENTAL CONSEQUENCES (CONTINUED)

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
Archeological Resources	No impacts.	<ul style="list-style-type: none"> <li>▪ The new walkway between the ferry landing area and Fort Pickens may have the potential to adversely affect archeological resources in the area, if these areas are undisturbed.</li> <li>▪ The new building at the ferry landing area would partially cover and preserve a historic foundation, with the exception of a couple of breaches necessary for constructing the new building on caissons atop it.</li> <li>▪ Re-grading and installation of utilities in the ferry landing area have the potential to adversely affect archeological resources in the area, if these areas are undisturbed.</li> <li>▪ Possible construction of a restroom and installation of associated utilities near Battery 234 have the potential to adversely affect archeological resources in the area, if these areas are undisturbed.</li> <li>▪ Installation of utilities near Battery Langdon have the potential to adversely affect archeological resources in the area, if these areas are undisturbed.</li> <li>▪ Driveways at the north and south entrances of the east casement of Battery Langdon may have the potential to adversely affect archeological resources in the area, if these areas are undisturbed.</li> <li>▪ Installation of a shade shelter in the campground area may have the potential to adversely affect archeological resources in the area, if it is undisturbed.</li> </ul>

TABLE 2. SUMMARY OF ENVIRONMENTAL CONSEQUENCES (CONTINUED)

Alternative 1: No Action		Alternative 2: New Landside Development and Shuttle Service
Site Access and Circulation	<ul style="list-style-type: none"> <li>Visitors arrive by ferry and private vehicle.</li> <li>Visitors arriving by private vehicle would continue to circulate via private vehicle, walking a short distance to visit sites.</li> <li>Visitors arriving by ferry would walk or ride a bicycle to visit other sites which would hinder the ability of some visitors to travel beyond the immediate vicinity of Fort Pickens.</li> </ul> <p>The ongoing lack of wayfinding and orientation would hinder the ability of visitors (particularly those arriving by ferry) to efficiently and effectively circulate through the project area.</p>	<ul style="list-style-type: none"> <li>Same as alternative 1 with the exceptions described below.</li> <li>The addition of a shuttle service would provide an additional method by which visitors could easy access the following shuttle stops:               <ul style="list-style-type: none"> <li>ferry landing area</li> <li>auditorium and museum</li> <li>Battery 234</li> <li>Battery Cooper</li> <li>Battery Worth</li> <li>Worth Beach access</li> <li>campground store</li> <li>Fort Pickens</li> </ul> </li> </ul> <p>Improved wayfinding and orientation would improve the ability of visitors (particularly those arriving by ferry) to efficiently and effectively circulate through the project area.</p>
Visitor Use and Experience	<ul style="list-style-type: none"> <li>Visitor use and experience would be diminished by the lack of direction, information, interpretation, and restrooms in the ferry landing area.</li> </ul> <p>Use of the Fort Pickens Area by visitors arriving by ferry would be relatively limited.</p>	<ul style="list-style-type: none"> <li>Improvements within the vicinity of the ferry landing would provide improved a gateway experience, including orientation, wayfinding, and interpretation of the national seashore's resources, which in turn provides an improved visitor experience for visitors arriving via ferry.</li> <li>New restrooms would provide convenient amenities for visitors arriving via ferry.</li> </ul> <p>New shuttle service would provide a wider array of visitor experiences for ferry passengers who prefer not to rely on self-propelled means of transportation.</p>

# 3

## AFFECTED ENVIRONMENT

The “Affected Environment” chapter describes the project area environment, relevant physical and biological processes within the project area, and the existing conditions for those elements of the natural, cultural, and social environment that could be affected by the implementation of the actions considered in this environmental assessment. The impact topics addressed in this environmental assessment include floodplains, wildlife, special status species, cultural landscape, historic structures, archeological resources, site access and circulation, visitor use and experience, and NPS operations. Impacts on these resources are analyzed in “Chapter 4: Environmental Consequences.”

### FLOODPLAINS

A floodplain is defined as any land area susceptible to being inundated by floodwaters from any water source (44 CFR part 59), whereas the 100-year floodplain is the area of land inundated by a flood event that has a 1 % chance of being equaled or exceeded in any given year (FEMA 2015). Floodplains are designated and regulated by the Federal Emergency Management Agency (FEMA) with standards outlined in 44 CFR Part 60.3. Executive Order (EO) 11988, Floodplain Management, requires agencies to assess the impacts that their actions may have on floodplains and to consider alternatives to avoid adverse impacts and incompatible development on floodplains. The National Park Service adopted guidelines pursuant to EO 11998 limiting environmental impacts associated with the occupation and modification of floodplains. NPS guidelines also require Class I actions be avoided within a 100-year floodplain where other alternatives exist. Class I actions include the location or construction of buildings, non-excepted parking lots, or other man-made features which by their nature entice or require individuals to occupy the site.

According to the Flood Insurance Rate Maps, the majority of the project area lies within the 100-year floodplain, which has a 1 % annual chance of flood. The 100-year floodplain is shown as Zones AE, AO, and VE on figure 13. Zone AE is the 100-year floodplain as determined by the National Flood Insurance Program’s detailed methods; Zone AO is the area of the 100-year floodplain which experiences high flood velocities; and Zone VE is the area of the 100-year floodplain which experiences “additional hazards due to storm-induced velocity wave action” (FEMA 2015). The small remaining area is located



**Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment**

**FIGURE 13**

**FEMA Flood Zone Map**



National Park Service  
U.S. Department of the Interior  
Gulf Islands National Seashore

within the 500-year floodplain, which has a 0.2% annual chance of flood. The 500-year floodplain is shown as Zone X on figure 13, or 0.2 % annual flood (figure 13). The proposed action consists of Class I actions, all of which will be located within the 100-year floodplain.

At this time global sea level rise by 2100 is projected to range between 1.4 feet (0.42 meters) and 2.6 feet (0.80 meters) by the Intergovernmental Panel on Climate Change Special Report Emissions Scenario model A1B (IPCC 2013). Florida specific sources, including The Florida Oceans and Coastal Council, indicate sea level rise along the Florida coast range between three and four feet (FOCC 2010). When considering the next 20 to 30 years, sea level in the vicinity of the project area has the potential to rise approximately 1 foot. Given the location of the structures within the floodplain, there is the potential that these areas may see increased flooding, although some protection may be afforded by the existing floodwalls.

A Floodplain Statement of Findings is included in appendix B providing additional details concerning the floodplain in the Fort Pickens Area of the national seashore.

## WILDLIFE

The national seashore consists of a diversity of coastal upland and wetland habitats including the barrier island on which the project area is located. Wildlife habitats common to the project area include marine and estuarine areas, beach dune, coastal scrub, coastal grassland, mesic flatwoods, wet flatwoods, and coastal interdunal swale (FNAI 2014). Although channels were previously constructed within some of the wetland areas to facilitate drainage and presumably control the mosquito population, these communities have remained relatively undisturbed by human activities and provide habitat to numerous wildlife species.

Although large terrestrial mammals are not typical to Santa Rosa Island due to lack of habitat and limited resources, the Fort Pickens Area of the national seashore is inhabited by many species of small mammals. Native terrestrial mammals observed in the vicinity of the project area include the raccoon (*Procyon lotor*), gray fox (*Urocyon cinereoargenteus*), and Santa Rosa beach mouse (*Peromyscus polionotus leucocephalus*). The Santa Rosa beach mouse is the only one of six subspecies of the oldfield mouse, or beach mouse, (*Peromyscus polionotus*) not protected under federal or state law. It was formerly listed as a species of special concern by the Florida Fish and Wildlife Conservation Commission (FWC), but is no longer listed. The Santa Rosa beach mouse population is relatively stable because large portions of Santa Rosa Island are within the national seashore and are protected from development (Gore and Shaefer 1993). State and local organizations continue to monitor populations and habitat to ensure the local populations continue to thrive. The Santa Rosa beach mouse is lighter in color than other subspecies of beach mouse, and it inhabits dune habitats with moderate cover of forbs and grasses. It may utilize more stable scrub habitats during and after storm events (FNAI 2001a).

Approximately 314 bird species use the national seashore, including both permanent residents and migratory or breeding populations (NPS 2010). Songbirds are common to the pine flatwoods and coastal scrub areas near Fort Pickens Area. The most commonly occurring species include osprey (*Pandion haliaetus*), red-winged blackbird (*Agelaius phoeniceus*), northern mockingbird (*Mimus polyglottos*), and

northern cardinal (*Cardinalis cardinalis*) (NPS 2013). Bald eagle (*Haliaeetus leucocephalus*) have also been observed within the Fort Pickens Area of the national seashore. Bald eagles and other protected bird species are discussed in the “Special Status Species” section.

Nesting shorebirds are common to the national seashore, and species nesting within the vicinity of Fort Pickens Area include killdeer (*Charadrius vociferous*), Wilson’s plover (*Charadrius wilsonia*), black skimmer (*Rynchops niger*), and snowy plover (*Charadrius alexandrinus tenuirostris*). Of these species, national seashore staff have only observed killdeer nesting within the seawall, while the others nest on the beach (outside the seawall). Least terns (*Sternula antillarum*) and snowy plover (*Charadrius nivosus*) also nest within the national seashore and are discussed in the “Special Status Species” section. Many of the nesting shorebird species are protected by federal or state regulations. Non-listed bird species are afforded some level of protection under the *Migratory Bird Treaty Act* (16 USC 703-712). Nesting shorebirds are protected from human disturbance with seasonal closures of nesting areas by the National Park Service. Closures begin March 1 of each year, or when shorebirds begin gathering in nesting colonies, and end September 30 of each year. Closures are sized to protect the birds from disturbance during courtship and subsequent nesting, rearing, and fledging activities. Because shorebirds do not nest in the exact same locations or in the same colony each year, the actual location and size of marked closures varies from one year to the next.

Florida is on the Atlantic flyway, a major migratory route stretching more than 3,000 miles from Baffin Island, in northern Canada, to northern South America. Florida provides important overwintering habitat to many migratory bird species (Rapoza 2007). Common migratory species observed within the study area include many waterfowl (gadwall, American widgeon, blue-winged teal, northern shoveler, northern pintail, green-winged teal, American coot), raptors (northern harrier, American kestrel, sharp-shinned hawk), shorebirds (black-bellied plover, semipalmated plover, greater yellowlegs, ruddy turnstone, red knot, least sandpiper, short-billed dowitcher), and passerine landbirds (eastern phoebe, palm warbler, yellow-rumped warbler, gray catbird, American robin, red-winged blackbird) (NPS 2010). Birds that overwinter on the Caribbean islands also migrate through Atlantic coastal Florida in spring and fall, including shorebirds, flycatchers, warblers, and thrushes and tanagers (Rapoza 2007). Passerine migrants are found in scrub and forested habitats, waterfowl on lakes and marshes, and shorebirds on beaches and mudflats (Rapoza 2007).

A total of 19 amphibian and 32 reptile species were identified within the national seashore in a study conducted from 2004 to 2007 (Mohrman and Qualls 2008). Of these, two amphibian and eight reptile species were identified within the Fort Pickens Area. The NPS Inventory and Monitoring Program indicated a total of 22 amphibian species and 57 reptile species identified within the national seashore. Native terrestrial species identified by the study included green treefrog (*Hyla cinerea*), squirrel treefrog (*Hyla squirella*), American alligator (*Alligator mississippiensis*), six-lined racerunner (*Cnemidophorus sexlineatus*), and banded water snake (*Nerodia fasciata fasciata*), among others (Mohrman and Qualls 2008). Other terrestrial reptile species known to be present within the Florida District of Gulf Islands National Seashore include the red cornsnake (*Elaphe guttata*), southern hog-nosed snake (*Heterodon simus*), and diamondback terrapin (*Malaclemys terrapin pileata*). Although recorded in other areas of the national seashore, gopher tortoises (*Gopherus polyphemus*) are not present within the Fort Pickens Area (Mohrman and Qualls 2008). Sea turtles nest on the beaches near Fort Pickens and are discussed within the “Special Status Species” section.

## SPECIAL STATUS SPECIES

### FEDERALLY THREATENED AND ENDANGERED SPECIES

The Endangered Species Act of 1973 defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range.” The Act also defines a threatened species as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Endangered Species Act protects species listed as endangered or threatened on a national basis. The current list of federally protected wildlife is provided within 50 CFR part 17.11 *Endangered and Threatened Wildlife*, published October 1, 2012. The current list of federally protected plants is provided within 50 CFR part 17.12 *Endangered and Threatened Plants*, published October 1, 2012. Protection is also provided to bald eagles under the *Bald and Golden Eagle Protection Act* (16 USC 668-668C). The Endangered Species Act provides regulatory authority to the US Fish and Wildlife Service for the administration of the Endangered Species Act over terrestrial and freshwater aquatic plants and animals and to the National Oceanic and Atmospheric Agency Marine Fisheries Service (NMFS) for the administration of the Endangered Species Act over marine species.

Section 7(a) of the Endangered Species Act requires the National Park Service to consult with US Fish and Wildlife Service and National Marine Fisheries Service if federally protected special status species may be present in the project area or may be affected by the proposed action. Pursuant to Section 7(a) of the Endangered Species Act, the National Park Service initiated consultation with US Fish and Wildlife Service and National Marine Fisheries Service regarding threatened or endangered species which may be present within the project area at Fort Pickens Area. On January 19, 2015 the USFWS Panama City field office provided a list of special status species potentially found within the project area. Additional species were included in this list based on a desktop survey including a cumulative summary of biological inventory data collected within the national seashore by the NPS Inventory and Monitoring Program (NPS 2010) and the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (FNAI 2013). Although it has been delisted, the bald eagle (*Haliaeetus leucocephalus*) was also included in this list. Table 3 shows the compilation of these lists. Also see “Appendix C: Biological Assessment.”

TABLE 3. POTENTIAL SPECIAL STATUS SPECIES IN THE PROJECT AREA

Listed Species	Scientific Name	Federal Status	Preferred Habitat
Mammals			
Perdido Key beach mouse	<i>Peromyscus polionotus trisyllepsis</i>	E	Beach dunes
West Indian manatee	<i>Trichechus manatus</i>	E	Coastal waters, bays, rivers, lakes
Birds			
Bald eagle	<i>Haliaeetus leucocephalus</i>	DL	Lakes, ponds and coastal waters
Piping plover	<i>Charadrius melodus</i>	T	Beaches and tidal mudflats
Red knot	<i>Calidris canutus rufa</i>	T	Beaches
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Open mature pine woodland
Wood stork	<i>Myceteria americana</i>	E	Wetlands

TABLE 3. POTENTIAL SPECIAL STATUS SPECIES IN THE PROJECT AREA (CONTINUED)

Listed Species	Scientific Name	Federal Status	Preferred Habitat
<b>Reptiles</b>			
American alligator	<i>Alligator mississippiensis</i>	SAT	Permanent bodies of freshwater
Eastern indigo snake	<i>Drymarchon corais couperi</i>	T	Mesic and xeric upland habitats
Gopher tortoise	<i>Gopherus polyphemus</i>	C	Dry, sandy uplands
Green sea turtle	<i>Chelonia mydas</i>	E	Coastal and oceanic waters
Hawksbill sea turtle	<i>Eremochelys imbricata</i>	E	Coastal and oceanic waters
Kemp's Ridley sea turtle	<i>Lepidochelys kempii</i>	E	Coastal and oceanic waters
Leatherback sea turtle	<i>Demochelys coriacea</i>	E	Coastal and oceanic waters
Loggerhead sea turtle	<i>Caretta caretta</i>	T	Coastal and oceanic waters
<b>Amphibians</b>			
Reticulated flatwoods salamander	<i>Ambystoma bishopi</i>	E	Pine flatwoods with wetlands
<b>Fishes</b>			
Atlantic sturgeon (Gulf subspecies)	<i>Acipenser oxyrinchus desotoi</i>	T	Coastal waters, bays, and rivers
<b>Clams</b>			
Choctaw bean	<i>Villosa choctawensis</i>	E	Freshwater creeks and rivers
Fuzzy pigtoe	<i>Pleurobema strodeanum</i>	T	Freshwater creeks and rivers
Narrow pigtoe	<i>Fusconaia escambia</i>	T	Freshwater creeks and rivers
Round ebonyshell	<i>Fusconaia rotulata</i>	E	Freshwater creeks and rivers

E Endangered

T Threatened

C Candidate

DL Delisted, recovered, being monitored for first five years

SAT Threatened because of similarity of appearance

Source: USFWS 2015, NPS 2010, FWC 2015a, FNAI 2013

Several federally listed species identified as potentially present within the project area were removed from this study because either the proposed action will not impact the habitat of these species, or habitat is lacking. The proposed action will not impact aquatic or marine resources. Species limited to aquatic and marine habitats include West Indian manatee, Atlantic sturgeon (Gulf subspecies), Choctaw bean, fuzzy pigtoe, narrow pigtoe, and round ebonyshell. Sea turtles, although generally limited to marine and estuarine habitats, are included within the project area due to nesting activities on beaches near or within the project area. Additionally, wetland impacts will be limited to less than 0.1 acres of temporary wetland impacts during the installation of utility lines. Therefore, the American alligator was also removed from this study.

Santa Rosa Island, on which the Fort Pickens Area is located, is outside the range of the Perdido Key beach mouse, which is limited to Perdido Key. Santa Rosa Island is inhabited by the Santa Rosa beach mouse, and the ranges for these beach mouse subspecies do not overlap. In addition, multiple surveys have indicated gopher tortoises are not present within the Fort Pickens Area, although it has been identified in other areas of the national seashore and potential habitat is present (Mohrman and Qualls 2008). Other special status species identified but without habitats in the proposed project area are the reticulated flatwood salamander, red-cockaded woodpecker, woodstork, and Eastern indigo snake.

## Birds

**Bald eagle** – The bald eagle was listed as a federally endangered or threatened species until 2007 when it was determined the species had recovered and could be delisted. Currently the bald eagle is protected by the *Bald and Golden Eagle Protection Act*, the *Migratory Bird Treaty Act*, and the *Lacey Act* (18 USC 42-43; 16 USC 3371-3378). The adult bald eagle is a large raptor identified by a white head and tail with dark brown wings and body. Immature and subadult plumage varies depending on molt but can be described as mottled brown on white with a generally brown head and tail. Bald eagles use a number of habitats for foraging but typically prefer to perch and hunt near large bodies of water. Fish are their primary food source and they also feed on small mammals, birds, reptiles, amphibians, and carrion (FWC 2015b).

**Piping plover** – The piping plover is listed as Threatened by the US Fish and Wildlife Service. It is a small shorebird with a white belly, pale gray back and head, bright orange legs, and an orange and black bill (FWC 2015c). Breeding piping plovers have a black ring partially around their neck and a black stripe on their forehead (FNAI 2001b). Their diet consists primarily of crustaceans, marine worms, and other invertebrates found on beaches, typically within the intertidal zone. Piping plovers spend a portion of the year “wintering” in Florida but do not breed here (USFWS 2015a). Their primary habitat in Florida consists of sandy beaches, mud flats, and sand flats.

**Red knot** – The red knot is a medium to large sandpiper listed as Threatened by the US Fish and Wildlife Service. The head and breast are reddish-brown in breeding plumage, but gray at other times of the year. The back is finely mottled with white, black, and gray. Red knots migrate over 9,300 miles in the spring and autumn between the Canadian Arctic and the shorelines of Chile and Argentina. During migrations they form large groups at stopover points where they rely on an abundance of food sources, including juvenile shellfish and horseshoe crab eggs, to support their long migration. Populations have declined in the 2000s primarily due to overharvesting of horseshoe crabs in Delaware Bay, an important stopping point on their migratory route. Florida is also an important feeding location on their migratory route and red knots are regularly identified within the national seashore during migrations (USFWS 2014b).

## Sea Turtles

**Green sea turtle** – The green sea turtle is a relatively large sea turtle federally listed as endangered for breeding and nesting populations in Florida. All other populations are listed as threatened. Carapace coloration is yellow to green to brown and scutes are smooth. Green sea turtles are typically found within shallow waters associated within reefs, bays, and other areas where sea grasses may be present. Adults are herbivorous and feed primarily on sea grass and algae. Primary threats to green sea turtles include entanglement in fishing gear, illegal harvesting of eggs from beach nesting areas, and shoreline development which disturbs nesting and may lead hatchlings away from the water with artificial lighting. Nesting typically occurs between June and September in the Southeastern United States, and females lay several clutches during the nesting season (NMFS 2014a).

**Hawksbill sea turtle** – The hawksbill sea turtle is a relatively small sea turtle federally listed as Endangered. The elongated head, tapering to a point, and beak-like mouth give the species its name. The carapace is brown with streaks of orange, red, and black, and scutes are overlapping. Adult hawksbills feed primarily on organisms associated with healthy coral reefs. Females nest every two to three years

and generally return to the same beach where they were born. Nesting usually occurs between April and November. Nests are usually excavated high on the beach or in the beach dune vegetation. (NMFS 2014b).

**Kemp's Ridley sea turtle** – The Kemp's ridley sea turtle is federally listed as Endangered. Adult Kemp's ridleys are considered the smallest of the sea turtles reaching a maximum weight of approximately 100 pounds. They can be identified by the five pairs of costal scutes found on their carapace. Generally Kemp's ridley and olive ridley sea turtles (*Lepidochelys olivacea*) nest in large synchronized groups, or arribadas, at only a few specific beach sites, none of which are located in Florida. Individual Kemp's ridleys do regularly nest on Florida Gulf coast beaches between May and July, although in much smaller numbers (NMFS 2014c).

**Leatherback sea turtle** – The leatherback sea turtle is the largest of the sea turtles and federally listed as Endangered. Leatherbacks do not have a hard bony shell; rather, their carapace consists of leathery connective tissue over loosely connected dermal bone. The carapace has seven ridges which intersect at the tail. Leatherbacks primarily inhabit deep ocean areas foraging for pelagic organisms such as jelly fish, salps, and other soft-bodied prey. Nesting peaks in May in coastal Florida, but it has been observed from February to August (NMFS 2014d). In Florida, female leatherbacks normally use east coast beaches rather than migrating in the Gulf of Mexico to nest on Gulf beaches, although they have been recorded nesting along the Gulf shore.

**Loggerhead sea turtle** – The loggerhead turtle is federally listed as Threatened. It is the most abundant sea turtle found in US coastal waters. Loggerheads were named for their relatively large head which provides structure for jaws required to feed on hard-shelled prey such as conchs and welks. In the southeastern US nesting occurs between late April and early September. The loggerhead sea turtle is by far the most common sea turtle to nest on Florida's Gulf coast beaches including the Fort Pickens Area of the national seashore. Although the Gulf coast of Perdido Key is designated Critical Nearshore Reproductive Habitat, the beaches located within the Fort Pickens Area are not considered Critical Habitat for loggerheads (NMFS 2014e)

## **STATE-LISTED THREATENED SPECIES AND SPECIES OF SPECIAL CONCERN**

State-listed species are protected under Article IV, Section 9 of the Constitution of the State of Florida and are classified as Endangered, Threatened, or Species of Special Concern. An Endangered species is a species native to Florida that is in danger of extinction throughout all or a significant portion of its range within Florida. A Threatened species is a species native to Florida that is likely to become Endangered in Florida in the foreseeable future. Species of Special Concern are those species native to Florida for which biological research has documented a decline in population that could threaten the species if the decline continues unchecked or those species native to Florida that occur in such small numbers or with such a restricted distribution that they could easily become Threatened within the state. Chapter 68A-27.003-.005 Florida Administrative Code (FAC), updated January 2013, lists protected wildlife species regulated by the State of Florida. Plant species listed in Chapter 5B-40.0055, FAC, adopted April 22, 2004, are regulated by the State of Florida and are classified as Endangered, Threatened, or

Commercially Exploited. The desktop survey also indicated additional potential species only listed by the State of Florida (table 4).

TABLE 4. STATE-LISTED THREATENED SPECIES AND SPECIES OF SPECIAL CONCERN

Listed Species	Scientific Name	State Status	Preferred Habitat
<b>Birds</b>			
American oyster catcher	<i>Haematopus palliatus</i>	SSC	Beaches, sandbars, mudflats
Black skimmer	<i>Rynchops niger</i>	SSC	Coastal waters
Brown pelican	<i>Pelecanus occidentalis</i>	SSC	Coastal estuarine waters
Burrowing owl	<i>Athene cunicularia</i>	SSC	Sparsely vegetated sandy uplands
Least tern	<i>Sterna antillarum</i>	T	Beaches, estuaries, and oceans
Little blue heron	<i>Egretta caerulea</i>	SSC	Shallow freshwater wetlands
Marian's marsh wren	<i>Cistothorus palustris mariana</i>	T	Spartina and black rush marshes
Reddish egret	<i>Egretta rufescens</i>	SSC	Beaches and tidal mudflats
Snowy egret	<i>Egretta thula</i>	SSC	Inland and coastal wetlands
Snowy plover	<i>Charadrius alexandrinus</i>	T	Beaches and tidal mudflats
Southeastern American kestrel	<i>Falco sparverius</i>	T	Woodlands, prairies, pastures
Tricolor heron	<i>Egretta tricolor</i>	SSC	Inland and coastal wetlands
White ibis	<i>Eudocimus albus</i>	SSC	Freshwater and brackish marshes
<b>Reptiles</b>			
Alligator snapping turtle	<i>Macrochelys temminckii</i>	SSC	Rivers, lakes, and waterways
<b>Amphibians</b>			
Frosted flatwoods salamander	<i>Ambystoma cingulatum</i>	SSC	Pine flatwoods with wetlands
<b>Fish</b>			
Bluenose shiner	<i>Pteronotopsis welaka</i>	SSC	Rivers, streams, and springs
Saltmarsh topminnow	<i>Fundulus jenkinsi</i>	SSC	Salt marshes and estuaries
<b>Plants</b>			
Godfrey's goldenaster	<i>Chrysopsis godfreyi</i>	E	Back dunes and open coastal scrub
Cruise's goldenaster	<i>Chrysopsis gossypina</i> subsp. <i>cruiseana</i>	E	Coastal dunes
Curtiss' sandgrass	<i>Calamovilfa curtissii</i>	T	Pinelands, wet prairies, marshes
Sweetshrub	<i>Calycanthus floridus</i>	E	Slope forest, bottomland forest
Spoonleaf sundew	<i>Drosera intermedia</i>	T	Wet flatwoods, depression marshes
Largeleaf jointweed	<i>Polygonella macrophylla</i>	T	Sand pine/oak scrub

E      Endangered  
T      Threatened  
SSC    State Special Concern

Source: NPS 2010, FWC 2015a, FNAI 2015

Several state-listed species identified as potentially present within the Florida District of the Gulf Islands National Seashore were removed from this study because either the proposed action will not impact the habitat of the species or habitat is lacking. The proposed action would not impact aquatic or marine resources. Species limited to aquatic and marine habitats include alligator snapping turtle, bluenose shiner, and saltmarsh topminnow. Additionally, wetland impacts will be limited to less than 0.1 acres of temporary wetland impacts during the installation of utility lines. Therefore, the following species were also removed from this study due to their dependence on wetland habitat: little blue heron, Marian's marsh wren, snowy egret, tricolor heron, white ibis, Curtiss' sandgrass, sweetshrub, and spoonleaf

sundew. Lastly, habitat for the burrowing owl and frosted flatwoods salamander is not located within the study area.

## **Birds**

**Least tern** – The least tern is a shorebird species listed as Threatened by the State of Florida. The least tern is the smallest of the tern species and can be identified by the black cap, mask-like black streak around the eyes, and bright yellow beak. The diet of the least tern consists primarily of fish with some small invertebrates. Nesting occurs from April to May, and nests consist of shallow depressions in bare beach sand into which the female lays her eggs. Least terns typically inhabit coastal areas in Florida such as estuaries, bays, and beaches (FWC 2015f). Least terns regularly nest on the beaches and dunes within the study area (Granger 2013; Granger 2015).

**Snowy plover** – The snowy plover is a small shorebird listed as Threatened by the State of Florida. Snowy plovers have a white belly, gray to light brown back, black beak, and black forehead. They subsist primarily on small invertebrates foraged within the intertidal zone. Nesting in Florida occurs between the months of February and August. Unlike many shorebirds, snowy plovers do not nest in colonies. Nests consist of small scrapes in the sand and are well camouflaged from predators. In Florida, snowy plovers inhabit the narrow fringe of sandy beaches along the coast of the Gulf of Mexico, and the breeding population occurs in two distinct groups, northwest Florida from Franklin County west and southwest Florida from Pasco to Collier Counties (FWC 2015g). Snowy plovers have been recorded within the national seashore (NPS 2010) and are known to nest annually within the Fort Pickens Area.

**Southeastern American kestrel** – The southeastern American kestrel is listed as Threatened by the State of Florida. It is the smallest falcon species in the US and has a brown back, white belly, and distinctive black marks extending from the eyes downward. Males have blue-gray wings and females have brown wings. Kestrels typically feed on small vertebrates and invertebrates such as grasshoppers and will perch to locate prey and catch it with their feet. Nesting occurs from March to June, and females will nest in tree cavities created by woodpeckers. The southeastern American kestrel inhabits open woodlands, sandhill, and pine savannahs (FWC 2015h). Southeastern American kestrels have not been recorded within the national seashore (NPS 2010) but they are a wide ranging species and appropriate habitat is located within the Fort Pickens Area.

## **Plants**

**Godfrey's goldenaster** – Godfrey's goldenaster is listed as Endangered by the State of Florida. It is a biennial or perennial herb with a basal rosette and stems to eighteen inches long. The species has two forms: one with dense wooly leaf hairs giving the plant a bluish tint and one having green leaves and glandular hairs. Yellow ray and disk flowers are clustered at the ends of stems, and flowering occurs from mid-October to mid-November. Godfrey's goldenaster is found in back dunes and sandy open areas in coastal scrubs (FNAI 2001c). Godfrey's goldenaster has been recorded within the Florida District of the Gulf Islands National Seashore (NPS 2010).

**Cruise's goldenaster** – Cruise's goldenaster is listed as Endangered by the State of Florida. It is a perennial herb with a basal rosette and multiple flowering stems. Cruise's goldenaster flowers from mid-October to mid-November, and the yellow ray and disk flowers occur in clusters at the ends of stems. This species is distinguished from other goldenasters by the unbranched sprawling stems and nearly

hairless leaves. Cruise's goldenaster occurs on stable coastal dunes along the northern Gulf coast (FNAI 2001d). Cruise's goldenaster has been recorded within the Florida District of Gulf Islands National Seashore (NPS 2010).

Largeleaf jointweed – Largeleaf jointweed is listed as Threatened by the State of Florida. It is a perennial with a woody base and stems to three feet in height, the largest of the jointweed species. Leaves are alternate, and white to red flowers occur in dense terminal clusters. Largeleaf jointweed occurs in coastal sand pine (*Pinus clausa*) and oak scrub along the northern Gulf coast (NatureServe 2014). It has been recorded within the Florida District of Gulf Islands National Seashore (NPS 2010).

### **Species of Special Concern**

State-listed species of special concern remaining in this analysis include American oystercatcher, black skimmer, brown pelican, and burrowing owl. Brown pelicans are known to be present in the study area (Granger 2013; Granger 2015). The primary threats to these species include increased coastal and upland development and human disturbance.

## **CULTURAL LANDSCAPES**

The Fort Pickens Area is regarded as a cultural landscape, as defined in Director's Order 28: Cultural Resource Management (DO-28). Three areas described in this section of the cultural landscape at Fort Pickens are either visually or directly affected by the alternatives. The areas mentioned in this section are, however, within and contribute to a cultural landscape that is a National-Register-eligible district associated with military activities on the west side of Santa Rosa Island. A nomination to the National Register is currently being completed for this district (separately from this action), known as the Harbor Defenses of Pensacola Bay Historic District, which will include and recognize these areas and the National Register-listed Fort Pickens.

### **ENGINEERS WHARF AREA**

The area within and adjacent to the ferry landing is a late 19<sup>th</sup> and early 20<sup>th</sup> century functional area that involved mine loading and storage and engineering and ordnance activities associated with the Harbor Defenses of Pensacola Bay. The older buildings within the area were all designed by the US Army Corps of Engineers and were typical examples of these utilitarian structures.

It is located on the northern side of the island where a succession of docks have historically been sited since the early 19<sup>th</sup> century, its close proximity and direct access to Fort Pickens major factors in its location. The area contains two small, one-story gable-roofed brick buildings (the mine loading building and the mine storage building) and a hip-roofed concrete building (the engineer's shop), all of which date to the early 20<sup>th</sup> century. These buildings are arranged on a roughly north-south axis parallel to a new concrete ramp and sidewalk that runs between them.

A recently constructed wood pier, which is reached over an existing 1908 concrete seawall by the new ramp and sidewalk, is elevated above the sand-covered north beach that extends beyond the seawall. Just

west of the south end of the mine loading building is an open hip-roofed shade shelter, which dates to 2012. The foundation remnants of an older structure south of mine storage building reflects the same slightly skewed north-south axis as the mine storage building. A recently-installed telecommunications tower that is enclosed within a chain-link fence is located between the mine loading building and the engineer's shop.

