National Park Service
U.S. Department of the Interior

Gulf Islands National Seashore
Florida and Mississippi

ENVIRONMENTAL ASSESSMENT

Environmental Assessment for the Fort Pickens Road Realignment

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Prepared for:
National Park Service
Southeast Regional Office
100 Alabama Street SW
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July 2014

SUMMARY

Introduction

This Environmental Assessment (EA) was prepared for the National Park Service (NPS) to evaluate the proposed realignment and repaving (overlay) of portions of Fort Pickens Road, and reconfiguring the NPS entrance station and a parking lot in the Fort Pickens area of Gulf Islands National Seashore (national seashore). The Gulf Islands National Seashore contains several units along the Gulf of Mexico in Florida and Mississippi. Fort Pickens Road is a segment of NPS-owned and –maintained road on Santa Rosa Island, a barrier island in the Gulf of Mexico, Escambia County, Florida. The entire road extends approximately 9 miles between Pensacola Beach and the Fort Pickens area, with approximately 7 miles of road within the NPS boundary. This road has been in place for over 50 years; however, over the past 10 years the eastern 4 miles of the road has been destroyed multiple times during storm events, causing road closures that result in no vehicular access to the western portion of the island. During annual storm events, the roadway becomes washed out causing the national seashore to close it for periods of time, ranging from days to weeks, during road repair. The existing road is also located within sea turtle nesting habitat; causing issues with sea turtle nesting. Some sea turtles have been struck by automobiles after having traveled onto the roadway while searching for a nest site. Relocation of the existing road away from the encroaching Gulf of Mexico shoreline, and more inland at a higher elevation, would move it out of sea turtle nesting areas.

The National Environmental Policy Act (NEPA) of 1969 process is being conducted in accordance with NPS regulations for implementing NEPA, and examines the consequences of this proposed project on the environment. This EA presents the alternatives considered during the NEPA process, the affected environment, the impacts associated with the proposed project, potential mitigation measures, and the agency consultation and coordination conducted to support this project.

Purpose and Need for the Action

The propose of this project is to realign the existing Fort Pickens Road further inland to reduce the effects of the continued erosion of the existing road from hurricanes, other storm events, and high winds. In addition, portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline; adding to the vulnerability of the road to storm events. The new road alignment would also help to reduce hazardous conditions to visitors in vehicles on Fort Pickens Road resulting from flooding of the road during storm events. The existing asphalt from the realigned portion of the road would be removed and the area would be allowed to return to near natural conditions. Portions of the existing road that would not be realigned would be repaved with a new asphalt overlay. One parking lot, parking lot #22 would be realigned in a portion of the existing roadway, and both parking lots #21 and #22 would be repaved.

In addition to the road realignment and repaving (overlay), the proposed project would reconfigure the NPS entrance station on Fort Pickens Road. Currently, the entrance station includes one visitor entrance lane, an employee entrance, a fee collection booth, and a visitor exit lane. A reconfiguration is needed because current entrance delays of up to 40 minutes to process guests are common on busy weekends; causing traffic congestion along Fort Pickens Road and extending into Pensacola Beach. An additional lane is proposed at the visitor entrance station, allowing two visitor entrance lanes, an employee access lane, and a visitor exit lane. Parking lot # 22 would also need to be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize natural resource disturbance.

The realignment of the road, reconfiguration of the entrance station and parking lot #22, and repaving of Fort Pickens Road would fulfill the following determined objectives for the project:

- Continue safe visitor access to the Fort Pickens area via Fort Pickens Road.
- Reduce maintenance and repair of the existing Fort Pickens Road.
- Reduce the number of road closures in the national seashore due to overwash and damage of Fort Pickens Road.
- Relocate Fort Pickens Road outside of sea turtle nesting habitat and provide new nesting areas.
- Reduce traffic delays at the visitor entrance station.

Overview of the Alternatives

This EA analyzes the environmental impacts of the proposed actions along Fort Pickens Road for the action alternative and the no action alternative, as described below.

No Action Alternative (Alternative A) – Under the no action alternative, Fort Pickens Road would not be realigned or repaved. Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens area. Two small beach access areas with parking would continue to be provided and bike and pedestrian access would continue to be permitted along the road shoulders. However, storm events would continue to erode the roadway resulting in situations in the future where conditions become so altered that it is no longer feasible to repair or maintain the road. This would be determined on a case-by case basis. If road repairs are not feasible, Fort Pickens Road would be closed and access to the area would no longer be permitted by automobile. As a result, visitors would not be able to access national seashore amenities at the western portion of the island, such as the fort, artillery batteries, visitor center, and camping areas by vehicle.

The Preferred Alternative (Alternative B) – Under the preferred alternative, NPS would realign a 1.87 mile portion of the Fort Pickens Road. The road would be moved north, away from the Gulf of Mexico, into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. The existing 1.80 mile roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish to a natural dune community. A repaving or cyclic asphalt overlay would be placed on the remaining 2.70 mile portion of Fort Pickens Road within the NPS boundary and within parking lots #21 and #22. The asphalt overlay would add approximately 2 to 3 inches of asphalt over the existing roadway and parking lots. No disturbance to the adjacent areas is expected from this action since this activity would occur within the footprint of the roadway and parking lots.

The NPS entrance station on Fort Pickens Road would be reconfigured. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane. Parking lot # 22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance to natural resources.

Summary of Impacts

Impacts of the proposed alternatives were assessed in accordance with NEPA, NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision-making*, which requires impacts to park resources to be analyzed in terms of their context, duration, and intensity. The no action alternative

would have long-term moderate adverse impacts on socioeconomics, transportation, and park operations, and long-term moderate to major adverse impacts on visitor use and experience. Impacts on all other resource topics would be minor and adverse, negligible, or no impact. Alternative B, the preferred alternative, would have short-term moderate adverse impacts on wildlife, transportation, visitor use and experience, and park operations during the construction period. Impacts on wetlands, soils, and vegetation, would be long-term minor adverse. The preferred alternative would have long-term beneficial impacts on special-status species, socioeconomics, transportation, health and safety, park operations, and visitor use and experience.

How to Comment

Agencies and the public are encouraged to review and comment on the contents of this EA and the draft Statement of Findings in Appendix C during a 30-day public review period. We invite you to comment on this plan and you may do so by any one of several methods. The preferred method of comment is on the park's Planning, Environment, and Public Comment (PEPC) web site at http://parkplanning.nps.gov/GUIS. You may also submit written comments to:

Superintendent
Subject: Fort Pickens Road Realignment
Gulf Islands National Seashore
3500 Park Road
Ocean Springs, MS 39564

Only written comments will be accepted; faxed comments, emails, and telephone messages will not be accepted. Please submit your comments within 30 days of the posting of the notice of availability on the PEPC web site. Please be aware that your entire comment will become part of the public record. If you wish to remain anonymous, please clearly state that within your correspondence; although we cannot guarantee that personal information, such as email address, phone number, etc. will be withheld.

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LIST OF ACRONYMS

BMPs	Best Management Practices
CBIA	Coastal Barrier Improvement Act
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DO	Director's Order
E2EM1P	Estuarine, Intertidal, Emergent, Persistent, Irregularly Flooded Wetland
EA	Environmental Assessment
EO	Executive Order
EPA	United States Environmental Protection Agency
ERP	Environmental Resource Permit
ESA	Endangered Species Act
FCMP	Florida Coastal Management Program
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FNAI	Florida Natural Areas Inventory
FLDEP	Florida Department of Environmental Protection
FLDOS	Florida Department of State
Florida FWC	Florida Fish and Wildlife Conservation Commission
FONSI	Finding of No Significant Impact
GHG	Greenhouse gas
GMP	General Management Plan
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	National Rivers Inventory
NWFWMD	Northwest Florida Water Management District
NWI	National Wetlands Inventory
OPA	Other Protected Area

PEPC	Planning, Environment, and Public Comment website (NPS)
PM	Procedural Manual
PWC	Personal Watercraft
ROI	Region of Influence
SEAC	NPS Southeast Archeological Center
SHPO	State Historic Preservation Officer
SOF	Statement of Findings
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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PURPOSE AND NEED

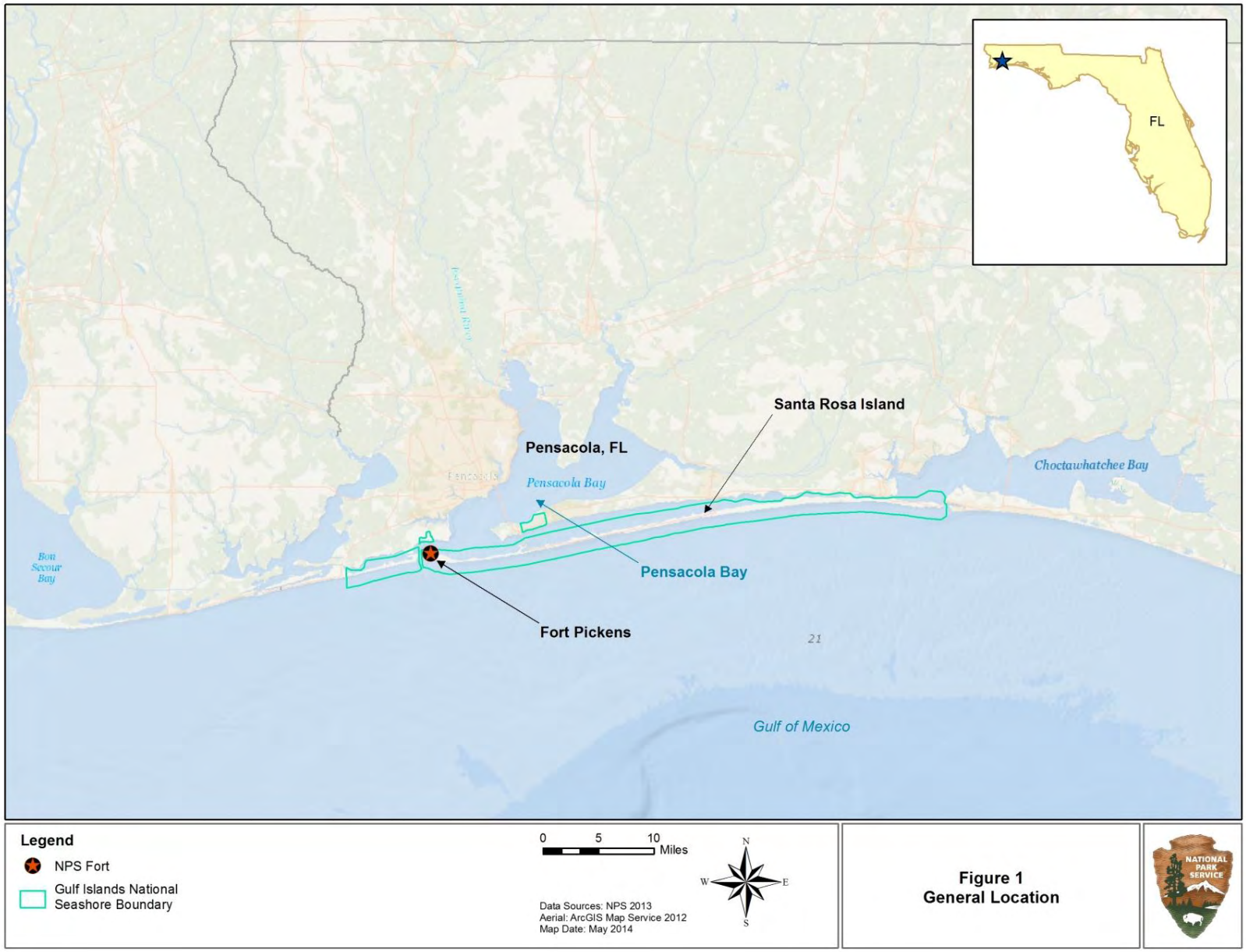
Purpose and Need for the Proposed Action