Circulation within the area consists of the concrete ramp and sidewalk between the buildings, which has a tall metal railing with vertical balusters that ends just north of the brick mine buildings. The sidewalk then intersects with a perpendicular concrete sidewalk that borders the north edge of the parking area. A small segment of the steel track of the former narrow gauge railroad that serviced this area remains at the front of the mine loading building. A large asphalt-surfaced parking area with some striping to delineate parking spaces lies to the south and west of the concentration of buildings. The area is surrounded by a flat, relatively non-vegetated sand-covered area.

Views from the area to the south encompass Fort Pickens, its most important view, and a wide expanse of lightly vegetated sandy areas beyond the parking lot to the south, east and west. The view north of the area includes the bay and distant views of the Pensacola Naval Air Station and Fort Barrancas.

## **BATTERY 234 AREA**

The area where a new restroom and shade shelter and associated underground infrastructure are proposed is northeast of Battery 234. The area is located roughly a half- to three-quarters of a mile south and east of the mine area and Fort Pickens and is a flat, sand-covered area intersected by two-lane Fort Pickens Road. Sparsely developed, the area is mostly characterized by the relatively dense and mature scrub and trees that shield Battery 234 from the road and that surround both sides of Fort Pickens Road. A single interpretive sign on wood supports marks the sand-covered path from the road towards Battery 234, a World War II concrete battery. The Battery Commander/Coincidence Range Finder Station, a World War II steel and concrete observation tower, is sited north of the path to Battery 234 on the east side of Fort Pickens. Views are minimal in the immediate project area due to its flat topography and lack of physical development.

## **BATTERY LANGDON AREA**

The Battery Langdon area is on the north side of the island, further east and south of the Battery 234 area, and accessed on the south by Fort Pickens Road and a narrow north-south road east of the battery on its north side. The area immediately adjacent to Battery Langdon, a massive World War II structure that is largely covered with vegetation, displays more rolling topography and vegetated sand-covered surface than the more flat topography that characterize much of the Fort Pickens Area.

North of the battery is an existing small restroom and shade shelter that are of recent construction dates, although the latter is on an older warehouse foundation dating to 1942-45. An older, narrow roadway surfaced with gravel on oyster shell is behind (north of) the battery which leads west to other fort-related structures. A narrow, curving concrete driveway, which is in poor condition, leads from the narrow road

that connects Fort Pickens Road and the east-west road north of the battery. The driveway leads to the north side of the battery.

Vegetation in the area consists of low scrub within the sandy surfaces and obscuring much of the battery's exterior and mature live oak trees; a very large and old live oak tree is located at the north entrance to the battery. Views from the battery are mainly of relatively undeveloped beach areas to the south, the two recent beach support structures north of the battery, and open, vegetated areas on sandy surfaces.

## **HISTORIC STRUCTURES**

The proposed action would visually affect the historic Fort Pickens due to changes to existing buildings, new structures, and the shuttle system. These affects would primarily be north and west of the fort, but would detract from the historic character of the fort. In addition to the fort itself, there are six historic structures that are directly or visually affected by the proposed project. These historic structures are three mine-related buildings at the former engineers wharf on the north side of the island, close to Fort Pickens, and two batteries and an observation tower located to the southeast of Fort Pickens. None of these structures are officially listed, either individually or as contributing resources, in the National Register, although they are considered contributing resources to a National-Register-eligible district associated with military activities on the western end of Santa Rosa Island. Preparation of the district nomination, which will recognize these historic structures for their association with the early 20th century defense of Pensacola Harbor, is currently in process.

### **ENGINEERS WHARF AREA**

The mine loading room, also referred to as building 15, was built in 1907. It was later used as a railroad shop, an automotive maintenance shop, and a welding shop. The brick structure is approximately 24 feet on the north and south elevations by 48 feet on the east and west elevations. The south elevation has a gable above a central entry with double wood-panel doors with a 1/1 double-hung sash window on each side. The west elevation has five 2/2 double-hung sash windows. The east elevation has a central double door, flanked by two 2/2 double-hung sash windows on each side. The north elevation contains three 2/2 double-hung sash windows below a gable. All of the windows and doors on the east, west, and north elevations have beige brick segmental-arched lintels that are connected by a beige brick stringcourse that encircles the entire building. The interior consists of a single open space with a concrete floor, exposed brick perimeter walls, and plywood-sheathed ceiling.

The mine storage building, also referred to as building 16, was built in 1901 and used as a mine warehouse until 1926, after which it was used for storage. The one-story, front gable-roofed, load-bearing brick building was constructed on the concrete foundation of an earlier building with the same purpose that had been destroyed in 1900 by a nearby explosion at Fort Pickens. The foundation's rectangular footprint is roughly 36 feet by 60 feet. The south elevation contains a centered double iron door with a wide concrete top sill. The east and west sides each contain four windows with brick segmental arches and heavy concrete sills, which are covered with iron segmental arch-topped shutters. The north elevation has no windows or doors. The open plan interior features steel fan trusses that support the roof and

original crane within the main storage room; a smaller supply room is located to the west. The interior perimeter walls are exposed brick, with more recent wood walls that separate the main and supply rooms. The wood 6/6 sash of the windows in the east and west elevations is visible on the interior.

The engineer's shop, also referred to as building 17, was built as an engineer storehouse between 1900 and 1910, and is a one-story saddleback hip-roofed building with a concrete foundation and smooth stuccoed concrete walls. The building has always been used for storage. The building rests on a rectangular footprint that is approximately 20 feet by 62 feet with its long axis oriented to the north-south. Its west (front) entrance has an asymmetrically placed double paneled door flanked by a single door on the north and six-pane window with on the south. A small surface parking area that slopes toward both the double door and single door that are closer to the north end of the west façade. Fenestration on the remaining elevations is minimal, with a single window on the south elevation and two windows on the east side, while the north elevation has no windows. The interior is composed of a relatively open floor plan enclosed by exposed concrete block walls, with wood shelves throughout used for storage purposes.

## **BATTERY 234 AREA**

Battery 234, built in 1943 by the US Army Corps of Engineers to house two 6-inch shielded cannons, is a concrete structure with a rectangular footprint that is roughly 237 feet by 115 feet. The structure, largely covered with earth and vegetation, has two concrete gun emplacements which are approximately 21 feet in diameter and flank the battery on the east and west sides. The two visible sections of the battery are recessed entry areas with double steel doors on the east and west sides.

The Battery Commander/Coincidence Range Finder Station at Battery 234 was built in 1944 by the US Army Corps of Engineers and restored in 1984 by the National Park Service. The structure is a metal and concrete observation tower, which is approximately 50–60 feet high and set on a concrete pier foundation. Metal framework surrounds the metal staircase in the center of the structure. Stairs lead to the square concrete observation area.

## **BATTERY LANGDON AREA**

Battery Langdon was originally built between 1917 and 1923 by the US Army Corps of Engineers, but heavily altered in WWII. The massive structure is constructed of poured reinforced concrete with interior and exterior steel doors. The battery has two casemented gun emplacements on the east and west ends that are covered with dirt and heavy vegetation. The guns are enclosed in concrete berms in front of a bunker on the south (front) side. The battery was later altered in 1942-1943 to enclose its guns as protection from incoming projectiles. The battery's interior consists of a series of intersecting corridors, with large ammunition storage rooms. All of the walls are smooth poured concrete. Battery Langdon contributes to the historic significance of Fort Pickens for its association with the fortification of the Pensacola harbor during World Wars I and II.

## ARCHEOLOGICAL RESOURCES

Archeological resources, mostly associated with the colonial period and 19th and 20th century military activities on western Santa Rosa Island, are documented in many areas, including underwater resources in the vicinity of the Engineers Wharf. The HSR and HRS: Pensacola Harbor Defense Project, 1890-1947 (Bearss 1982) documents that by mid-May 1912 the area within the Fort Pickens seawall had been filled, and high points leveled, to obtain a uniform seven (7) feet above mean low water. The area was then covered with fertile earth from the Escambia River and planted with Bermuda roots. An archeological investigation of the Fort Pickens Area in 1973 determined that no prehistoric sites are present within the area (Tesar 1973). Subsequent surveys in the area took place in 2006 (Lawson and Lydick) following Hurricane Ivan and one in 2010 to fulfill compliance for the communications tower between Buildings 15 and 17 (Seibert 2010). No archeological resources were identified in these surveys.

Two more recent investigations in 2010 of the beach area and waters near the shore of the location of the new Fort Pickens pier documented the archeological remnants of an early 19th century pier that was determined eligible for the National Register (Cook & Murphy 2010). Targeted studies of land areas impacted by the construction of the new concrete sidewalk and shade shelter near the pier found that the areas were previously disturbed (NPS/SEAC 2011).

Archeological resources associated with a Civil War encampment have been documented in the campground store and parking lot area east of Battery Worth, north of Fort Pickens Road (Tesar 1973).

Additional survey will take place prior to final infrastructure design in order to determine if there is archeological potential in all areas where ground disturbance is proposed. Monitoring during construction will also be conducted.

## SITE ACCESS AND CIRCULATION

Fort Pickens Road is the primary means of access to the Fort Pickens Area, though visitors can also arrive by privately-owned watercraft. From Pensacola, visitors drive 12 miles and over two bridges to the national seashore entrance on Santa Rosa Island. It is not unusual for traffic to be lined up at the Fort Pickens Area entrance station for 45 minutes to an hour. The project area is approximately 4 miles east of the entrance station. On this 4-mile stretch of Fort Pickens Road, the roadway can be as close as 50 feet from the Gulf, and Santa Rosa Island becomes as narrow as approximately 800 feet wide. As such, Fort Pickens Road is very susceptible to flooding, sand overwash, and storm damage, and it experiences frequent closures. In September 2004, hurricane damage was so severe that Fort Pickens Road was closed through April 2009; during this time, the only means of access to the Fort Pickens Area was by privately-owned watercraft.

Vehicular circulation within the Fort Pickens Area is primarily provided by Fort Pickens Road. Most of Fort Pickens Road is a two-way road with speed limits of 35 miles per hour in most places and 20 miles per hour in nesting areas. Loops and driveways off Fort Pickens Road provide access to the beaches and batteries outside the fort grounds. Roadway congestion results from recreational vehicles accessing the

campground and vehicles circulating to find parking because the parking capacity is frequently exceeded on weekends. Near Batteries Cullum, Sevier, and Van Swearingen, Fort Pickens Road intersects with a one-way loop road which runs counterclockwise throughout the historic area.

In addition to roadways, the Florida National Scenic Trail provides a means of circulation for bicyclists and pedestrians. Within the Fort Pickens Area, the Florida National Scenic Trail, which follows the path of the archeological site of the Quartermaster Corps Narrow Gauge Railbed, runs north of Fort Pickens Road from just north of Fort Pickens, to Battery Worth, the campgrounds, and Battery Langdon. At Battery Langdon, the Florida National Scenic Trail aligns with Fort Pickens Road, which has 4-foot shoulders for bicycles along the 5-mile stretch to the national seashore's entrance. Bicycles are also permitted in travel lanes on Fort Pickens Road west of Battery Langdon, where there are not designated shoulders. Bicycles can currently be rented from the campground store.

It should be noted that passenger ferry service is anticipated to begin March 2017. This addition method of transportation to the Fort Pickens Area and the issuance of the associated concessions contract are described in additional detail as a cumulative action in the following chapter. The way that visitors access and circulate through the project area following implementation of the ferry service and issuance of a new concessions contract are also described in the following chapter under this impact topic.

## **VISITOR USE AND EXPERIENCE**

With more than 4,800,000 visitors in 2013, Gulf Islands National Seashore was the most heavily visited national seashore and the eleventh most heavily visited unit in the national park system in 2014 (NPS 2015b). Of those nearly 5 million visitors, the Fort Pickens Area hosted just over 1 million. Changes in annual visitation and visitation patterns to the national seashore are influenced by hurricanes and other strong coastal storms. However, peak visitation generally occurs during the months of May through August, with visitation being usually lowest in December and January (NPS 2015b).

Visitors come to the Fort Pickens Area for both the natural experience as well as an understanding of the history of the Fort Pickens Area. Visitors participate in a variety of activities including hiking and bicycling, camping, swimming, fishing, other beach activities, ranger-led programs, and tours of Fort Pickens. The Florida National Scenic Trail and the Blackbird Marsh Nature Trail provide opportunities for hiking and bicycling through natural areas. Bicycles are also permitted on roadways. The Fort Pickens campground has 200 campsites, which can accommodate tents or recreational vehicles, and one group tent site. In recent years, interpretive programming has declined due to budgetary restrictions; therefore, most visitor tours of Fort Pickens and the surrounding batteries are self-guided.

The Fort Pickens Area is most easily navigated by car because of the distance between points of interest and the locations of signs. The points of interest, including Fort Pickens, nine historic batteries, military-era buildings surrounding Fort Pickens, beaches, dunes, and trails, are spread over approximately 3 miles of Santa Rosa Island. The majority of signs are located adjacent to roadways and parking areas. Visitors touring the historic structures drive along Fort Pickens Road and explore the historic resources including Fort Pickens; the building which houses the museum; and Batteries Langdon, Worth, Cooper, and 234. Additionally, three of the five batteries on the western end of the Fort Pickens Area (Batteries Trueman,

Payne, and Van Swearington) are open to the public. The other two (Batteries Cullum and Sevier) can be observed, but visitors are not currently permitted to explore them. Similarly, there are a number of military-era buildings north and west of Fort Pickens which are used for national seashore operations and housing, including the mine loading building and the mine storage building, but these buildings are not open to the public.

The existing restrooms are most convenient for visitors in private vehicles. Restroom facilities currently exist on the east side of Fort Pickens, in the southern end of the firehouse, near Battery Trueman, north of Battery Worth, north of Battery Langdon, at Langdon Beach, and at the lifesaving station.

As mentioned in the previous section, passenger ferry service is anticipated to begin March 2017. The passenger ferries would accommodate visitors' personal belongings such as bicycles, coolers, beach chairs and umbrellas, etc. Continued vehicular access to the Fort Pickens Area would be uninhibited by the ferry service. The additional method of transportation to the Fort Pickens Area and the issuance of the associated concessions contract are described in additional detail as a cumulative action in the following chapter. The way that visitors use and experience the project area following implementation of the ferry service and issuance of a new concessions contract are also described in the following chapter under this impact topic.

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# 4

## ENVIRONMENTAL CONSEQUENCES

This chapter analyzes the beneficial and adverse impacts that would result from implementing either of the alternatives considered in this EA. This chapter also includes methods used to analyze direct, indirect, and cumulative impacts. A summary of the environmental consequences for each alternative is provided in table 2, which can be found in “Chapter 2: Alternatives.” The resource topics presented in this chapter and the organization of the topics correspond to the discussion contained in “Chapter 3: Affected Environment.”

### GENERAL METHODOLOGY FOR ANALYZING IMPACTS

The Council on Environmental Quality regulations that implement the National Environmental Policy Act require assessment of impacts on the human environment, which includes natural, cultural, and social resources. As required by the National Environmental Policy Act, potential impacts are described in terms of type (beneficial or adverse), context (site-specific, local, or regional), duration, and level of intensity within the context of national seashore data, NPS policies, and other laws/regulations. Both direct and indirect impacts also are described; however, they may not be identified specifically as direct or indirect. These terms are defined below. Overall, these impact analyses and conclusions were based on the review of existing literature and studies, information provided by on-site experts and other government agencies, professional judgments, and national seashore staff insight.

### GEOGRAPHIC AREA EVALUATED FOR IMPACTS

Unless otherwise specified for a particular impact topic, the area evaluated for impacts is the area delineated as the project area (figure 2).

### TYPE OF IMPACT

Impacts are discussed by type, as follows:

- Direct:** Impacts that would occur as a result of the proposed action at the same time and place of implementation (40 CFR 1508.8).
- Indirect:** Impacts that would occur as a result of the proposed action but later in time or farther in distance from the action (40 CFR 1508.8).
- Adverse:** Impacts that would cause an unfavorable result to the resource when compared to the existing conditions.
- Beneficial:** Impacts that would result in a positive change to the resource when compared to the existing conditions.

## ASSESSING IMPACTS USING COUNCIL ON ENVIRONMENTAL QUALITY CRITERIA

The impacts of the alternatives are assessed using the Council on Environmental Quality definition of “significantly” (1508.27), which requires consideration of both context and intensity (the terms “impact” and “effect” are used interchangeably in this section):

- (a) **Context**—This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.
- (b) **Intensity**—This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:
  - (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect would be beneficial.
  - (2) The degree to which the proposed action affects public health or safety.
  - (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetland, wild and scenic rivers, or ecologically critical areas.
  - (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

- (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
- (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- (10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

For each impact topic analyzed, an assessment of the potential significance of the impacts according to context and intensity is provided in the “Conclusion” section that follows the discussion of the impacts under each alternative. Resource-specific context is presented in the Methodologies section under each resource topic and applies across all alternatives. Intensity of the impacts is presented using the relevant factors from the list in (b) above. Intensity factors that do not apply to a given resource topic and/or alternative are not discussed.

## **CUMULATIVE IMPACT ANALYSIS METHODOLOGY**

To determine the potential cumulative impacts, completed, existing, and anticipated future projects within the project corridor and in the surrounding area were identified. The projects and plans identified include the Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service and issuance of a new concessions contract, and the Fort Pickens Road realignment. In defining the contribution of each alternative to cumulative impacts, the following terminology is used:

- Imperceptible:** The incremental effect contributed by the alternative to the overall cumulative impact is such a small increment that it is impossible or extremely difficult to discern.
- Noticeable:** The incremental effect contributed by the alternative, while evident and observable, is still relatively small in proportion to the overall cumulative impact.
- Appreciable:** The incremental effect contributed by the alternative constitutes a large portion of the overall cumulative impact.

## CUMULATIVE ACTIONS IDENTIFIED

***Gulf Islands National Seashore Beach Enhancement Project.*** As part of the *Deepwater Horizon* Oil Spill Natural Resource Damage Assessment, the Gulf Islands National Seashore Beach Enhancement Project proposed removal of pieces of asphalt and road-base material from three areas of the national seashore, including the eastern side of the Fort Pickens Area. Under this action, debris from roadway damage caused by several storms over the last 20 years would be removed from approximately 1.5 square miles of the Fort Pickens Area by mechanized equipment or crews with hand tools. The Gulf Islands National Seashore Beach Enhancement Project has potential impacts on floodplains, wildlife, special status species, and visitor use and experience.

***Construction of the Ferry Pier and Shade Structure.*** In preparing for the implementation of the ferry service, the national seashore constructed a ferry pier, access ramp over the seawall, and a nearby shade structure on the north side of the Fort Pickens Area. The ferry pier, which was completed in April 2013, is designed to withstand up to a Category 4 hurricane, provides an accessible entry to the inside of the seawall, and provides for occasional docking of non-ferry vessels (i.e., NPS boats). The shade structure provides seating near the ferry pier for up to 150 people. The construction of the ferry pier and shade structure has had impacts on floodplains, wildlife, special status species, cultural landscape, historic structures, archeological resources, site access and circulation, visitor use and experience, and NPS operations.

***Implementation of Ferry Service and Issuance of a New Concessions Contract.*** The national seashore and the Pensacola Bay area have long included a ferry service in master planning efforts. While the *Final Programmatic and Phase III Early Restoration Plan and Draft Early Restoration Programmatic Environmental Impact Statement* (PEIS) was being prepared, the national seashore also conducted the *Pensacola Bay Ferry Service: Ferry and Shuttle Transportation Feasibility Study* (feasibility study). The PEIS analyzed the impacts of the ferry service, and the feasibility study determined the viability of regional ferry service and a shuttle service within the Fort Pickens Area. The ferry service would provide daily service from March through October to the City of Pensacola, Pensacola Beach, and the Fort Pickens Area. Two ferries would operate each day, providing clockwise and counterclockwise routes. Up to 95,000 annual visitors are expected to use the ferry service to access the Fort Pickens Area from mid-March through October (NPS 2014b). Ferry vessels would accommodate up to 150 passengers. Ferries would arrive at each location approximately every 90 minutes, making 6 stops at each location daily.

As part of the implementation of the ferry service, the national seashore would issue a new concessions contract which would require the concessioner to provide visitor services such as food service and rental equipment at the ferry landing area. The implementation of ferry service and issuance of a new concessions contract has potential impacts on wildlife, special status species, historic structures, site access and circulation, visitor use and experience, and NPS operations.

**Fort Pickens Road Realignment.** Access to the Fort Pickens Area is regularly interrupted because of flooding, sand overwash, and storm damage to Fort Pickens Road. The *Environmental Assessment for the Fort Pickens Road Realignment* proposes to realign nearly 2 miles of Fort Pickens Road which are most susceptible to flooding, overwash, and damage due to their proximity to the Gulf. This stretch of roadway would be realigned to higher and more inland areas of the island. The Fort Pickens Road Realignment has potential impacts on floodplains, wildlife, special status species, site access and circulation, visitor use and experience, and NPS operations.

## FLOODPLAINS

### METHODOLOGY AND ASSUMPTIONS

Potential impacts on floodplains are assessed based on the FEMA Flood Insurance Rate Maps, as described in chapter 3. Floodplain impacts are characterized both by the flow of water through the floodplain, as well as the risks to human safety caused by potential flood events.

Resource-specific context for assessing impacts of the alternatives on floodplains includes the following:

- Floodplain functions and values (store floodwaters, minimize erosion of adjacent soils, provide riparian habitat, etc.) are intrinsic to floodplains and cannot be easily duplicated or replaced.
- Executive Order 11988 directs all federal agencies to avoid short- and long-term impacts associated with occupancy, modification and development of floodplains when possible.
- NPS DO-77-2 implements Executive Order 11988 and established NPS policy to preserve floodplain values and minimize potentially hazardous conditions associated with flooding.

### IMPACTS OF ALTERNATIVE 1

#### Impact Analysis

Under alternative 1, visitor services in the ferry landing area would be mobile, and would be removed each night. The project area as it exists today would remain the same with no development or construction changes, and there would be no impact on the floodplain.

#### Cumulative Impact Analysis

Although past, present, and reasonably foreseeable future actions may affect, have affected, and will affect floodplains, alternative 1 would have no impacts and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on floodplains under alternative 1.

## **Conclusion**

Alternative 1 would result in no impacts on the floodplain. No areas would be filled for new construction; therefore flood waters would not be displaced.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, the national seashore would improve facilities, operate the shuttle service, and construct new buildings and infrastructure, including the new ferry landing area building, a pedestrian walkway to Fort Pickens, a shade shelter near the campground store, and a potential restroom near Battery 234. All new construction would occur within the 100-year floodplain. Construction of the new buildings would displace a small volume of flood waters and affect floodplain functions and values, primarily water storage. The proximity of Pensacola Bay and the Gulf of Mexico reduces the impact by providing the water storage necessary to offset the loss due to construction. The project will not increase the on-site storage of hazardous waste or chemicals.

### **Cumulative Impact Analysis**

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, and the Fort Pickens Road realignment contribute to the cumulative impact on floodplains. The Gulf Islands National Seashore Beach Enhancement Project would result in beneficial impacts on the floodplain by removing asphalt and other debris from historical storm and flood damage to Fort Pickens Road. The construction of the ferry pier had an adverse impact on the floodplain by decreasing a very small amount of water storage. The Fort Pickens Road realignment would disrupt floodplain functions and values at the construction site for many years; however, floodplain functions would be enhanced by the removal of the existing road alignment and restoration of the natural habitat at this location. The impact of alternative 2, in conjunction with the impacts of the cumulative actions, would result in a beneficial and an adverse impact on the floodplain. Alternative 2 would contribute an imperceptible adverse increment to the cumulative impact.

## **Conclusion**

Under alternative 2, a small volume of floodplain storage would be lost because of the construction of four new structures; however, the storage capacity of the nearby water bodies would lessen the intensity of the impact on the floodplain. Cumulative impacts from alternative 2 would be imperceptible. Therefore, the impacts of alternative 2 on the floodplain would not approach the level of significance.

## **WILDLIFE**

### **METHODOLOGY AND ASSUMPTIONS**

The NPS Organic Act, which directs all parks to conserve wildlife unimpaired for future generations, is interpreted by the National Park Service to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations

of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of animals. Information on wildlife was obtained from documentation published by the National Park Service, consultation with the US Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission, and an online search conducted on the FNAI website.

The resource-specific context for the evaluation of impacts on wildlife and wildlife habitat includes the following:

- Because the surrounding area is highly developed, the seashore represents a high percentage of available habitat for some species.
- Many species of birds which are protected by the Migratory Bird Treaty Act (16 USC 703-712) are protected from human disturbance with seasonal closures of nesting areas.
- The degree to which abundance and diversity of native species and/or the quality of their habitat are disrupted, and whether those disruptions would be within the natural range of variability.

## **IMPACTS OF ALTERNATIVE 1**

### **Impact Analysis**

Under alternative 1, there would be no change to the existing on-site services provided by the National Parks Service or new construction. Public use of the Fort Pickens Area would continue, and minor impacts on wildlife and wildlife habitat associated with continued human activity are expected over many years. It is likely wildlife within the vicinity of Fort Pickens and Fort Pickens Road have become habituated to human activity along the road and paths and would not be seriously affected.

### **Cumulative Impact Analysis**

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service, and the Fort Pickens Road realignment contribute to the cumulative impact on wildlife. The Gulf Islands National Seashore Beach Enhancement Project would cause some temporary impacts on wildlife habitat from machinery during debris removal. To reduce impacts, construction would occur outside of the nesting season for most species. The restoration of these areas would provide benefits over many years to wildlife and wildlife habitat. Construction of the ferry pier affected a small area of aquatic wildlife habitat adjacent to the shoreline in the Fort Pickens Area, and the increase in boat traffic due to the operation of the ferry will impact water quality within the immediate area of the dock primarily by disturbing sediments and increasing turbidity. Increased public use of the Fort Pickens Area with the initiation of the ferry service could potentially disturb natural habitats and wildlife within the vicinity of Fort Pickens over many years. Increased use of the existing foot trails and roads may increase the area of disturbance normally associated with a foot path or paved road. The realignment of Fort Pickens Road would remove habitat along the new road location; however, the old road would be removed and the area restored to natural conditions, a process which will take several years to complete. Mortality of wildlife species along the road is expected to continue with the new road alignment at current levels, although the new road design incorporates more curves to reduce driving

speeds which may lower mortality below existing levels. Removal of the existing road, which currently disrupts the natural beach dune line, would promote the natural dune processes within the immediate area and provide additional habitat for species such as the Santa Rosa beach mouse. Temporary disturbances to wildlife are expected during construction of the road due to the increased activity and noise. These impacts would only be present during construction. Some wildlife habitat may be disturbed during construction by machinery. These areas will also be restored to natural conditions. The impact of alternative 1, in conjunction with the impacts of the cumulative actions, would result in a beneficial and an adverse impact on wildlife. Alternative 1 would contribute an imperceptible adverse increment to the cumulative impact.

## **Conclusion**

Alternative 1 would not result in any changes to the existing structures within the Fort Pickens Area or in services provided by the National Park Service. The no-action alternative would not disrupt the diversity of species or quality a habitat outside of the natural range of variability, nor would the no-action alternative result in loss of wildlife habitat. Increased public use of the national seashore due to the other proposed and completed projects in the area would lead to adverse impacts over many years on habitat and wildlife adjacent to existing trails, roads, and other public use areas. However, proposed habitat enhancement and restoration activities would result in beneficial impacts on native wildlife species. In addition, alternative 1 would contribute an imperceptible adverse increment to the cumulative impact. Therefore, the impacts of alternative 1 on wildlife would not approach the level of significance.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, the following proposed actions are not anticipated to disturb existing wildlife habitat or natural areas:

- Operation of the shuttle service;
- Rehabilitation of existing buildings;
- Construction of the pedestrian walkway; and
- Paving of a shuttle cleaning area at Battery Langdon.

Some wildlife species, particularly birds, bats, and other small mammals, may use existing buildings for nesting. Impacts on any wildlife found nesting within these buildings would be minimized by best management practices. An existing rail bed would be converted to the pedestrian walkway to limit impacts on natural habitat.

New structures affecting a small amount of wildlife habitat include the new building at the ferry landing, the restroom facilities at Battery 234, and the shade shelter near the campground store. Increased visitor use due to the new buildings near the ferry pier, the beaches near Batteries 234 and Cooper, and the campground store could disturb birds and lead to flushing birds from foraging or nesting areas. The new building at the ferry landing area would be constructed above a historic building foundation. A small area of previously disturbed, low quality habitat adjacent to the building location may be temporarily disturbed

by construction activities. Installation of the required utilities would also temporarily impact the same areas. All affected areas would be revegetated after construction to restore disturbed habitat.

Construction of the possible restroom facilities proposed at Battery 234 would impact some natural habitat, which is already degraded by its proximity to the existing parking lot. Regular use of this area by the public has reduced the value of the habitat to wildlife, although it may be used by nocturnal animals such as the Santa Rosa beach mouse for foraging. If habitat degradation were to become an issue, the NPS would use sand fencing, mobi-mats, and/or a boardwalk to protect dune habitat from the impacts of visitors traversing the dunes. If a boardwalk is warranted, environmental compliance for such a structure would be considered at that point.

Installation of utility lines from the proposed restroom facilities at Battery 234 would affect previously disturbed areas in the road shoulder. Any of the corridor impacts would be temporary and the habitat would be restored to pre-existing conditions after construction. A very small area would be used for access to the utility lines in case of repairs. The new 18-foot by 18-foot shelter at the campground store would disturb a small area of previously disturbed, low quality habitat adjacent to the store.

Permanent indirect impacts on wildlife would occur from artificial lighting installed at the locations of the new buildings at the ferry landing, Battery Langdon, and Battery 234. The Fort Pickens Area is closed after dark, so lighting would be turned off to prevent any impacts on nocturnal species. USFWS- and FWC-certified fixtures and LED lighting would be installed to limit potential impacts to nocturnal species. Most of these areas already have artificial lighting and the additional lighting would have little impact on wildlife.

Temporary impacts on wildlife include temporary disturbance during the construction period including additional noise and human activities within localized area. These impacts would be minimized by limiting construction to the daylight hours to prevent disturbance of nocturnal activities. It is likely wildlife is already habituated to human activities on the road and adjacent to the public use areas. Wildlife would likely be unaffected by the increase in activity at these locations.

Direct impacts on wildlife would be minimal and consist of potential vehicle strikes by shuttles. The maximum speed of the shuttles will be 15 miles per hour and shuttle operators would be trained in the identification of small cryptic wildlife species, so vehicle strikes can be avoided. Another indirect impact of the shuttle service would be additional public use of the beach at Battery 234. It is likely the wildlife at this location are habituated to human activity; however, it is anticipated public use of this beach would increase. Unintended incremental impacts on wildlife habitat between the proposed shuttle stop and the beach would likely occur over many years. Disturbances may include flushing of birds from foraging or nesting areas, potentially leading to abandonment of nests. Increased public use of this location may also lead to unintentional direct impacts on wildlife within the immediate area, particularly nests. Ground nesting birds and small mammal nests are often well camouflaged and may not be easily seen by beachgoers. The NPS policy of marking and protecting nests, public education concerning nesting wildlife species, and seasonal closures of specific areas to protect nesting wildlife would continue, and it is anticipated that impacts on nesting wildlife would be very rare.

## Cumulative Impact Analysis

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service, and the Fort Pickens Road realignment contribute to the cumulative impact on wildlife. The impacts of these actions are described under alternative 1. The impact of alternative 2, in conjunction with the impacts of the cumulative actions, would result in a beneficial and an adverse impact on wildlife. Alternative 1 would contribute a noticeable adverse increment to the cumulative impact, particularly in the Battery 234 area.

## Conclusion

Alternative 2 would result in adverse impacts on wildlife such as habitat loss, disruption from human activity, disruption from artificial lighting, and potential mortality from shuttle strikes. While the actions in alternative 2 would result in disruption of wildlife and some habitat loss, they would be mainly focused within the most developed areas of the Fort Pickens Area. Therefore, the vast amounts of high-quality habitat would remain largely unaffected. The national seashore would continue actions which protect wildlife from inadvertent human disturbance, and the impacts from alternative 2 would not lead to changes in diversity or habitat quality which are outside the natural range of variability. Therefore, the impacts of alternative 2 on wildlife would not approach the level of significance.

## SPECIAL STATUS SPECIES

### METHODOLOGY AND ASSUMPTIONS

NPS *Management Policies 2006* (NPS 2006b) states that potential impacts of agencies actions would be considered on federal- or state-listed species. The National Park Service is required to control access to critical habitat of such species and to perpetuate the natural distribution and abundance of these species and the ecosystem upon which they depend.

Rule 68A-27.003 of the Florida Administrative Code states that “no person shall take, possess, or sell any threatened species included in this subsection or parts thereof or their nests or eggs except as authorized by [Florida Fish and Wildlife Conservation Commission] rule or by permit from the [Florida Fish and Wildlife Conservation Commission].”

The US Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, and the National Marine Fisheries Service were consulted to identify rare, threatened, and endangered species and designated critical habitats that may exist within the project area or otherwise be affected by the proposed alternatives. Information on possible threatened or endangered species, and species of special concern was also obtained from past NPS studies and plans, the FNAI Biodiversity Matrix, and the FWC web site. Map locations of habitats associated with threatened, endangered, candidate species, and species of special concern were compared with locations of proposed developments and existing facilities. Known impacts caused by development and human-uses were also considered. In addition to the NEPA impact analysis, the National Park Service completed a separate biological assessment specific to Section 7 of the Endangered Species Act (appendix C). The biological assessment includes the NPS determinations that the proposed action is not likely

to adversely affect any federally-listed species. The National Park Service will submit the biological assessment to the U.S. Fish and Wildlife Service and National Marine Fisheries Service, requesting concurrence with these determinations.

The resource-specific context for the evaluation of impacts on special status species includes the following:

- Because the surrounding area is highly developed, the seashore represents a high percentage of available habitat for some species.
- All federal agencies are specifically charged by the Endangered Species Act to conserve listed species and are prohibited from taking actions that would jeopardize the continued existence of these species. NPS *Management Policies 2006* and DO-77 also direct the National Park Service to treat state-listed species in the same way that federally listed species are treated, to the extent practicable.
- Maintaining the integrity of local populations (occurrences) of special status species and their habitat is important because these species are rare, have specialized habitat requirements, and because the national seashore serves as a refuge from surrounding habitat loss and alteration due to development pressure in the region.

## IMPACTS OF ALTERNATIVE 1

### Impact Analysis

Under alternative 1, there would be no change to the existing on-site services provided by the National Park Service or new construction as part of this project. Public use of the Fort Pickens Area would continue, and minimal impacts on wildlife, including special status species, and wildlife habitat are expected over many years. Potential impacts include continued mortality of least tern and snowy plover from vehicle strikes on Fort Pickens Road (Cohen and Durkin 2013) and continued disturbance of habitat for species such as Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed. It is likely that wildlife within the vicinity of Fort Pickens and Fort Pickens Road have become habituated to human activity along the road and paths and would not be seriously affected by the increase in use.

### Cumulative Impact Analysis

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service, and the Fort Pickens Road realignment contribute to the cumulative impact on special status species.

The Gulf Islands National Seashore Beach Enhancement Project would restore a large area of coastal upland habitats with the removal of road debris. The beach enhancement project area is located east of the study area and is not within it. Although the restoration would take several years to complete, it would provide benefits over many years to wildlife, including protected species, and wildlife habitat (NPS 2013b). Consultation with the U.S. Fish and Wildlife Service was initiated with the submission of an intra-service Biological Evaluation on September 27, 2013.

Impacts on special status species caused by the construction of the ferry dock and the operation of the ferry service include an increase in the potential for ferry collisions with species, including the West Indian Manatee, Gulf sturgeon, and sea turtles, along the ferry route during the operational life of the ferry service. It may also result in the degradation of water quality, primarily turbidity, caused by boat use at the constructed dock and previously existing fishing pier (NPS 2011). Consultation with U.S. Fish and Wildlife Service and National Marine Fisheries Service for the ferry service and dock was initiated in 2009, and a biological assessment was submitted in February 2010. A Letter of Concurrence from the U.S. Fish and Wildlife Service for the biological assessment was received on March 5, 2010. Letters of concurrence from NMFS for essential fish habitat and the Endangered Species Act were received on August 23, 2011, and August 22, 2011, respectively (NPS 2011).

Increased public use of the Fort Pickens Area with the initiation of the ferry service could potentially disturb natural habitats and special status species within the vicinity of Fort Pickens over many years. Increased use of the existing foot trails and roads may potentially increase the area of disturbance normally associated with a foot path or paved road. However, NPS policy to protect wildlife from human disturbance including closures of certain areas to protect nesting birds, including snowy plovers, black skimmers, and least terns; and sea turtle nest surveys and monitoring would continue into the foreseeable future to limit the impact of human activity on wildlife within the national seashore.

The project area for the proposed realignment of Fort Pickens Road is located approximately one mile east of the study area. It would remove habitat along the new road location including wetland habitat potentially used by state-listed wading birds; however, the old road would be removed and the area restored to natural conditions, a process which would take several years to complete. Mortality of snowy plovers and least terns, has been recorded along Fort Pickens Road (Cohen and Durkin 2013) and is expected to continue at existing levels with the new road alignment, although the new road design does incorporate more curves in an effort to lower driving speeds which may reduce mortality below existing levels. Removal of the existing road would promote the dune development process and provide additional habitat for species using beaches and beach dunes for nesting, e.g., snowy plover, least tern, and black skimmer. In addition, construction proposed for the Fort Pickens Road realignment would impact potential habitat of Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed, and may directly impact individual plants or populations. Pre-construction plant surveys and relocations of any observed protected species would be conducted to reduce potential impacts (NPS 2014c). Consultation letters for the Fort Pickens Road realignment were mailed to state and federal agencies on April 23, 2014, including the USFWS and the NMFS. Information about the proposed project was included in the consultation letter. A response was received from the NMFS on May 7, 2014. NMFS did not identify any adverse effects to listed species as a result of the project (NPS 2014c).

The impact of alternative 1, in conjunction with the impacts of the cumulative actions, would result in beneficial and adverse impacts on special status species. Alternative 1 would contribute an imperceptible adverse increment to the cumulative impact.

## **Conclusion**

Overall, alternative 1 would only result in minimal impacts on special status species from the continued presence of humans in the Fort Pickens Area. In accordance with USFWS recovery plans, the national

seashore would continue efforts to protect special status species within the Fort Pickens Area. Protection of habitats and educational efforts would mitigate the impacts from continued human activity. In addition, alternative 1 would contribute an imperceptible increment to the cumulative impact. Therefore, the impacts of alternative 1 on special status species would not approach the level of significance.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, several buildings would be renovated, new buildings would be constructed in several locations, utility lines would be installed for some buildings, a small area of concrete at Battery Langdon would be repaired or replaced in kind, and the shuttle service would be operational. It is anticipated that few to no direct impacts on special status species would occur with the implementation of this alternative due to the very limited impact on natural habitats proposed for this project. Long-term impacts on protected species would include the loss of small areas of disturbed, low quality habitat, and a small potential for vehicle strikes due to the operation of the shuttle service.

A small amount of habitat would be affected by new construction and utility installation including temporary impacts caused by heavy equipment. Although most of these habitats had been previously disturbed, they may be used for foraging by protected species such as southeastern American kestrel, snowy plover, and least tern. Piping plovers have also been recorded within the Fort Pickens area of the national seashore (NPS 2014c), but no wintering piping plover critical habitat is located within the project area (USFWS 2015). Some low quality piping plover habitat may also be impacted by construction activities. Additionally, snowy plovers and least terns nest on open sand and may use sandy patches near roads, parking lots, and other areas close to human activity. Therefore, some nesting habitat for these species may be affected by the proposed new construction. Protected plant species which may occur within these habitats include Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed. Utility lines for the restroom facilities at Battery 234 would be constructed through road shoulder adjacent to some undisturbed natural wetland habitat. This area may be used for foraging by bald eagle, southeastern American kestrel, piping plover, snowy plover, and state listed wading birds. All areas of new construction would be surveyed for protected species prior to the commencement of proposed activities. Surveys would be conducted by a professional biologist familiar within the flora of northwest Florida and the habitats present within the construction area. Where feasible, construction mats would be utilized to protect soils from disturbance from construction machinery. Habitat disturbed by machinery would be restored after construction is completed.

Shuttle operation may affect sea turtles and bird hatchlings, but it is unlikely to be adverse. The shuttle service would be limited to a maximum speed of 15 miles per hour, and shuttle operators would be formally trained to recognize small, cryptic species and avoid impacts. Due to the relatively low speed of the shuttles and special training of shuttle operators, it is unlikely special status species mortality from shuttle vehicle strikes would occur. However, vehicle collisions with snowy plover and least tern, have been recorded along Fort Pickens Road (Cohen and Durkin 2013).

Temporary impacts on wildlife would include localized disturbance from noise and increased human activity during the construction period. Impacts would be minimized by limiting construction to daylight hours to prevent disturbance of nocturnal activities.

Impacts on wildlife would potentially occur from artificial lighting installed at the locations of the new buildings at the ferry landing, Battery Langdon, and Battery 234. However, special status species located within the study area are primarily diurnal and lights would be turned off at night during sea turtle nesting season. If artificial lighting is deemed necessary, acceptable wildlife-certified LED lighting and fixtures, as is commonly used on the sea turtle nesting beaches in Florida (approved by FWC and USFWS) would be utilized. Therefore, no impacts on special status species would occur due to lighting installed on new buildings.

Additional public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts on special status species. Although wildlife may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on wildlife habitat, and potentially protected species, would likely occur over many years. Potential impacts include disturbance of foraging habitat, flushing from nesting areas, and abandonment of nests. Special status species known to use beach and dune habitat for nesting and/or foraging include American oyster catcher, black skimmer, least tern, piping plover, red knot, snowy plover, loggerhead sea turtle, green sea turtle, Kemp's ridley sea turtle, hawksbill sea turtle, and leatherback sea turtle. Snowy plover is particularly at risk of unintentional impacts due to nest camouflage and isolated nesting habits. State-listed plant species which occur within coastal dune habitat include Godfrey's goldenaster and Cruise's goldenaster.

Gulf Islands National Seashore closes shorebird nesting areas within the Fort Pickens Area from March 1 to September 30 of each year to protect birds from disturbance during courtship, nesting, and fledging of young. During sea turtle nesting season, beaches within all areas of the national seashore including the Fort Pickens Area are patrolled every morning, and all sea turtle nests are staked and flagged to prevent beachgoers from unintentionally damaging nests. These protective measures significantly reduce the potential for park visitors to impact sea turtle and shorebird nests on the beaches, and it is anticipated impacts on special status species would be rare.

## **Cumulative Impact Analysis**

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service, and the Fort Pickens Road realignment contribute to the cumulative impact on special status species. The impacts of these actions are described under alternative 1. The impact of alternative 2, in conjunction with the impacts of the cumulative actions, would result in beneficial and adverse impacts on some special status species, including nesting sea turtles, bald eagle, piping plover, red knot, southeastern American kestrel, snowy plover, least tern, American oystercatcher, black skimmer, Godfrey's goldenaster, and Cruise's goldenaster. Alternative 2 would contribute a noticeable adverse increment to the cumulative impact on nesting sea turtles, bald eagle, piping plover, red knot, southeastern American kestrel, snowy plover, least tern, American oystercatcher, black skimmer, Godfrey's goldenaster, and Cruise's goldenaster, particularly near Battery 234. Alternative 2 and non-federal actions are not likely to adversely affect federally-listed species (see "Appendix C: Biological Assessment").

## Conclusion

Overall, alternative 2 would result in minor impacts on special status species from the continued presence of humans in the Fort Pickens Area, loss of a small amount of degraded habitat, and a low potential for mortality associated with the shuttle service. Though alternative 2 would result in habitat loss in the ferry landing area and near Battery 234, actions are mainly within developed areas, and the Fort Pickens Area would continue to provide a high percentage of quality habitat within the region. In accordance with the Endangered Species Act and USFWS recovery plans, the national seashore would continue efforts to protect special status species within the Fort Pickens Area. High-quality habitat is available within the Fort Pickens Area, and the loss of low-quality habitat would be within more developed areas, which experience the most human activity; therefore, the actions under alternative 2 would not result in impacts on the integrity of special status species populations within the Fort Pickens Area. Protection of habitats, educational efforts, and species specific mitigation measures would reduce the impacts from continued human activity within the Fort Pickens Area. In addition, alternative 2 would contribute a noticeable adverse increment to the cumulative impact on nesting sea turtles, bald eagle, piping plover, red knot, southeastern American kestrel, snowy plover, least tern, American oystercatcher, black skimmer, Godfrey's goldenaster, and Cruise's goldenaster, particularly near Battery 234. However, impacts would be insignificant based on existing and proposed measures to avoid disturbing special status species and their habitat. Neither alternative 2 nor non-federal actions are likely to adversely affect federally-listed species. Therefore, the impacts of alternative 2 on special status species would not approach the level of significance.

## CULTURAL LANDSCAPES

### METHODOLOGY AND ASSUMPTIONS

Potential impacts on cultural landscapes are based on changes to character-defining features of the resources, which are the characteristics of a historic property that qualify the property for inclusion in the National Register of Historic Places. These features contribute to the property's integrity, which is composed of location, design, setting, materials, workmanship, feeling, and/or association.

The three study areas of the cultural landscape that are associated with the proposed action are the engineers wharf area, the Battery 234 area, and the Battery Langdon area. The cultural landscape in the engineers wharf area would be altered by adaptive reuse of three historic buildings, a new building, changes in grading, a new walkway, and changes in circulation. The cultural landscape in the Battery 234 area would be altered by construction of a new restroom and shade shelter. The cultural landscape in the Battery Langdon area would be altered by adaptive reuse of the battery and additional hardened surfaces for shuttle service.

The resource-specific context for the evaluation of impacts on the cultural landscape within the Fort Pickens Area includes the following:

- A National Register nomination is currently in preparation for an eligible historic district, named the Harbor Defenses of Pensacola Bay, which includes the National Register-listed Fort Pickens, the contributing historic buildings, structures, and other characteristic features of a cultural landscape including the spatial organization, circulation, views and vistas, and small scale features.

- The Fort Pickens Area is regarded as a cultural landscape, which is defined in Director's Order 28: Cultural Resource Management (DO-28), as "a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions" (NPS 1998a).

## **IMPACTS OF ALTERNATIVE 1**

### **Impact Analysis**

Under alternative 1, there would be no new construction or changes to visitor services. Changes to the on-site visitor services would be part of the implementation of the ferry service and issuance of a new concessions contract. The project area would remain the same with no development or construction changes, and there would be no impact on the cultural landscape associated with the no-action alternative.

### **Cumulative Impact Analysis**

Although past, present, and reasonably foreseeable future actions may affect, have affected, and will affect the cultural landscape, alternative 1 would have no impacts and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on the cultural landscape under alternative 1.

### **Conclusion**

Alternative 1 would not result in any impacts on the cultural landscape within the Fort Pickens Area, as no further construction in or alteration of the settings of this landscape would occur.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under Alternative 2, several buildings would be rehabilitated and adapted to new functions, small new buildings would be constructed in several locations, underground utility lines would be installed for some buildings, a small area of concrete at Battery Langdon may be replaced in kind, and the shuttle service would be operational. It is anticipated that there would be direct and visual impacts on the cultural landscape through the addition of a plaza and hardscape, new building south of mine storage building, a wide walkway east of the parking area, and re-grading for improved access and drainage in the ferry landing area, the addition of a small restroom and shelter in the Battery 234 area, and an additional paved area in the Battery Langdon area. Plantings in the ferry landing area would be consistent with the cultural landscape. The operation of the ferry and associated shuttle service would add small moving shuttle vehicles and larger groups of visitors within the cultural landscape. All proposed actions would result in temporary adverse impacts on the three areas in the project during construction.

The engineers wharf area would experience impacts from a new building, changes in grade, and changes in transportation patterns. The presence of a new building would diminish from the cultural landscape; however, the new building would be constructed above a historic foundation, in similar dimensions to the historic building, so adverse impacts would be lessened. The land around the new building, mine loading building, and mine storage building would be re-graded to better accommodate rain and flood waters. New walkways in the ferry landing area would have curbs to direct runoff away from the buildings. As such, the altered topography and hardscape would not be consistent with the cultural landscape and would contribute adverse impacts on the cultural landscape in the engineers wharf area. Finally, a new walkway would be constructed between the mine loading and storage buildings and Fort Pickens parallel to the historic narrow gauge railroad bed. This walkway would diminish the cultural landscape by changing the historic circulation pattern and may take away from the rail line interpretive value. However, the walkway would be constructed to replace an existing path along the parking area; therefore, the walkway would formalize, not introduce, the change in circulation patterns from the cultural landscape, and the adverse impact would only be slight. Non-historic features along the proposed walkway, such as the light pole, electrical transformer, and dumpster, could be moved away from this area (or removed from the project area entirely), which would have a beneficial impact on the cultural landscape in this area.

If constructed, the restroom facility near Battery 234, the shade shelter near Battery 234, and the shade shelter adjacent to the campground store would diminish the cultural landscapes in those areas. These actions would introduce new structures where structures do not exist. However, all three structures would be adjacent to existing structures. The shade shelter and the restroom near Battery 234 would be constructed adjacent to the existing parking lot, and the shade shelter would be constructed adjacent to the campground store. The existing parking lots and campground store do not contribute to the cultural landscapes; therefore, the impacts associated with introducing two small structures to the cultural landscapes in these areas would be lessened.

Small changes would be made to the area surrounding Battery Langdon in order to reuse the structure for the shuttle service. Changes include constructing a hardened path between the southern door of the eastern casement and Fort Pickens Road, repairing the existing concrete path that leads to the northern door of the eastern casement, and installing photovoltaic panels on the existing shelter. The hardened path would be similar in color to the sand which currently exists in front of Battery Langdon and would minimally impact the cultural landscape. Similarly, the new driveway north of Battery Langdon could be similar in color to the existing pavement to minimize the impacts of the additional infrastructure on the cultural landscape. These paths would be repaired or replaced in kind as needed, without the use of asphalt. The photovoltaic panels would be mounted on the roof of an existing structure and would therefore have a minimal impact on the cultural landscape.

### **Cumulative Impact Analysis**

The construction of the ferry pier and shade structure have contributed to the cumulative impact on the cultural landscape. The construction of the ferry pier, accessible walkway, and the shade shelter resulted in adverse visual impacts on the cultural landscape in the engineers wharf area. The impact of alternative 2, in conjunction with the impacts of the cumulative action, would result in an adverse impact on the cultural landscape. Alternative 2 would contribute a noticeable adverse increment to the cumulative impact, particularly in the Battery 234 and Battery Langdon areas.

## Conclusion

The actions proposed under alternative 2 would result in the introduction of new structures and infrastructure within three areas in the Fort Pickens Area. However, the proposed actions within these areas would be contained within areas which already have non-contributing structures or infrastructure. These actions would minimally impact the integrity and character-defining features of the landscape overall by adding new structures, paving, and signage and slightly altering views and settings within the landscape. In addition, alternative 2 would contribute a noticeable adverse increment to the cumulative impact, particularly in the Battery 234 and Battery Langdon areas. Therefore, the impacts of alternative 2 on the cultural landscape would not approach the level of significance.

## HISTORIC STRUCTURES

### METHODOLOGY AND ASSUMPTIONS

Potential impacts on historic structures are evaluated based on changes to character-defining features of the resources. This approach is derived from both the *Secretary of the Interior's Standards for Rehabilitation of Historic Buildings*, as well as the regulations of the Advisory Council on Historic Preservation (ACHP) implementing the provisions of Section 106 of the National Historic Preservation Act.

There are several historic structures associated with the proposed action. The adaptive reuse of the mine loading building, mine storage building, engineer's shop, and Battery Langdon would result in direct and visual impacts on these structures; however character-defining features associated with the military use of these buildings (e.g., the craneway in the mine storage building and the casement in Battery Langdon) would not be altered. Visual impacts would also affect Fort Pickens, other historic buildings surrounding Fort Pickens, and Battery 234. The resource-specific context for the evaluation of impacts on historic structures includes the following:

- Fort Pickens is classified as a historic structure in its listing in the National Register of Historic Places based on its 19th century military area of significance. A National Register nomination for the Harbor Defenses of Pensacola Bay Historic District is in process that would include the National Register-listed Fort Pickens and recognize other historic contributing structures, cultural landscape features, and areas.
- The seashore is currently completing historic structure reports for several buildings in the Fort Pickens Area, specifically for the mine loading building, the mine storage building, the tower at Battery 234, and Battery Langdon.
- While there has been change to the historic character through modernization and increased visitor use and amenities, the area maintains its historic integrity as a whole. The seashore strives to preserve and protect the historically significant features associated with approximately 100 years of military activity in the Fort Pickens Area.

## IMPACTS OF ALTERNATIVE 1

### Impact Analysis

Under alternative 1, there would be no new construction or changes to visitor services. Changes to the on-site visitor services would be part of the implementation of the ferry service and issuance of a new concessions contract. The project area would remain the same with no development or construction changes. The engineer's shop, mine loading building, and mine storage building would continue to be highly susceptible to flooding, and under the no-action alternative, these buildings would sustain adverse impacts over time.

### Cumulative Impact Analysis

The construction of the ferry pier and shade structure contributed to the cumulative impact on historic structures. The introduction of new structures adversely impacted the engineer's shop, mine loading building, and mine storage building by altering their settings. The impacts of alternative 1, in conjunction with the impact of the cumulative action, would result in beneficial and adverse impacts on historic structures. Alternative 1 would contribute an imperceptible adverse increment to the cumulative impact.

### Conclusion

Alternative 1 would not result in any direct or visual changes to historic structures within the Fort Pickens Area, as no alteration of the settings or rehabilitation of these historic structures would occur. The historic structures are currently mostly used for only storage purposes; deterioration of the buildings due to limited use and regular flooding could be a consequence of alternative 1, resulting in adverse impacts on historic structures over time. Alternative 1 would contribute an imperceptible adverse increment to the cumulative impact. Therefore, the impacts of alternative 1 on the historic structures would not approach the level of significance.

## IMPACTS OF ALTERNATIVE 2

### Impact Analysis

Under Alternative 2, proposed new functions inside the mine storage building, the mine loading building, engineer's shop, and Battery Langdon would result in direct changes to the historic structures. However, important character-defining features would be retained and work would follow the Secretary of the Interior's Standards for Rehabilitation.

### *Ferry Landing Area*

In the ferry landing area, a number of changes would be made to both the mine loading building and the mine storage building in order to accommodate visitor services. However, character-defining features including the beam and hoist in the mine building, window sash, exposed brick interior walls, and open floor plans would be retained. Changes include the following:

- updating the utilities for new building uses
- installing air-conditioning and heating

- protecting the historic fabric against climate control
- installing all-glass doors in the entrances
- penetrating the walls to install utilities
- repairing the historic roofs
- cleaning and repairing the walls
- re-grading around the buildings and constructing sidewalks

These actions would have both beneficial and adverse impacts on the mine loading building and mine storage building. Updated utilities would require penetrations through the walls, which would adversely affect the historic fabric of the buildings. Climate control would be installed for visitor and staff comfort but could result in condensation on the interior sides of the windows. Removable, translucent plastic coverings would be placed on the windows to provide insulation and prevent damage associated with condensation. Installation of new entry doors and utility lines would cause damage to the historic fabric of the walls through the removal of historic fabric. The roofs, ceilings, and walls of the mine loading building and the mine storage building would be cleaned and repaired consistent with the *Secretary of the Interior's Standards for Rehabilitation of Historic Buildings*. The floor level of the mine storage building would be elevated 6–8 inches to help avoid impacts of future floods; the elevated floor would be removable, however, and would minimize damage to the existing historic floor. Finally, the ferry landing area would be re-graded to improve surface drainage, and accessible walkways would be constructed; both improvements would adversely impact the historic structures in the ferry landing area by altering their settings.

Under alternative 2, the mine loading building and mine storage building would be reused for visitor services. Interpretive displays could be mounted to the walls, which would result in very small penetrations in the historic walls. The increased use of the buildings could lead to degradation over time as elements and materials may be impacted by exposure to more visitors and through their new uses. Implementation of new functions and their associated elements would detract from the utilitarian appearance of the buildings' interiors.

The engineer's shop would be used for concessioner storage, and the only change to the structure would be one small penetration through a wall for the installation of a sump pump. The historic fabric would be adversely impacted by the penetration. However, the sump pump would allow for quicker removal of flood waters, which would result in less flood-related damage to the historic structure.

### **Battery 234 Area**

The construction of a new restroom and shelter in the Battery 234 area would visually alter the setting of the tower and Battery 234.

### **Battery Langdon Area**

In the Battery Langdon area, the historic building would be reused for the new shuttle service, and changes would be made to the surrounding area, including the following:

- cleaning and stabilizing of concrete walls and floors
- installing of electrical conduit and service through existing openings
- constructing driveways at the north and south entrances of the east casement

These actions would have both beneficial and adverse impacts on Battery Langdon. To prepare for and support the shuttle service, the walls and floors of the east casement would be cleaned and stabilized, which would preserve this part of Battery Langdon. The installation of the electrical conduit within the casement would result in adverse impacts on the walls where conduits are affixed to the walls. Two driveways would be constructed at either end of the east casement; these driveways would visually alter the setting of Battery Langdon.

### **Cumulative Impact Analysis**

The construction of the ferry pier and shade structure and the implementation of the ferry service and issuance of a new concessions contract contributed and will contribute, respectively, to the cumulative impact on historic structures. The introduction of an additional new structure, signage and paving will alter the setting of the engineer's shop mine loading building and mine storage building. The impacts of alternative 2, in conjunction with the impact of the cumulative action, would result in beneficial and adverse impacts on historic structures. Alternative 2 would contribute noticeable beneficial and adverse increments to the cumulative impact.

### **Conclusion**

The actions under alternative 2 would result in direct and visual impacts on historic structures in the ferry landing area and the Battery Langdon area as well as visual impacts on historic structures in the Battery 234 area. The historic structures in the ferry landing area would be used for new functions, in accordance with *Management Policies 2006* (NPS 2006). The adaptive reuse of historic structures would increase their use, but could result in degradation to some elements and materials due to more exposure to visitors and new uses. However, these buildings would be rehabilitated, following the Secretary of the Interior's Standards for Rehabilitation, which would be a beneficial impact. Therefore, impacts on historic structures under alternative 2 would not approach the level of significance. Alternative 2 would contribute noticeable beneficial and adverse increments to the cumulative impact.

## **ARCHEOLOGICAL RESOURCES**

### **METHODOLOGY AND ASSUMPTIONS**

Archeological resources are the remains of past human activity and the records documenting the analysis of such remains (NPS 1998a). Potential impacts on archeological resources are evaluated

based on the amount of disturbance to an archeological resource and the degree to which the integrity remains or is otherwise lost without recordation of the remains.

The resource-specific context for the evaluation of impacts on archeological resources includes the following:

- Many archeological resources exist within the Fort Pickens Area, and the national seashore has detailed data on where these resources exist, although not all areas have been tested. Due to the historic presence of humans in the Fort Pickens Area, including during World War I and II, archeological resources are related to several eras of human activity, including the colonial and the military use of the site.

## **IMPACTS OF ALTERNATIVE 1**

### **Impact Analysis**

Under Alternative 1, the project would not be constructed or operated. The project area as it exists today would remain the same with no development or construction changes, and there would be no impact on archeological resources.

### **Cumulative Impact Analysis**

Although past, present, and reasonably foreseeable future actions may affect, have affected, and will affect NPS operations, alternative 1 would have no impacts and therefore would not contribute to the impacts of other actions. Consequently, there would be no cumulative impacts on NPS operations under alternative 1.

### **Conclusion**

Alternative 1 would result in no impact on archeological resources as no ground disturbance would occur in this no-action alternative.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, land disturbance associated with a number of actions has the potential for direct impacts on archeological resources within the project area. These actions include

- construction of a 15-foot wide walkway in the ferry landing area
- re-grading in the ferry landing area
- construction of a new building for visitor services in the ferry landing area
- construction of a new restroom in the Battery 234 area
- construction of a new shade shelter in the Battery 234 area
- construction or repair of two driveways near Battery Langdon, and
- installation of utility lines in previously disturbed areas in the ferry landing area, Battery 234 area, and Battery Langdon area.

The new building in the ferry landing area would be partially built above a historic foundation. The new building would be elevated over the foundation through a series of caissons which would minimize the number of penetrations in the historic foundation.

During this project the national seashore would work to avoid impacts on archeological resources and would continue to consult with the Florida SHPO in relation to the identification and evaluation of the archeological resources within the project area. Archeological resources in the Fort Pickens Area are well documented, although not all areas have been tested. The NPS Southeast Archeological Center is currently conducting a review of the previously known resources that occur in the project area. Archeological survey would be completed within the project area prior to implementation of the proposed action in any areas not previously tested for archeological resources. A literature search to identify previously inventoried archeological resources in the areas where ground disturbance is proposed, followed by shovel testing and construction monitoring, would greatly minimize the potential to impact archeological resources.

### **Cumulative Impact Analysis**

The ground disturbance associated with the construction of the ferry pier and shade structure contributed adversely to the cumulative impact on archeological resources, which was mitigated in the 2011 Memorandum of Agreement for that project. The impact of alternative 2, in conjunction with the impact of the cumulative action, would result in no impact on archeological resources as a literature search and testing would occur prior to final design plans in order to avoid archeological resources and monitoring could occur during construction if prior testing did not determine the project area was completely previously disturbed. Alternative 2 could contribute an imperceptible, neither adverse nor beneficial increment to the cumulative impact.

### **Conclusion**

Alternative 2 has the potential to result in adverse impacts on archeological resources, if measures to identify and avoid archeological resources are not undertaken. However, because archeological resources are well documented and measures to identify and avoid archeological resources will be carried out impacts on unknown resources due to the actions under alternative 2 are much less likely. Therefore, impacts on archeological resources under alternative 2 would not approach the level of significance. Alternative 2 would contribute an imperceptible neither adverse nor beneficial increment to the cumulative impact.

## **SITE ACCESS AND CIRCULATION**

### **METHODOLOGY AND ASSUMPTIONS**

Potential impacts on site access and circulation are assessed based on the description of current site access and circulation presented in chapter 3 and taking into account the change in conditions expected following establishment of ferry service. The current site access and circulation was compared with the alternatives described in chapter 2 to determine how site access and circulation would be affected.

Resource-specific context for assessing impacts of the alternatives on site access and circulation includes the following:

- NPS Management Policies 2006 calls for “transportation solutions that will preserve the natural and cultural resources in its care while providing a high-quality visitor experience.” (NPS 2006).
- Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens Area. The intent of the national seashore is to reconstruct the road after major storms, if feasible. To enhance visitor access by water, a new passenger ferry pier was constructed to accommodate commercial water-based transportation service and NPS administrative use (NPS 2014).

## **IMPACTS OF ALTERNATIVE 1**

### **Impact Analysis**

Under the no-action alternative, there would be no changes to site access and circulation made as part of this project. Visitors could continue to access the Fort Pickens Area in their private vehicles. Visitors could also arrive at the Fort Pickens Area by ferry.

Visitors arriving by private vehicles would continue to arrive via Fort Pickens Road and park in existing parking lots. These visitors would walk a short distance to their primary destination from their vehicle. Common destinations would continue to include (but are not limited to) Fort Pickens, the museum, and Battery Langdon. When Fort Pickens Road is closed after storms, the ferry may be able to operate, providing visitors with a means of accessing the Fort Pickens Area while the national seashore cleans or repairs Fort Pickens Road.

Visitors arriving by ferry would walk down the ferry pier to a sidewalk that runs between historic buildings which are currently used for national seashore maintenance operations. From the end of this sidewalk, visitors arriving by ferry could travel within the Fort Pickens Area on foot, by bicycle (either brought via ferry or rented on-site), or by a similar self-propelled means. Because this alternative does not provide convenient circulation options, visitors are likely to remain within the vicinity of Fort Pickens and are unlikely to visit areas such as Batteries Langdon, 234, Cooper, and Worth; Langdon Beach; or the Blackbird Marsh Nature Trail.

Existing wayfinding and orientation signs to guide circulation through the project area is minimal; many structures have their own interpretive sign, but the Fort Pickens Area does not have a sign with a map or similar wayfinding information. Additional wayfinding and orientation information would not be provided under the no-action alternative. Visitors arriving by ferry or private vehicle could seek wayfinding information on the national seashore website or in person by asking concession and national seashore staff. The minimal wayfinding information would likely result in inefficient and ineffective site access and circulation because visitors, particularly those arriving by ferry, would be unsure of how to navigate the Fort Pickens Area.

## **Cumulative Impact Analysis**

The construction of the ferry pier and shade structure, implementation of ferry service and issuance of a new concessions contract, and the Fort Pickens Road realignment contribute to the cumulative impact on site access and circulation. The construction of the ferry pier allows for the ferry service to begin, and implementation of the ferry service would improve site access and circulation by providing an additional means of access to the Fort Pickens Area. Revisions to the concession contract associated with the ferry service would provide bicycle rentals in the vicinity of Fort Pickens, providing an additional method of circulation for visitors to Fort Pickens. The Fort Pickens Road realignment would make roadway access to the Fort Pickens Area less susceptible to closures, thereby providing more reliable visitor access to Fort Pickens Area. The impact of alternative 1, in conjunction with the impacts of the cumulative actions, would result in a beneficial and an adverse impact on site access and circulation. Alternative 1 would contribute a noticeable adverse increment to the cumulative impact.