The National Park Service (NPS) is proposing to realign and repave (overlay) portions of Fort Pickens Road, and reconfigure the NPS entrance station and a parking lot in the Fort Pickens area of Gulf Islands National Seashore (national seashore). The Gulf Islands National Seashore contains several units along the Gulf of Mexico in Florida and Mississippi. Fort Pickens Road is a segment of NPS-owned and –maintained road on Santa Rosa Island, a barrier island in the Gulf of Mexico, Escambia County, Florida (figure 1). The entire road extends approximately 9 miles between Pensacola Beach and the Fort Pickens area, with approximately 7 miles of road within the NPS boundary (figure 2). This road has been in place for over 50 years; however, over the past 10 years the eastern 4 miles of the road has been destroyed multiple times during storm events, causing road closures that result in no vehicular access to the western portion of the island. During annual storm events, the roadway becomes washed out, causing the national seashore to close it for periods of time, ranging from days to weeks, during road repair. The road realignment is needed to relocate the existing road further inland to reduce the effects of the continued erosion of the existing road from hurricanes, other storm events, and high winds. In addition, portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline; adding to the road's vulnerability to storm events. The new road alignment would also help to reduce hazardous conditions to visitors in vehicles on Fort Pickens Road resulting from flooding of the road during storm events. The existing asphalt from the realigned portion of the road would be removed, and the area would be allowed to return to near natural conditions. Portions of the existing road that would not be realigned would be repaved with a new asphalt overlay. One parking lot, parking lot #22, would be realigned in a portion of the existing roadway, and both parking lots #21 and #22 would be repaved.

The existing road is also located within sea turtle nesting habitat. This has caused issues with sea turtle nesting, as some sea turtles have been struck by vehicles after having travelled onto the roadway while searching for a nest site. Relocation of the existing road away from the Gulf of Mexico shoreline, and more inland at a higher elevation, would move it out of sea turtle nesting areas.

In addition to the road realignment and repaving (overlay), the NPS entrance station on Fort Pickens Road would be reconfigured. Currently, the entrance station includes one visitor entrance lane, an employee access entrance, fee collection booth, and a visitor exit lane. A reconfiguration is needed because current entrance delays of up to 40 minutes to process guests are common on busy weekends; causing traffic congestion along Fort Pickens Road and extending into Pensacola Beach. An additional lane is proposed at the visitor entrance station allowing two visitor entrance lanes, an employee access lane, and a visitor exit lane. Parking lot # 22 would also need to be reconfigured to be located near the new roadway, but the reconfigured parking lot would utilize portions of the existing roadway to minimize natural resource disturbance.

This environmental assessment (EA) is intended to analyze the preferred alternative and the no action alternative and their impacts to the environment. This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations; 40 Code of Federal Regulations (CFR) 1500-1508; NPS Director's Order (DO) #12 and Handbook, *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001); and Section 106 of the National Historic Preservation Act of 1966 as amended (NHPA,) and implementing regulations, 36 CFR Part 800. The NEPA process for this project is being used to comply with Section 106 of the NHPA.


FL
Santa Rosa Island
Pensacola, FL
Pensacola Bay
Choctawhatchee Bay
Bon Secour Bay
Pensacola Bay
Fort Pickens
21
Gulf of Mexico
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NPS Fort
Gulf Islands National Seashore Boundary
0 5 10 Miles
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Data Sources: NPS 2013
Aerial: ArcGIS Map Service 2012
Map Date: May 2014
Figure 1
General Location
NATIONAL PARK SERVICE

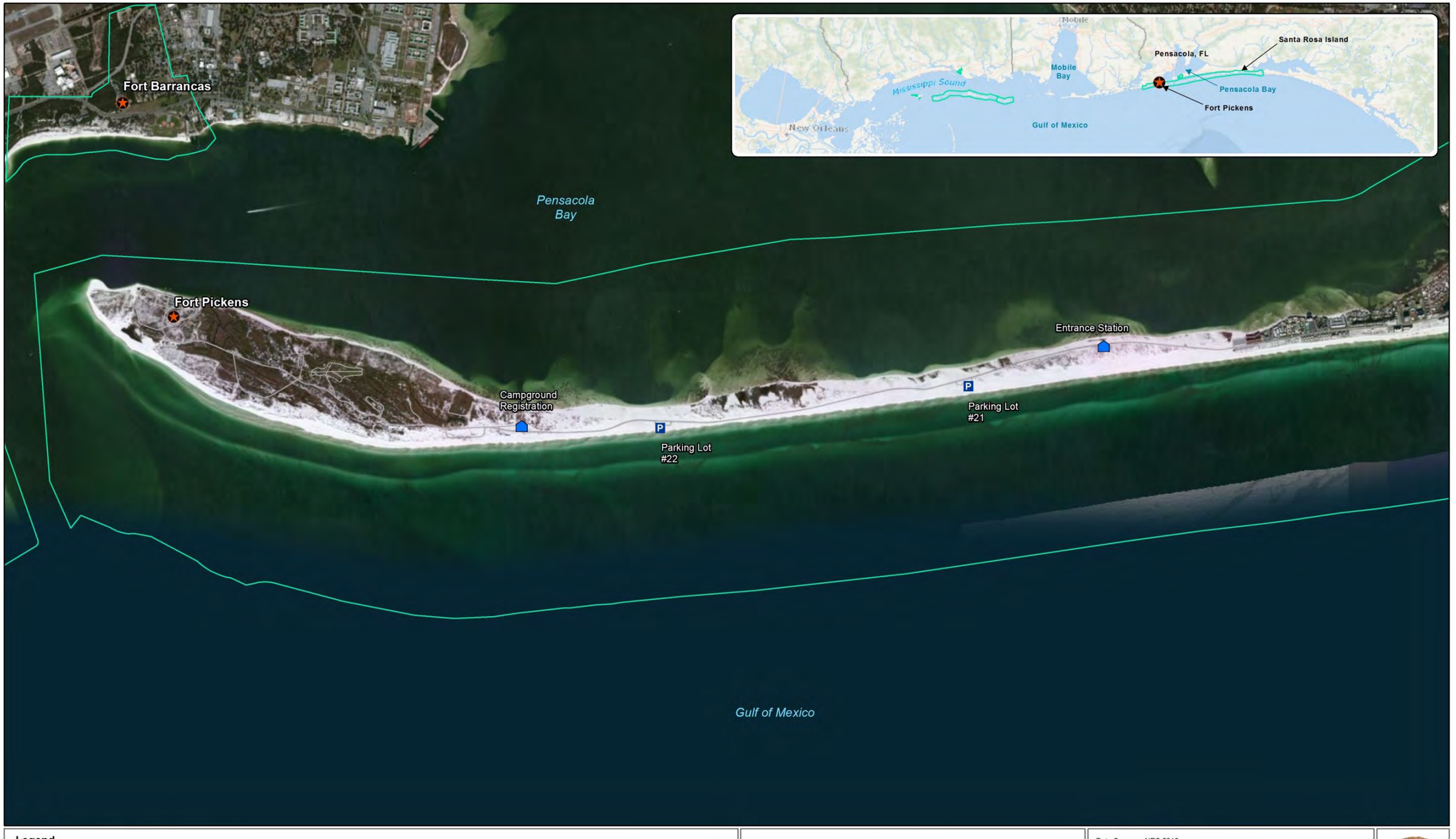

Figure 2
Project Area Location

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Purpose and Significance of the National Seashore

Purpose statements convey the reason for which the park unit was set aside as part of the national park system. Grounded in an analysis of national seashore legislation and legislative history, purpose statements also provide primary criteria against which the appropriateness of plan recommendations, operational decisions, and actions are tested. The purpose of Gulf Islands National Seashore is to preserve and interpret its Gulf Coast barrier island and bayou ecosystem and its system of coastal defense fortifications, while providing for the public use and enjoyment of these resources.

Significance statements capture the essence of the park unit's importance to the nation's natural and cultural heritage. They describe the unit's distinctiveness and describe why an area is important within regional, national, and global contexts. This helps managers focus their efforts and limited funding on protection and enjoyment of attributes that are directly related to the purpose of the park unit. 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 Background

Fort Pickens Road has been in place for over 50 years under state, and then federal ownership. Over time the natural processes and dynamics of the barrier island have proceeded, and large portions of the Fort Pickens Road have been damaged by hurricanes, other storms, and high winds. NPS had previously considered relocating the road after each damaging storm; however, because of funding constraints and the relatively moderate extent of damage, the relocation alternative was not implemented. The eastern 4 miles of the road were destroyed by Hurricane Ivan in September 2004, and damaged by subsequent tropical events in 2005. Following these storms, the road was closed to vehicular traffic. In January 2005, the NPS Southeast Regional Director approved reconstruction of Fort Pickens Road along an alignment away from the shore and much closer to Santa Rosa Sound. Reconstruction began in February 2005 along the approved alignment, with a projected opening of June 2005. Unfortunately, within five days of the re-opening of the road, Tropical Storm Arlene made landfall and damaged portions of the newly constructed road. Necessary repairs were underway when Hurricanes Cindy and Dennis subsequently struck the Florida Panhandle in July 2005, destroying portions of the work that had been completed up to that time and resulting in the cessation of all construction activities. Fort Pickens Road was repaired and reopened in May 2009, but has continued to have maintenance issues following storm events.

Previous Planning

Following the closure of Fort Pickens Road in 2004 after Hurricane Ivan and other storms, the national seashore prepared an EA to restore visitor access to the Fort Pickens area in 2006. This EA looked at multiple alternatives for road reconstruction and alternative means of transportation to the island including a passenger ferry. The Finding of No Significant Impact (FONSI) for the preferred alternative, road reconstruction using a mix of protective elements, was signed in September 2007.