## **Conclusion**

Overall, alternative 1 would result in adverse impacts on site access and circulation because visitors arriving by ferry may not be aware of many of the features of the Fort Pickens Area and because the lack of signs would make navigation unclear. Dependence on self-propelled transportation within the Fort Pickens Area is likely to serve as a hindrance to circulation to more distant sites. This dependence could help preserve national seashore resources, but the quality of the visitor experience would be diminished. However, visitors would continue to be able to access resources within the Fort Pickens Area, even when Fort Pickens Road is closed due to storm damage or overwash. Therefore, impacts on site access and circulation under alternative 1 would not approach the level of significance. Alternative 1 would contribute a noticeable adverse increment to the cumulative impact.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, the ferry landing area would be improved and a shuttle service would be implemented. These actions would result in beneficial impacts on site access and circulation by providing wayfinding information and providing additional methods of transportation within the project area. All improvements would meet NPS accessibility requirements and Architectural Barriers Act Accessibility Standards.

Visitors arriving by private vehicle would access and circulate through the project area similar to alternative 1. When Fort Pickens Road is closed after storms, the ferry may be able to operate, providing visitors with a means of accessing the Fort Pickens Area while the national seashore cleans or repairs Fort Pickens Road. However, under alternative 2, a few parking spaces near Fort Pickens would be removed to create a shuttle stop.

Visitors arriving by ferry would continue to have the option to traverse the project area on foot or by bicycle (or other self-propelled means of transportation), as described under alternative 1. Under this alternative, visitors would be provided with a new mode of transportation, a shuttle service. The new shuttle service would be available to ferry passengers between when the first ferry arrives and the last

ferry leaves. The shuttle would improve access to attractions within the Fort Pickens Area by taking ferry passengers to seven key locations: the ferry landing area, the auditorium and museum, Battery 234, Battery Cooper, Battery Worth, Worth Beach access, campground store, and Fort Pickens. Similarly, circulation would be improved because the shuttle would effectively disperse visitors throughout the area in reliable intervals.

Visitors arriving by ferry would be provided with additional orientation and wayfinding. Just beyond the rehabilitated historic buildings, there would be a clear path to Fort Pickens straight ahead and a plaza with orientation and wayfinding information and a visible shuttle stop on the right. These visible features would help draw ferry passengers into the Fort Pickens Area and away from the ferry pier, thereby improving visitor flow within the ferry landing area, as well as visitor understanding of how to navigate the attractions in the Fort Pickens Area. This would improve the efficiency and effectiveness circulation of visitors through the project area.

### **Cumulative Impact Analysis**

The construction of the ferry pier and shade structure, implementation of ferry service and issuance of a new concessions contract, and the Fort Pickens Road realignment contribute to the cumulative impact on site access and circulation. The impacts of these actions are described under alternative 1. The impact of alternative 2, in conjunction with the impacts of the cumulative actions, would result in a beneficial impact on site access and circulation. Alternative 2 would contribute a noticeable beneficial increment to the cumulative impact.

### **Conclusion**

Overall, alternative 2 would result in beneficial impacts on site access and circulation because wayfinding signs would be added and additional transportation options would be available. The addition of the shuttle service and convenience of bicycles in the ferry landing area would help provide an excellent visitor experience while protecting national seashore resources. When Fort Pickens Road is closed as a result of storm damage or overwash, visitors, particularly ferry passengers, would be able to easily access resources within the Fort Pickens Area. Therefore, impacts on site access and circulation under alternative 2 would not approach the level of significance. Alternative 2 would contribute a noticeable beneficial increment to the cumulative impact.

## **VISITOR USE AND EXPERIENCE**

### **METHODOLOGY AND ASSUMPTIONS**

Potential impacts on visitor use and experience are assessed based on the description of visitor use and experience presented in chapter 3 of this document, including the change in conditions expected following establishment of ferry service. Enjoyment of seashore resources and values by visitors is part of the fundamental purpose of all parks. This analysis considers how the proposed alternatives would affect how people use the seashore, as well as how the alternatives would alter visitors' experiences.

The resource-specific context for the evaluation of impacts on visitor use and experience includes:

- The ability of visitors to enjoy the following recreation experiences is considered fundamental by the national seashore: nature observation, walking, biking, beach activities, water-based recreation, and visiting historic sites.
- The concept for visitor experience in the national seashore's general management plan states that "history would be brought to life at selected coastal fortifications by actively presenting stories of important periods of their history" (NPS 2014).
- Since 2010, the Fort Pickens Area has had more than 1 million annual visitors, and peak visitation occurs from April through August (NPS 2015b).

## IMPACTS OF ALTERNATIVE 1

### Impact Analysis

Under the no-action alternative, visitors would continue to use the Fort Pickens Area for historic and natural experiences. As described under the previous impact topic, conditions would not be conducive to effective and efficient access to and circulation among some sites, which would be an inconvenience to some visitors wishing to have convenient access to some of the more distant sites.

The ferry landing area does not provide wayfinding or orientation information; therefore, visitors arriving by ferry would not experience a sense of direction upon arrival, leading to confusion and decreased enjoyment of their initial experience of the Fort Pickens Area. On busy days, up to 150 visitors may arrive via ferry to an area where up to 150 visitors are waiting to board. While it is unlikely that 300 visitors would frequently be in the ferry landing area at one time, heavy use of the area during peak season may increase visitor confusion, further decreasing the quality of visitor experience.

Ferry passengers would walk between the mine loading building and the mine storage building upon their arrival to the Fort Pickens Area, but their experience of these buildings would be limited to an interpreted view of their exteriors. Fort Pickens would be the most visible feature, and visitors would likely to be drawn to the Fort. From the visitor center in Fort Pickens, visitors could learn more about the many resources to experience in the Fort Pickens Area, but the initial lack of direction would detract from visitor use and experience.

The ferry landing area does not currently provide restrooms in the immediate vicinity of the ferry pier. The restroom facilities closest to the ferry landing area are not visible from the ferry landing area, and visitors, particularly those would small children, would be inconvenienced when they arrive to or prepare to depart from the Fort Pickens Area.

Visitors arriving by ferry would most likely remain within half a mile of the ferry landing area. Those visitors wishing to experience the site's history would visit Fort Pickens, and those wishing for a beach experience are likely to remain bayside. Some visitors may choose to bring personal bicycles via the ferry or rent bicycles near the ferry landing to travel further afield. However, visitors who arrived by ferry and

unwilling to walk or ride a bicycle for more than half a mile would have a fairly limited experience of the Fort Pickens Area.

## **Cumulative Impact Analysis**

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service and issuance of a new concessions contract, and the Fort Pickens Road realignment contribute to the cumulative impact on visitor use and experience. The Gulf Islands National Seashore Beach Enhancement Project would remove roadway debris from the beaches in the Fort Pickens Area, thereby improving visitor experience of those beaches. The construction of the ferry pier and shade structure provides necessary infrastructure for the ferry service; the ferry pier improves visitor use by providing access to the Fort Pickens Area, and the shade structure enhances visitor experience by providing visitors a place to wait for the ferry out of sunlight or rain. Implementation of the ferry service would improve visitor use and experience by providing an additional means of access to the Fort Pickens Area. Revision of the concession contract would provide visitors with additional services near the ferry landing, providing added convenience and thus improving visitor experience in the project area. The Fort Pickens Road realignment would make roadway access the Fort Pickens Area less susceptible to closures, thereby providing more reliable visitor use. The impact of alternative 1, in conjunction with the impacts of the cumulative actions, would result in a beneficial and an adverse impact on visitor use and experience. Alternative 1 would contribute a noticeable adverse increment to the cumulative impact.

## **Conclusion**

Under alternative 1, visitor use and experience would be diminished by the lack of direction, information, interpretation, and restrooms in the ferry landing area. Visitor experiences which are fundamental to the national seashore would continue to be possible, but the no-action alternative would not facilitate visitor use of all the resources in the Fort Pickens Area. Visitors could continue to access the cultural resources in the Fort Pickens Area, but many visitors arriving by ferry are unlikely to visit Batteries Langdon, 234, and Cooper. The adverse impacts of the no-action alternative would affect visitors arriving by ferry, which would only be a small portion of the more than 1 million annual visitors to the Fort Pickens Area. Therefore, the impacts of alternative 1 on visitor use and experience would not approach the level of significance. Alternative 1 would contribute a noticeable adverse increment to the cumulative impact.

## **IMPACTS OF ALTERNATIVE 2**

### **Impact Analysis**

Under alternative 2, there would be many improvements to the ferry landing area and other sites within the Fort Pickens Area. All improvements would meet NPS accessibility requirements and Architectural Barriers Act Accessibility Standards. These changes would be made to improve visitor use and experience, primarily for ferry passengers. Visitors would continue to use the Fort Pickens Area for historic and natural experiences. As described under the previous impact topic, implementation of a shuttle service would facilitate effective and efficient access to and circulation around the Fort Pickens Area, thus improving visitor convenience and providing an opportunity to access a wider array of visitor experiences.

Several outdoor improvements would be made to the ferry landing area. A plaza would be constructed between the historic buildings and parking lot to provide a gateway experience and orientation information. The plaza would be designed to enhance the visitor experience, particularly for ferry passengers. The walkway between the ferry landing area would be highlighted visually to draw visitors towards Fort Pickens and away from the ferry landing area. Possible interpretive features along the new walkway would enhance the visitor experience on their walk.

In the ferry landing area, the mine loading building and the mine storage building would be repurposed to accommodate visitor services. The historical integrity of the buildings would be maintained to the extent practicable, and because visitors would be able to enter the buildings and see historic features up close, visitors would be able to gain an understanding of the history of the Fort Pickens Area. The mine loading building would contain education and interpretive displays which would provide visitors with a deeper understanding of the historical context and significance of the Fort Pickens Area. The mine storage building would be used for sales, food service, indoor dining, and more educational or interpretive exhibits. Visitors would enjoy the convenience of the food service and the retail and rental options. Additionally, the climate-controlled building would provide a comfortable place to eat away from the elements. Both the mine loading building and the mine storage building would be mildly air-conditioned or heated for visitor comfort.

A new building would also be constructed to provide a new restroom facility, rental equipment storage, and an outdoor dining area. The new restroom would be in a convenient and visible area which would be particularly beneficial for visitors who have just gotten off the ferry and those who are preparing to board. The area for rental equipment storage area would be within sight of the point of sale in the mine storage building but would be removed enough to reduce congestion in the ferry landing area. Visitors would be able to pick up and return rental bicycles close to the Florida National Scenic Trail and where pedestrians are more dispersed. The roof of the new building would be large enough to provide a shaded area with picnic benches where visitors could eat. Because the outdoor dining area would be located within sight of the food service in the mine storage building, visitors would be able to identify where they could take their food to eat.

The many visitor services at the ferry landing area would improve visitor use and experience because the central location would create a cohesive gateway experience and help give visitors a sense of direction upon arrival to the Fort Pickens Area. The many visitors who come to the national seashore would also benefit from the improvements to the ferry landing area.

Under alternative 2, the National Park Service would also implement a shuttle service within the Fort Pickens Area. The shuttle route would have seven stops at key locations as far east as the campground store. The frequent stops of the two shuttles would minimize the wait time for ferry passengers. Beach goers would be able to ride the shuttle with their belongings to several beach access points, a convenience that would enhance their experiences. Visitors would also be able to visit all the batteries except Battery Langdon on the shuttle route which would increase the likelihood that visitors would experience the many historic structures in the Fort Pickens Area.

If conditions change due to visitor needs after the ferry service is in place, or due to storms that damage or destroy Fort Pickens Road, visitor services at Langdon Beach and other nearby areas would be

reevaluated. In order to meet visitor needs, there could be a restroom built near Battery 234. This restroom would be near the shuttle stop and would be convenient particularly for visitors who are spending many hours on the beach and those with small children.

### **Cumulative Impact Analysis**

The Gulf Islands National Seashore Beach Enhancement Project, construction of the ferry pier and shade structure, implementation of ferry service and issuance of a new concessions contract, and the Fort Pickens Road realignment contribute to the cumulative impact on visitor use and experience. The impacts of these actions are described under alternative 1. The impact of alternative 2, in conjunction with the impacts of the cumulative actions, would result in a beneficial impact on visitor use and experience. Alternative 2 would contribute a noticeable beneficial increment to the cumulative impact.

### **Conclusion**

Under alternative 2, visitor use and experience would benefit from improvements to the ferry landing area and other sites within the Fort Pickens Area. The proposed actions would promote the visitor experiences which are fundamental to the national seashore. Though the proposed exhibits would be passive, the educational and interpretive value of the displays, rehabilitated historic buildings, and interpretive features along the walkway to Fort Pickens would contribute to visitor experience and understanding of the cultural resources in the Fort Pickens Area. The proposed actions would be most beneficial to visitors arriving by ferry, but the experience for the more than 1 million annual visitors could also improve. Therefore, the impacts of alternative 2 on visitor use and experience would not approach the level of significance. Alternative 2 would contribute a noticeable beneficial increment to the cumulative impact.

# 5

## CONSULTATION AND COORDINATION

This “Consultation and Coordination” chapter describes the public involvement and agency consultation conducted during the preparation of this EA. A combination of activities, including public scoping, formal public meetings, internal workshops, and agency briefings, has helped to guide the National Park Service in developing this EA. This chapter provides a detailed list of the various consultations initiated during the development of the EA, as well as a list of preparers and the list of the recipients of this document.

### THE SCOPING PROCESS

“Director’s Order #12: Conservation Planning, Environmental Impact Analysis, and Decision-making” requires the National Park Service to make “diligent” efforts to involve the interested and affected public in the NEPA process. This process, known as scoping, is initiated at the beginning of a NEPA project to identify the range of issues, resources, and alternatives to address in the EA. Typically, both internal and public scoping is conducted to address these elements. State and federal agencies were also contacted in order to uncover any additional planning issues and to fulfill statutory requirements. The planning process for the proposed action was initiated during internal and public scoping in 2014 and agency scoping in 2015. This process introduced the purpose of and need for the project. Discussions with interested agencies and individuals were initiated at this time.

### INTERNAL SCOPING

The internal scoping process for the specific improvements included in the proposed action began in September 2014, when staff from the National Park Service and their consultants conducted internal scoping. The compliance efforts were closely intertwined with the schematic planning effort, which developed the action alternative. Scoping meetings included National Park Service staff from the national seashore, the Denver Service Center, and the Southeast Regional Office as well as consultants on the design and compliance teams. These meetings included discussions on potential impact topics to analyze in this environmental assessment; agency coordination and public scoping; site constraints; the

purpose of and need for the project; the planning issues that should be considered during development of the alternatives; and preliminary options for the action alternative.

## **AGENCY CONSULTATION**

As part of the scoping effort, the National Park Service has contacted multiple state and federal agencies including the US Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, the National Marine Fisheries Service, The Florida Department of Environmental Protection, and 15 affiliated tribes. A full list of agencies and tribal governments contacted are listed in appendix A.

## **PUBLIC SCOPING**

The national seashore distributed a press release on September 17, 2014 to notify interested parties of the project and of the public scoping open house on September 30, 2014. At the open house held on the evening of September 30 in the auditorium at the national seashore headquarters at the Naval Live Oaks, the National Park Service discussed the proposed landside improvement and shuttle service at the Fort Pickens area, and answered public questions. The meeting also provided the public with information on the purpose and need for action, preliminary shuttle and ferry routes, the planning process schedule, and information on how to provide comments for consideration. A total of 71 people attended the open house.

During the public scoping period, a total of 29 correspondences were received. Comments were received during the open house on the national seashore's public comment form, entered directly in the NPS Planning, Environment, and Public Comment website, or sent via email. Comments encompassed a variety of topics, but largely fell into one of six topics: visitor access, visitor experience, park resources, feasibility, park operations, and ferry service. Commenters showed both support and oppositions for parts of the proposed action. Commenters were concerned how the proposed action could affect natural and cultural resources. Some were unsure about the need for the shuttle bus throughout the island and thought it would detract from the experience. One commenter was concerned that the ferry could be cost-prohibitive and therefore would not be accessible to all visitors.

## **FUTURE COMPLIANCE NEEDS/PERMITS**

Implementation of the proposed action would require compliance with laws and regulations. Table 5 includes a brief overview of major laws and regulations. Future compliance is described below.

## **NATIONAL HISTORIC PRESERVATION ACT**

Section 106 of the National Historic Preservation Act of 1966 (as amended) requires federal agencies to take into account the impacts of their undertakings on historic properties. Depending on the results of

these archeological investigations, further design modifications would be made to avoid archeological resources wherever possible.

Compliance with section 106 will be conducted separately, but concurrently, with this environmental assessment. The Florida State Historic Preservation Office and 15 affiliated tribes were notified of this intent during scoping (appendix A). The National Park Service provided the State Historic Preservation Officer with an Assessment of Effect letter (including support information, as relevant) on May 5, 2015 for concurrence. This environmental assessment also will be supplied to the State Historic Preservation Officer during public review of the document. The National Park Service will continue to coordinate with the State Historic Preservation Officer as necessary to ensure compliance with the National Historic Preservation Act. It is understood that the outcome of the Section 106 review will be a finding of adverse impact to the mine storage and loading buildings and to the cultural landscape. A Memorandum of Agreement with appropriate mitigation will be prepared in consultation with the Florida State Historic Preservation Office to resolve these adverse impacts.

## **ENDANGERED SPECIES ACT**

The Endangered Species Act mandates that all federal agencies consider the potential impacts of their actions on species listed as threatened or endangered in order to protect the species and preserve their habitats. The National Park Service has drafted a biological assessment pursuant to Section 7 of the Endangered Species Act and will consult with the US Fish and Wildlife Service and National Marine Fisheries Service. See “Appendix C: Biological Assessment.” The National Park Service has incorporated mitigation measures (described in chapter 2) to special status species, although encounters with these animals in the project area during construction are highly unlikely. The National Park Service will provide the US Fish and Wildlife Service and National Marine Fisheries Service with a copy of the environmental assessment and will continue to coordinate with them to acquire concurrence regarding the potential to impact federally threatened or endangered species.

## **MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT**

The Magnuson-Stevens Fishery Conservation and Management Act requires that federal agencies consult with the National Marine Fisheries Service to determine potential impacts on essential fish habitat and what measures to avoid, minimize, mitigate, or otherwise offset adverse impacts on essential fish habitat. The proposed action would not result in impacts on essential fish habitat; however, related actions have. The National Park Service consulted with the National Marine Fisheries Service about the proposed action in the context of related actions, through a letter dated January 31, 2015.

## **COASTAL ZONE MANAGEMENT ACT**

Development would fall within Escambia County and would therefore be within the “coastal zone” of Florida and be subject to a review under the Coastal Zone Management Act. A Federal Coastal Zone

Consistency Certification for review by the Florida Department of Environmental Protection is required and is included in appendix D. The National Park Service would also acquire a Coastal Zone Management Act permit during the design development phase.

## **CLEAN WATER ACT**

Prior to the implementation of the proposed action, including the installation of utility lines through a wetland and the discharge of stormwater, the National Park Service would obtain all required permits for the proposed activities.

TABLE 5. BRIEF OVERVIEW OF MAJOR LAWS & REGULATIONS GOVERNING ENVIRONMENTAL PROTECTION

Law / Regulation	What It Regulates	Regulating Agency	Summary	Description of Compliance	Compliance Procedures
Clean Water Act, Sections 401 and 402	Water Quality Certification (non-degradation): Stormwater discharge	Florida Department of Environmental Protection	The Florida DEP reviews and issues Water Quality Certifications (sec 401). Stormwater discharges from construction activities that disturb one or more acres are regulated within the Clean Water Act under the National Pollutant Discharge Elimination System (NPDES) stormwater program (sec 402). A Stormwater Construction Permit is obtained prior to construction and incorporates best management practices to reduce storm water pollution and erosion.	A review from the Florida DEP would be completed before construction of new structures to determine best management practices to reduce stormwater pollution and erosion.	For 401 certifications, see <a href="http://water.epa.gov/type/wetlands/outreach/fac24.cfm">http://water.epa.gov/type/wetlands/outreach/fac24.cfm</a>  For Florida water quality construction general permits, see <a href="http://www.dep.state.fl.us/water/rule-sprog.htm">http://www.dep.state.fl.us/water/rule-sprog.htm</a>
Clean Water Act, Section 404	Activities in jurisdictional waters (wetlands & waterways)	US Army Corps of Engineers	Section 404 of the Clean Water Act established a program to regulate the discharge of dredged and fill material into waters of the United States. The Act authorizes the issuance of permits from the US Army Corps of Engineers (ACOE) for such discharges. To grant a permit, the ACOE must weigh the need to protect aquatic resources against the benefits of the proposed development. The ACOE policy requires applicants to avoid impacts on waters of the US and wetlands to the extent practicable, then minimize the remaining impacts, and finally take measures to compensate for unavoidable impacts.	The construction of new buildings and walkways near waters and installation of new utilities through wetlands would require compliance with section 404 of the Clean Water Act.	See wetland protection guidance on the Environmental Protection Agency's website: <a href="http://water.epa.gov/lawsregs/guidance/wetlands/sec404.cfm">http://water.epa.gov/lawsregs/guidance/wetlands/sec404.cfm</a>
Coastal Zone Management Act	Protection of coastal zone	National Oceanic and Atmospheric Administration	The Coastal Management Act provides for the management of the nation's coastal resources. The goal is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."	Because construction and increased activity would take place in coastal areas, the Act must be followed to preserve the resources of the coastal zone.	For Coastal Zone Management guidance, see <a href="http://coast.noaa.gov/czm/act/">http://coast.noaa.gov/czm/act/</a>

TABLE 5. BRIEF OVERVIEW OF MAJOR LAWS & REGULATIONS GOVERNING ENVIRONMENTAL PROTECTION (CONTINUED)

Law / Regulation	What It Regulates	Regulating Agency	Summary	Description of Compliance	Compliance Procedures
Endangered Species Act, Section 7	Protection of federally listed threatened and endangered species	U.S Fish and Wildlife Service	Under the federal Endangered Species Act, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed threatened or endangered species may be present in the action area and determine whether the proposed project may affect or "take" such species. Taking is defined by ESA [Section 3(19)] to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." An incidental take of a listed species requires consultation with the US Fish and Wildlife Service to determine whether the project is likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.	Construction would occur in areas of habitat for 17 endangered, threatened, or candidate species.	For section 7 of ESA Handbook see <a href="http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf">http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf</a>  For obtaining species lists see <a href="http://ecos.fws.gov/ipac/">http://ecos.fws.gov/ipac/</a>
Migratory Bird Treaty Act	Protection of migratory Birds	US Fish and Wildlife Service	Establishment of a Federal prohibition, unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird."	Gulf Islands National Seashore is a stop-over for migratory birds and any construction or activities must make sure no species are harmed or unduly disturbed.	USFWS Migratory Bird Act: <a href="https://www.fws.gov/le/USStatutes/MBTA.pdf">https://www.fws.gov/le/USStatutes/MBTA.pdf</a>

TABLE 5. BRIEF OVERVIEW OF MAJOR LAWS & REGULATIONS GOVERNING ENVIRONMENTAL PROTECTION (CONTINUED)

Law / Regulation	What It Regulates	Regulating Agency	Summary	Description of Compliance	Compliance Procedures
National Historic Preservation Act, Section 106	Protection of historic resources	Florida Division of Historic Preservation	Federal agencies are required to consult with the SHPO to determine if any Federally funded or permitted activities may have an adverse impact on historic properties. Historic properties include not only those properties that are officially listed on the National Register of Historic Places, but also those that are determined to be eligible for the National Register.	There would be construction or modifications on historical buildings for this project, which requires compliance with Section 106. Changes to wayfinding signs and use of the project area would change the cultural landscape, and may have an adverse impact on historic properties.	For Section 106 consultation guidance see <a href="http://www.historycolorado.org/loahp/c/onsultation-guidance">http://www.historycolorado.org/loahp/c/onsultation-guidance</a>
Executive Order 11988 – Floodplain Management	Protection of Floodplains	Interagency Task Force on Floodplain Management	Executive Order 11988 requires federal agencies to avoid impacts on flood plains and to avoid floodplain development whenever possible. "Each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities"	There would be some new structures and construction activities in existing historic buildings in floodplains, which would require floodplain management.	Further Advice on Executive Order 11988 Floodplain Management: <a href="http://www.gsa.gov/graphics/pbs/Advice_FO11988.pdf">http://www.gsa.gov/graphics/pbs/Advice_FO11988.pdf</a>
Executive Order 11990 – Wetland Protection	Overall protection of wetlands	Presidential: all federal agencies must comply	Federal Executive Order 11990: Protection of Wetlands, directs federal agencies to avoid/minimize adverse impacts on wetlands.	Impacts from utility trenching in this project would temporarily disturb a total of less than 0.1 acre. Therefore this project qualifies for an exception.	See NPS DO 77-1 Procedural Manual: <a href="http://www.nature.nps.gov/water/wetlands/assets/docs/DO_77-1_PROC_MANUAL_2012_Revision_FINAL.pdf">http://www.nature.nps.gov/water/wetlands/assets/docs/DO_77-1_PROC_MANUAL_2012_Revision_FINAL.pdf</a>

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## PUBLIC REVIEW

The environmental assessment will be on formal public and agency review for 30 days and has been distributed to a variety of interested individuals, agencies, and organizations. It is also available on the internet at <<http://parkplanning.nps.gov/GUIS>>, and hard copies are available at the national seashore's visitor center.

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# **APPENDIX A: RELEVANT CORRESPONDENCE**

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## LETTERS SENT BY NPS

### AGENCY CONSULTATION

- From Gulf Islands National Seashore to National Marine Fisheries Service regarding the Endangered Species Act, February 5, 2015
- From Gulf Islands National Seashore to National Marine Fisheries Service regarding the Magnuson-Stevens Act, January 30, 2015
- From Gulf Islands National Seashore to State Historic Preservation Officer regarding Section 106 of the National Historic Preservation Act, January 30, 2015.
- From Gulf Islands National Seashore to United States Army Corps of Engineers regarding the Clean Water Act and NPS Management Policies 2006, January 30, 2015.
- From Gulf Islands National Seashore to United States Fish and Wildlife Service regarding the Endangered Species Act, January 30, 2015.

### TRIBAL CONSULTATION

- Gulf Islands National Seashore to various tribes (listed below), request for information for the *Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment*, National Park Service, Gulf Islands National Seashore, Florida Address, January 30, 2015.
  - Alabama-Coushatta Tribe of Texas, Tribal Council Chairman
  - Alabama-Coushatta Tribe of Texas, Historic Preservation Officer
  - Alabama-Quassarte Tribal Town, Chief
  - Alabama-Quassarte Tribal Town, Director of Cultural Preservation
  - Chickasaw Nation, Governor
  - Chickasaw Nation, NAGPRA Representative
  - Choctaw Nation of Oklahoma, Chief
  - Choctaw Nation of Oklahoma, Tribal Historic Preservation Officer
  - Coushatta Tribe of Louisiana, Chief
  - Coushatta Tribe of Louisiana, Tribal Historic Preservation Officer
  - Jena Band of Choctaw Indians, Chief
  - Jena Band of Choctaw Indians, Tribal Historic Preservation Officer
  - Kialegee Tribal Town, Mekko
  - Miccosukee Tribe of Indians of Florida, Section 106 Coordinator
  - Miccosukee Tribe of Indians of Florida, Chairman
  - Mississippi Band of Choctaw Indians, Chief
  - Mississippi Band of Choctaw Indians, Tribal Archeologist/Tribal Historic Preservation Officer
  - Muscogee Creek Nation, Principal Chief
  - Muscogee Creek Nation, Tribal Historic Preservation Officer
  - Muscogee Creek Nation, Interim Manager Assistant
  - Poarch Band of Creek, Tribal Chairman
  - Poarch Band of Creek, Tribal Historic Preservation Officer

- ☐ Seminole Tribe of Florida, Chairman
- ☐ Seminole Tribe of Florida, Tribal Historic Preservation Officer
- ☐ Seminole Nation of Oklahoma, Chief
- ☐ Seminole Nation of Oklahoma, Historic Preservation Officer
- ☐ Thlopthlocco Tribal Town, Town King
- ☐ Thlopthlocco Tribal Town, Tribal Historic Preservation Officer
- ☐ Tunica-Biloxi Indian Tribe, Chairman
- ☐ Tunica-Biloxi Indian Tribe, Tribal Historic Preservation Officer

## **RESPONSES RECEIVED BY NPS**

- From US Army Corps of Engineers, Jacksonville District, to Gulf Islands National Seashore, February 11, 2015
- From Chickasaw Nation to Gulf Islands National Seashore, February 13, 2015
- From Jena Band of Choctaw Indians to Gulf Islands National Seashore, February 27, 2015
- From Alabama-Coushatta Tribe of Texas to Gulf Islands National Seashore, March 3, 2015
- From Choctaw Nation of Oklahoma to Gulf Islands National Seashore, March 9, 2015
- From Seminole Tribe of Florida, Tribal Historic Preservation Office, to Gulf Islands National Seashore, March 13, 2015
- From Florida State Clearinghouse to Gulf Islands National Seashore, March 26, 2015, with enclosures:
  - ☐ Florida Fish and Wildlife Conservation Commission, Division of Habitat and Species Conservation, March 18, 2015
  - ☐ Florida Department of Environmental Protection, Northwest District Office
  - ☐ Florida Department of State, Division of Historical Resources, February 18, 2015
- From US Fish and Wildlife Service, Panama City Field Office, to Gulf Islands National Seashore, April 2, 2015

# **APPENDIX B: FLOODPLAINS STATEMENT OF FINDINGS**

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## **STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11988 (“FLOODPLAIN MANAGEMENT”)**

Fort Pickens Ferry Support Facilities and Shuttle Service  
Environmental Assessment  
Gulf Islands National Seashore  
Escambia County, Florida

Recommended:

\_\_\_\_\_  
Daniel Brown, Superintendent, Gulf Islands National Seashore                      Date

Certification of Technical Adequacy and Servicewide Consistency:

\_\_\_\_\_  
Chief, Water Resources Division                      Date

Approved:

\_\_\_\_\_  
Director, Southeast Region                      Date

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Executive Order 11988, "Floodplain Management," and the National Parks Service DO-77-2: *Floodplain Management*, require an examination of impacts on floodplains and potential risk involved in placing facilities within floodplains. Most of the study area lies within the 100-year floodplain, and the remaining area lies within the 500-year floodplain. All proposed activities, except the construction of public restroom facilities at Battery 234, qualify as a Class I action under DO-77-2. The construction of public restroom facilities at Battery 234 would be a Class III action because it would be located within Zone VE, a coastal flood zone with velocity hazard.

## INTRODUCTION

### CLASS OF ACTION

Class I actions include location or construction of administrative buildings or other man-made features which by their nature entice individuals to occupy the site within the 100-year floodplain. Nearly all elements of the proposed action would meet these criteria. Class III actions include Class I or II actions located in High Hazard Areas including coastal high hazard areas and areas subject to flash flooding. The construction of public restroom facilities at Battery 234 would meet these criteria. Figure 13 of the environmental assessment (EA) provides the location of the floodplain and flood zones relative to the project area. Figures of the environmental assessment are attached for convenience. This statement of findings provides precise reasoning as to why the proposed site was selected and why less flood-prone alternative sites were rejected. The statement of findings will include an accurate and complete description of the flood hazard assumed by implementation of the proposed action without mitigation in accordance with Section VI-F of DO-77-2 Procedural Manual.

### PROPOSED ACTION

The National Park Service proposes to improve existing gateway facilities at the newly constructed Fort Pickens ferry pier to better serve as an arrival site for the passenger ferry service and to initiate a shuttle service to transport visitors to various location within the Fort Pickens Area. Improvements would largely be focused on facilities adjacent to the ferry pier and shuttle support infrastructure but could also include a new restroom facility near Battery 234. Under alternative 2 (the National Parks Service Preferred Alternative), the National Park Service would provide 11 programmatic elements for improved visitor services at Fort Pickens:

- Ferry departure queuing
- Landside orientation
- Restrooms
- Point of sale (tickets, rentals, sales, etc.)
- Rental equipment pick-up/return
- Shuttle stop
- Gathering areas
- Educational exhibits
- Food service

- Concessioner storage
- Indoor and outdoor dining areas

The locations of these improvements are identified on figure 5 of the EA.

## **Rehabilitation of Historic Buildings**

Under this alternative, the three historic buildings adjacent to the ferry pier would be rehabilitated to accommodate new visitor services. As shown in figure 5 of the EA, the engineer's shop, the mine loading building, and the mine storage building would be adaptively reused to support visitor services and concessioner operations.

The engineer's shop (building 17) would be used for concessioner storage. The existing telecommunications infrastructure would remain in its current location.

The mine loading building (building 15) would be used for exhibits on the historical significance of Fort Pickens, and there would be some changes to the structure. New, all-glass doors would be installed at both the eastern and southern entry points. The existing doors would remain operational but would not be used by visitors for entry into the mine loading building.

The mine storage building (building 16) would be used for several functions: concession sales, food service, dining areas, and exhibits, and there would be a few changes to the structure. The point of sale for food, ferry tickets, equipment rentals, and souvenirs could be designed for one concessioner employee. Additionally, a false floor would be installed 6–8 inches above the existing, historic floor in the mine storage building in order to make concession operations more resistant to flood damage. As in the mine loading building, new, all-glass doors would be installed at the southern entry point. The existing doors would remain operational but would not be used by visitors for entry into the mine storage building.

## **Construction of New Buildings and Structures**

### ***New Ferry Landing Area Building***

The action alternative would include the construction of a new building, which would house restrooms and rental storage and would provide outdoor dining areas. This building would be built overlapping a historic foundation and would be elevated to minimize breaches in the historic foundation and to lessen the risk of flood damage. The restrooms would provide closer and more visible facilities for ferry passengers. The rental storage area would protect concessioner property when not in use. The new building would include a canopy under which picnic tables would be available for outdoor dining.

Utility services required to support the ferry service include electric, water, sanitary sewer, and drainage improvements (figure 6 of the EA). There is currently electric service connected to all the existing buildings at the ferry landing. Therefore, improvements would be limited to upgrading panels and rewiring buildings to current codes. If new buildings are constructed, a new service would be connected from the nearby transformer.

Water service is also available at the mine loading and mine storage buildings. Water to the new restrooms would connect to an existing water line and be run around the building to a convenient point of entry into the building.

The restrooms would require a new grinder pump station be constructed, similar to the five existing grinder pumps located in the Fort Pickens Area. The grinder pump would be placed near the back of the restroom building and a 1.5-inch sewer force main run approximately 400 feet to the existing force main located across the parking lot (on the south side of the paint locker [building 10]).

Site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall. In addition, the mine loading building, mine storage building, and the engineer's shop would be equipped with sump pumps for removing water due to rain/storm events.

### ***Interpretive Elements near Fort Pickens***

The pedestrian walkway to Fort Pickens from the ferry landing would be a focal point of the site and connects the ferry landing ramp to the fort entrance. The walkway would be along the historic rail line that ran from the mine storage and mine loading buildings through the fort gate. The walkway would be modified to be 15 feet wide, approximately 10 feet wider than the historic rail line. The walkway would be constructed of a hardened surface designed to avoid damaging the historic fabric of the railroad and may be designed to express the historic rail lines. Along the walkway the National Park Service would place interpretive signs and displays such as weaponry (cannon, cannon balls, mines, ordinance, etc.) and benches.

Some of the existing vehicle parking along the pedestrian walkway would be reconfigured, including relocating the handicap accessible parking spaces near the fort in order to accommodate a shuttle stop at the fort, as depicted in figure 7.

### ***Restroom near Battery 234***

In the future, a new restroom facility could be constructed near the Battery 234 shuttle stop (figures 8 and 9 of the EA). Under this alternative, the beach near Batteries 234 and Cooper would become a lifeguarded beach, and the new restroom facility would accommodate the anticipated increase in public use of this beach. The comfort station would consist of a basic men's and women's restroom with a single toilet and sink, and an outdoor shower column for beach goers. A frost-free water hydrant would be provided near the comfort station for visitor and maintenance staff use. The required utilities include water, sanitary sewer, and electric service to the comfort station. The proposed utilities would be routed along the west side of the Battery 234 and Battery Cooper loop road to the intersection at Fort Pickens Road. The water would be connected to the existing 6-inch waterline located on the south side of Fort Pickens Road. Both the sanitary sewer and electric would be bored under Fort Pickens Road with the sewer connected to the existing 3-inch sewer force main located on the north side of Fort Pickens Road. The electrical service would be connected to the nearest point of service, also on the north side of Fort Pickens Road.

### ***Campground Store Shade Shelter***

A new shade shelter would be constructed at the western corner of the campground store (figure 10 of the EA). The structure would have no walls and be 18 feet by 18 feet and would provide a waiting area for shuttle passengers.

## **SHUTTLE SERVICE**

In addition to the improvements of the ferry landing area, the concessioner would provide a shuttle service within the Fort Pickens Area (figure 4 of the EA). The seashore would purchase a fleet of five electric trams, and daily shuttle service would be provided by two trams, in 15-minute intervals, to eight stops in the Fort Pickens Area by:

- Passenger ferry pier
- Auditorium and museum
- Battery 234
- Battery Cooper
- Battery Worth
- Worth Beach access
- Campground store
- Fort Pickens

Shuttles would comprise a tram unit and a passenger trailer, which would together accommodate up to 27 passengers. Passengers would be permitted to bring personal belongings on the shuttle; as such, shuttle capacity could be less than 27 passengers.

The trams would be stored in Battery Langdon, specifically the east casemate chamber and the corridors leading to that chamber. The trams would enter via the existing concrete-paved driveway access to the rear (north) doors of the battery and exit through the doors facing the Gulf (south).

Routine maintenance for the trams consists primarily of checking battery water levels and tire air pressure. A room off of the corridor would be used to store spare batteries and tires. The charging would be done in-vehicle, using standard 110 volt power. A solar photovoltaics (PV) system would provide power. The solar PV system would be installed on a nearby picnic shelter.

Five tram sets would be stored in Battery Langdon. Four would typically be used each day—two during the morning and two others during the afternoon. In the morning, drivers would take out two of the tram sets in time for both to meet the first arriving boat. Because the electric trams do not have sufficient range to cover the entire day, a second shift of drivers/trams would work in the afternoon. The second-shift drivers/trams would go in service at the campground store where they would meet the morning drivers and transfer any passengers traveling back towards the fort.

At the end of each shift drivers would be able to wash off the trams, if necessary, and would then park the trams inside Battery Langdon and plug in each vehicle. Parking for driver's personal cars would be at the adjacent picnic pavilion or at the nearby maintenance facility.

Renovation to accommodate the trams would include removal of debris inside the battery, upgrading the electrical service to accommodate the charging locations, modifying the non-historic doors to the casemate, and constructing a driveway from the front door to the parking lot on Fort Pickens Road. In addition, the concrete access road to the north doors of Battery Langdon would be repaired or replaced in kind. A water spigot connection would be provided at the edge of the pavement (figure 12) for washing the trams. The spigot would be connected via a 1-inch waterline to the existing 3-inch waterline located north of the road in the vicinity of the existing shelter.

## **SITE DESCRIPTION**

Gulf Islands National Seashore's Fort Pickens Area is approximately 15 miles from Pensacola, Florida. The project area includes approximately 350 acres of the western end of Santa Rosa Island, a barrier island in the Gulf of Mexico, managed by the National Park Service (figure 1 of the EA). The project area can be accessed by water, but public docks are not available within the national seashore. The majority of visitors access the national seashore on Fort Pickens Road by way of Pensacola Beach, Florida. Fort Pickens Road is closed an average of 10 to 12 times each year due to weather events that overwash the roadway with sand. In addition to the roadway, facilities in the Fort Pickens Area include many historic structures such as the brick fort and concrete gun batteries which were built between 1829 and the 1940s, as well as other historic structures which were associated with the fort and have been adaptively reused as the museum, restrooms, and residences.

The project area includes the following key facilities:

- Mine loading building (building 15)
- Mine storage building (building 16)
- Engineer's shop (building 17)
- Shade shelter(s)
- Fort Pickens
- Fort Pickens parking lot
- Museum
- Battery 234
- Battery Worth
- Campground Store
- Battery Langdon

## **FLOODPLAIN**

The approximately 350-acre project area falls within the 100-year floodplain (Zones AE, AO, and VE) and the 500-year floodplain (Zone X), as categorized by the Federal Emergency Management Agency's Flood Insurance Rate Maps (FM12033C0533G and FM12033C0534G). The elevation of the 100 year floodplain varies between 10-16 feet, with the exception of Zone AO which is at a depth of 2 feet.

The area of proposed improvements falls primarily within the special flood hazard area. All proposed structures are within the 100-year floodplain except for portions of the pedestrian walkway. New structures include the ferry landing area building (Zone AO), restroom facilities and shelter near Battery 234 (Zone VE), campground store shade shelter (Zone AE), and paving and crushed shell driveways at Battery Langdon (Zone AE). Some of these items, such as the ferry landing area building, can impede the flow of floodwaters during a flood event and reduce the capacity of the floodplain to store water.

Barrier islands are subject to natural forces, including wind, tides, wave action, and sedimentation, which continually reshape them. Inundation during flooding along the beaches and adjacent areas, especially along the Atlantic side of the island, experience the high velocity waves, as indicated by designation of Zone VE. Wave action is typically somewhat reduced inland of primary dunes; however, during major storms (i.e., tropical storms and hurricanes), high winds can cause additional wave action, even in inland areas, including areas designated as Zone AE.

Many factors can influence flooding on barrier islands. Much of the area consists of various wetlands including coastal strands, interdunal swales, and wet pine flatwoods. Long periods of heavy precipitation, which are common in summer, raise the water levels within these wetlands and can cause flooding in the adjacent upland areas. Also high flow volume in the Escambia, Simpson, and Sweetwater Rivers can raise water levels in Pensacola Bay causing increased flooding within the Fort Pickens Area. Because drainage is typically poor on barrier islands a single rain event can lead to flooding in low lying areas, especially during high tide.

The area within the seawall surrounding Fort Pickens is protected from wave action but is still subject to flooding, especially in Zone AO. In low-lying areas like Zone AO, heavy rainfall outside of major storms can cause standing water of a foot or two. Areas of Zone AE may also experience some standing water.



Buildings 15 and 16 were flooded during after the Pensacola area experienced an unusually heavy rainfall event during which the area received approximately 2 feet of rain in a period of 24 hours in April 2014 (photo credit: NPS)

The public is barred access from entering the area following this type of flooding. Although predicting this kind of flooding can be difficult, it does not pose a serious threat to safety and park facilities. More severe storms with high winds (and higher velocity wave action associated with those winds) and possible storm surge such as tropical storms and hurricanes typically form early enough that the park has at least a day or so to evacuate the area.

## **JUSTIFICATION FOR USE OF THE FLOODPLAIN**

The Fort Pickens Area of the Gulf Islands National Seashore lies almost entirely within the 100-year floodplain. No other practicable alternative to the proposed action exists because of the need to improve accommodations for ferry passengers and operations through improvements to the existing facilities. Measures would be taken to minimize harm to life, property, and natural resources as mentioned in the “Mitigation” section below.

The protection of people and property is of high priority to Gulf Islands National Seashore. The majority of the proposed project would occur in disturbed or previously developed areas to minimize impact to wetlands and other natural areas and wildlife. The project would be designed to prevent or reduce flood damage. The park has developed plans to minimize risks to human health and safety and to minimize potential property damage during storm events including a hurricane evacuation plan (NPS 2014a). Given these steps towards risk mitigation, the risk to life and property would be minimized. There would be no significant impact on natural or beneficial floodplain values.

## **INVESTIGATION OF ALTERNATIVE SITES**

The purpose of the proposed action is to improve the gateway facilities at the ferry arrival site within the Fort Pickens Area and provide transportation alternatives to visitors. Criteria for selection of the project area includes federal ownership and control of the site, proximity to the ferry dock, and existing park infrastructure. The areas of proposed improvements include Fort Pickens, Battery Langdon, the campground store, and Battery 234. These sites have already been developed to some degree; therefore, improvements in these areas would greatly minimize environmental impacts associated with this project. Making improvements outside the 100-year floodplain would require all improvements to be located within a relatively small area immediately east of Fort Pickens itself. This would separate ferry operations from the gateway facilities and may cause confusion for many visitors who would expect ferry accommodations to be adjacent to the dock. The fort and associated structures would also block the view these facilities making them difficult to find. Additionally, one of the primary purposes of locating improvements near the ferry dock is to provide nearby restroom facilities to arriving visitors. Location of these facilities outside the 100-year floodplain would place them at least 700 feet away from the dock. The area east of Fort Pickens had been cleared and grassed; however, using this site would require new construction instead of the rehabilitation of existing structures. Battery Langdon, Battery 234, and the campground store are all located within the 100-year floodplain, so improvements could not be moved out of the 100-year floodplain. No other suitable project sites exist; improvement of the existing sites is the only practicable alternative.

## **SITE-SPECIFIC FLOOD RISK**

As mentioned above, the proposed improvements are located within the 100-year floodplain, a special flood hazard area. Special flood hazard areas are subject to inundation by the 1% annual chance of flood. The 1% annual chance of flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. Flooding is a regular occurrence in the Fort Pickens Area. The natural processes that affect Santa Rosa Island have resulted in both short- and long-term closures of Fort Pickens Road. Short-term closures of the main access to the Fort Pickens Area occur 10 to 12 times each year when storm events overwash sand onto the roadway, making the road impassible until national seashore staff can clear sand off the road. Long-term closures result from severe storms such as the hurricanes in 2004 that damaged Fort Pickens Road so severely that it was closed until 2009.

Current technology offers advanced warning of potential flood events associated with major storms (i.e., tropical storms and hurricanes). Although the exact track of the storm may be unknown, park managers are provided with time to evacuate the site prior to flooding.

## **MITIGATION**

Flood mitigation is offered by incorporating methods for preserving natural processes, protecting life and minimizing storm damage through appropriate procedures.

The structures that would be added to the site would be designed in such a way as to withstand flood events while impeding flow as little as possible. The area around the proposed building in the ferry landing area would be graded to elevate the new building out of the 100-year floodplain. While this elevation would displace a negligible volume of flood waters, the new building would have no impact on the floodplain drainage. To help protect life, no inhabitable buildings are located at the site and access to the site is closed when storm systems are approaching. Maintenance of a current hurricane evacuation plan is part of the management strategy in the national seashore's general management plan (NPS 2014a). Structures and facilities would be designed to be consistent with the intent of the standards and criteria of the National Flood Insurance Program (44 CFR Part 60). Mitigation to minimize storm damage would include utilization of sustainable design principles and using best management practices during and after construction. The floor in the mine storage building would be elevated by 6–8 inches of poured concrete which would protect the interior of the historic building from the vast majority of flood events (GUIS [Halstead], pers. comm, 2015). The area around the proposed building in the ferry landing area would be graded to elevate the new building out of the 100-year floodplain, which would minimize storm damage on the new building.

These mitigation measures would be in accordance with the National Parks Service floodplain guidelines (<http://www.nature.nps.gov/rm77/floodplain.cfm>) and with EO 11988, Floodplain Management. Therefore, the proposed project would not have an adverse impact on the floodplain and its associated value.

## COMPLIANCE

Installation of utilities for the restroom at Battery 234 will cause temporary impacts on a wetland. Temporary impacts will total less than 0.1 acres, and upon completion of utilities installation, the area will be returned to natural grade and revegetated with native species. An Environmental Resource Permit through the Florida Department of Environmental Protection and a Dredge and Fill permit through the US Army Corps of Engineers may be required pursuant to Part IV, Chapter 373, Florida Statutes and Section 404 of the Clean Water Act, respectively. Specific permit requirements will depend on the extent of dredge or fill work, construction methods, and other factors. Appropriate permits would be acquired during design phases prior to construction.

Design of the new sanitary sewage system associated with the new restrooms would comply with all applicable federal, state, and local requirements for development within a floodplain. This would include but not be limited to compliance with 44 CFR 60.3 (a)(6) in order to minimize or eliminate infiltration of flood waters into the systems and discharges from the system into flood waters.

The Coastal Zone Management Act of 1972 requires that a Federal agency provide the State of Florida with a Consistency Determination when a Federal agency proposes any activity inside or outside of the coastal zone that will have any reasonably foreseeable impact on any coastal resources or uses within the coastal zone. This Consistency Determination will be provided to the Florida Department of Environmental Protection and the Florida State Clearinghouse with the environmental assessment.

The Environmental Assessment, this Statement of Findings for Director's Order 77-2, and the "Finding of No Significant Impact", when signed, would complete the requirements for the NEPA for this project.

## SUMMARY

The protection of people and property, including natural resources, is of high priority to the National Parks Service. The proposed project would occur in a currently disturbed area, and the National Parks Service concludes that no other practicable alternative exists for the proposed project. The project would be designed to prevent or reduce flood damage, and a hurricane evacuation plan would also be developed (NPS 2014a). Given these steps towards risk mitigation, the risk to life and property would be minimized. Furthermore, no significant impact on natural or floodplain resources would occur from the proposed project. There is no risk of permanent adverse impacts on the natural and beneficial values of the floodplain.

Mitigation would include utilization of sustainable design principles, appropriate siting, and best management practices during and after construction. The National Parks Service finds the proposed project to be consistent with EO 11990 and Director's Order 77-2.

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# **APPENDIX C: BIOLOGICAL ASSESSMENT**

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***FORT PICKENS FERRY SUPPORT FACILITIES AND SHUTTLE SERVICE  
BIOLOGICAL ASSESSMENT***

**GULF ISLANDS NATIONAL SEASHORE  
NATIONAL PARK SERVICE – US DEPARTMENT OF INTERIOR**

**JUNE 19, 2015**

Prepared for the National Park Service, US Department of the Interior,  
By VHB, Sarasota, Florida

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***FORT PICKENS FERRY SUPPORT FACILITIES AND SHUTTLE SERVICE***  
**BIOLOGICAL ASSESSMENT**

***GULF ISLANDS NATIONAL SEASHORE (NPS UNIT)***

**JUNE 5, 2015**

**NATIONAL PARK SERVICE – U.S. DEPARTMENT OF INTERIOR**

## **1.0 INTRODUCTION**

The Endangered Species Act of 1973 (16 U.S.C. 153 et seq.), as amended (ESA or Act) directs in section 7(a)(1) that federal agencies conserve and recover listed species and use their authorities in furtherance of the purposes of the Act by carrying out programs for the conservation of endangered and threatened species so that listing is no longer necessary (50 CFR §402). Furthermore, the Act in section 7(a)(2) also directs federal agencies to consult (referred to as section 7 consultation) with the U.S. Fish and Wildlife Service (USFWS) when their activities “may affect” a listed species or designated critical habitat. Additionally, NPS Management Policy (2006b) directs the NPS to “inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species to the greatest extent possible”.

### **1.1 PURPOSE OF THIS BIOLOGICAL ASSESSMENT**

This biological assessment (BA) analyzes the potential effects of the proposed Fort Pickens Ferry Support Facilities and Shuttle Service Environmental Assessment on the Gulf Islands National Seashore (Park) on federally listed threatened, endangered, candidate mammal, bird, reptile, amphibian, fish, clam and plant species, pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (ESA). Federally and state listed threatened and endangered animal and plant species and critical habitat meeting the following criteria are addressed in this assessment:

1. known to occur in the Park based on confirmed sightings;
2. may occur in the Park based on unconfirmed sightings;
3. potential habitat exists for the species in the Park; or
4. potential effects may occur to these species.

### **1.2 CURRENT MANAGEMENT DIRECTION**

Current management direction for federally listed and proposed threatened and endangered species can be found in the following documents, filed at our office:

- Endangered Species Act of 1973, as amended (ESA or Act)
- 1916 NPS Organic Act

- NPS General Authorities Act of 1978
- NPS Management Policies 2006
- Migratory Bird Treaty Act (MBTA)
- National Environmental Policy Act (NEPA)
- Species-specific recovery plans which establish population goals for recovery
- Species management plans, guides, or conservation strategies
- Gulf Islands National Seashore Final Management Plan, July 2014 (NPS 2014a)

## 2.0 CONSULTATION HISTORY

Pursuant to Section 7(a) of the Endangered Species Act, the National Park Service initiated consultation with US Fish and Wildlife Service and National Marine Fisheries Service regarding threatened or endangered species which may be present within the project area at Fort Pickens Area. On January 19, 2015, the USFWS Panama City field office provided a list of special status species potentially found within the project area. Additional species were included in this list based on a desktop survey including a cumulative summary of biological inventory data collected within the national seashore by the NPS Inventory and Monitoring Program (NPS 2010) and the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (FNAI 2013). Although it has been delisted, the bald eagle (*Haliaeetus leucocephalus*) was also included in this list.

Additional guidance concerning species present within the Fort Pickens Area was provided by the US Fish and Wildlife Service on April 2, 2015.

## 3.0 PROPOSED MANAGEMENT ACTION AND ALTERNATIVES CONSIDERED

The National Park Service (NPS) proposes to improve landside facilities near the ferry pier and to implement a shuttle service within the Fort Pickens Area. The purpose of the proposed facilities and shuttle service is to improve the visitor experience in the Fort Pickens Area, particularly for visitors arriving by ferry.

Passenger ferry access to Fort Pickens has been proposed since 1978 as part of the first general management plan for Gulf Islands National Seashore, and the updated general management plan calls for water access to the Fort Pickens Area (NPS 2014a). In addition to providing access, ferry service will enable visitors to experience the marine resources of the national seashore from the water. The landside shuttle service would provide visitors with an overall enhanced visitor experience and mobility options to various points of interests and recreational destinations within the Fort Pickens Historic District. The proposed project also aligns well with planning efforts by the local communities. A ferry system in Pensacola Bay will provide additional travel options and alleviate traffic congestion and will be a much-desired part of the tourist-driven economy of the Pensacola metropolitan area.

The purpose of the project is to provide a high quality visitor experience in two ways: (1) providing a gateway experience through improved landside facilities near the ferry pier and (2) providing access to visitor amenities within the Fort Pickens Area. The improvements identified as part of this project are specifically targeted at supporting the Pensacola Bay ferry passengers, and are intended to inform the national seashore's concessions contract prospectus.

Action is needed at this time because the Pensacola Bay ferry service is anticipated to begin in 2017, and facilities adjacent to the ferry pier do not provide a desirable gateway experience. The facilities immediately surrounding the ferry pier include three historic buildings, which currently function as national seashore storage facilities/workshops. There is a passenger shade shelter nearby, but the connections between the shelter, the pier, the visitor center, the restrooms, and other sites are unclear due to the lack of wayfinding and orientation. The existing public restroom facilities near the museum would serve all visitors, including ferry passengers, and these restrooms are approximately a quarter of a mile from the ferry pier. The nearest signs offering orientation to Fort Pickens can be found at the sidewalk on the opposite (southern) end of the parking lot near the ferry pier, approximately 400 feet away.

Additionally, action is needed at this time because visitors arriving by ferry would currently need to walk or bring their own bicycles to access areas beyond the immediate vicinity of the ferry pier. Some visitors may be able to walk longer distances or bring personal bicycles, but many others may not be able or willing to walk or provide a personal bicycle. The ability of visitors to move around the Fort Pickens Area and its environs may be further hindered by any beach accessories (e.g., towels, umbrellas, chairs, etc.) they may have and/or want to take with them. There is currently no transportation system in place to support movement of visitors beyond the immediate vicinity of the ferry pier.

## **ALTERNATIVE 1: NO ACTION**

Under the no-action alternative, visitors would access the Fort Pickens Area by ferry, privately-owned watercraft, and Fort Pickens Road. Ferry operators would provide ferry service to the Fort Pickens Area using existing public facilities (figure C-1). The ferry dock and shade shelter are the two existing structures currently reserved for use by ferry operations. The engineer's shop, the mine loading building, and the mine storage building (figure C-1) are currently used by the national seashore's facility management division as workshops and storage space. No improvements or developments are proposed for the area surrounding the ferry pier, and no additional visitor services would be implemented.

Upon arrival to the Fort Pickens Area, ferry passengers would disembark from the ferry vessel onto the existing ferry pier. Visitors could access the beach via ramps on the bay side of the sea wall or could continue on the pier, over the seawall, to the sidewalk between the mine loading building and the mine storage building. Ferry passengers could access the resources in the Fort Pickens area on foot or by bicycle (or similar self-propelled vehicle) which they would bring with them on the ferry or rent from a portable facility in the ferry landing area. No orientation or wayfinding information is proposed for this area as part of the proposed action, though the national seashore could install signs and similar wayfinding information over time. The national seashore may also coordinate with the concessioner to provide orientation and wayfinding information on the ferry vessel. The nearest restroom facilities to the



**Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment**

**FIGURE C-1**  
**Alternative 1: No Action**



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ferry pier would be the existing facilities on the east side of Fort Pickens and the existing facilities on the south end of the firehouse.

From the ferry pier, visitors would be within half a mile of a number of attractions in the Fort Pickens Area including

- Fort Pickens;
- The auditorium and museum;
- The snack bar in the firehouse;
- Batteries Trueman, Payne, Cullum, Sevier, and Van Swearingen;
- The fishing pier;
- The Florida National Scenic Trail;
- Bayside beaches; and
- Gulfside beaches.

Visitors who bring or rent bicycles would also have access to Batteries 234, Cooper, Worth, and Langdon; the Fort Pickens campground; and more bayside and gulfside beaches, including Langdon Beach, the only lifeguarded beach in the Fort Pickens Area. Rental bicycles would be limited in number, and not all ferry passengers would bring their own. While all ferry passengers would be able to access these areas, pedestrians would be less likely to walk to these areas, particularly Langdon Beach, which is a 5-mile round-trip walk from the ferry pier. Additionally, Fort Pickens Road does not have an adjacent sidewalk or trail.

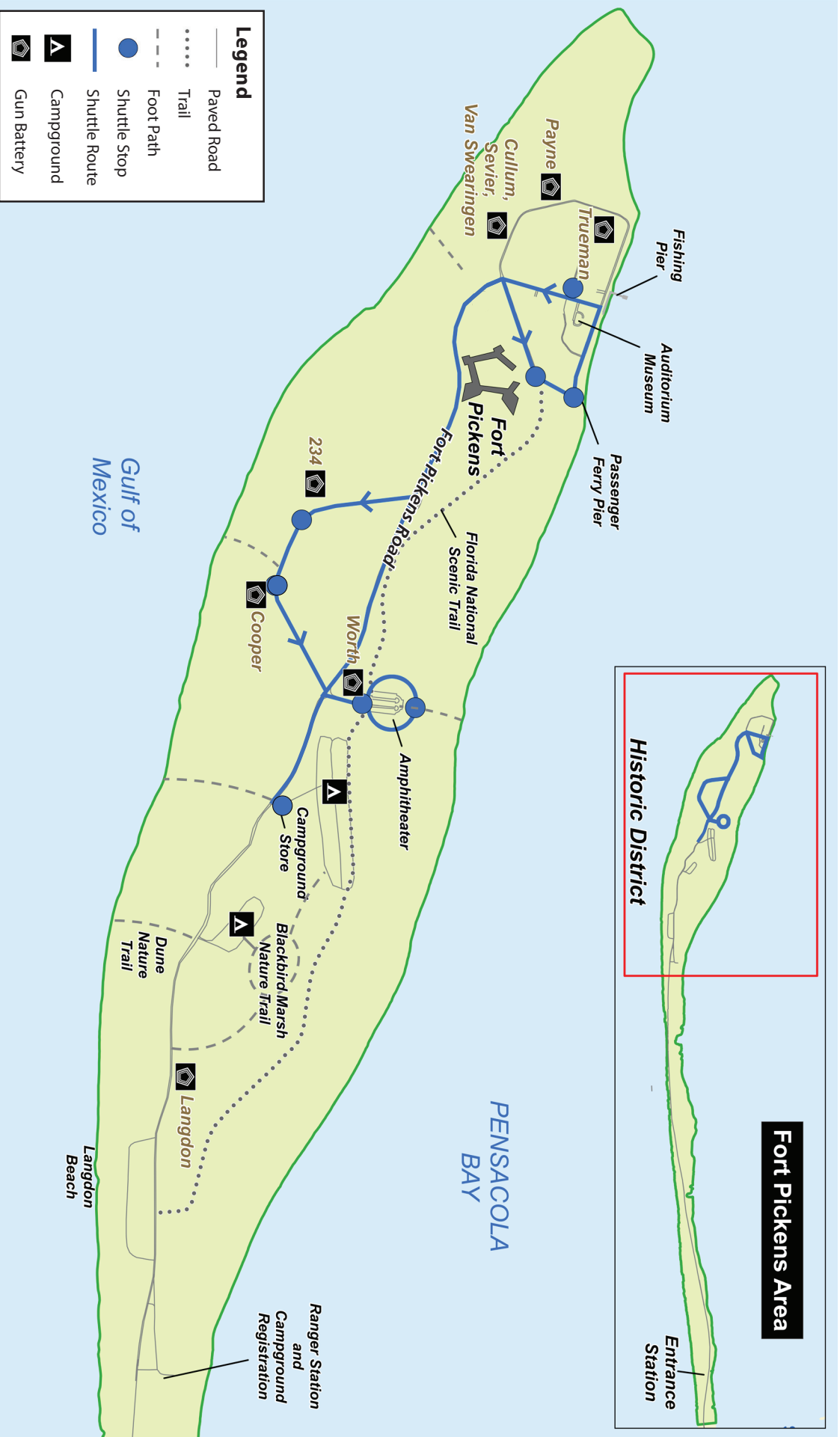
## **ALTERNATIVE 2: NEW LANDSIDE DEVELOPMENT AND SHUTTLE SERVICE (NPS PREFERRED)**

Under alternative 2, the national seashore would improve facilities and provide additional visitor services. Visitors would continue to access the Fort Pickens Area by ferry, privately-owned watercraft, and Fort Pickens Road. Improvements would largely be focused on facilities adjacent to the ferry pier and shuttle support infrastructure but could also include a new restroom facility near Battery 234.

### **Landside Development**

Under alternative 2, visitor services would be provided in three rehabilitated historic buildings, in one new building, and through a shuttle service (figures C-2 and C-3). The action alternative was designed to improve visitor services in the Fort Pickens Area through 11 programmatic elements:

1. Ferry departure queuing—A designated place for departing visitors to wait for the ferry
2. Landside orientation—Wayfinding and informational signs to direct arriving visitors to the various points of interest
3. Restrooms—Conveniently located facilities for visitors, particularly those who arrive and depart by ferry
4. Point of sale—Location for concession operations including ticket sales, equipment rentals, sales, etc.
5. Rental equipment pick-up/return—An area visible, but removed, from the mine storage building, where visitors could pick up and drop off rental equipment, such as bicycles
6. Shuttle stops—Highly visible stops at key locations in the Fort Pickens Area (figure C-2)



## Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-2  
Alternative 2: Proposed Shuttle Route



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**Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment**

FIGURE C-3

**Alternative 2: Ferry Landing Area Improvements**



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7. Gathering areas—Areas in the ferry landing area where large groups could gather before departing or after arriving
8. Educational exhibits—Interpretive displays about the history of and resources in the Fort Pickens Area
9. Food service—Simple and quick food options for ferry passengers
10. Concessioner storage—Areas for the concessioner to store merchandise and items necessary for operations in the Fort Pickens Area
11. Indoor and outdoor dining areas—Designated indoor and outdoor dining areas in the ferry landing area

The locations of these programmatic elements are identified on figure C-3, and the improvements are described in more detail in the following sections.

As under alternative 1, ferry passengers would disembark from the ferry vessel onto the existing ferry pier upon arrival to the Fort Pickens Area. Visitors could access the beach via ramps on the bay side of the sea wall or could continue on the pier, over the seawall, to the sidewalk between the mine loading building and the mine storage building. The sidewalk would lead to an open area, from which a new plaza would be visible to the southwest. The new plaza would provide orientation information for arriving visitors. A shuttle stop would be located immediately southwest of the plaza. Visitors could continue to Fort Pickens from the plaza by way of the existing path.

The improved ferry landing area would provide gathering areas and would delineate departure queuing for departing ferry passengers. Visitors departing from the Fort Pickens Area could wait under the existing shade shelter, which has seating for up to 150 people, or in the open area south of the mine loading building and east of the new plaza. Any new plantings introduced in the plaza area would be coordinated in future project design phases to align with the previous historic character of the area. Any future plantings will align as closely as possible to previous landing area conditions and the historical character. New paving at the plaza would be minimized to honor historic fabric but would need to meet accessibility and drainage needs.

### ***Rehabilitation of Historic Buildings***

Under alternative 2, the three historic buildings adjacent to the ferry pier would be rehabilitated to accommodate visitor services. As shown in figure C-3, the engineer's shop, the mine loading building, and the mine storage building would be adaptively reused to support visitor services and concessioner operations. All rehabilitation of historic buildings would follow the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67) to limit any impacts on the historic fabric.

The engineer's shop (building 17) would be used for park and concessioner storage. The existing telecommunications infrastructure would remain in its current location.