In fall 2011, the national seashore released its draft General Management Plan (GMP) which presented several possible alternative ways of managing Gulf Islands National Seashore. Public meetings for the draft GMP were held in October and November 2011, where the public had the opportunity to provide comments on the document. Vehicular access to the Fort Pickens area was discussed within the draft GMP, and has been included in the final GMP. The draft GMP stated that under the preferred management of the Fort Pickens area, Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens area. If feasible, NPS would continue to reconstruct the road after major storms (NPS 2014a).

Scoping

Internal scoping defines issues, alternatives, and data needs for the potential action. On March 11, 2014 the national seashore initiated a formal project kick off meeting and site visit with the interdisciplinary team. At this meeting, the team defined project issues and project elements. In addition, the team drove along the existing Fort Pickens Road and walked the proposed realignment route. The configuration of the entrance road and parking lots were also observed.

External scoping, the process used to gather public input, was conducted in accordance with NPS guidelines for implementing NEPA and NHPA. NPS released a project scoping newsletter on March 27, 2014 describing the proposed project and preliminary draft alternatives (Appendix A). The public scoping period lasted a total of 33 days. During this time, the public was invited to identify any issues or concerns they have with the proposed project so the NPS could appropriately consider them in this EA. A total of 22 correspondences were received during this period. The majority of comments received either supported or opposed the proposed project. Some commenters felt that the project would benefit wildlife in the area, while others felt that continued vehicular use along the road would continue to impact wildlife. Commenters suggested other means of repairing the roadway which included the use of limestone or oyster shell instead of asphalt pavement and renourishment of the beach sand rather than road repair. Commenters also made suggestions regarding the removal of the existing road, including leaving the existing road to provide a bike and walking path. Commenters also suggested that the road not be rebuilt, restricting vehicle access to the national seashore.

Scoping also includes consultation with any interested agency, or any agency with jurisdiction by law to obtain early input. Scoping letters were mailed to local and federal agencies on April 23, 2014 requesting consultation and comments regarding the proposed project. Scoping letters were also sent to the State Historic Preservation Office (SHPO) on May 12, 2014 and 30 representatives from 15 tribal governments on May 9, 2014 requesting concurrence of no adverse effect on cultural resources. Responses were received from the National Marine Fisheries Service (NMFS), the U.S. Army Corps of Engineers (USACE), the U.S. Fish and Wildlife Service (USFWS), and the Florida Fish and Wildlife Conservation Commission (Florida FWC), as well as the Miccosukee Tribe of Indians of Florida. A letter was also received from the Florida Department of Environmental Protection (FLDEP), which included the agency responses and comments from the FLDEP, Northwest Florida Water Management District (NWFWMD), Florida FWC, the Florida Department of State (FLDOS), the Florida Department of Transportation, West

Florida Regional Planning Council, and Escambia County. Copies of the consultation letters and responses are located in Appendix B.

Issues

Issues can be defined as the relationships between the proposed action and the human, physical, and natural environment (NPS 2001). Issues are used to define which environmental resources may experience either negative or beneficial consequences from an action. They do not predict the degree or intensity of potential consequences that might result from an action. Issues are usually problems caused by the no action alternative or other alternatives, but may be other questions, concerns, or problems.

Issues identified during internal scoping included the continued maintenance of Fort Pickens Road after each destructive storm event. In some cases, repairing the road resulted in days to weeks where access to the area was restricted. Because the beach has continued to erode, the roadway is now close to the beach in some areas and has caused issues with sea turtle nesting. Sea turtles have been seen crossing the road when searching for a nest location and the road presents a risk to sea turtle species. One sea turtle was struck by a vehicle and killed along Highway 399 in the Santa Rosa unit of the national seashore. During the site visit, wetland areas were observed within the proposed road realignment corridor resulting in concern for potential impacts on wetlands and protected species other than sea turtles. After receiving information from the public, outside agencies, and other sources, one additional issue identified for this project other than the ones discussed above under scoping was the potential for vehicle strikes of shorebird species and other wildlife species along the proposed road realignment.

Derivation of Impact Topics

Impact topics were used to define and focus the discussion of resources that could be affected by the alternatives, and are the focus in the evaluation of the potential environmental consequences of the alternatives. Potential impact topics were identified based on legislative requirements, executive orders (EOs), topics in DO #12 and Handbook: *Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001), NPS *Management Policies* (NPS 2006a), guidance from NPS, input from other agencies, public concerns, and resource information specific to the national seashore. The interdisciplinary team discussed each resource topic and how the proposed project would either benefit or adversely impact the resource. A brief rationale for the selection of each impact topic is given below as well as rationale for dismissing specific topics from further consideration. In general, if negligible impacts would result from the proposed project, the impact topic was dismissed from further analysis.

Impact Topics Included in this Document

The following impact topics have the potential to be affected by the proposed action and are evaluated in detail in this EA.

Soundscape – Noise from construction equipment and construction activities has the potential to adversely impact visitors and wildlife within the Fort Pickens area.

Soils – Construction activities, including the realignment of the road, and reconfiguration of the entrance station and parking lot #22 would include the disruption and compaction of soils.

Coastal Zone/Coastal Barrier Resources System (CBRS) Area – The proposed project area is located within the coastal zone and the CBRS area.

Floodplains – The proposed project lies within the 100-year floodplain. NPS DO #77-2: *Floodplain Management and Procedural Manual #77-2* provide NPS policies and procedures for complying with EO

11988, "Floodplain Management". If the preferred alternative in an EA would result in adverse impacts on a regulatory floodplain, a Statement of Findings (SOF) documenting compliance with DO #77-2 and its implementation procedures is required to be completed. Because the proposed construction lies within the 100-year floodplain, a SOF for floodplains is required and is located in Appendix C.

Wetlands – Wetland delineation surveys conducted in March 2014 identified 11 wetlands in or near the project area, of which three would be within the 50-foot road buffer, and one would be within the proposed road alignment and 50-foot buffer; therefore, wetlands would be impacted from the realignment of Fort Pickens Road.

EO 11990, "Protection of Wetlands" directs all federal agencies to avoid to the maximum extent possible the long- and short-term adverse impacts associated with the occupancy, destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. Based on NPS DO #77-1:*Wetland Protection and Procedural Manual #77-1* , if a preferred alternative would have adverse impacts on wetlands, a SOF must be prepared that documents the rationale for choosing an alternative that would have adverse impacts on wetlands. A required SOF for wetlands has been prepared and is included in Appendix C.

Vegetation – Section 4.4.1 of the NPS *Management Policies* 2006 states that NPS "will minimize human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them" (NPS 2006a). Localized vegetation clearing during construction would be associated with the realignment of Fort Pickens Road, reconfiguration of the entrance station, and reconfiguration of parking lot #22.

Wildlife – Wildlife within the Fort Pickens area is expected to be impacted during construction activities. The noise associated with the construction equipment and presence of workers could disrupt feeding and nesting behaviors of various species local to the area. The area proposed for the road realignment does include shorebird nesting areas, and the Santa Rosa beach mouse (*Peromyscus polionotus leucocephalus*) is also found in the dunes within the Fort Pickens area of the national seashore. In addition, the proposed project area includes unique sand dune habitat which may be removed from some areas along the road realignment which would adversely impact some species that are unique to this type of habitat.

Special Status Species – Special status species are those that have been identified by the USFWS or the Florida FWC as needing special protection. Section 4.4.2.3 of the NPS *Management Policies* 2006 states that NPS "will fully meet its obligations under the NPS Organic Act and the Endangered Species Act (ESA) to both proactively conserve listed species and prevent detrimental effects on these species" (NPS 2006a). The national seashore provides potential habitat for wildlife species listed by the USFWS or Florida FWC, including listed sea turtle species and several state and federally listed shorebird species. The realignment of Fort Pickens Road would benefit listed sea turtles that nest in the area by providing additional nesting habitat away from the roadway, but could have adverse impacts on shorebird species from the continued potential for vehicle strikes resulting in shorebird mortality.

Socioeconomics – Benefits to the local economy would occur during the construction phase of the proposed project. Local contractors would be used for the repaving (asphalt overlay), realignment of the road, reconfiguration of the entrance station, and reconfiguration of parking lot #22. In addition, continued vehicular access to the Fort Pickens area would continue to generate visitation to the Pensacola Beach area. National Seashore visitors would continue to use local restaurants, shopping areas, and recreation activities outside of the national seashore boundary.

Transportation – During construction activities, adverse impacts to traffic and circulation within the Fort Pickens area may be adversely impacted. Fort Pickens Road may be unavailable to vehicular traffic during the repaving (asphalt overlay). During the road realignment, the existing Fort Pickens Road would

continue to be available during construction; however, reduced speeds may be necessary for safety reasons. Following construction, the reconfiguration of the entrance station would benefit traffic in the area by relieving traffic congestion at the entrance station during high visitation days.

Health and Safety – Adverse impacts to health and safety could occur during the construction period to both visitors and national seashore employees/contractors. Following construction, beneficial impacts to health and safety are expected from realigning the road further away from the Gulf of Mexico, which would help to reduce hazardous conditions resulting from flooding of the road during storm events.

Visitor Use and Experience – The NPS *Management Policie*s 2006 states that "[t]he fundamental purpose of all parks also includes providing for the enjoyment of park resources and values by the people of the United States" (NPS 2006a). During construction, adverse impacts to visitor use and experience may occur; however, following construction the road realignment, repaving (asphalt overlay), and reconfiguration of the entrance station would benefit visitors within the Fort Pickens area by allowing continued vehicle access.

Park Operations – Park operations would be affected during construction and operation of the proposed project. During construction, staff may be needed to monitor construction activities. Following the road realignment and repaving (asphalt overlay), the need for maintenance activities to Fort Pickens Road would be reduced.

Impact Topics Dismissed from Further Analysis

A summary of impact topics dismissed from analysis is provided below, along with the rationale for the dismissal.

Air Quality – Gulf Islands National Seashore is subject to federal, Florida, and Mississippi air regulations. National ambient air quality standards have been established by the Environmental Protection Agency (EPA). Current standards are set for sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, particulate matter equal to or less than 10 microns in size, fine particulate matter equal to or less than 2.5 microns in size, and lead. Escambia County is currently in attainment for all criteria air pollutants (EPA 2013). The proposed project would contribute trace amounts of criteria air pollutants during construction activities, resulting in overall negligible impacts; therefore this topic was dismissed.

Geology and Topography – Although some grading would be needed for the road realignment the topography of the area would not be altered, as it is relatively flat. In addition, excavation required for the road realignment, reconfiguration of the entrance station, and reconfiguration of parking lot #22 would not extend past the soil (sand) layer. These topics were dismissed since changes to topography would not be measureable and no excavation of underlying geologic resources would occur.