The mine loading building (building 15) would be used for exhibits on the historical significance of Fort Pickens, and would include the following changes to the structure. The building would provide approximately 1,000 square feet of space for exhibits; as examples, exhibits could include wall-mounted and free-standing interpretive displays. There would be visual access to notable features such as the ceiling, brick walls, and other notable architectural elements in the existing structure. Documentation from the

National Register and Historic Structure Reports would be used to inform these exhibits. The following actions would rehabilitate the mine loading building for adaptive reuse:

- New, all-glass doors would be installed at both the eastern and southern entry points. The existing doors would remain operational but would not be used by visitors for entry into the mine loading building.
- With consideration for both visitor and staff comfort and preservation of historic fabric, the mine loading building would be minimally air conditioned and heated to provide comfortable working conditions for staff.
- Windows would be stabilized consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). The interior sides of the windows would be covered with a removable, clear cover which would prevent condensation and provide insulation.
- New sidewalks would be constructed to create an accessible entrance.
- The walls and roof would be cleaned and repaired consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67).

The mine storage building (building 16) would be used for several functions: concession sales, food service, dining areas, and exhibits, and there would be the following changes to the structure. The existing snack bar in the firehouse and rental operation in the campground store would be relocated to the mine storage building. The space for concession operations could be minimized to allow for the majority of the approximately 2,000-square-foot building to be used for dining space and merchandise display. Exhibits in the mine storage building would likely be wall-mounted to maximize concessions space. There would be visual access to notable features such as the historic mine beam, hoist, and crane; the ceiling; and the brick walls. Documentation from the National Register and Historic Structure Reports would be used to inform these exhibits. The following actions would rehabilitate the mine loading building for adaptive reuse:

- A new floor would be installed 6–8 inches above the existing, historic floor in the mine storage building in order to make concession operations more resistant to flood damage. This elevation in the floor would preserve the required headroom under the historic craneway, and no change to the head height at the door is anticipated. The raised floor would incorporate cast-in-place concrete installed using bond breakers to allow its removal without damaging existing fabric.
- New, all-glass doors would be installed at the southern entry point and would be structurally attached to the existing jam and head door openings, with any attachment to the existing historic fabric being removable. The existing doors would remain operational but would not be used by visitors for entry into the mine storage building.
- With consideration for both visitor and concessioner comfort and preservation of historic fabric, the mine storage building would also be minimally air-conditioned and heated to provide comfortable working conditions for concessioner staff.
- Windows would be stabilized consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67). The interior sides of the windows would be covered with a removable, clear cover which would prevent condensation and provide insulation. The interior operable glass window assembly would allow the building occupants to control the humidity and condensation through the ability to open and close the windows. The assembly would be attached to the head, jamb, and sill in a minimal nature and would be fully removable, allowing the

window opening to be returned to its original condition. No insulation would be provided at the window or wall assemblies.

- New sidewalks would be constructed to create an accessible entrance, and would be designed to avoid damaging the historic fabric of the site.
- The walls and roof would be cleaned and repaired consistent with the Secretary of the Interior's Standards for Rehabilitation (36 CFR 67).

The three historic buildings would require utility upgrades for their intended uses under alternative 2 (figure C-4). The buildings currently have electric service, and improvements would be limited to upgrading panels and rewiring buildings to current codes. The engineer's shop would be equipped with a sump pump. Site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall and/or use of the existing outfall.

### ***Construction of New Buildings and Structures***

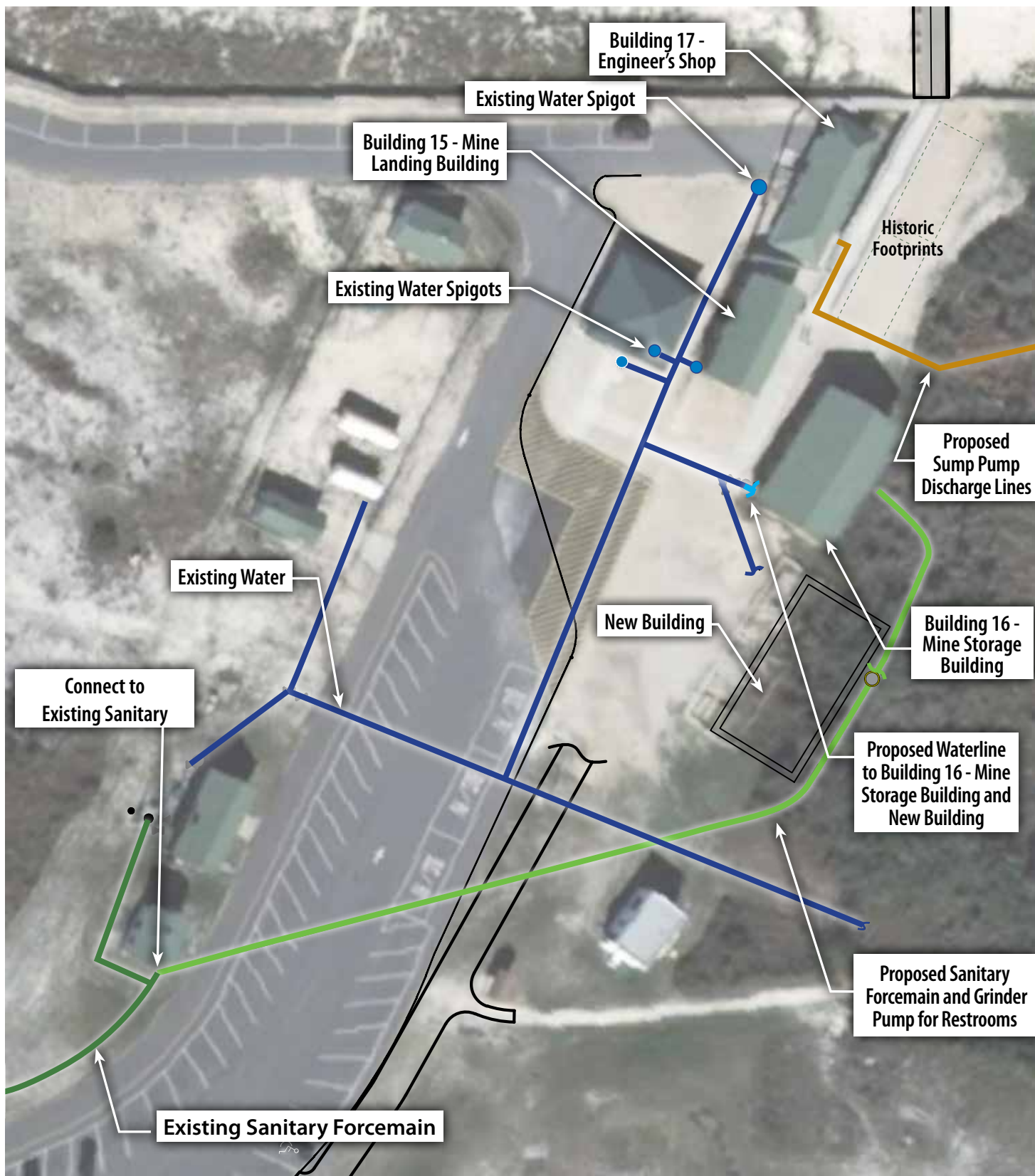
#### ***New Ferry Landing Area Building***

The action alternative would include the construction of a new building, which would provide restrooms, rental storage, and an outdoor dining area. This building would be built above a historic foundation and would be elevated to minimize breaches in the historic foundation and to lessen the risk of flood damage. The new restrooms would provide closer and more visible facilities for ferry passengers. The rental storage area would protect concessioner property when not in use. The new building would include a canopy under which picnic tables would be available for outdoor dining. Construction could be phased if funding is not immediately available.

Utilities for the new building would be connected to nearby existing infrastructure. Electric service would be connected from the nearby transformer. Water to the new restrooms would connect to an existing water line and be run around the building to a convenient point of entry into the building from the east. The restrooms would require a new grinder pump station be constructed, similar to the five existing grinder pumps located in the Fort Pickens Area. The grinder pump would be placed near the back of the restroom building and a 1.5-inch sewer forcemain run approximately 400 feet to the existing forcemain located across the parking lot (on the south side of the paint locker [building 10]). As part of the utility construction, site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall. In an effort to minimize the risk of encountering archeological resources related to the historic rail line, the number of times the proposed water, sewer, and/or electric lines cross the rail lines or the existing foundation has been minimized to the extent possible. Utility lines should go under the existing rail lines where present.

#### ***Interpretive Elements near Fort Pickens***

The pedestrian walkway to Fort Pickens from the ferry landing area is a focal point of the site. The walkway would be in line with the historic narrow gauge rail line that ran from the mine storage and mine loading buildings through the fort gate. The walkway would be approximately 15 feet wide, approximately 10 feet wider than the historic rail line. The walkway would be constructed of a hardened surface designed to avoid damaging the historic fabric of the railroad and may be designed to express the historic rail lines. Along the walkway, the National Park Service would place interpretive signs and displays such as weaponry (cannon,



## Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-4  
Alternative 2: Utilities Updates at the Ferry Landing Area



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cannon balls, mines, ordinance, etc.) and benches. Interpretive features would be designed with sensitivity to the integrity of the surrounding cultural resources.

The walkway is intended to strategically draw visitors directly down the ferry landing ramp and towards the fort, helping to quickly disperse visitors in an efficient and orderly manner.

Some of the existing vehicle parking along the pedestrian walkway would be reconfigured, including relocating the accessible parking spaces near the fort in order to accommodate a shuttle stop at the fort, as depicted in figure C-5.

### ***Restroom near Battery 234***

In the future, a new restroom facility could be constructed near the Battery 234 shuttle stop (figures C-6 and C-7) to accommodate anticipated increase in use of this beach. The new facility would consist of basic men's and women's restrooms, each with a single toilet and sink, and an outdoor shower column for beach goers. A frost-free water hydrant would be provided near the restroom for visitor and maintenance staff use. The required utilities include water, sanitary, sewer and electric service to the comfort station. The proposed utilities would be routed along the western shoulder of the Battery 234 and Battery Cooper loop road to the intersection at Fort Pickens Road. The water would be connected to the existing 6-inch waterline located on the south side of Fort Pickens Road. Both the sanitary sewer and electric would be bored under Fort Pickens Road with the sewer connected to the existing 3-inch sewer forcemain located on the north side of Fort Pickens Road. The electrical service would be connected to the nearest point of service, also on the north side of Fort Pickens Road.

Any wayfinding or orientation signs would be designed with sensitivity to the integrity of the surrounding cultural resources.

### ***Campground Store Shade Shelter***

A new shade shelter would be constructed in the campground store parking lot, adjacent to the eastern corner of the building (figure C-8). The structure would have no walls and be up to 18 feet by 18 feet and would remove up to 3 parking spaces. The shelter would provide a waiting area for shuttle passengers.

### ***Shuttle Service***

In addition to the improvements of the ferry landing area, the concessioner would provide a shuttle service within the Fort Pickens Area (figure C-2). The national seashore would purchase a fleet of 5 electric shuttles, and 2 shuttles would provide service to 8 stops in the Fort Pickens Area in 15-minute intervals:

- Ferry landing area
- Auditorium and museum
- Battery 234
- Battery Cooper
- Battery Worth
- Worth Beach access



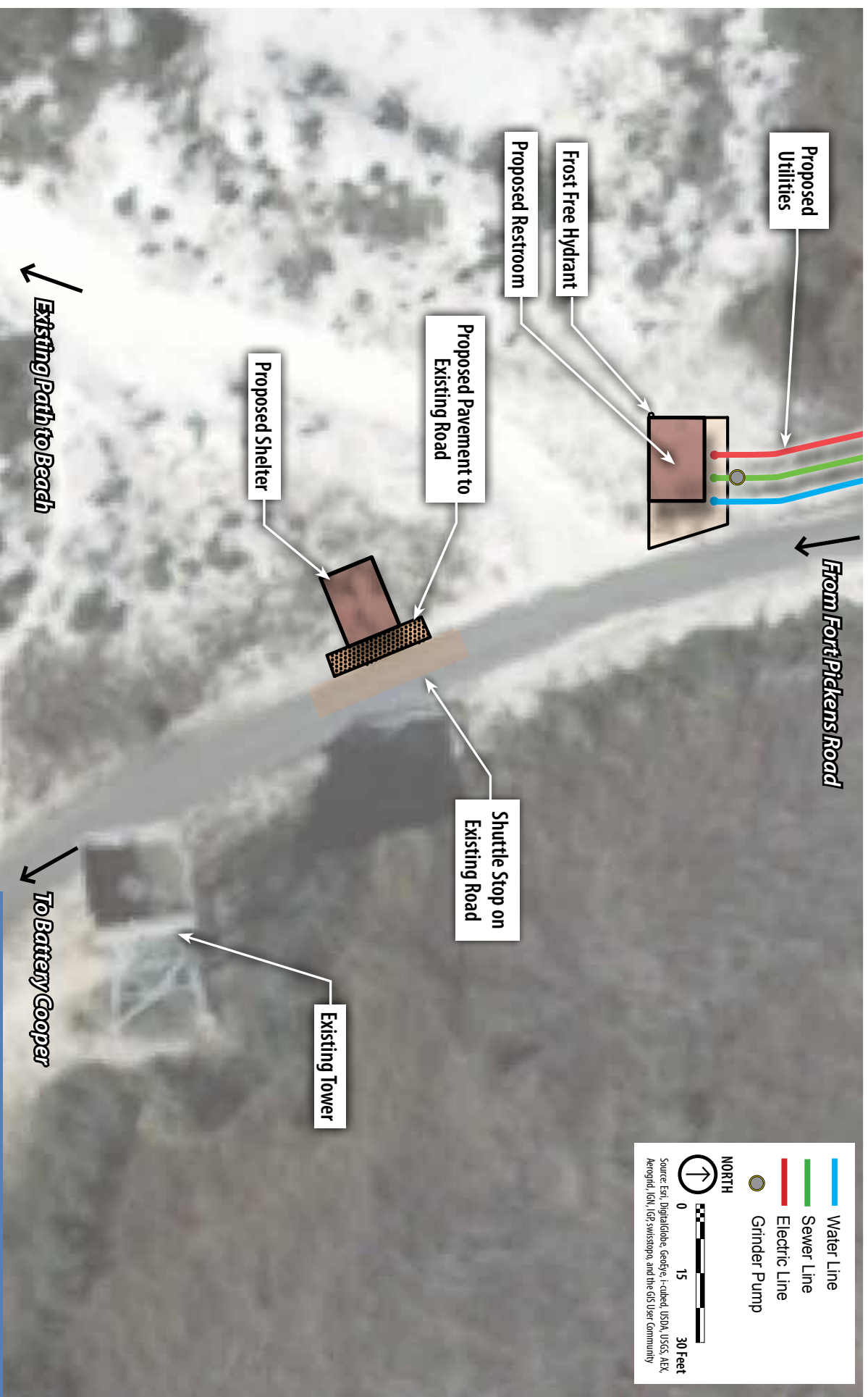
## Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-5  
Alternative 2: Proposed Reconfiguration of the Fort Pickens Parking Area



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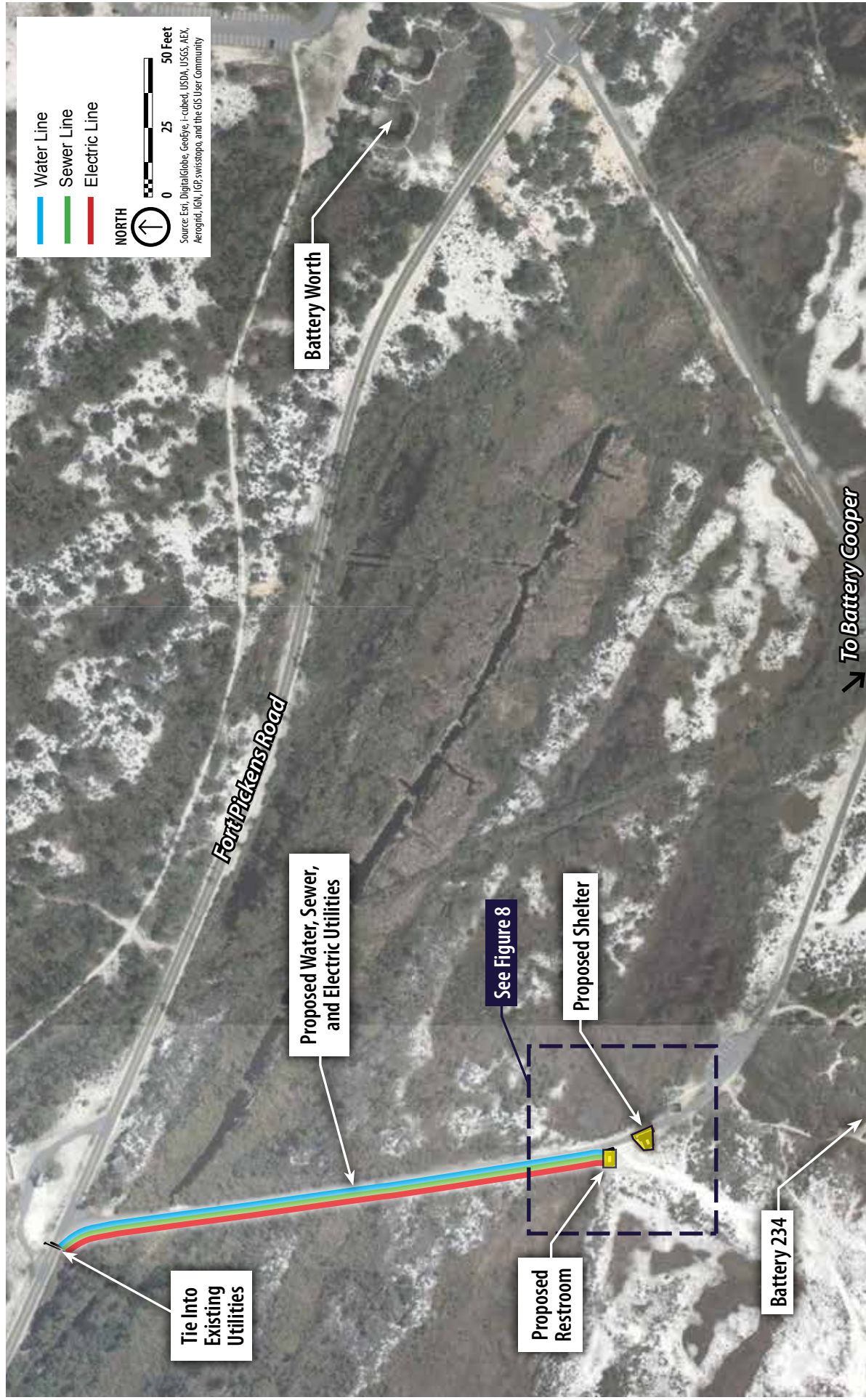
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FIGURE C-6  
Alternative 2: Proposed Restroom  
at Battery 234



## Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-7  
Alternative 2: New Utilities for Restroom at Battery 234





## Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-8  
Alternative 2: Proposed Shade Shelter  
at Campground Store



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Gulf Islands National Seashore

- Campground store
- Fort Pickens

Shuttles would comprise an electric tram unit and a passenger trailer, which together would accommodate up to 27 passengers. Passengers would be permitted to bring personal belongings on the shuttle; as such, shuttle capacity could be less than 27 passengers.

### ***Battery Langdon***

The shuttles would be stored in Battery Langdon, specifically the east casemate chamber and the corridors leading to that chamber. The shuttles would enter via the existing concrete-paved driveway access to the rear (north) doors of the battery and exit through the doors facing the gulf (south). Four would typically be used each day, and one would be kept for use if one of the other four needed repairs.

At the end of each shift, drivers would be able to wash off the shuttles, if necessary, and would then park them inside Battery Langdon and plug in each vehicle. The charging would be done in-vehicle, using standard 110 volt power. A solar photovoltaics (PV) system would provide power. The solar PV system would be installed on a nearby picnic shelter. Parking for driver's personal cars would be at the adjacent picnic pavilion or at the nearby maintenance facility.

Renovation to accommodate the shuttles would include removal of debris inside the battery, upgrading the electrical service to accommodate the charging locations, modifying the nonhistoric doors to the casemate, and constructing a driveway from the front door to the parking lot on Fort Pickens Road. In addition, the concrete access road to the north doors of Battery Langdon would be repaired or replaced in kind. A water spigot connection would be provided at the edge of the pavement (figure C-9) for washing the shuttles. The spigot would be connected via a 1-inch waterline to the existing 3-inch waterline located north of the road in the vicinity of the existing shelter. Wash water would only contain particulates that already exist within the Fort Pickens Area (e.g., salt and sand) because the electric shuttles would not leak fluids, and particulates in the wash water would be filtered through infiltration in the adjacent sand.

## **NPS PREFERRED ALTERNATIVE**

Based on the planning efforts leading up to and included in this environmental assessment, the National Park Service has identified alternative 2 as the NPS Preferred Alternative. Alternative 2 best meets the project objectives to improve visitor experience by providing a gateway experience through improved landside facilities near the ferry pier and to provide access to visitor amenities within the Fort Pickens Area. Alternative 2 would provide a wide range of benefits to national seashore visitors while preserving and interpreting cultural resources.

## **4.0 PROJECT AREA DESCRIPTION**

Gulf Islands National Seashore (the national seashore) is located along 160 miles of the Gulf of Mexico in Escambia, Santa Rosa, and Okaloosa Counties in Florida, and Jackson, Harrison, and Hancock Counties in



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Fort Pickens Ferry Support Facilities and  
Shuttle Service Biological Assessment

FIGURE C-9  
Proposed Shuttle Use of Battery Langdon  
and Surrounding Area

Mississippi. The national seashore was established to “preserve for public use and enjoyment certain areas possessing outstanding natural, historic, and recreational values” (16 US Code [USC] 459h) and encompasses 139,175 acres in Florida and Mississippi, approximately 82% of which is water (NPS 2014a).

The Fort Pickens Area is in the Florida District of Gulf Islands National Seashore and is a fragile, 7-mile long section of barrier island separating Pensacola Bay from the Gulf of Mexico. It comprises the westernmost section of Santa Rosa Island and is adjacent to the community of Pensacola Beach. The Fort Pickens Area is a destination for some 700,000 visitors annually and is one of the largest tourist draws for the heavily tourist-dependent economy of the Pensacola and Pensacola Beach area. In addition to Fort Pickens historic sites and the fort grounds, the Fort Pickens Area provides visitors with recreational opportunities for swimming, beach activities, fishing, shelling, hiking, bicycling, camping, and educational programs focused on its diverse marine and land ecosystems.


Gulf Island National Seashore’s Fort Pickens Area is approximately 15 miles from Pensacola, Florida. The project area includes approximately 350 acres of the western end of Santa Rosa Island managed by the National Park Service (figures C-10 and C-11). The project area can be accessed by water, but public docks are not available within the national seashore. The majority of visitors access the national seashore on Fort Pickens Road by way of Pensacola Beach, Florida. Fort Pickens Road is closed an average of 10 to 12 times each year due to weather events that overwash the roadway with sand. In addition to the roadway and natural resources, cultural resources, the facilities in the Fort Pickens Area include many historic structures such as the brick fort and concrete gun batteries which were built between 1829 and the 1940s, as well as other historic structures which were associated with the fort and have been adaptively reused as the natural resources museum, restrooms, and residences.


As stated above, the majority of the Fort Pickens Area consists of marine and estuary habitats. Natural terrestrial communities within the Fort Pickens Area include beach, beach dune, coastal scrub, shrub wetlands, and coastal interdunal swale. Primary vegetation within beach and dune areas consists of grass species including sea oats, seashore paspalum, and seashore dropseed. Other species include railroad vine, beach morning glory, and goldenaster. Coastal scrub areas are dominated by scrub oak species with saw palmetto, yucca, and pricklypear. Wetlands are dominated by sawgrass, saltmarsh cordgrass, and saltmeadow cordgrass.


The new facilities proposed for the action alternative would be constructed within disturbed areas adjacent to existing buildings, roads, and parking lots, rather than within undisturbed habitats present throughout the park. No aquatic habitats would be impacted by the proposed action.

## **5.0 PRE-FIELD REVIEW**

Species lists from the USFWS (dated January 19, 2015) with all federally listed and candidate species within the Fort Pickens Area of Escambia County, Florida were reviewed for this analysis. Additional species were included in this list based on a desktop survey including a cumulative summary of biological inventory data collected within the national seashore by the NPS Inventory and Monitoring Program (NPS 2010) and the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (FNAI 2013). Although it has been delisted, the bald eagle was also included. Using this list, those species with the potential to


**Project Area (353.47 Acres)**

**NORTH**  



**2,000 Feet**  
 0

Source: Esri, DigitalGlobe, GeoEye, Earthstar USNA, USDA, USGS, AeroGRID, IGN, iGP, swisstopo, and the GIS User Community

GULF  
OF  
MEXICO

PENSACOLA BAY



Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-10  
Project Area



National Park Service  
U.S. Department of the Interior  
Gulf Islands National Seashore



Fort Pickens Ferry Support Facilities and Shuttle Service Biological Assessment

FIGURE C-11  
Project Area - Ferry Arrival Detail



occur within the analysis area (shown in table C-1 below) were determined. Species not known or with no potential of occurring in the analysis area are documented with rationale in table C-1 and will not be discussed further in this document. Excluded species have been dropped from further analysis by meeting one or more of the following conditions:

- species does not occur nor is expected in the project area during the time period activities would occur;
- occurs in habitats that are not present; and/or
- is outside of the geographical or elevational range of the species.

In addition, table C-1 below gives a very brief summary of federally listed/candidate species, designated critical habitat, species' habitat requirements, and occurrence information of species that are known to or may occur in the analysis area.

Within the analysis area, there is no proposed or designated critical habitat for any federally listed species addressed in this assessment; therefore, there will be no direct, indirect, or cumulative effects. Critical habitat will not be addressed further in this assessment.

## 6.0 SPECIES CONSIDERED AND EVALUATED

The following table indicates whether species from the USFWS official species list (dated January 19, 2015) are known or expected to occur within the analysis/action area, suitable habitat is present, or if not why they are excluded from further analysis (with rationale). The U.S. Fish and Wildlife Service species list (USFWS 2015a) was obtained and reviewed and species not having the potential to occur were excluded from further review with a no effect determination.

TABLE C-1. THREATENED, ENDANGERED, CANDIDATE/PROPOSED SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE ACTION/ANALYSIS AREA

Species Common and Scientific Name	Federal Status <sup>1</sup>	State Status <sup>2</sup>	Potential to Occur	Rationale for Exclusion <sup>3</sup>	Habitat Description and Range in Florida
<b>MAMMALS</b>					
Santa Rosa beach mouse <i>Peromyscus polionotus trisyllepsis</i>	E	E	No	ODR	Beach dunes
West Indian Manatee <i>Trichechus manatus</i>	E	E	No	HAB	Coastal waters, bays, rivers, lakes

<sup>1</sup> Federal Status Codes: E=federally listed endangered; T=federally listed threatened; P= federally proposed for listing; C= federal candidate for listing; and CH=designated critical habitat;

<sup>2</sup> State Status Codes: E=state listed endangered; T=state listed threatened; and SSC= state listed species of special concern;

<sup>3</sup> Exclusion Rationale Codes: ODR=outside known distributional range of the species; HAB= no habitat present in analysis area; ELE= outside of elevational range of species; and SEA=species not expected to occur during the season of use/impact

TABLE C-1. THREATENED, ENDANGERED, CANDIDATE/PROPOSED SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE ACTION/ANALYSIS AREA (CONTINUED)

Species Common and Scientific Name	Federal Status <sup>1</sup>	State Status <sup>2</sup>	Potential to Occur	Rationale for Exclusion <sup>3</sup>	Habitat Description and Range in Florida
<b>AMPHIBIANS AND REPTILES</b>					
Alligator snapping turtle <i>Macroclmys temminckii</i>	--	SSC	No	HAB	Rivers, lakes, and waterways
American Alligator <i>Alligator mississippiensis</i>	SAT	SAT	No	HAB	Permanent bodies of freshwater
Eastern indigo snake <i>Drymarchon corais couperi</i>	T	T	No	HAB	Mesic and xeric upland habitats
Gopher tortoise <i>Gopherus polyphemus</i>	C	C	No	HAB	Dry, sandy uplands
Green sea turtle <i>Chelonia mydas</i>	E	E	Yes		Costal and oceanic waters
Hawksbill sea turtle <i>Eremochelys imbricata</i>	E	E	Yes		Costal and oceanic waters
Kemp's Ridley sea turtle <i>Lepidochelys kempii</i>	E	E	Yes		Costal and oceanic waters
Leatherback sea turtle <i>Demochelys coriacea</i>	E	E	Yes		Costal and oceanic waters
Loggerhead sea turtle <i>Caretta caretta</i>	T	T	Yes		Costal and oceanic waters
Reticulated flatwoods salamander <i>Ambystoma bishopi</i>	E	E	No	HAB	Pine flatwoods with wetlands
Frosted flatwoods salamander <i>Ambystoma cingulatum</i>	--	SSC	No	HAB	Pine flatwoods with wetlands
<b>BIRDS</b>					
American oyster catcher <i>Haematopus palliatus</i>	--	SSC	Yes		Beaches, sandbars, mudflats
Bald eagle <i>Haliaeetus leucocephalus</i>	DL	DL	Yes		Lakes, ponds, coastal waters and adjacent upland habitats
Black skimmer <i>Rhychops niger</i>	--	SSC	Yes		Coastal waters and beaches
Brown pelican <i>Pelecanus occidentalis</i>	--	SSC	Yes		Coastal estuarine waters
Burrowing owl <i>Athene cunicularia</i>	--	SSC	No	ODR	Sparsely vegetated sandy uplands
Least tern <i>Sterna antillarum</i>	--	T	Yes		Beaches, estuaries, and oceans
Little blue heron <i>Egretta caerulea</i>	--	SSC	No	HAB	Shallow freshwater wetlands
Marian's marsh wren <i>Cistothorus palustris mariana</i>	--	T	No	HAB	Spartina and black rush marshes

<sup>1</sup> Federal Status Codes: E=federally listed endangered; T=federally listed threatened; P= federally proposed for listing; C= federal candidate for listing; and CH=designated critical habitat;

<sup>2</sup> State Status Codes: E=state listed endangered; T=state listed threatened; and SSC= state listed species of special concern;

<sup>3</sup> Exclusion Rationale Codes: ODR=outside known distributional range of the species; HAB= no habitat present in analysis area; ELE= outside of elevational range of species; and SEA=species not expected to occur during the season of use/impact

TABLE C-1. THREATENED, ENDANGERED, CANDIDATE/PROPOSED SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE ACTION/ANALYSIS AREA (CONTINUED)

Species Common and Scientific Name	Federal Status <sup>1</sup>	State Status <sup>2</sup>	Potential to Occur	Rationale for Exclusion <sup>3</sup>	Habitat Description and Range in Florida
<b>BIRDS (Continued)</b>					
Piping plover <i>Charadrius melodus</i>	T	T	Yes		Beaches and tidal mudflats
Red knot <i>Calidris canutus rufa</i>	T	T	Yes		Beaches
Red-cockaded woodpecker <i>Picoides borealis</i>	E	E	No	HAB	Open mature pine woodland
Reddish egret <i>Egretta rufescens</i>	--	SSC	No	HAB	Beaches and tidal mudflats
Snowy egret <i>Egretta thula</i>	--	SSC	No	HAB	Inland and coastal wetlands
Snowy plover <i>Charadrius alexandrinus</i>	--	T	Yes		Beaches and tidal mudflats
Southeastern American kestrel <i>Falco sparverius</i>	--	T	Yes		Woodlands, prairies, pastures
Tricolor heron <i>Egretta tricolor</i>	--	SSC	No	HAB	Inland and coastal wetlands
White ibis	--	SSC	No	HAB	Freshwater and brackish marshes
Wood stork <i>Myceteria americana</i>	E	E	No	HAB	Wetlands
<b>FISHES</b>					
Atlantic sturgeon (Gulf subspecies) <i>Acipenser oxyrinchus desotoi</i>	T	T	No	HAB	Coastal waters, bays, and rivers
Bluenose shiner <i>Pteronotropis welaka</i>	--	SSC	No	HAB	Rivers, streams, and springs
Saltmarsh topminnow <i>Fundulus jenkinsi</i>	--	SSC	No	HAB	Salt marshes and estuaries
<b>CLAMS</b>					
Choctaw bean <i>Villosa choctawensis</i>	E	E	No	HAB	Freshwater creeks and rivers
Fuzzy pigtoe <i>Pleurobema strodeanum</i>	T	T	No	HAB	Freshwater creeks and rivers
Narrow pigtoe <i>Fusconaia escambia</i>	T	T	No	HAB	Freshwater creeks and rivers
Round ebonyshell <i>Fusconaia rotulata</i>	E	E	No	HAB	Freshwater creeks and rivers

<sup>1</sup> Federal Status Codes: E=federally listed endangered; T=federally listed threatened; P= federally proposed for listing; C= federal candidate for listing; and CH=designated critical habitat;

<sup>2</sup> State Status Codes: E=state listed endangered; T=state listed threatened; and SSC= state listed species of special concern;

<sup>3</sup> Exclusion Rationale Codes: ODR=outside known distributional range of the species; HAB= no habitat present in analysis area; ELE= outside of elevational range of species; and SEA=species not expected to occur during the season of use/impact

TABLE C-1. THREATENED, ENDANGERED, CANDIDATE/PROPOSED SPECIES WITH THE POTENTIAL TO OCCUR WITHIN THE ACTION/ANALYSIS AREA (CONTINUED)

Species Common and Scientific Name	Federal Status <sup>1</sup>	State Status <sup>2</sup>	Potential to Occur	Rationale for Exclusion <sup>3</sup>	Habitat Description and Range in Florida
<b>PLANTS</b>					
Godfrey's goldenaster <i>Chrysopsis godfreyi</i>	--	E	Yes		Back dunes and coastal scrub
Cruise's goldenaster <i>Chrysopsis gossypina</i> subsp. <i>cruiseana</i>	--	E	Yes		Coastal dunes
Curtiss' sandgrass <i>Calamovilfa curtissii</i>	--	T	No	HAB	Pinelands, wet prairies, marshes
Sweetshrub <i>Calycanthus floridus</i>	--	E	No	HAB	Slope forest, bottomland forest
Spoonleaf sundew <i>Drosera intermedia</i>	--	T	No	HAB	Wet flatwoods, depression marshes
Largeleaf jointweed <i>Polygonella macrophylla</i>	--	T	Yes		Sand pine / oak scrub

<sup>1</sup> Federal Status Codes: E=federally listed endangered; T=federally listed threatened; P= federally proposed for listing; C= federal candidate for listing; and CH=designated critical habitat;

<sup>2</sup> State Status Codes: E=state listed endangered; T=state listed threatened; and SSC= state listed species of special concern;

<sup>3</sup> Exclusion Rationale Codes: ODR=outside known distributional range of the species; HAB= no habitat present in analysis area; ELE= outside of elevational range of species; and SEA=species not expected to occur during the season of use/impact

As indicated in the above table, there are eight federally listed threatened or endangered, candidate/proposed species (bald eagle, piping plover, red knot, green sea turtle, hawksbill sea turtle, Kemp's Ridley sea turtle, leatherback sea turtle, and loggerhead sea turtle) occurring or with the potential to occur (i.e., habitat is present). Therefore, only those species will be addressed hereafter in this assessment (evaluated species). The remaining species shown above without a potential to occur will not be analyzed further based on the rationale provided. The proposed action will have no effect on any of these other species.