Hydrology and Water Quality – All project components proposed are land based activities. No construction would occur within the Gulf of Mexico or Pensacola Bay. To eliminate the potential for impacts to water quality during construction activities, best management practices (BMPs) to control soil erosion and sedimentation would be implemented, and the NPS would acquire all necessary permits for construction activities. This topic was dismissed since no changes to hydrology would occur and water quality impacts would be negligible.

Aquatic Resources – Aquatic vegetation and wildlife occur within the Gulf of Mexico and Pensacola Bay surrounding the Fort Pickens area. To eliminate the potential for impacts to aquatic resources during construction of the proposed land based project activities, BMPs to control soil erosion and sedimentation into nearby waterways would be implemented; therefore this topic was dismissed since impacts to aquatic resources are expected to be negligible.

Archeological Resources – Pursuant to Section 5.3.5 of the NPS *Management Policies* 2006, archeological resources will be protected against human agents of destruction and deterioration whenever practicable (NPS 2006a). On September 3, 2013, archeologists from the NPS Southeast Archeological Center (SEAC) carried out an archeological survey along the proposed realignment of the Fort Pickens Road. A survey grid, with 20 meter intervals, was established over the project area, resulting in a total of 595 shovel tests. The majority of the shovel tests contained road fill debris from storm damage to the previous road segments. All shovel tests were negative for cultural materials. Shovel testing in the area of two archeological areas (GUIS-57 Hotel-Bar site and GUIS-119 Tug Boat Sport Wreck) also produced negative results with no evidence of either site being found. Additional care in planning should be made to avoid these two sites (NPS 2013). On March 22-23, 2014, SEAC performed an archeological survey within the proposed area for the reconfiguration of the entrance station. A total of 39 shovel tests were performed and these were all negative for cultural materials. If large portions of sand dunes are required to be removed during construction of the road realignment or reconfiguration of the entrance road, an archeologist would be on site to monitor construction activities. This topic was dismissed from further analysis since no archeological sites were identified within the project area during the archeological survey, which was completed along the entire 100-foot corridor and at the entrance station. If during the progress of this project, prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or human bone or any other physical remains that could be associated with Native America cultures or early colonial or American settlement, are encountered at any time within the project area, the project shall cease all activities involving subsurface ground disturbance in the immediate vicinity of such discoveries and contact NPS Science and Resource Management staff, who will contact NPS SEAC, and the SHPO. A letter was received from the SHPO on May 22, 2014 indicating that the proposed alignment would not impact cultural resources. A copy of this letter is included in Appendix B. A phone message was received from the Miccosukee Tribe of Indians of Florida on June 27, 2014 indicating that they had no issue with the project and had no knowledge of any resources in the area.

Historic Structures and Districts – Park resources classified as historic structures may be listed as buildings, structures, districts, or objects in the National Register of Historic Places (NRHP). Historic structures also may be included in the National Register as contributing elements of historic districts, either as components of developed areas or as landscape features. Although the realignment of Fort Pickens Road, reconfiguration of the entrance station, asphalt overlay, and reconfiguration of parking lot #22 occur within the Fort Pickens unit of the national seashore, impacts to the historic structures and district would not occur since the proposed project is located approximately 2.5 miles from the Fort Pickens Historic District and construction activities would not be visible from Fort Pickens from this distance; therefore this topic was dismissed. Fort Pickens and associated artillery batteries are located on the western end of Santa Rosa Island in the Fort Pickens Historic District. Fort Pickens is one of the four forts built by the United States for the defense of Pensacola Bay and the Navy yard. Fort Pickens and associated artillery batteries would not be impacted by the proposed project; therefore this topic was dismissed from further analysis. A letter was received from the SHPO on May 22, 2014 indicating that the proposed alignment would not impact cultural resources. A copy of this letter is included in Appendix B.

Cultural Landscapes – The NPS defines cultural landscapes as geographic areas associated with historic events, activities, or people that reflect that park's history, development patterns, and the relationship between people and the park. Six potential cultural landscapes have been identified and registered in the NPS Cultural Landscapes Inventory database for the national seashore. However, cultural landscape inventories have not yet been completed for these areas, nor have they been evaluated for their significance or their eligibility to the NRHP. One of the six cultural landscapes includes Fort Pickens. Although the realignment of Fort Pickens Road, reconfiguration of the entrance station, asphalt overlay, and reconfiguration of parking lot #22 occur within the Fort Pickens unit of the national seashore, impacts

to the cultural landscape would not occur since the proposed project is located approximately 2.5 miles from Fort Pickens and construction activities would not be visible within the cultural landscape from this distance; therefore this topic was dismissed. A letter was received from the SHPO on May 22, 2014 indicating that the proposed alignment would not impact cultural resources. A copy of this letter is included in Appendix B.

Ethnographic Resources – Ethnographic resources are defined as the natural and cultural materials, features, and places that are linked by a subject community to the traditional practices, values, beliefs, history, and/or ethnic identity of that community. Native Americans from numerous tribes have long been associated with the areas of western Florida. During scoping for this project, government-to-government coordination was undertaken with the Native American tribes traditionally associated with the area now encompassed by the national seashore (Appendix B). Copies of this EA will be forwarded to each associated tribe for review and comment upon request. If subsequent issues or concerns are identified, further consultations would be undertaken. Because there are no known ethnographic resources on national seashore lands, and no issues or concerns were raised by associated tribes during scoping, ethnographic resources was dismissed as an impact topic. A phone message was received from the Miccosukee Tribe of Indians of Florida on June 27, 2014 indicating that they had no issue with the project, and had no knowledge of any resources in the area.

Museum Collections – Pursuant to Section 5.3.5 of the NPS Management Policies 2006, NPS will "collect, protect, preserve, provide access to, and use objects, specimens, and archival and manuscript collections (henceforth referred to collectively as "collections," or individually as "items") in the disciplines of archeology, ethnography, history, biology, geology, and paleontology to aid understanding among park visitors, and to advance knowledge in the humanities and sciences" (NPS 2006a). Following the 2004 and 2005 hurricanes that damaged portions of the national seashore, museum collections are temporarily being housed at other NPS units and universities. These include Timucuan Ecological and Historic Preserve; Harpers Ferry National Historical Park; Southeast Archeological Center; Louisiana State University; University of West Florida in Pensacola; the R. L. Herbarium at the University of Kansas; and the Field Museum in Chicago, Illinois. Because no museum collections occur within the vicinity of the Fort Pickens Road proposed project area, this topic was dismissed from further analysis.

Wild and Scenic River –The Nationwide Rivers Inventory (NRI) is a listing of more than 3,400 free-flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values judged to be of more than local or regional significance by the NPS (NPS 2011). Under 1979 President Directive and related Council on Environmental Quality (CEQ) Procedures, all federal agencies must seek to avoid or mitigate actions that would adversely affect one or more NRI segments. There are no wild and scenic rivers identified within the national seashore at the Fort Pickens area; therefore, this topic has been dismissed from further analysis.

Environmental Justice – EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires federal agencies to make achieving environmental justice part of its mission. Specifically, each agency must identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations." The intent is to prevent minority and low-income populations from being disproportionately affected by adverse human health and environmental impacts of federal actions. The minority population is defined as the nonwhite and multiracial population of a given area and includes African American, Asian, American Indian, Native Alaskan, Native Hawaiian, Pacific Islander, persons reporting some other race, and persons reporting two or more races. None of the alternatives (including the no action alternative) would result in disproportionate impacts on minority populations; therefore this topic was dismissed from further analysis.

Climate Change – Climate change refers to the changes in average climatic conditions (such as mean temperature, precipitation, and wind) or variability (such as seasonality and storm frequency) lasting for an extended period (decades or longer). Recent reports provide evidence that climate change is occurring as a result of rising greenhouse gas (GHG) emissions and could accelerate in the coming decades. Although climate change occurs globally, it manifests differently on a more regional scale, depending on local and regional factors. General changes that are anticipated through climate change include hotter, drier summers; warmer winters; warming of waterbodies; higher ocean levels; an increase in the severity of wildfires; greater flooding and heavier precipitation events; a degradation of air quality; and an increase in drought conditions. Climate change is a far-reaching long-term issue, and may affect the national seashore, including resources, visitors, and management. Although some of the impacts of climate change are considered known or likely, many potential impacts are not known. Much depends on the rate at which the temperature would continue to rise and whether global emissions of greenhouse gases can be reduced or mitigated. Construction activities associated with the proposed road realignment would contribute to increased GHG emissions, but emissions would be short-term during the construction period. It is not possible to meaningfully link GHG emissions of such individual project actions to quantitative effects on regional or global climatic patterns. Any effects on climate change would not be discernible at a regional scale. Therefore, climate change was dismissed from further evaluation.

ALTERNATIVES

NEPA requires federal agencies to fully evaluate and consider a range of reasonable alternatives that address the purpose of and need for action. Alternatives under consideration must include a no action alternative in accordance with CEQ regulations (40 CFR § 1502.14). Action alternatives may originate from the proponent agency, local government officials, members of the public at public meetings, or during the early stages of project development. Alternatives may also be developed in response to comments from coordinating or cooperating agencies.

The alternatives carried forward for detailed analysis meet the management objectives of the national seashore, while also meeting the overall purpose of and need for the project. Alternatives and actions that were considered but are not technically or economically feasible, do not meet the purpose of and need for the project, create unnecessary or excessive adverse impacts to resources, and/or conflict with the overall management of the national seashore or its resources were dismissed from detailed analysis. These alternatives or alternative elements and their reasons for dismissal are discussed at the end of this chapter.

No Action Alternative (Alternative A)

Regulations promulgated by the CEQ require NPS to consider the no action alternative. The no action alternative serves as a baseline against which to compare the impacts of other alternatives under consideration.

Under the no action alternative, Fort Pickens Road would not be realigned or repaved. Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens area. Two small beach access areas with parking would continue to be provided, and bike and pedestrian access would continue to be permitted along the road shoulders. However, storm events would continue to erode the roadway, resulting in situations in the future where conditions become so altered that it is no longer feasible to repair or maintain the road. This would be determined on a case-by case basis. If road repairs are not feasible, Fort Pickens Road would be closed and access to the area would no longer be permitted by automobile. As a result, visitors would not be able to access national seashore amenities at the western portion of the island, such as the fort, artillery batteries, visitor center, and camping areas by automobile; although boat access would be possible.

The Preferred Alternative (Alternative B)

Under the preferred alternative, NPS would realign a 1.87 mile portion of the Fort Pickens Road (figure 3). The road would be moved north away from the Gulf of Mexico into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. Any embankment needed for this project would include the use of on-site sand. The national seashore has a sand borrow area near Battery Landing behind the carpentry shop that has been previously used for sand borrow. Approximately 1.80 miles of the existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish to a natural dune community. The current utilities located under the existing roadway or in the existing road corridor would stay in place following the road demolition. In the future, there is potential for relocating the current utilities within the new proposed road corridor if the utilities become affected by future storm events. Construction of the new roadway is expected to occur between September 2015 through March 2016 due to time of year restrictions for nesting shorebirds and sea turtles. Visitors would continue to have access to the Fort Pickens area via the existing road during the construction period. Construction staging areas would be located on existing impervious surfaces, in parking lot #22 and parking lot #21 (figure 3).

A repaving or asphalt overlay would be placed on 2.70 miles of the remaining portions of Fort Pickens Road within the NPS boundary and within parking lots #21 and #22 (figure 3). The asphalt overlay would add approximately 2 to 3 inches of asphalt over the existing roadway and parking lots for repaving of the roadway surface. No disturbance to the adjacent areas is expected from this action since this activity would occur within the footprint of the roadway and parking lots.

The NPS entrance station on Fort Pickens Road and parking lot #22 would be reconfigured. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. The exit lane would be reconstructed south of the current lane and the current exit lane would become a second entrance lane. An employee entrance would also be constructed on the north side of the existing entrance station. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane. Parking lot # 22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance to natural resources.

Mitigation Measures of the Action Alternatives

The NPS places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures would be implemented as part of the action alternative. The NPS would implement an appropriate level of monitoring throughout the construction process to help ensure that protective measures are being properly implemented and are achieving their intended results. Mitigation, according to NEPA regulations (40 CFR 1508.20) includes:

- Avoiding the impact altogether by not taking a certain action or parts of an action;
- Minimizing impacts by limiting the degree of magnitude of the action and its implementation;
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- Compensating for the impact by replacing or providing substitute resources or environments.

The following are mitigation measures that would be implemented to minimize impacts on specific resources:

Noise

- All construction activities would be conducted during daylight hours to avoid noise impacts on national seashore visitors, campers, and nearby neighbors.

Soils

- BMPs, such as sand fencing, would be used to prevent and control soil erosion and sedimentation during construction of the proposed project.
- If additional sand is needed during construction, the national seashore has identified a sand borrow area located near Battery Langdon behind the carpentry shop within the Fort Pickens area. Sand would not be used from outside of the national seashore boundary and would match the native grain size and color.
- An erosion and sediment control plan would be prepared and approved before the start of construction activities.

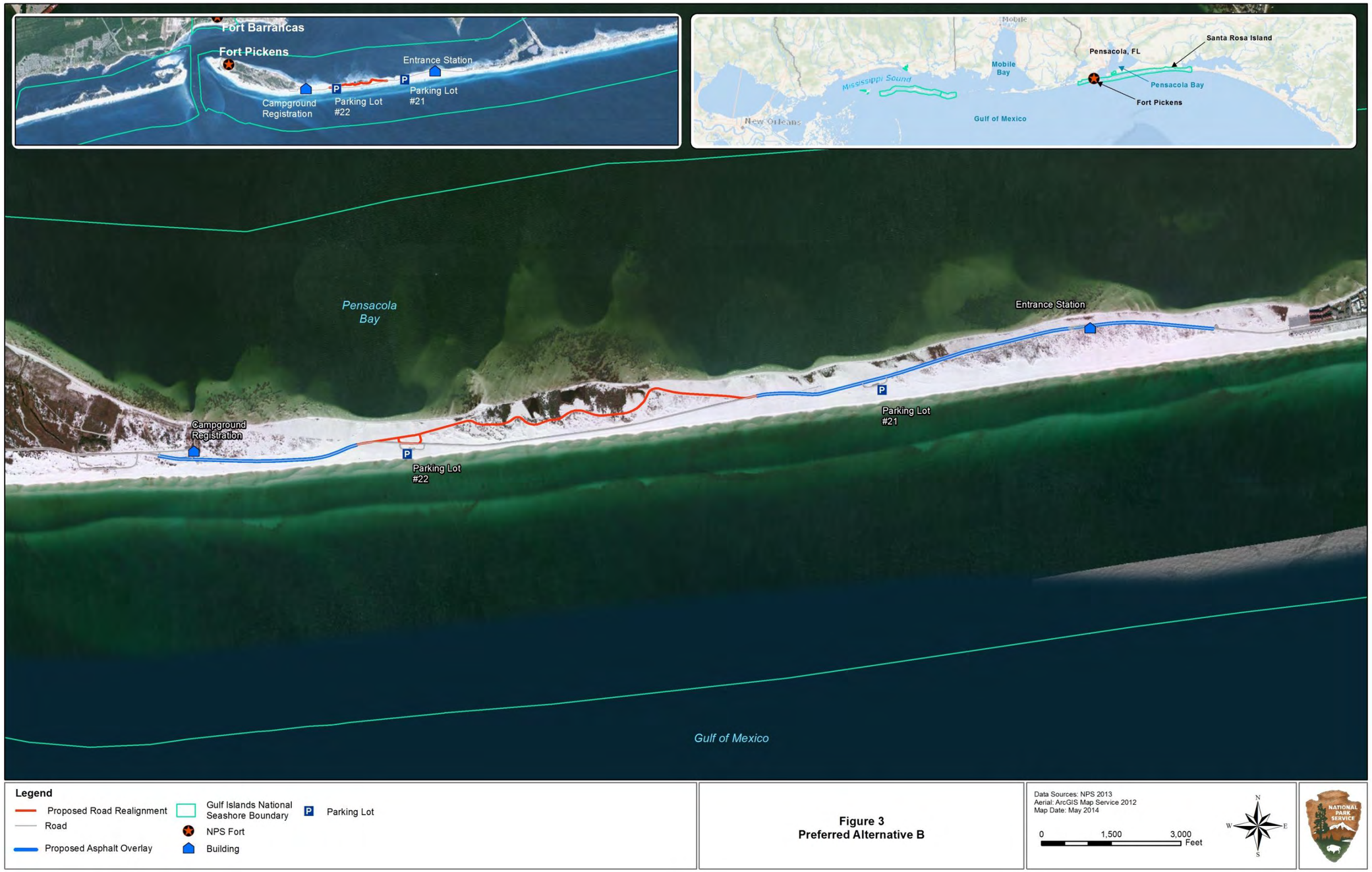

Figure 3
Preferred Alternative B

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Wetlands

- Invasive species control is proposed within the proposed wetland project area at the national seashore to improve wetland functions and values. Invasive plant species can decrease native plant diversity and disrupt ecosystems. The NPS has a mandate to preserve native species diversity and natural ecosystems. To mitigate impacts to wetlands at the national seashore, the NPS would improve the overall functionality and values in wetlands at the national seashore through the removal of invasive plant species. Details on invasive species proposed for treatments are outlined in the SOF, which is presented in Appendix C.

Vegetation

- BMPs, such as sand fencing, would be used to prevent and control soil erosion and sedimentation during construction of the proposed project activities, thus protecting nearby vegetation.
- An erosion and sediment control plan would be prepared and approved before the start of construction activities.

Special Status Species

- Construction would occur between September 2015 through March 2016 due to time of year restrictions for nesting shorebirds and sea turtles.
- Preconstruction surveys would be conducted for presence of special status species including terrestrial plants and terrestrial wildlife. Surveys would also document the presence of special status species' habitats and nests.
- Special status plant species would be avoided, if possible, during construction and vegetation removal activities.
- If special status plant or wildlife populations cannot be avoided, consultations with appropriate federal and state agencies would be required prior to construction. These consultations would determine appropriate mitigation measures for any populations affected by the proposed project.

Visitor Use

- All construction activities would be conducted during daylight hours to avoid noise impacts on national seashore visitors.
- Construction would be avoided during peak visitor use periods (i.e., weekends, holidays).

Health and Safety

- A safety plan would be developed prior to initiation of construction to ensure the safety of national seashore visitors, construction workers, and national seashore personnel.

Alternatives Considered But Dismissed

Several alternatives or alternative elements were identified during the design and scoping processes. Some of these were determined to be unreasonable, or much less desirable than similar options included in the analysis, and were therefore not carried forward for analysis in this EA. Alternatives considered but dismissed include the following construction techniques identified in the 2006 EA for Restoring Visitor Access to the Fort Pickens Area (NPS 2006b):

- Protective Sand Berms – The use of protective sand berms on the south side of the road was considered but dismissed. The sand berm would be 4 feet high, approximately 8 feet above sea level, and 3 miles long. The berm would be approximately 142 feet wide at the base. Protective sand berms, 4 to 5 feet high, approximately 10 feet above sea level, and 2.2 miles long were considered but dismissed along the north side of the road. Protective sand berm measures were dismissed from further analysis because the berms would not fully protect the road during storm events.
- Mix of Protective Elements – The use of a mix of protective elements including a combination of protective berms, sheet pile, geoweb, articulated concrete block, and widening of the outside shoulders was considered. This technique would include a total of 2.22 miles of protective armoring installed within strategic locations. Sheet pile is a wall of interlinked steel, concrete, or composite material driven approximately 20 feet into the ground. The sheet wall would be capped with a concrete bulkhead, buried, and supported by a buried geoweb. Geoweb is a reinforced geotechnical fabric, composite polymer material mattress. It is installed as a celled mattress, with each cell being filled with 4-inch size rock. Articulated concrete block is a series of pre-formed concrete pieces interlocked with stainless steel wire cabling. An asphalt apron is essentially a widened shoulder that protects the road surface by moving the point of failure farther away from the travel lanes. This mix of protective elements was considered but eliminated from further analysis due to the high costs associated with these techniques and the adverse environmental impacts. Sheet piling is more disruptive of natural processes because it extends underground and can generate greater scour during storm events.
- Beach Renourishment and Dune Enhancement – Beach renourishment would include the national seashore accepting approximately 1.75 million cubic yards of sand from an outside source to be used for renourishment along a 4-mile stretch of beach within the Fort Pickens area. The replenished sand would be revegetated with native species to promote stability and continued foredune development. This technique was considered but dismissed from further analysis due to high costs, the potential for continued erosion of the beach, and the need to repeat the beach renourishment periodically. In addition, it is often difficult to find sand with an appropriate grain size, color, and absence of contamination.

The following suggestions received during the public scoping period were considered but dismissed from further analysis:

- Use of limestone or oyster shell as a substrate for the Fort Pickens Road. This topic was dismissed due to the cost of construction and maintenance of a shell substrate road. Additionally, alternative road surfaces do not meet FHWA or FDOT design standards, and can result in the introduction of foreign materials into the local environment (Kirk Associates, LLC and HDR Engineering, Inc. 2006).
- Keep the roadway in the current location and conduct beach renourishment. As stated above, this technique was considered but dismissed due to high costs, the potential for continued erosion of the beach, and the need to repeat the beach renourishment periodically.