## 7.0 EVALUATED SPECIES INFORMATION

### 7.1 FIELD RECONNAISSANCE

No field surveys have been conducted at this time. The species considered in this analysis are highly mobile and known to be present within the Fort Pickens Area, at least seasonally. Therefore a survey to indicate presence was deemed unnecessary. The majority of the listed species nest within the project area. Because nesting is seasonal and nests are established in different locations each year, surveys will be conducted during nesting season prior to construction activities to determine nest presence.

## 7.2 SPECIES STATUS AND BIOLOGY

### Federal Species

#### ***Birds***

Bald eagle – The bald eagle was listed as a federally endangered or threatened species until 2007 when it was determined the species had recovered and could be delisted. Currently the bald eagle is protected by the *Bald and Golden Eagle Protection Act*, the *Migratory Bird Treaty Act*, and the *Lacey Act* (18 USC 42-43; 16 USC 3371-3378). The adult bald eagle is a large raptor identified by a white head and tail with dark brown wings and body. Immature and subadult plumage varies depending on molt but can be described as mottled brown on white with a generally brown head and tail. Bald eagles use a number of habitats for foraging but typically prefer to perch and hunt near large bodies of water. Fish are their primary food source and they also feed on small mammals, birds, reptiles, amphibians, and carrion (FWC 2015b).

Piping plover – The piping plover is listed as Threatened by the US Fish and Wildlife Service. It is a small shorebird with a white belly, pale gray back and head, bright orange legs, and an orange and black bill (FWC 2015c). Breeding piping plovers have a black ring partially around their neck and a black stripe on their forehead (FNAI 2001a). Their diet consists primarily of crustaceans, marine worms, and other invertebrates found on beaches, typically within the intertidal zone. Piping plovers spend a portion of the year “wintering” in Florida but do not breed here (USFWS 2014a). Their primary habitat in the Fort Pickens Area consists of sandy beaches, mud flats, and sand flats.

Red knot – The red knot is a medium to large sandpiper listed as Threatened by the US Fish and Wildlife Service. The head and breast are reddish-brown in breeding plumage, but gray at other times of the year. The back is finely mottled with white, black, and gray. Red knots migrate over 9,300 miles in the spring and autumn between the Canadian Arctic and the shorelines of Chile and Argentina. During migrations they form large groups at stopover points where they rely on an abundance of food sources, including juvenile shellfish and horseshoe crab eggs, to support their long migration. Populations have declined in the 2000s primarily due to overharvesting of horseshoe crabs in Delaware Bay, an important stopping point on their migratory route. Florida is also an important feeding location on their migratory route and red knots are regularly identified within the Fort Pickens Area during migrations (USFWS 2014b).

#### ***Sea Turtles***

Green sea turtle – The green sea turtle is a relatively large sea turtle federally listed as endangered for breeding and nesting populations in Florida. All other populations are listed as threatened. Carapace coloration is yellow to green to brown and scutes are smooth. Green sea turtles are typically found within shallow waters associated within reefs, bays, and other areas where sea grasses may be present. Adults are herbivorous and feed primarily on sea grass and algae. Primary threats to green sea turtles include entanglement in fishing gear, illegal harvesting of eggs from beach nesting areas, and shoreline development which disturbs nesting and may lead hatchlings away from the water with artificial lighting. Nesting typically occurs between June and September in the Southeastern United States (US), and females lay several clutches during each nesting season (NMFS 2014a). Green sea turtles nest within the Fort Pickens Area at regular intervals although nests are few in number.

Hawksbill sea turtle – The hawksbill sea turtle is a relatively small sea turtle federally listed as Endangered. The elongated head, tapering to a point, and beak-like mouth give the species its name. The carapace is brown with streaks of orange, red, and black, and scutes are overlapping. Adult hawksbills feed primarily on organisms associated with healthy coral reefs. Females nest every two to three years and generally return to the same beach where they were born. Nesting usually occurs between April and November. Nest are usually excavated high on the beach or in the beach dune vegetation. (NMFS 2014b). Hawksbill sea turtles are relatively rare within the waters of the Fort Pickens Area although occurrences have been recorded.

Kemp's Ridley sea turtle – The Kemp's ridley sea turtle is federally listed as Endangered. Adult Kemp's ridleys are considered the smallest of the sea turtles reaching a maximum weight of approximately 100 pounds. They can be identified by the five pairs of costal scutes found on their carapace. Generally Kemp's ridley and olive ridley sea turtles (*Lepidochelys olivacea*) nest in large synchronized groups, or arribadas, at only a few specific beach sites, none of which are located in Florida. Individual Kemp's ridleys do regularly nest on Florida Gulf coast beaches between May and July, although in much smaller numbers (NMFS 2014c). Kemp's Ridley sea turtles occur in small numbers at regular intervals.

Leatherback sea turtle – The leatherback sea turtle is the largest of the sea turtles and federally listed as Endangered. Leatherbacks do not have a hard bony shell; rather, their carapace consists of leathery connective tissue over loosely connected dermal bone. The carapace has seven ridges which intersect at the tail. Leatherbacks primarily inhabit deep ocean areas foraging for pelagic organisms such as jelly fish, salps, and other soft-bodied prey. Nesting peaks in May in coastal Florida, but it has been observed from February to August (NMFS 2014d). In Florida, female leatherbacks normally use east coast beaches rather than migrating in the Gulf of Mexico to nest on Gulf beaches, although they have been recorded nesting along the Gulf shore. Leatherback sea turtles are relatively rare within the waters of the Fort Pickens Area although occurrences have been recorded.

Loggerhead sea turtle – The loggerhead turtle is federally listed as Threatened. It is the most abundant sea turtle found in US coastal waters. Loggerheads were named for their relatively large head which provides structure for jaws required to feed on hard-shelled prey such as conchs and welks. In the southeastern US nesting occurs between late April and early September. The loggerhead sea turtle is by far the most common sea turtle to nest on Florida's Gulf coast beaches including the Fort Pickens Area of the national seashore. Although the Gulf coast of Perdido Key is designated Critical Nearshore Reproductive Habitat, the beaches located within the Fort Pickens Area are not considered Critical Habitat for loggerheads (NMFS 2014e).

## **State Species**

### ***Birds***

Least tern – The least tern is a shorebird species listed as Threatened by the State of Florida. The least tern is the smallest of the tern species and can be identified by the black cap, mask-like black streak around the eyes, and bright yellow beak. The diet of the least tern consists primarily of fish with some small invertebrates. Nesting occurs from April to May, and nests consist of shallow depressions in bare beach sand into which the female lays her eggs. Least terns typically inhabit coastal areas in Florida such as estuaries, bays, and beaches (FWC 2015d). Least terns regularly nest on the beaches and dunes within the study area (Granger 2013; Granger 2015).

**Snowy plover** – The snowy plover is a small shorebird listed as Threatened by the State of Florida. Snowy plovers have a white belly, gray to light brown back, black beak, and black forehead. They subsist primarily on small invertebrates foraged within the intertidal zone. Nesting in Florida occurs between the months of February and August. Unlike many shorebirds, snowy plovers do not nest in colonies. Nests consist of small scrapes in the sand and are well camouflaged from predators. In Florida, snowy plovers inhabit the narrow fringe of sandy beaches along the coast of the Gulf of Mexico, and the breeding population occurs in two distinct groups, northwest Florida from Franklin County west and southwest Florida from Pasco to Collier Counties (FWC 2015e). Snowy plovers have been recorded within the national seashore (NPS 2010) and are known to nest annually within the Fort Pickens Area.

**Southeastern American kestrel** – The southeastern American kestrel is listed as Threatened by the State of Florida. It is the smallest falcon species in the US and has a brown back, white belly, and distinctive black marks extending from the eyes downward. Males have blue-gray wings and females have brown wings. Kestrels typically feed on small vertebrates and invertebrates such as grasshoppers and will perch to locate prey and catch it with their feet. Nesting occurs from March to June, and females will nest in tree cavities created by woodpeckers. The southeastern American kestrel inhabits open woodlands, sandhill, and pine savannahs (FWC 2015f). Southeastern American kestrels have not been recorded within the national seashore (NPS 2010) but they are a wide ranging species and appropriate habitat is located within the Fort Pickens Area.

## **Plants**

**Godfrey's goldenaster** – Godfrey's goldenaster is listed as Endangered by the State of Florida. It is a biennial or perennial herb with a basal rosette and stems to eighteen inches long. The species has two forms: one with dense wooly leaf hairs giving the plant a bluish tint and one having green leaves and glandular hairs. Yellow ray and disk flowers are clustered at the ends of stems, and flowering occurs from mid-October to mid-November. Godfrey's goldenaster is found in back dunes and sandy open areas in coastal scrubs (FNAI 2001b). Godfrey's goldenaster has been recorded within the Florida District of the Gulf Islands National Seashore (NPS 2010).

**Cruise's goldenaster** – Cruise's goldenaster is listed as Endangered by the State of Florida. It is a perennial herb with a basal rosette and multiple flowering stems. Cruise's goldenaster flowers from mid-October to mid-November, and the yellow ray and disk flowers occur in clusters at the ends of stems. This species is distinguished from other goldenasters by the unbranched sprawling stems and nearly hairless leaves. Cruise's goldenaster occurs on stable coastal dunes along the northern Gulf coast (FNAI 2001c). Cruise's goldenaster has been recorded within the Florida District of Gulf Islands National Seashore (NPS 2010).

**Largeleaf jointweed** – Largeleaf jointweed is listed as Threatened by the State of Florida. It is a perennial with a woody base and stems to three feet in height, the largest of the jointweed species. Leaves are alternate, and white to red flowers occur in dense terminal clusters. Largeleaf jointweed occurs in coastal sand pine (*Pinus clausa*) and oak scrub along the northern Gulf coast (NatureServe 2014). It has been recorded within the Florida District of Gulf Islands National Seashore (NPS 2010).

### ***Species of Special Concern***

State-listed species of special concern remaining in this analysis include American oystercatcher, black skimmer, and brown pelican. Brown pelicans are known to be present in the study area (Granger 2013; Granger 2015). The primary threats to these species include increased coastal and upland development and human disturbance.

## **8.0 ENVIRONMENTAL BASELINE**

As defined under the ESA, the environmental baseline includes past and present impacts of all federal, state, and private actions in the action area; the anticipated impacts of all proposed federal actions in the action area that have undergone formal or early section 7 consultation; and the impact of state and private actions which are contemporaneous with the section 7 consultation process. Future actions and their potential effects are not included in the environmental baseline. This section in combination with the previous section defines the current status of the species and its habitat in the action area and provides a platform to assess the effects of the proposed action under consultation with the USFWS/NMFS.

### **8.1 PREVIOUS CONSULTATIONS WITH THE USFWS/NMFS WITHIN THE ANALYSIS AREA**

TABLE C-2. PAST CONSULTATIONS WITH THE USFWS/NMFS AND DETERMINATIONS FOR ACTIONS WITHIN THE ANALYSIS/ACTION AREA FOR ALL FEDERALLY LISTED AND PROPOSED SPECIES

Project	Park Unit	Type of Project	Species Addressed	Determination <sup>1</sup>	Date
Fort Pickens Pier & Ferry Service	Fort Pickens	Transportation	Green sea turtle Hawksbill sea turtle Kemp's Ridley sea turtle Leatherback sea turtle Loggerhead sea turtle Shorebirds	NLAA NLAA NLAA NLAA NLAA NLAA	2011
Beach Enhancement Project	Fort Pickens	Habitat Enhancement	Green sea turtle Hawksbill sea turtle Kemp's Ridley sea turtle Leatherback sea turtle Loggerhead sea turtle Piping plover Red knot	NLAA NLAA NLAA NLAA NLAA NLAA NLAA	2014
Fort Pickens Road Realignment	Fort Pickens	Transportation	Green sea turtle Hawksbill sea turtle Kemp's Ridley sea turtle Leatherback sea turtle Loggerhead sea turtle Piping plover Other listed shorebirds	NLAA NLAA NLAA NLAA NLAA NLAA NLAA	2014

<sup>1</sup> ESA determinations: NE = No effect, NLAA = May affect, not likely to adversely affect, and LAA = May affect, likely to adversely affect.

## 8.2 PAST AND CURRENT ACTIVITIES WITHIN THE ANALYSIS AREA

The Fort Pickens Area is in the Florida District of Gulf Islands National Seashore and is a fragile, 7-mile long section of barrier island separating Pensacola Bay from the Gulf of Mexico. It comprises the westernmost section of Santa Rosa Island and is adjacent to the community of Pensacola Beach. The Fort Pickens Area is a destination for some 700,000 visitors annually and is one of the largest tourist draws for the heavily tourist-dependent economy of the Pensacola and Pensacola Beach area. In addition to Fort Pickens historic sites and the fort grounds, the Fort Pickens Area provides visitors with recreational opportunities for swimming, beach activities, fishing, shelling, hiking, bicycling, camping, and educational programs focused on its diverse marine and land ecosystems.

Due to public use of the Fort Pickens Area minimal impacts on protected species and wildlife habitat are expected over many years. Potential impacts include continued mortality of least tern and snowy plover from vehicle strikes on Fort Pickens Road (Cohen and Durkin 2013) and continued disturbance of habitat for species such as Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed. It is likely that wildlife within the vicinity of Fort Pickens and Fort Pickens Road have become habituated to human activity along the road and paths and would not be seriously affected by continued or increasing public use.

## 9.0 EFFECTS TO EVALUATED SPECIES AND DETERMINATIONS

### 9.1 FEDERALLY LISTED SPECIES

#### Direct and Indirect Effects

##### *Bald Eagle*

Under the proposed action, bald eagles could be affected in the following ways:

- Disturbance of foraging activities by construction noise and machinery.

The increased noise and machinery may cause bald eagles to vacate certain hunting or perching locations. Eagles are highly mobile and have large foraging territories, so it is anticipated disturbed eagles will move to another location while construction is occurring. There is an abundance of suitable foraging and roosting habitat within GUIS and within range of the construction areas to which eagles would be expected to move.

Due to these factors, the proposed action **may affect, but is not likely to adversely affect** the bald eagle.

##### *Piping Plover*

Under the proposed action, piping plovers could be affected in the following ways:

- Disturbance of foraging activities by construction noise and machinery;

- Disturbance or removal of small areas of degraded foraging habitat by construction;
- Disturbance of foraging activities by increased visitor use of specific locations within the Fort Pickens Area, particularly the beach at Battery 234; and
- Incremental, long term degradation of habitat adjacent to areas of increased public use.

Piping plovers have been recorded within the Fort Pickens area of the national seashore (NPS 2014c), but no wintering piping plover critical habitat is located within the project area (USFWS 2015). Habitats within the Fort Pickens Area are used for foraging and roosting by piping plover. Birds may be startled and flush from foraging or roosting locations by noise associated with construction activities. It is anticipated plovers would move away from the disturbance to other suitable areas with similar habitat. There is an abundance of suitable foraging and roosting habitat within GUIS and within range of the construction areas to which plovers would be expected to move. The noise produced by the machinery and movement of the machinery and personnel within the vicinity of proposed construction areas may disturb the piping plover present on site, but they could avoid disturbance by moving into adjacent areas of unimpacted habitat. Therefore we would not expect startling and temporary displacement to interrupt or have long-term consequences to normal behaviors.

A small amount of low quality foraging habitat would be removed or disturbed by new construction and utility installation including temporary impacts caused by heavy equipment. Although most of these habitats had been previously disturbed, they may be used for foraging by piping plover. Where feasible, construction mats would be utilized to protect soils from disturbance caused by construction machinery. All disturbed areas would be revegetated after the completion of construction activities (see Section 11).

Shuttle operation may affect piping plover, but it is unlikely to be adverse. The shuttle service would be limited to a maximum speed of 15 miles per hour, and shuttle operators would be formally trained to recognize small, cryptic species and avoid impacts. Due to the relatively low speed of the shuttles and special training of shuttle operators, it is unlikely special status species mortality from shuttle vehicle strikes would occur. No vehicle collisions with piping plover have been recorded along Fort Pickens Road (Cohen and Durkin 2013).

Additional public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts to piping plover. Although they may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on habitat, and therefore plovers, would likely occur over many years. Potential impacts include disturbance of foraging habitat and flushing from foraging areas.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** the piping plover.

### ***Red Knot***

Under the proposed action, red knot could be affected in the following ways:

- Disturbance of foraging activities by construction noise and machinery;
- Disturbance or removal of small areas of degraded foraging habitat by construction;

- Disturbance of foraging activities by increased visitor use of specific locations within the Fort Pickens Area, particularly the beach at Battery 234; and
- Incremental, long term degradation of habitat adjacent to areas of increased public use.

Florida is an important feeding location for red knots on their migratory route between nesting in the Canadian arctic and wintering in Chile and Argentina, and red knots are regularly identified within the national seashore during migrations (USFWS 2014b). Habitats within the Fort Pickens Area are used for foraging and roosting by red knots. Red knots may be affected by the proposed action similarly to the piping plover. Construction noise and activity may disturb foraging activities; however, it is anticipated red knots would move other suitable habitats within the Fort Pickens Area.

A small amount of low quality foraging habitat would be removed or disturbed by new construction and utility installation including temporary impacts caused by heavy equipment. Although most of these habitats had been previously disturbed, they may be used for foraging by red knots. Where feasible, construction mats would be utilized to protect soils from disturbance caused by construction machinery. All disturbed areas would be revegetated after the completion of construction activities (see Section 11).

Shuttle operation may affect red knots, but it is unlikely to be adverse. The shuttle service would be limited to a maximum speed of 15 miles per hour, and shuttle operators would be formally trained to recognize small, cryptic species and avoid impacts. Due to the relatively low speed of the shuttles and special training of shuttle operators, it is unlikely special status species mortality from shuttle vehicle strikes would occur. No vehicle collisions with red knots have been recorded along Fort Pickens Road (Cohen and Durkin 2013).

Additional public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts to red knots. Although they may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on habitat, and therefore red knots, would likely occur over many years. Potential impacts include disturbance of foraging habitat and flushing from foraging areas.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** the red knot.

### ***Sea Turtles***

Five species of sea turtle are found within the waters surrounding the Fort Pickens Area, and several of those species have been recorded nesting on the beaches. Under the proposed action, sea turtles could be affected in the following ways:

- Disturbance of nests, nesting females, or hatchlings by visitors;
- Disturbance of nocturnal activities by artificial lighting installed on new structures; and
- Potential disturbance by shuttle service.

The proposed action will not impact any aquatic environments; therefore only terrestrial sea turtle activities including nesting and hatchling behavior may be affected by the proposed activities.

Loggerhead turtles constitute the majority of sea turtle nesting in the GUIS Florida District. Atlantic green sea turtles occasionally nest in the GUIS Florida District, and five Kemp's Ridley nests and one leatherback sea turtle nest have been documented in recent years (NPS 2006).

Additional public use near the ferry pier and on the beach at Battery 234 may cause impacts to sea turtle nests and sea turtles, particularly day nesting turtle species. During sea turtle nesting season beaches within all areas of the GUIS including the Fort Pickens area are patrolled every morning, and all sea turtle nests are staked and flagged to prevent beachgoers from unintentionally damaging nests. The National Park Service also provides information on sea turtles and other nesting species to the public including signs and educational displays. These protective measures significantly reduce the potential for park visitors to impact sea turtle nests on the beaches, and it is anticipated impacts on sea turtles would be rare.

Impacts on sea turtles would also occur from artificial lighting installed at the locations of the new buildings at the ferry landing, Battery Langdon, and Battery 234. If artificial lighting is deemed necessary, wildlife certified LED lighting directed downwards, as is commonly used on the sea turtle nesting beaches in Florida (approved by FWC and USFWS), would be used to reduce the potential impacts to nesting sea turtles and hatchlings.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** sea turtles.

### **Cumulative Effects**

Cumulative effects are defined somewhat differently under the Endangered Species Act and the National Environmental Policy Act. Under the Endangered Species Act, cumulative effects include the environmental baseline plus the additive effect of reasonably foreseeable future state, private and tribal activities. Under ESA cumulative effects, the effect of future federal actions is not considered. Under the National Environmental Policy Act, the cumulative effects are almost identical to those described for the Endangered Species Act, the only difference being that cumulative effects under the National Environmental Policy Act also include the effect from reasonably foreseeable future federal actions as well.

The National Park Service manages all activities within the Fort Pickens area of the national seashore; therefore there are no cumulative impacts to federally threatened or endangered species within the study area.

### **Interrelated and Interdependent Actions and Their Effects**

No interrelated or interdependent actions are proposed.

### **Incidental Take**

No incidental take (as defined by the Endangered Species Act) is anticipated for any federally listed species with the implementation of the proposed action.

## Effect Determination

The implementation of the Endangered Species Act often requires an evaluation of the effects of human activity on listed species and their habitats. The potential for hindering the attainment of a properly functioning environment for protected species is an example of one of questions posed by the dichotomous key for making a determination of effect. Potential impediments to a properly functioning environment may include physical barriers, and impacts to water quality, species disturbance, and habitat removal, for example. The following questions were reviewed and addressed as part of the decision-making process to make the determination of effect:

*Are there any proposed/listed species and/or proposed or designated critical habitat in the project area or downstream from the project area?*

Answer: Yes.

*Does the proposed action have the potential to hinder attainment of relevant properly functioning indicators?*

Answer: No.

*Does the proposed action have the potential to result in “take” of proposed/listed species or destruction/adverse modification of proposed/designated critical habitat?*

Answer: Yes, but not likely with mitigation (Section 10).

The information available for the project has been analyzed, and it has been concluded that the proposed action would have a negligible probability of take of listed species, which is summarized in table C-2. The rationale for each of these determinations is included in the discussion of direct and indirect effects.

TABLE C-3: FEDERALLY LISTED SPECIES EFFECTS DETERMINATIONS

Listed Species/Critical Habitat	Determination of Effect
Green sea turtle	Not likely to adversely affect
Hawksbill sea turtle	Not likely to adversely affect
Kemp's Ridley sea turtle	Not likely to adversely affect
Leatherback sea turtle	Not likely to adversely affect
Loggerhead sea turtle	Not likely to adversely affect
Bald eagle	Not likely to adversely affect
Piping plover	Not likely to adversely affect
Red knot	Not likely to adversely affect

## 9.2 CRITICAL HABITAT

No critical habitat is located within the study area.

## 9.3 STATE OR LOCALLY LISTED SPECIES OF CONCERN

### Direct and Indirect Effects

#### *Birds:*

##### *Least Tern*

Under the proposed action, least tern could be affected in the following ways:

- Disturbance of nesting and foraging activities by construction noise and machinery;
- Disturbance or removal of small areas of degraded habitat by construction;
- Potential disturbance by shuttle service;
- Disturbance of nesting and foraging activities by increased visitor use at specific locations within the Fort Pickens Area, particularly the beach at Battery 234; and
- Incremental, long term degradation of habitat adjacent to areas of increased public use.

Least terns are spring and summer residents of the Fort Pickens Area using beaches and dunes for nesting and near shore waters for hunting. Where construction would occur adjacent to dunes or beaches, construction noise and personnel may startle tern nesting colonies causing flushing from nesting areas. Potential impacts include disturbance during foraging, flushing from nesting areas, and abandonment of nests. It is anticipated terns would move away from the disturbance to other suitable areas with similar habitat. The construction schedule has not been determined at this time, and construction activities near potential least tern nesting habitat may be scheduled for times of the year outside nesting season. Additionally, the National Park Service closes shorebird nesting areas from March 1 to September 30 of each year to protect birds from disturbance during courtship, nesting, and fledging of young. Any proposed construction within these areas would be delayed until nestlings are fledged, usually by mid-August.

A small amount of potential least tern habitat would be affected by new construction and utility installation including temporary impacts caused by heavy equipment. Although most of these habitats had been previously disturbed, they may be used for foraging by least tern. Additionally, least terns nest on open sand and may use sandy patches near roads, parking lots, and other areas close to human activity. Therefore, some nesting habitat for these species may be affected by the proposed new construction. All areas of new construction would be surveyed for protected species prior to the commencement of proposed activities. Where feasible, construction mats would be utilized to protect soils from disturbance caused by construction machinery. Habitat disturbed by machinery would be restored after construction is completed (see Section 11).

Shuttle operation may affect least tern hatchlings, but it is unlikely to be adverse. The shuttle service would be limited to a maximum speed of 15 miles per hour, and shuttle operators would be formally trained to recognize small, cryptic species and avoid impacts. Due to the relatively low speed of the shuttles and special training of shuttle operators, it is unlikely least tern mortality from shuttle vehicle

strikes would occur. However, vehicle collisions with least tern have been recorded along Fort Pickens Road (Cohen and Durkin 2013).

An increase in public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts to least tern and least tern nesting habitat. Although they may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on habitat, and therefore least tern, would likely occur over many years. Potential impacts include flushing from nesting areas, degradation of nesting habitat, and abandonment of nests. During shorebird nesting season, least tern nesting colony locations are marked with flagging and/or signs to prevent beachgoers from unintentionally disturbing birds or damaging nests. The National Park Service also provides information on least terns and other nesting species to the public including signs and educational displays. These protective measures significantly reduce the potential for park visitors to impact least terns or their nests although some flushing may occur.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** the least tern.

### ***Snowy Plover***

Under the proposed action, snowy plover could be affected in the following ways:

- Disturbance of nesting and foraging activities by construction noise and machinery;
- Disturbance or removal of small areas of degraded habitat by construction;
- Potential disturbance by shuttle service;
- Disturbance of nesting and foraging activities by increased visitor use at specific locations within the Fort Pickens Area, particularly the beach at Battery 234; and
- Incremental, long term degradation of habitat adjacent to areas of increased public use.

Snowy plovers are year-round residents of the Fort Pickens area, they nest between February and August. Under the proposed action, potential impacts to snowy plover are similar to those for least terns, except snowy plovers do not nest in colonies and thus are not protected by a large nesting colony.

Where construction would occur adjacent to dunes or beaches, construction noise and personnel may startle snowy plover causing flushing from nesting areas. Potential impacts include flushing from foraging habitat, flushing from nesting areas, and abandonment of nests. It is anticipated plovers would move away from the disturbance during foraging to other suitable areas with similar habitat. The construction schedule has not been determined at this time, and construction activities near potential snowy plover nesting habitat may be scheduled for times of the year outside nesting season. Additionally, the National Park Service closes shorebird nesting areas from March 1 to September 30 of each year to protect birds from disturbance during courtship, nesting, and fledging of young. Any proposed construction within or adjacent to these areas would be delayed until nestlings are fledged, usually by mid-August.

A small amount of potential snowy plover habitat would be affected by new construction and utility installation including temporary impacts caused by heavy equipment. Most of the habitats have been

previously disturbed, but snowy plovers nest on open sand and may use sandy patches near roads, parking lots, and other areas close to human activity. Therefore, some nesting habitat for these species may be affected by the proposed new construction. All areas of new construction would be surveyed for protected species prior to the commencement of construction. Where feasible, construction mats would be utilized to protect soils from disturbance caused by construction machinery. Habitat disturbed by machinery would be restored after construction is completed (see Section 11).

Shuttle operation may affect snowy plover hatchlings, but it is unlikely to be adverse. The shuttle service would be limited to a maximum speed of 15 miles per hour, and shuttle operators would be formally trained to recognize small, cryptic species and avoid impacts. Due to the relatively low speed of the shuttles and special training of shuttle operators, it is unlikely snowy plover mortality from shuttle vehicle strikes would occur. However, vehicle collisions with snowy plover, have been recorded along Fort Pickens Road (Cohen and Durkin 2013).

An increase in public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts to snowy plover and snowy plover nesting habitat. Although they may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on habitat, and therefore snowy plover, would likely occur over many years. Potential impacts include flushing from nesting areas, degradation of nesting habitat, and abandonment of nests. During shorebird nesting season, snowy plover nesting locations are marked with signs and closed to the public to prevent beachgoers from unintentionally disturbing birds or damaging nests which are well camouflaged. The National Park Service also provides information on snowy plover and other nesting species to the public including signs and educational displays. These protective measures significantly reduce the potential for park visitors to impact snowy plovers or their nests although some flushing may occur.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** the snowy plover.

### ***Southeastern American Kestrel***

Under the proposed action, southeastern American kestrels could be affected in the following ways:

- Disturbance of foraging activities by construction noise and machinery.

The increased noise and machinery may cause southeastern American kestrels to vacate certain hunting or perching locations. Kestrels are highly mobile and have large foraging territories, so it is anticipated disturbed kestrels will move to another location while construction is occurring. There is an abundance of suitable foraging and roosting habitat within GUIS and within range of the construction areas to which kestrels would be expected to move.

Due to these factors, the proposed action **may affect, but is not likely to adversely affect** the southeastern American kestrel.

***Plants:***

Under the proposed action, Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed could be affected in the following ways:

- Direct impacts to individual plants or small areas of degraded habitat by construction; and
- Incremental, long term degradation of habitat adjacent to areas of increased public use.

Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed inhabit coastal upland areas including beach dunes and coastal scrub, and the potential impacts to these species are similar. A small amount of degraded habitat would be impacted by new construction and utility installation including temporary impacts caused by heavy equipment. Most of these habitats had been previously disturbed; however, the dune and scrub habitats in which these plant species are found, experience regular disturbances from wind, storms, and overwash during storm surges or particularly high tides. All areas of new construction would be surveyed for protected species prior to the commencement of proposed activities, and individual plants found within construction areas would be transplanted to appropriate habitats outside the construction zone.

An increase in public use of the beach near Battery 234 may disturb natural dune and scrub habitat of Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed. It is anticipated that public use of these areas would increase and that unintended impacts on natural habitat, and therefore potentially protected species, would likely occur over many years.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** Godfrey's goldenaster, Cruise's goldenaster, and largeleaf jointweed.

***Species of Special Concern:***

Florida species of special concern which occur within the study area include the American oystercatcher, black skimmer, and brown pelican. All three species are year-round residents of the Fort Pickens Area. Species of special concern would be impacted by the proposed action similarly to other bird species within the project area.

Impacts to brown pelicans consist primarily of disturbance of hunting activities by construction noise and increased visitor use of areas near the ferry pier and the beach and Battery 234. Pelicans generally nest in trees and are less susceptible to disturbance from visitors than ground nesters, although noise from construction machinery may disturb them.

Black skimmers and American oystercatchers nest on the ground on sand dunes or on the open beach. Impacts to these species would consist of the following:

- Disturbance of nesting activities by construction noise and machinery;
- Disturbance or removal of small areas of degraded nesting habitat by construction;
- Disturbance of nesting and foraging activities by increased visitor use at specific locations within the Fort Pickens Area, particularly the beach at Battery 234; and
- Incremental, long term degradation of nesting habitat adjacent to areas of increased public use.