The Environmentally Preferred Alternative

In accordance with DO #12, the NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Department of the Interior Departmental Manual (516 DM 4.10) and the CEQ's *NEPA's Forty Most Asked Questions*, defines the environmentally preferred alternative (or

alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (Section 101(b) (516 DM 4.10), which considers:

1. fulfilling the responsibilities of each generation as trustee of the environment for succeeding generations
2. assuring for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings
3. attaining the widest range of beneficial uses of the environment without degradation, risk of health and safety, or other undesirable and unintended consequences
4. preserving important historic, cultural, and natural aspects of our natural heritage and maintaining, wherever possible, an environment that supports diversity and variety of individual choice
5. achieving a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
6. enhancing the quality of renewable resources and approaching the maximum attainable recycling of depletable resources

After completing the environmental analysis, the NPS identified alternative B as the environmentally preferred alternative in this EA because it best meets the definition established by the CEQ. Alternative B provides safe, vehicular access to the Fort Pickens area for future generations. Alternative B best protects natural resources, including special status species, by providing additional sea turtle nesting habitat and protection by realigning Fort Pickens Road out of sea turtle nesting habitat. Although alternative B would have adverse impacts on shorebird species resulting from the potential for mortality from vehicle collisions, this impact would also be adverse under the no action alternative. Shorebirds would be in danger of collisions with vehicles along the road on the current road alignment under the no action alternative and the realignment under alternative B. Alternative B would be realigned into areas currently used by shorebirds, but shorebirds nest along much of the Fort Pickens area of the national seashore, and are anticipated to use the habitat along the removed road alignment, as well as any potential habitat created by dune development where the road removal would occur. Additionally, the no action alternative does not guarantee safe access to the Fort Pickens area for future generations. It is likely that Fort Pickens Road would be destroyed during a future storm event and would likely not be repaired, resulting in no vehicular access to the Fort Pickens area, greatly restricting visitor access in the Fort Pickens area of the national seashore. In addition, under the no action alternative, the entrance station would not be reconfigured, and traffic delays at the visitor entrance station would continue. The no action alternative would also continue to limit sea turtle nesting habitat and threaten this special status species.

Alternatives Comparison Table

Table 1 compares and contrasts each alternative, including the degree to which each alternative accomplishes the purpose and fulfills the need and objectives for the project. The purpose of this project is to continue to provide safe, vehicular access to the Fort Pickens area while protecting national seashore resources. The following objectives have been identified for this project:

- Continue safe visitor access to the Fort Pickens area via Fort Pickens Road.
- Reduce maintenance and repair of the existing Fort Pickens Road.
- Reduce the number of road closures in the national seashore due to overwash and damage of Fort Pickens Road.

- Relocate Fort Pickens Road outside of sea turtle nesting habitat and provide new nesting areas.
- Reduce traffic delays at the visitor entrance station.

Table 1. Comparative Summary of Alternatives

Project Objectives	Alternatives	
	No Action Alternative (Alternative A)	**Preferred Alternative (Alternative B)**
Provide Safe Access to Fort Pickens Area	Moderately meets project objective. Currently, vehicular access to the Fort Pickens area would continue; however, hazardous conditions to visitors in vehicles resulting from flooding of the road during storms could continue to occur.	Fully meets project objective. The road realignment would move a portion of the roadway inland away from the Gulf of Mexico, providing a safer access to the Fort Pickens area by reducing flooding occurrences.
Reduce Maintenance and Repair of Fort Pickens Road	Does not meet project objective. Portions of Fort Pickens Road would continue to erode due to its vulnerability to storm events. Maintenance activities of the road would continue but with an expected increase in frequency of repair.	Moderately meets project objective. The realignment of the road inland and to a higher elevation would reduce damage during storm events, reducing the need for road maintenance. However, depending on the severity of storms, some road maintenance may still be needed in the future.
Reduce the Number of Fort Pickens Road Closures	Does not meet the project objective. The road realignment would not occur resulting in continued damage to the existing road during storm events. Maintenance of the road would continue following storm events resulting in continued closures of the Fort Pickens Road during road repair.	Moderately meets project objective. The realignment of the road inland and to a higher elevation would reduce the damage to the road during storm events; reducing road maintenance and the number of road closures.
Provide Additional Sea Turtle Nesting Habitat	Does not meet the project objective. Fort Pickens Road would remain in its current location, resulting in impacts to sea turtle nesting areas. Sea turtles would continue to cross the road to access nesting habitat and would be at risk of being injured or killed.	Fully meets project objective. The road realignment would move portions of Fort Pickens Road out of sea turtle nesting habitat, providing access to more beach nesting habitat areas.
Reduce Traffic Delays at the Entrance Station	Does not meet the project objective. There would be no reconfiguration of the entrance station. During high use days, specifically on weekends, processing of visitors entering the Fort Pickens area would continue to impact traffic along Fort Pickens Road into Pensacola Beach.	Fully meets project objective. The reconfiguration of the entrance station would provide an additional lane to process visitors entering the Fort Pickens area on high use days. This would reduce the current traffic delays along Fort Pickens Road into Pensacola Beach.

Summary of Environmental Consequences/Impact Comparison Matrix

Table 2 includes a summary of each alternative's potential effects by impact topic.

Table 2. Summary of Environmental Consequences

Resource	No Action Alternative (Alternative A)	Preferred Alternative (Alternative B)
Noise	**Short-term minor adverse** impacts from ongoing repair and maintenance of the existing road.	**Short-term minor adverse** impacts from the construction of the proposed project.
Soils	**Long-term minor adverse** impacts from soil disturbance during repair and maintenance of the existing road.	**Long-term minor adverse** impacts from the road realignment and entrance station and parking lot reconfiguration, and **beneficial impacts** from restoration of the existing roadway to natural conditions.
Coastal Zone and Coastal Barrier Resources System (CBRS) Areas	**No impacts** to the coastal zone or CBRS areas as no new construction would occur.	**Short-term minor adverse impacts** to the coastal zone during construction activities and negligible impacts to CBRS areas from construction in an Other Protected Area (OPA).
Floodplains	**Negligible impacts** from ongoing road maintenance and repair activities in the floodplain.	Overall **negligible impacts**; long-term minor adverse impacts from the proposed project, and beneficial impacts from restoring the existing roadway to natural conditions.
Wetlands	**No impacts** as proposed road realignment would not be completed.	**Long-term minor adverse impacts** from a maximum of 0.134 acre of wetlands impacted within the project area boundary, including 0.065 acre of direct impacts, and 0.069 acre of indirect impacts
Vegetation	**Short-term minor adverse impacts** from disturbance of vegetation during maintenance and repair activities	**Long-term minor adverse** impacts on vegetation from localized vegetation removal for the proposed project.
Wildlife	**Short-term minor adverse impacts** on wildlife from disturbance during ongoing repair and maintenance of the existing road.	**Short-term moderate adverse impacts** from disturbance during construction activities and **long-term minor adverse impacts** from the loss of dune habitat.
Special-Status Species	**Long-term minor adverse impacts to sea turtles and piping plover, and long-term moderate adverse impacts to snowy plover and least tern.** Current alignment is within sea turtle nesting habitat and presents a danger to nesting sea turtles, and results in potential mortality of shorebird species from vehicle collisions.	**Long-term beneficial impacts** on sea turtle species from realignment of road out of sea turtle nesting habitat; **long-term moderate adverse impacts** to the least tern and snowy plover and **negligible impacts** to the piping plover due to potential mortality from vehicle collisions.
Socioeconomics	**Long-term moderate adverse impacts** from potential for closure of Fort Pickens Road.	**Long-term beneficial impacts** from continued vehicular access to Fort Pickens and **short-term beneficial impacts** from creation of jobs during construction activities.

Resource	No Action Alternative (Alternative A)	Preferred Alternative (Alternative B)
Transportation	**Long-term moderate adverse impacts** from continued delays and backups at the entrance station.	**Long-term beneficial impacts** from the reduction in traffic delays and congestion at the entrance station. **Short-term moderate adverse impacts** for two days during the asphalt overlay.
Health and Safety	**Long-term minor adverse impacts** from flooding hazards associated with the current road alignment.	**Short-term minor adverse impacts** from construction of the project and **long-term beneficial impacts** from realignment of road and reduction of potential flood hazards.
Visitor Use and Experience	**Long-term moderate to major adverse impacts** from the potential for loss of vehicle access to the Fort Pickens area of the national seashore.	**Short-term moderate adverse impacts** during construction activities and **long-term beneficial impacts** from the reduction in delays at the entrance station and continued vehicle access to Fort Pickens.
Park Operations	**Long-term moderate adverse impacts** from continued need for repairs and maintenance of Fort Pickens Road after storm events.	**Short-term moderate adverse impacts** during construction and **long-term beneficial impacts** from the reduction in maintenance needs at Fort Pickens Road.

AFFECTED ENVIRONMENT

This *Affected Environment* chapter describes the existing resources within the proposed project area. The descriptions, data, and analyses focus on the specific conditions or consequences that may result from implementing the preferred alternative as required by NPS DO#12 and Handbook: *Conservation, Planning, Environmental Impact Analysis, and Decision Making*, which sets forth the policy and procedures by which NPS will comply with NEPA (NPS 2001).

A description of existing environmental conditions provides a better understanding of planning issues, and establishes a benchmark by which the magnitude of environmental effects of the preferred alternative and the no action alternative can be compared. The information in this chapter is organized by the same environmental topics used to organize the impact analysis in the *Environmental Consequences* chapter.

Affected Environment addresses the topics that were not dismissed from further consideration, as described in the *Purpose and Need* chapter, for the project area. The resources analyzed in this chapter are those found within the property boundaries of the project area, or resources adjacent to the project area that would be directly affected by one of the alternatives.

Soundscape

Section 4.9 of NPS *Management Policies* 2006 states that the NPS, "will preserve, to the greatest extent possible, the natural soundscapes of the park, including both biological and physical sounds. Natural sounds are intrinsic elements of the environment that are vital to the functioning of ecosystems and can be used to determine the diversity and interactions of species within communities. Soundscapes are often associated with parks and are considered important components of natural wildlife interactions, as well as visitor experience" (NPS 2006a). Additionally, NPS *Management Policies* 2006 and DO #47: *Sound Preservation and Noise Management,* provide guidance for operational policies that help protect natural soundscapes in NPS park units. The protection of these natural soundscapes is of high importance to the NPS mission; natural soundscapes are an essential part of the natural environment. These soundscapes are vital to both the function of natural ecosystems in the NPS park units and the experience of park visitors in these areas.

A soundscape is the human perception of acoustic resources present in a park unit's acoustical environment. Acoustic resources often include natural sounds (water, wildlife, wind, etc.), cultural and historic sounds (battle reenactments, tribal ceremonies, etc.), and non-natural human-caused sounds (vehicles, boats, etc.). The natural soundscape in the park would include sounds such as those of waves, wind in the dunes and vegetation, and wildlife noises. Non-natural sounds in the park would include the sounds of cars and other vehicles, aircraft overhead, boats, and other man-made noises, as well as recreational activities in and around the fort. Sound monitoring was conducted at Fort Pickens in an area of sparse pine and thorn along the north side of the island as part of a separate project from May through June 2013. Dominant non-natural sounds identified at this location included aircraft (military and civilian), road vehicles, personal watercraft (PWC), and watercraft; natural sounds included wind, water, and birds (White 2014).

Soils

Soils within the national seashore originate predominantly from marine material, and beaches were created by deposits through tidal and wave action. Soils in the national seashore include deposits that are mainly quartz; Santa Rosa Island is approximately 99 percent median-grained quart sand (NPS 2014a). The soils within the Fort Pickens Road realignment project area are largely sand soils, and soils associated with dune ecosystems. Dune ecosystems are dynamic, and constantly changing through erosion, hurricanes, wind, and storms. The dynamic nature of these islands results in migration of the

island to the west and north, though the amount of sand present on the island remains relatively stable (NPS 2006b).

Santa Rosa Island is predominantly composed of quartz sand of a medium grain (between 0.60 and 0.43 millimeters diameter), and an even grain size (NPS 2006 b). In the area of the entrance station, the parking lots, and along much of the reconfigured road areas, the soils are associated with the Corolla-Duckston sands, gently undulating and flooded. These soils are found on dunes and marine terraces, as well as the depressions, swales, and flats on marine terraces. Corolla-Duckston sands come from sandy marine deposits (U.S. Geological Service [USGS] 2014a). These soils are considered partially hydric (33-65 percent hydric). The Newhan-Corolla complex, rolling and rarely flooded, is also crossed by some portions of the road and the existing parking lot. These soils are found on dunes on marine terraces, and come from sandy eolian deposits and sandy marine deposits (USGS 2014b). These areas are considered predominantly nonhydric (1 to 32 percent). In the dunes in proximity to the proposed road realignment, Direго muck, tidal soils are present. These soils are found in tidal marshes on marine terraces with a parent material of herbaceous organic material over sandy marine deposits (USGS 2014c). These soils are classified as hydric soils (100 percent).

Coastal Zone and Coastal Barrier Resources System (CBRS) Areas

Florida's Coastal Management Program (FCMP) was implemented to oversee the Florida Coastal Management Act, passed by NOAA in 1981. This act is codified in the Florida Statutes, Chapter 380, Part II. The FCMP was created to coordinate state, local, and federal agency activities through existing laws in order to ensure that Florida's coastline is protected and valuable to future generations. The implementation of the program is managed by the FLDEP with a network of 8 state agencies and 5 Regional Water Management Districts, who work together to enforce 24 separate statutes. Coastal zone means the coastal waters and the adjacent shorelands, strongly influenced by each other and in proximity to the shorelines. The coastal zone also includes islands, transitional and intertidal areas, salt marshes, wetlands and beaches. Florida's coastal zone includes the entire state of Florida, and is divided into two tiers. Local governments eligible to receive coastal management funds are limited to those Gulf and Atlantic coastal cities and counties which include or are contiguous to state waterbodies where marine species of vegetation constitute the dominant plant community. Florida's seaward boundary in the Gulf of Mexico is 9 nautical miles and is 3 nautical miles in the Atlantic (NOAA 2012).

The project area is located within the coastal zone; the Coastal Zone Management Act (CZMA) requires that federal actions affecting any land or water use, or natural resource in the coastal zone be consistent with the enforceable policies of the state's federally approved coastal management program. The state reviews these projects for compliance with the coastal management plan (FLDEP 2007). An analysis of impacts to the coastal zone in provided in this Environmental Assessment to comply with this requirement. It is noted in the Florida Statutes, Chapter 380.23(10)(d)(4) that "When an environmental impact statement or environmental assessment required by the National Environmental Policy Act has been prepared for a specific activity, use, or project subject to federal consistency review under this section, the environmental impact statement or environmental assessment shall be data and information necessary for the state's consistency review of that federal activity, use, or project under this section."

Congress passed the Coastal Barrier Resources Act (CBRA) in 1982, and the Coastal Barrier Improvement Act (CBIA) in 1990, defining and establishing a system of protected coastal areas (including the Great Lakes) known as the Coastal Barrier Resources System (CBRS) Areas (FEMA 2013). Coastal barriers are unique landforms that serve as a protective barrier against the forces of wind and tidal actions caused by coastal storms. In addition, coastal barriers provide a protective habitat for a variety of aquatic species. The CBRA was initially enacted to reduce or restrict federal actions that were believed to encourage development in certain undeveloped coastal barrier areas, including both islands and mainland property. While the CBRA and CBIA do not prevent private financing and development

within the CBRS, they do limit financial assistance by federal agencies. Any form of expenditure of federal funds for a loan, grant, guarantee, insurance payment, rebate, subsidy, or any other form of direct or indirect federal assistance within the CBRS is prohibited, with specific and limited exceptions.

Designated CBRS areas within the project area at the national seashore are found within the CBRS area FL-98P, which is an Otherwise Protected Area (OPA). OPAs are areas that are generally used for activities such as fish and wildlife refuges or research, and generally have boundaries that coincide with the boundaries of conservation or recreation areas (FEMA 2013; USFWS 2014a). Within these OPAs, the only Federal spending prohibition is on Federal flood insurance (USFWS 2014a).

Floodplains

EO 11988, "Floodplain Management", issued May 24, 1977, directs all federal agencies to avoid both long- and short-term adverse effects associated with occupancy, modification, and development in the 100-year floodplain, when possible. Floodplains are defined in this order as "the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a 1 percent greater chance of flooding in any given year." Flooding in the 100-year floodplain is expected to occur once every 100 years, on average.

All federal agencies are required to avoid building in a 100-year floodplain unless no other practical alternative exists. NPS has adopted guidelines pursuant to EO 11998 stating that NPS policy is to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. The guidelines also require that, where practicable alternatives exist, Class I actions be avoided within a 100-year floodplain. Class I actions include the location or construction of administration, residential, warehouse, and maintenance buildings, non-excepted parking lots, or other man-made features that by their nature entice or require individuals to occupy the site.

The existing road, entrance station, and proposed road realignment are all located within the 100-year floodplain. A floodplain SOF, found in Appendix C of this EA, provides additional information on the floodplain of the Fort Pickens area of the national seashore, and the proposed project site.

Wetlands

Section 404 of the Clean Water Act (CWA) and a number of state laws and provisions regulate activities in wetlands. EO 11990, "Protection of Wetlands", directs all federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. In the absence of such alternatives, parks must modify actions to preserve and enhance wetland values and minimize degradation. Consistent with EO 11990 and DO #77-1: *Wetland Protection*, NPS adopted a goal of "no net loss of wetlands" (NPS 2002). DO #77-1 states that for new actions where impacts on wetlands cannot be avoided, proposals must include plans for compensatory mitigation that restores wetlands on NPS lands, where possible, at a minimum acreage ratio of 1:1.

For the purpose of implementing EO 11990, an area in an NPS unit that is classified as a wetland according to the USFWS "Classification of Wetlands and Deepwater Habitats of the United States" is subject to DO #77-1 (with the exception of deepwater habitats, which are not subject to DO #77-1) (Cowardin et al. 1979). The Cowardin wetland definition encompasses more aquatic habitat types than the definition and delineation manual used by the USACE for identifying wetlands subject to Section 404 of the CWA. The 1987 *"USACE Wetlands Delineation Manual* requires that three parameters (hydrophytic vegetation, hydric soil, wetland hydrology) must all be present in order for an area to be considered a wetland (USACE 1987). The Cowardin wetland definition includes such wetlands, but also adds some areas that, though lacking vegetation and/or soils due to natural physical or chemical factors such as wave

action or high salinity, are still saturated or shallow inundated environments that support aquatic life (e.g., unvegetated stream shallows, mudflats, and rocky shores). This document presents wetlands as defined by Cowardin et al. (1979) and consistent with DO #77-1. Under the Cowardin definition, a wetland must have one or more of the following three attributes:

1. At least periodically, the land supports predominantly hydrophytes (wetland vegetation)
2. The substrate is predominantly undrained hydric soil
3. The substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year

The National Wetlands Inventory (NWI) of the USFWS produces information on the characteristics, extent, and status of the nation's wetlands and deepwater habitats. The USFWS definition of wetlands is similar to the NPS definition of wetlands in that only one of three parameters (hydric soils, hydrophytic vegetation, and hydrology) is required to characterize an area as a wetland, based upon the Cowardin Classification of Wetlands (Cowardin et al. 1979). The USFWS's objective of mapping wetlands and deepwater habitats is to produce "reconnaissance-level information on the location, type and size of these resources" (USFWS/NWI 2014). NWI maps are prepared by the USFWS from the analysis of high altitude imagery, and wetlands are identified based on vegetation, visible hydrology, and geography.

Site-Specific Field Survey –Wetlands within the proposed project area were delineated during the March 2014 wetland delineation (figures 4 and 5). The wetland delineation survey included only those areas where proposed projects would occur outside the footprint of the current road (the Fort Pickens road realignment and the entrance station realignment). The wetland delineation along the proposed roadway included mapping wetlands that were 50 feet or less on either side of the proposed roadway (for a total of a 100-ft wetland survey boundary) as well as the entrance station. Therefore, full wetland polygons were not mapped unless they were small or isolated, since the majority of wetlands at the site extended beyond 50 feet off the proposed roadway. After the wetland delineation was completed, an updated road design (30%) was made available by Federal Highway Administration (FHWA). This proposed FHWA roadway design was located within the entire wetland delineation area (the 100-ft survey boundary), except for one small location, where the road was located slightly outside of the area delineated. However, no wetlands were observed within this area and it is only noted here to explain figure 4, in which the proposed roadway extends beyond the area delineated in one location by approximately 40 ft. A Wetland SOF detailing the wetland delineation was prepared and can be found in Appendix C of this EA. During the 2014 wetland delineation, eleven wetlands were delineated within the proposed wetland survey boundary (figures 4 and 5). Table 3 outlines the wetlands found in this area.

Three of these wetlands are found within the 100-foot wetland survey boundary, and one wetland is within the proposed road realignment and the wetland boundary. Wetlands (1, 2, 3, and 6), found within the 100-foot wetland survey boundary, or in the proposed road realignment, are discussed below. Descriptions of all wetlands delineated are provided in the SOF (Appendix C).