Where construction would occur adjacent to dunes or beaches, construction noise and personnel may startle skimmers and oystercatchers causing flushing from nesting areas. Potential impacts include flushing from nesting areas and abandonment of nests. Skimmers forage in near shore waters, and oystercatchers in shallow wetlands. Impacts to foraging behaviors or habitats are not anticipated for either species. The National Park Service closes shorebird nesting areas from March 1 to September 30 of each year to protect birds from disturbance during courtship, nesting, and fledging of young. Any proposed construction within or adjacent to these areas would be delayed until nestlings are fledged, usually by mid-August.

An increase in public use near the ferry pier and on the beach at Battery 234 may also cause indirect impacts to skimmer and oystercatcher nesting habitat. Although they may be habituated to some human activity, it is anticipated that public use of these areas would increase and that unintended impacts on habitat would likely occur over many years. Potential impacts include flushing from nesting areas, degradation of nesting habitat, and abandonment of nests. During shorebird nesting season, the locations of nesting colonies are marked with signs and flagging and are closed to the public to prevent beachgoers from unintentionally disturbing birds or damaging nests which are well camouflaged. The National Park Service also provides information on nesting species to the public including signs and educational displays. These protective measures significantly reduce the potential for park visitors to impact least terns or their nests although some flushing may occur.

With mitigation (see Section 11), the proposed action **may affect, but is not likely to adversely affect** the brown pelican, black skimmer, and American oystercatcher.

## Cumulative Effects

The National Park Service manages all activities within the Fort Pickens area of the national seashore; therefore there are no cumulative impacts to federally threatened or endangered species within the study area.

## Effect Determinations

TABLE C-4: STATE LISTED SPECIES EFFECT DETERMINATIONS

Listed Species/Critical Habitat	Determination of Effect
<b>Birds</b>	
American oystercatcher	Not likely to adversely affect
Black skimmer	Not likely to adversely affect
Brown pelican	Not likely to adversely affect
Least tern	Not likely to adversely affect
Snowy plover	Not likely to adversely affect
Southeastern American kestrel	Not likely to adversely affect
<b>Plants</b>	
Cruise's goldenaster	Not likely to adversely affect
Godfrey's goldenaster	Not likely to adversely affect
Largeleaf jointweed	Not likely to adversely affect

## 10.0 EFFECT DETERMINATION SUMMARY

TABLE C-5. EFFECT DETERMINATIONS FOR SPECIES ADDRESSED

Common Name	Scientific Name	Status	Determinations of Effects <sup>1</sup>	
			Alternative 1 (No Action)	Alternative 2 (NPS Preferred)
Federal Species				
Bald eagle	<i>Haliaeetus leucocephalus</i>	DL	NLAA	NLAA
Piping plover	<i>Charadrius melodus</i>	T	NLAA	NLAA
Red knot	<i>Calidris canutus rufa</i>	T	NLAA	NLAA
Green sea turtle	<i>Chelonia mydas</i>	E	NLAA	NLAA
Hawksbill sea turtle	<i>Eremochelys imbricata</i>	E	NLAA	NLAA
Kemp's Ridley sea turtle	<i>Lepidochelys kempii</i>	E	NLAA	NLAA
Leatherback sea turtle	<i>Demochelys coriacea</i>	E	NLAA	NLAA
Loggerhead sea turtle	<i>Caretta caretta</i>	T	NLAA	NLAA
State Species				
American oyster catcher	<i>Haematopus palliatus</i>	SSC	NLAA	NLAA
Black skimmer	<i>Rynchops niger</i>	SSC	NLAA	NLAA
Brown pelican	<i>Pelecanus occidentalis</i>	SSC	NLAA	NLAA
Least tern	<i>Sterna antillarum</i>	T	NLAA	NLAA
Snowy plover	<i>Charadrius alexandrinus</i>	T	NLAA	NLAA
Southeastern American kestrel	<i>Falco sparverius</i>	T	NE	NLAA
Cruise's goldenaster	<i>Chrysopsis gossypina</i> subsp. <i>cruiseana</i>	E	NE	NLAA
Godfrey's goldenaster	<i>Chrysopsis godfreyi</i>	E	NE	NLAA
Largeleaf jointweed	<i>Polygonella macrophylla</i>	T	NE	NLAA

<sup>1</sup> **NE**=no effect; **NLAA**=may affect, not likely to adversely affect; **LAA**=may affect, likely to adversely affect; **BI**=beneficial impact

## **11.0 CONSERVATION AND MITIGATION MEASURES**

The National Park Service would carry out mitigating measures to reduce or avoid adverse effects of the proposed action. The NPS project manager would ensure that the project remains confined within the parameters established in the compliance documents and that mitigation measures would be properly implemented. The following mitigation measures and any additional mitigation required by regulatory agencies would be refined and incorporated in all final design plans and documents. Additional mitigations may be added during the permitting and consultation processes.

### **GENERAL PROTECTED SPECIES MITIGATION MEASURES:**

- In order to mitigate and minimize potential impacts on natural resources during construction, contractor employees would be instructed on the sensitivity of the general environment and their activities monitored by NPS staff. Corridors for construction vehicle movement would be established and defined on the ground. Staging of construction equipment would be restricted to the road corridor, parking lots, and other identified previously disturbed areas to avoid impacts on natural resources. Construction activities would occur during daylight hours only. No nighttime construction activities would be conducted.
- Prior to the initiation of project activities, all construction areas would be surveyed for the presence of wildlife and protected plant species which are at risk of impacts from construction related activities. Outside of shorebird nesting season, the survey areas would include all construction and mobilization areas, travel corridors, and a 50-foot buffer to prevent unintended impacts outside construction areas. If construction activities are conducted during shorebird nesting season, the buffer would be increased to 300 feet and the shorebird mitigation measures, provided below, would be followed. All wildlife and plant surveys would be conducted by a trained biologist familiar with the fauna and flora of northwest Florida and the habitats present within the project area. Upon the identification of at risk wildlife or protected plants, a mitigation plan would be developed. Depending upon the species, mitigation may involve relocation/transplanting, establishment of a buffer around the individual or nest, or delay of project activities until the individual has vacated the area.
- Construction mats would be utilized, if feasible, to protect soils from disturbance from construction machinery in areas where impacts to habitats are unavoidable. Habitats disturbed by machinery would be restored after construction is completed.

### **SEA TURTLE MITIGATION MEASURES:**

- Construction activities would occur during daylight hours only. No nighttime construction activities would be conducted.
- All personnel associated with the construction and operational phases of the project would be trained and instructed in the potential presence of protected sea turtles. Furthermore, construction

site personnel and personnel associated with operating the ferry would be informed of the civil and criminal penalties for harming, harassing, or killing species that are protected.

- Artificial lighting in and on newly constructed buildings would be turned off or shielded during sea turtle nesting season to prevent impacts to nesting turtles or hatchlings. If lighting is required at night, wildlife-friendly LED lighting and fixtures would be used.

## **SHOREBIRD MITIGATION MEASURES:**

- Construction will be conducted in accordance with the Florida Fish and Wildlife Conservation Commission's guidelines developed to protect against potential impacts to nesting shorebirds during the periods from February 15th through August 31st, as outlined below:
  1. Maintain at least a 300-foot distance from shorebird nesting areas during breeding season, or if birds appear agitated or take flight.
  2. Keep out of posted nesting areas.
  3. Never intentionally force birds to fly.
- Avoid running equipment or watercraft close to shore in potential nesting areas. Personnel associated with the construction and operational phases of the project will be instructed and trained regarding the protection of shorebirds, and personnel will be informed of the civil and criminal penalties for harming, harassing, or killing species that are protected.

## **LISTED PLANT SPECIES MITIGATION MEASURES:**

- Prior to the commencement of construction activities, all construction areas will be surveyed for protected species by a professional biologist familiar within the flora of northwest Florida and the habitats present within the construction area.
- If listed plant species are found within construction areas, they will be transplanted to appropriate habitats outside the construction zone.

## **12.0 NEED FOR RE-ASSESSMENT BASED ON CHANGED CONDITIONS**

This BA and findings above are based on the best current data and scientific information available. A new analysis and revised BA must be prepared if one or more of the following occurs: (1) new species information (including but not limited to a newly discovered activity area or other species information) reveals effects to threatened, endangered, proposed species, or designated/proposed critical habitat in a manner or to an extent not considered in this assessment; (2) the action is subsequently modified or it is not fully implemented as described herein which causes an effect that was not considered in this assessment; or (3) a new species is listed or critical habitat is designated which may be affected by the action that was not previously analyzed herein.

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# **APPENDIX D: CZMA CONSISTENCY CERTIFICATION**

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## **COASTAL ZONE MANAGEMENT ACT**

### **FEDERAL CONSISTENCY DETERMINATION**

The Coastal Zone Management Act of 1972 requires that a Federal agency provide the State of Florida with a Consistency Determination when a Federal agency proposes any activity inside or outside of the coastal zone that will have any reasonably foreseeable impact on any coastal resources or uses within the coastal zone.

The National Park Service (NPS) proposes to improve existing gateway facilities at the newly constructed Fort Pickens ferry pier to better serve as an arrival site for the passenger ferry service and to initiate a shuttle service to transport visitors to various locations within the Fort Pickens Area.

Action is needed at this time because the Pensacola Bay ferry service is anticipated to begin in 2017, and facilities adjacent to the ferry pier do not provide a desirable gateway experience. The facilities near the ferry pier currently include three historic buildings, which currently function as national seashore storage facilities and workshops. A passenger shade shelter is nearby, but the connections between the shelter, the pier, the visitor center, the restrooms, and other sites are unclear due to the lack of wayfinding and orientation information. The existing public restroom facilities near the museum would serve all visitors, including ferry passengers, and these restrooms are approximately a quarter of a mile from the ferry pier. The nearest signs offering orientation to Fort Pickens can be found at the sidewalk on the opposite (southern) end of the parking lot near the ferry pier, approximately 400 feet away.

Additionally, action is needed at this time because visitors arriving by ferry would need to walk or bring their own bicycles to access areas beyond the immediate vicinity of the ferry pier. Many visitors may not be able or willing to walk or provide a personal bicycle. The ability of visitors to move around the Fort Pickens Area and its environs may be further hindered by beach accessories (e.g., towels, umbrellas, and chairs) they may have and/or want to take with them. There is currently no transportation system in place to support movement of visitors beyond the immediate vicinity of the ferry pier.

The National Park Service seeks concurrence with the determination that the proposed project is consistent to the maximum extent practicable with the enforceable policies of Florida's approved coastal management program.

### **PROJECT DESCRIPTION**

The National Park Service proposes to improve existing gateway facilities at the newly constructed Fort Pickens ferry pier to better serve as an arrival site for the passenger ferry service and to initiate a shuttle service to transport visitors to various locations within the Fort Pickens Area. Improvements would largely be focused on facilities adjacent to the ferry pier and shuttle support infrastructure, but they could also include a new restroom facility near Battery 234. Under alternative 2 (the National Park

Service Preferred Alternative), the National Park Service would provide 11 programmatic elements for improved visitor services at Fort Pickens:

- Ferry departure queuing
- Landside orientation
- Restrooms
- Point of sale (tickets, rentals, sales, etc.)
- Rental equipment pick-up/return
- Shuttle stop
- Gathering areas
- Educational exhibits
- Food service
- Concessioner storage
- Indoor and outdoor dining areas

The locations of these improvements are identified on figure 5 of the environmental assessment (EA). The figures from the EA are attached for convenience.

### **Rehabilitation of Historic Buildings**

Under this alternative, the three historic buildings adjacent to the ferry pier would be rehabilitated to accommodate new visitor services. As shown in figure 5 of the EA, the engineer's shop, the mine loading building, and the mine storage building would be adaptively reused to support visitor services and concessioner operations.

The engineer's shop (building 17) would be used for concessioner storage. The existing telecommunications infrastructure would remain in its current location.

The mine loading building (building 15) would be used for exhibits on the historical significance of Fort Pickens, and there would be some changes to the structure. New, all-glass doors would be installed at both the eastern and southern entry points. The existing doors would remain operational but would not be used by visitors for entry into the mine loading building.

The mine storage building (building 16) would be used for several functions: concession sales, food service, dining areas, and exhibits, and there would be a few changes to the structure. The point of sale for food, ferry tickets, equipment rentals, and souvenirs could be designed for one concessioner employee. Additionally, a false floor would be installed 6–8 inches above the existing, historic floor in the mine storage building in order to make concession operations more resistant to flood damage. As in the mine loading building, new, all-glass doors would be installed at the southern entry point. The existing doors would remain operational but would not be used by visitors for entry into the mine storage building.

## **Construction of New Buildings and Structures**

### ***New Ferry Landing Area Building***

The action alternative would include the construction of a new building, which would house restrooms and rental storage and would provide outdoor dining areas. This building would be built overlapping a historic foundation and could require two breaches in the historic foundation. The restrooms would provide closer and more visible facilities for ferry passengers. The rental storage area would protect concessioner property when not in use. The new building would include a canopy under which picnic tables would be available for outdoor dining.

Utility services required to support the ferry service include electric, water, sanitary sewer, and drainage improvements (figure 6 of the EA). There is currently electric service connected to all the existing buildings at the ferry landing. Therefore, improvements would be limited to upgrading panels and rewiring buildings to current codes. If new buildings are constructed, a new service would be connected from the nearby transformer.

Water service is also available at the mine loading and mine storage buildings. Water to the new restrooms would connect to an existing water line and be run around the building to a convenient point of entry into the building.

The restrooms would require a new grinder pump station be constructed, similar to the five existing grinder pumps located in the Fort Pickens Area. The grinder pump would be placed near the back of the restroom building and a 1.5-inch sewer force main run approximately 400 feet to the existing force main located across the parking lot (on the south side of the paint locker [building 10]).

Site drainage would be improved by grading, construction of concrete curb to direct stormwater, and construction of new drain inlets with a pipe outfall through the seawall. In addition, the mine loading building, mine storage building, and the engineer's shop would be equipped with sump pumps for removing water due to rain/storm events.

### ***Interpretive Elements near Fort Pickens***

The pedestrian walkway from the ferry landing to Fort Pickens would be a focal point of the site and connect the ferry landing ramp to the fort entrance. The walkway would be along the historic rail line that ran from the mine storage and mine loading buildings through the fort gate. The walkway would be 15 feet wide in approximate proportion to the railroad bed and constructed of a contrasting material such as concrete. Along the walkway the National Park Service would place interpretive signs and displays such as weaponry (e.g., cannon, cannon balls, mines, ordinance, etc.) and benches.

Some of the existing vehicle parking along the pedestrian walkway would be reconfigured, including relocating the handicap accessible parking spaces near the fort in order to accommodate a shuttle stop at the fort, as depicted in figure 7.

### ***Restroom near Battery 234***

Under this alternative, the beach near Batteries 234 and Cooper would become a lifeguarded beach, and a new restroom facility could be constructed to accommodate the anticipated increase in public use of this beach (figures 8 and 9 of the EA). The comfort station would consist of a basic men's and women's restroom with a single toilet and sink. A frost-free water hydrant would be provided near the comfort station for visitor and maintenance staff use. The required utilities include water, sanitary, sewer, and electric service to the comfort station. The proposed utilities would be routed along the west side of the Battery 234 and Battery Cooper loop road to the intersection at Fort Pickens Road. The water would be connected to the existing 6-inch waterline located on the south side of Fort Pickens Road. Both the sanitary sewer and electric would be bored under Fort Pickens Road with the sewer connected to the existing 3-inch sewer force main located on the north side of Fort Pickens Road. The electrical service would be connected to the nearest point of service, also on the north side of Fort Pickens Road.

### ***Campground Store Shade Shelter***

A new shade shelter would be constructed at the western corner of the campground store (figure 10 of the EA). The structure would be 18 feet by 18 feet and would provide a waiting area for shuttle passengers.

## **SHUTTLE SERVICE**

In addition to the improvements of the ferry landing area, the concessioner would provide a shuttle service within the Fort Pickens Area (figure 4 of the EA). The seashore would purchase a fleet of 5 electric trams, and daily shuttle service would be provided by 2 trams, in 15-minute intervals, to 7 stops in the Fort Pickens Area by:

- Passenger ferry pier
- Fort Pickens
- Auditorium, snack bar, and museum
- Battery 234
- Battery Cooper
- Battery Worth and Worth Beach access
- Campground store

Shuttles would comprise a tram unit and a passenger trailer, which would together accommodate up to 27 passengers. Passengers would be permitted to bring personal belongings on the shuttle; as such, shuttle capacity could be less than 27 passengers.

The trams would be stored in Battery Langdon, specifically the east casemate chamber and the corridors leading to that chamber. The trams would enter via the existing concrete-paved driveway access to the rear (north) doors of the battery and exit through the doors facing the gulf (south).

Routine maintenance for the trams consists primarily of checking battery water levels and tire air pressure. A room off the corridor would be used to store spare batteries and tires. The charging would be

done in-vehicle, using standard 110 volt power. A solar photovoltaics system would provide power. The solar system would be installed on a nearby picnic shelter.

Five tram sets would be stored in Battery Langdon. Four would typically be used each day—two during the morning and two others during the afternoon. In the morning, drivers would take out two of the tram sets in time for both to meet the first arriving ferry. Because the electric trams do not have sufficient range to cover the entire day, a second shift of drivers would work in the afternoon. The second-shift drivers would go in service at the campground store where they would meet the morning drivers and transfer any passengers traveling back towards the fort.

At the end of each shift drivers would be able to wash off the trams, if necessary, and would then park the trams inside Battery Langdon and plug in each vehicle. Parking for the operators' personal cars would be at the adjacent picnic pavilion or the nearby park maintenance facility.

Renovation to accommodate the trams would include removal of debris inside the battery, upgrading the electrical service to accommodate the charging locations, modifying the non-historic doors to the casemate, and constructing a crushed shell drive path from the front door to the parking lot on Fort Pickens Road. In addition, pavement would be added from the Carpenter's Shop access road to the north doors. A water spigot connection would be provided at the edge of the pavement (figure 12 of the EA) for washing the trams. The spigot would be connected via a 1-inch waterline to the existing 3-inch waterline located north of the road in the vicinity of the existing shelter.

## **CONFORMITY WITH FLORIDA'S COASTAL MANAGEMENT PROGRAM**

This project is located entirely within the designated Florida Coastal Zone. This application is submitted to ensure conformity with 15 CFR Part 930 which fully maintains the authority and ability of Florida to review proposed federal actions that would have a "reasonably foreseeable effect" on any land or water use or natural resource of Florida's coastal zone, as provided for and in the CZMA and NOAA's regulations, as revised in 2000, "to the maximum extent practicable". The proposed improvements to the Fort Pickens Area are consistent to the maximum extent possible with the enforceable policies of Florida's Administrative Code, Chapter 380 Florida Statutes (FS), Part II, Coastal Planning and Management.

### **Chapter 380 F.S., Part II: State Guidelines for Areas of Environmental Concern**

The CZMA requires states to consider areas within the coastal zone that may warrant special consideration due to their environmental, cultural, economic, or recreational value. In response to this requirement, Florida designated Areas of Special Management (ASM) that consist of four existing state programs: Areas of Critical State Concern (ACSC), Aquatic Preserves System, Surface Water Improvement and Management, and Beach and Inlet Management Areas.

Chapter 380.05 of the Florida Statutes established the ACSC program and authorized the Department of Economic Opportunity, the designated state land planning agency, to recommend specific areas of

concern to the Administration Commission, which includes the Governor and the Cabinet, for adoption as ACSC. No ACSCs occur within the project area.

The Florida Department of Environmental Protection (FDEP) Office of Coastal and Aquatic Managed Areas oversees the management of designated aquatic preserves in Florida. The project area is located within or within the vicinity of the Fort Pickens Aquatic Preserve which includes the waters of Pensacola Bay and the Gulf of Mexico surrounding the Fort Pickens and eastern Perdido Key areas of Gulf Islands National Seashore.

The FDEP Bureau of Beaches and Coastal Systems is responsible for implementing the Beach and Shore Preservation Act. On May 21, 2008, FDEP adopted the Strategic Beach Management Plan to address specific strategies for constructive actions at critically eroded beaches and inlets, known as Beach and Inlet Management Areas. Approximately 108 miles of the Florida Atlantic coastline are actively managed to reduce and minimize beach, shoreline, and inlet erosion, including beach and dune restoration, beach nourishment, feeder beaches or inlet sand bypassing, and other actions to mitigate the erosive effects of inlets. The Pensacola Beach Restoration Project consists of 8.2 miles of beach management and restoration adjacent to the Fort Pickens Area on the east.

No proposed action under this alternative will directly affect the Fort Pickens Aquatic Preserve, Pensacola Beach, or any surface water improvement and management areas of concern.

As documented in the following table, the action alternative is consistent with each of the relevant CZM statutes and standards.

TABLE D-1. FLORIDA COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW

Statute	Scope	Consistency
Chapter 161 <i>Beach and Shore Preservation</i>	This statute provides policies for the regulation of construction, reconstruction, and other physical activities related to the beaches and shores of the state. Additionally, this statute requires the restoration and maintenance of critically eroding beaches.	The project would not impact beach and shore management along Florida's Northwest Coast, specifically as it pertains to: <ul style="list-style-type: none"> <li>▪ The Coastal Construction Permit Program.</li> <li>▪ The Coastal Construction Control Line Permit Program.</li> <li>▪ The Coastal Zone Protection Program.</li> </ul> Most construction activities would occur in previously disturbed or developed areas landward of the coastal construction control line. Some temporary impacts on natural areas would occur with the installation of utility lines for the proposed restroom facilities near Battery 234.
Chapter 163, <i>Part II Growth Policy; County and Municipal Planning; Land Development Regulation</i>	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.	The project would be consistent with local, regional, and state comprehensive plans.
Chapter 186 <i>State and Regional Planning</i>	Details state-level planning efforts. Requires the development of special statewide plans governing water use, land development, and transportation.	The project would be consistent with the State Comprehensive Plan as adopted under Florida Statute Title 8 Planning and Development Section 187.101. Specifically, the Project meets the adopted air quality, energy, water quality, coastal and marine resources, natural systems and recreational lands including the following listed below: <ul style="list-style-type: none"> <li>▪ Ensure developments and transportation systems are consistent with the maintenance of optimum air quality.</li> <li>▪ Ensure developments impact a minimal area of native systems through avoidance and minimization planning.</li> <li>▪ Promote the economic, aesthetic, and recreational values of natural systems.</li> <li>▪ Ensure energy efficiency in transportation design and planning and promote the application of solar energy technologies.</li> <li>▪ Promote awareness of historic places and cultural and historical activities.</li> <li>▪ Manage public lands to offer visitors and residents increased outdoor experiences</li> </ul> Further, soil and water quality mitigation measures meet the intent of water resources policies directing the protection of surface and groundwater quality in the state. The project is located within the West Florida Regional Planning Council District and is consistent with the West Florida Strategic Regional Policy Plan. The proposed action meets the economic goal of expansion and development of tourism in West Florida. It also meets the Natural Resources goal of protecting beach and dune systems from development, protecting native species in the Region, and protecting environmentally, historically, and culturally significant land.
Chapter 252 <i>Emergency Management</i>	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.	The project would not affect the state's vulnerability to natural disasters and would not affect emergency response and evacuation procedures. Further the project would be consistent with the emergency preparedness policies within the West Florida State Regional Policy Plan.

TABLE D-1. FLORIDA COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW (CONTINUED)

Statute	Scope	Consistency
Chapter 253 <i>State Lands</i>	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.	The project would be developed on National Park Service lands and would not affect state lands.
Chapter 258 <i>State Parks and Preserves</i>	Addresses administration and management of state parks and preserves.	The project would be developed on National Park Service lands and would not affect state parks and preserves.
Chapter 259 <i>Land Acquisition for Conservation or Recreation</i>	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.	The project would be developed on National Park Service land and would not affect the acquisition of environmentally endangered lands or outdoor recreation lands.
Chapter 260 <i>Florida Greenways and Trails Act</i>	Established in order to conserve, develop, and use the natural resources of Florida for healthful and recreational purposes.	A portion of the Florida National Scenic Trail is located within the Fort Pickens Area. The project would not impact the trail; and it would enhance the visitor experience and promote trail use.
Chapter 267 <i>Historical Resources</i>	Addresses management and preservation of the state's archeological and historical resources.	The project would include renovation and repurposing of several historic structures within the Fort Pickens Area resulting in minor impacts on the buildings. Details are provided in the National Park Service. The project would be consistent with Florida's statutes and regulations regarding the state's archeological and historical resources.
Chapter 288 <i>Commercial Development and Capital Improvements</i>	Promotes and develops general business, trade, and tourism components of the state economy.	The project would promote tourism within the Fort Pickens Area of the Gulf Islands National Seashore and provide employment opportunities. The project would have an indirect beneficial impact on future business opportunities and would likely promote tourism in the region.
Chapter 334 <i>Transportation Administration</i>	Addresses the state's policy concerning transportation administration.	The project would be consistent with the transportation code.
Chapter 339 <i>Transportation Finance and Planning</i>	Addresses the finance and planning needs of the state's transportation system.	The project would not affect transportation finance. By providing transportation options within the Fort Pickens Area, the project may help to reduce traffic on Fort Pickens Road providing a beneficial impact on local transportation planning.
Chapter 373 <i>Water Resources</i>	Addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians.	The project would temporarily impact to a small area of wetland with the installation of utility lines for the restroom facilities at Battery 234. The impacted area will be returned to grade elevation and revegetated using plant species native to the local wetlands. An Environmental Resource Permit from the Florida Department of Environmental Protection and a Section 404 Dredge and Fill Permit from the US Army Corps of Engineers may be required. The project would be consistent with Florida's statutes and regulations regarding the water resources of the state.

TABLE D-1. FLORIDA COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW (CONTINUED)

Statute	Scope	Consistency
Chapter 375 <i>Outdoor Recreation and Conservation Lands</i>	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs.	The project would be consistent with Florida's Statewide Comprehensive Outdoor Recreation Plan. It would expand the recreational opportunities available for visitors to the Fort Pickens Area.
Chapter 376 <i>Pollutant Discharge Prevention and Removal</i>	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.	Construction activities associated with the project may require the use of hazardous materials, and hazardous waste may be generated. However, the project would not substantially increase operational hazardous material or hazardous waste. The project would include proper handling, use and disposal of hazardous materials and waste and would be compliant within all appropriate tracking and reporting requirements. The project would not impact the transfer, storage, or transportation of pollutants.
Chapter 377 <i>Energy Resources</i>	Addresses regulation, planning, and development of oil and gas resources of state.	The project would not impact energy resource production, including oil and gas, and/or the transportation of oil and gas.
Chapter 379 <i>Fish and Wildlife Conservation</i>	Addresses the management and protection of the state of Florida's wide diversity of fish and wildlife resources.	Pursuant to the NEPA Section 2, 102(H), avoidance and minimization of potential impacts on federally and state-protected species have been considered for the project. Protected species habitat was avoided to the extent possible when developing the alternatives for the project. Both an environmental assessment and a biological assessment have been prepared for this project. These documents are intended to provide documentation necessary for informal consultation with the US Fish and Wildlife and National Marine Fisheries Service in order to comply with Section 7 of the Endangered Species Act (7 USC §136; 16 USC §1531 et seq.). While no significant impacts on sensitive species are anticipated, US Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission recommended species-specific mitigation measures would be implemented for each potentially affected federally or state-listed species. Therefore the project would be consistent with the state's policies concerning the protection of wildlife.
Chapter 380 <i>Land and Water Management</i>	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.	The project would result in minimal impacts in natural upland habitats as well as surface water resources, including wetland habitats. Most of the development would occur within previously developed or disturbed areas. Surface waters and storm water runoff would be consistent with all applicable policies including Section 380.06, Florida Statutes, which outlines policies for developments of region impact that may have impacts on the health, safety or welfare of citizens of more than one county.

TABLE D-1. FLORIDA COASTAL MANAGEMENT PROGRAM CONSISTENCY REVIEW (CONTINUED)

Statute	Scope	Consistency
Chapter 381 <i>Public Health, General Provisions</i>	Establishes public policy concerning the state's public health system.	The project would not affect the state's policies concerning the public health system.
Chapter 388 <i>Mosquito Control</i>	Addresses mosquito control effort in the state.	The project would not affect mosquito control efforts.
Chapter 403 <i>Environmental Control</i>	Establishes public policy concerning environmental control in the state.	<p>The National Park Service would coordinate all applicable permits in accordance with Florida Administrative Code.</p> <p>The project would temporarily impact a small area of wetland with the installation of utilities for the restroom facilities at Battery 234. The area of impact would be less than 0.1 acres and it would be fully restored after installation is completed. Mitigation is not expected to be required. During construction activities, the National Park Service would take all reasonable precautions to minimize fugitive particulate (i.e., dust) emissions during any construction activities in accordance with FAC 62-296.</p> <p>Net increases to operational emissions, both from stationary and mobile sources would be less than significant as a result of the project. Total emissions would remain below de minimis levels and any adverse impacts in air quality would also be less than significant. Additionally, beneficial impacts in air quality would occur as a result of the potential reduction in vehicle miles traveled.</p> <p>The project would not increase hazardous material or hazardous waste generated within the project area.</p> <p>Therefore, the project would not impact water quality, air quality, pollution control, solid waste management, or other environmental control efforts.</p>
Chapter 582 <i>Soil and Water Conservation</i>	Addresses means to conserve soil and water.	<p>All applicable standard construction BMPs, such as erosion and sediment controls and stormwater management measures would be implemented to minimize erosion and storm water run-off, and to regulate sediment control during construction.</p> <p>Therefore, the project would be consistent with the Florida's statutes and regulations regarding soil and water conservation efforts.</p>

## FLORIDA ENVIRONMENTAL RESOURCE PERMIT

Within the State of Florida, activities conducted in wetlands are regulated by Part IV, Chapter 373, Florida Statutes. Chapter 62-330, Florida Administrative Code, states that "a permit is required prior to the construction, alteration, operation, maintenance, removal, or abandonment of any new project... in, on, or over wetlands or other surface waters." The proposed activities include the installation of utility lines within a wetland area. This would result in temporary impacts on less than 0.1 acres of wetland and the impacted area would be immediately restored to pre-construction grade and revegetated. Pursuant to Florida law, an Environmental Resource Permit issued by the Florida Department of Environmental Protection may be required. An Environmental Resource Permit would also provide water quality certification under Section 401 of the Clean Water Act, 33 USC 1341 and negates the need for federal water quality certification or National Pollution Discharge and Elimination System Stormwater permit.

## **REQUIRED STATE, FEDERAL, AND LOCAL PERMITS**

An EA has been prepared in accordance with the National Environmental Policy Act of 1969, as amended; regulations of the Council on Environmental Quality (40 CFR 1508.9); and NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making. An assessment of effect will be prepared concurrently with but separately from the National Park Service to comply with section 106 of the National Historic Preservation Act of 1966, as amended.

The EA also fulfills several other compliance needs. First, the Magnuson-Stevens Fishery Conservation and Management Act requires that federal agencies consult with the National Marine Fisheries Service to determine potential impacts on essential fish habitat and what measures to avoid, minimize, mitigate, or otherwise offset adverse impacts. The National Park Service sent a scoping letter to the National Marine Fisheries Service regarding essential fish habitat on January 30, 2015. However, no activities are proposed in waters which may include essential fish habitat, and this topic was dismissed from analysis within the National Park Service.

A biological assessment was completed in consultation with the US Fish and Wildlife and National Marine Fisheries Service in order to comply with Section 7 of the Endangered Species Act (7 USC § 136; 16 USC § 1531 et seq.).

Prior to the implementation of the proposed action, the National Park Service would obtain all appropriate local, state, and federal approval and/or permits for the proposed activities. A list of permits, approvals, and regulatory requirements that may be associated with the proposed action are as follows:

- Section 404 of the Clean Water Act
- Florida Environmental Resource Permit
- Approved Stormwater Management Plan
- Approved Erosion and Sedimentation Plan
- Concurrence from the SHPO per Section 106 of the NHPA
- Concurrence from the USFWS and NMFS per Section 7 of the Endangered Species Act (ESA)

## **CONCLUSION**

The proposed improvements to the Fort Pickens Area would have some reasonably foreseeable impacts on coastal resources and uses within the project area. A relatively small amount of the project area would be developed or redeveloped with impervious surfaces to improve public access to the several areas of the park, and a shuttle system of transportation will be developed within the park. In accordance with Section 307(c)(1) of the Federal Coastal Zone Management Act of 1972, as amended, the National Park Service has determined that the proposed action is consistent to the maximum extent practicable with the enforceable policies of Florida's approved coastal management program. This determination is based on the review of the proposed project's conformance with the enforceable policies of the State's coastal program found in Chapter 380 Florida Statutes, Part II.

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