Figure 4
Wetlands Present at Proposed Road Realignment

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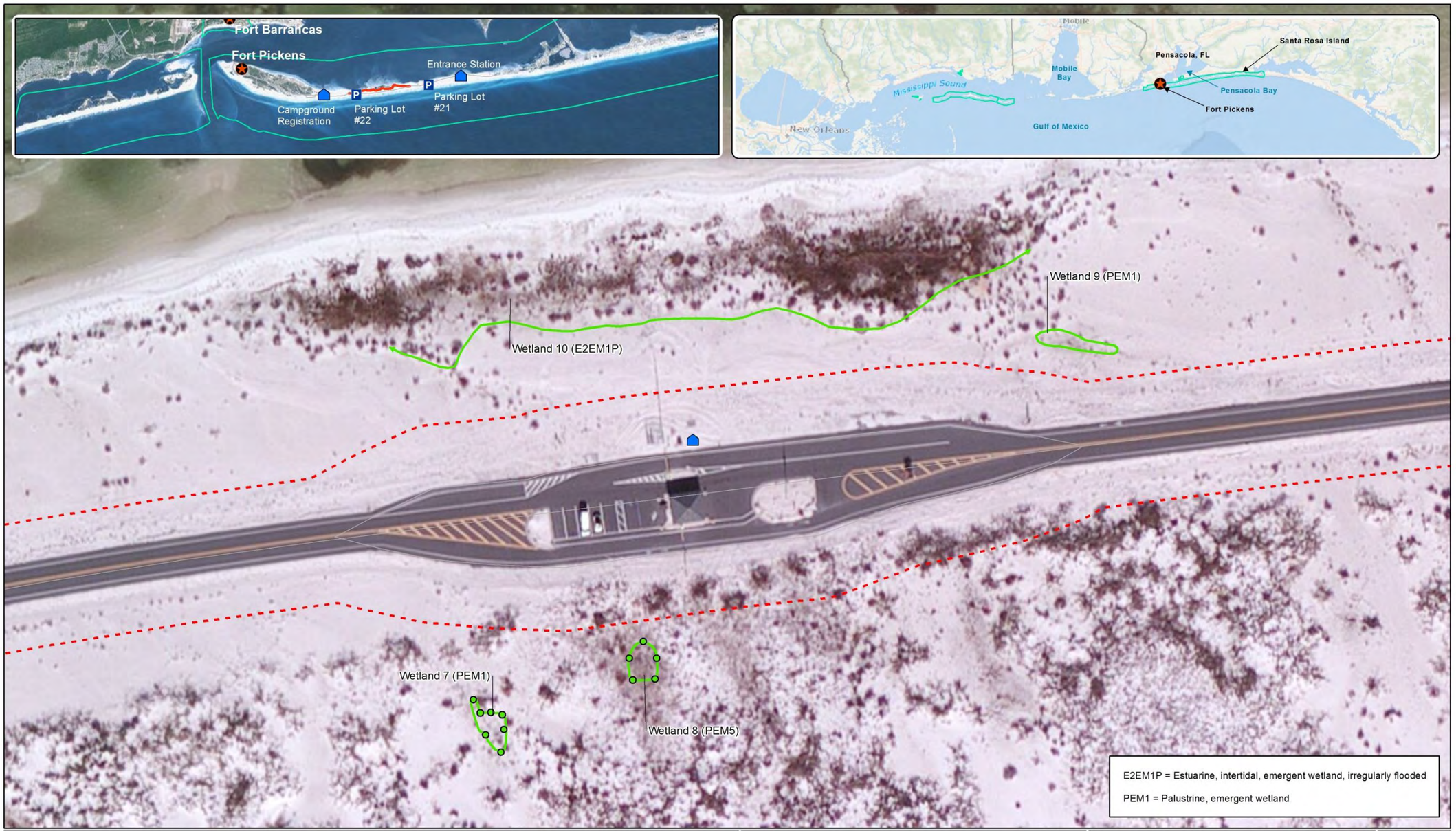

Figure 5
Wetlands Present at Entrance Station

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Table 3. Wetlands Delineated in the Project Area

Delineated Feature	Resource/Cowardin Classification*	Location
Wetland 1	E2EM1P	Within 100-foot wetland survey boundary
Wetland 2	E2SS1P	Within 100-foot wetland survey boundary
Wetland 3	E2EM1P	Within 100-foot wetland survey boundary
Wetland 4	E2EM1P	Outside of 100-foot wetland survey boundary
Wetland 5	E2SS1P	Outside of 100-foot wetland survey boundary
Wetland 6	E2EM1P	Within proposed road alignment and 100-foot wetland survey boundary
Wetland 7	PEM1	Outside of proposed project area (entrance station)
Wetland 8	PEM5	Outside of proposed project area (entrance station)
Wetland 9	PEM1	Outside of proposed project area (entrance station)
Wetland 10	E2EM1P	Outside of proposed project area (entrance station)
Wetland 11	PEM1	Outside of proposed project area (entrance station)

E2EM1P = Estuarine, intertidal, emergent wetland, persistent, irregularly flooded
E2SS1P = Estuarine, intertidal, scrub-shrub wetland, broad-leaved deciduous, irregularly flooded
PEM1 = Palustrine, emergent wetland, persistent
PEM5 = Palustrine, emergent wetland, *Phragmites australis*

Wetland 1 – Wetland 1 is characterized as an estuarine, intertidal, emergent, persistent, irregularly flooded wetland (E2EM1P), located along the western portion of the proposed roadway and partially within the 100-foot wetland survey boundary (figure 5). The portion of wetland that lies within the project area totals 0.102 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 1 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 1 is dominated by saltmeadow cordgrass (*Spartina patens*), marsh fimbry (*Fimbristylis castanea*), saltgrass (*Distichlis spicata*), and largeleaf pennywort (*Hydrocotyle bonariensis*). A primary hydrology indicator observed in this wetland, as well as most of the other wetlands at the site, was the presence of an algal crust (known as aufwuchs, or a community of algae and other microorganisms) attached to the soil surface. Soil samples exhibited redox features in sandy soils as the primary hydric soil indicator. The primary function present at Wetland 1 included *Sediment/Shoreline Stabilization* due to close proximity of this wetland to a large waterbody (Pensacola Bay) and location along the shoreline of Santa Rosa Island, a barrier island in the Gulf of Mexico. The secondary function present included *Flood Attenuation/Alteration* due to the ability of this wetland to stabilize the shoreline against erosion and due to its location in a relatively flat area that has flood storage potential. The primary value at this wetland included *Wildlife Habitat,* and the secondary value included *Recreation/Tourism* due to its presence within a national seashore.

Wetland 2 – Wetland 2 is characterized as an estuarine, intertidal, scrub-shrub, broad-leaved deciduous, irregularly flooded wetland (E2EM1P), located along the western portion of the proposed roadway and partially within the 100-foot wetland survey boundary (figure 5). The portion of wetland that lies within the project area totals 0.030 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 2 to Pensacola Bay. At this wetland, only two of the three parameters (hydrology and vegetation) were met. Wetland 2 is dominated by wax myrtle (*Morella cerifera*), yaupon, and Eastern baccharis (*Baccharis halimifolia*) in the shrub layer, and

earleaf green briar and southern dewberry (*Rubus trivialis*) in the woody vine layer. This wetland also supports emergent herbaceous plants interspersed in open areas, which include saltmarsh hay, sawgrass (*Cladium jamaicense*), and Gulf bluestem (*Schizachyrium maritimum*). Evidence of hydrology includes the primary indicator of drift lines and the secondary indicators of drainage patterns and geomorphic position. Therefore, hydrology and hydrophytes are documented at this wetland, but soils did not exhibit any strong hydric indicators. Given that some organics were present in the soil, it is possible that hydric soils have not had a chance to develop yet in this highly dynamic ecosystem dominated by sand in the substrate. Wetland 2 is therefore considered a marginal wetland per Cowardin et al. (1979) and NPS Procedural Manual (PM) #77-1 (NPS 2012), but would not qualify as a wetland under the USACE (1987) Manual. Similar to Wetland 1, the primary function present at Wetland 2 included *Sediment/Shoreline Stabilization* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export* due to detritus development present within this wetland and the high degree of plant community structure/species diversity exhibited within Wetland 2. Also similar to Wetland 1, the primary value at Wetland 2 included *Wildlife Habitat*; secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic* since wetland views have no signs of disturbance. Wetland 2 is considered a valuable wildlife habitat with low noise levels present at primary viewing locations.

Wetland 3 – Characterized as an E2EM1P, Wetland 3 is located along the central portion of the proposed roadway and partially within the 100-foot wetland survey boundary (figure 5). The portion of wetland that lies within the project area totals 0.005 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 3 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 3 is dominated by saltmeadow cordgrass, sawgrass, and black needlerush (*Juncus roemerianus*). Primary hydrology indicators observed in this wetland included saturation, drift deposits, and inundation visible on aerial photography. Wetland 3 exhibits that same functions and values as Wetland 2. The primary function present at Wetland 3 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 3 included *Wildlife Habitat* (open water habitat present); secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*.

Wetland 6 – Characterized as an E2EM1P wetland, Wetland 6 is located along the eastern portion of the proposed roadway and partially within the 100-foot wetland survey boundary, and within the proposed roadway (figure 5). The proposed roadway would bisect the southern portion of Wetland 6. The portion of Wetland 6 that lies within the project area totals 0.199 acre in the wetland survey boundary and 0.065 acre in the proposed road realignment; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 6 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 6 is dominated by saltmeadow cordgrass, saltgrass, marsh fimbry, black needlerush, largeleaf pennywort, and panic grass (*Panicum amarum*). Primary hydrology indicators observed in this wetland included saturation, drift deposits, and an algal crust (or aufwuchs). Soil samples exhibited redox features in sandy soils as the primary hydric soil indicator. Wetland 6 exhibits the same functions and values as wetlands 2, 3, 4, and 5. The primary function present at Wetland 6 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 6 included *Wildlife Habitat* (open water habitat present); secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*.

Vegetation

Vegetated habitats found within the project area of the national seashore include:

GUIS Beach Dune – Based on the Florida Natural Areas Inventory (FNAI) definition of a Beach Dune habitat, this ecotype is characterized as a wind-deposited, foredune and wave-deposited upper beach that is sparsely to densely vegetated by predominantly herbaceous species, with pioneer species dominated by sea oats (*Uniola paniculata*). Other dominant pioneer species that were observed in the beach dune habitat include panic grass, golden aster (*Chrysopsis* sp.), and beach elder, as well as railroad vine (*Ipomoea pes-caprae ssp. brasiliensis*) (FNAI 1990; FNAI 2010).

GUIS Coastal Strand (upland high areas in between dunes – not wetlands) – Coastal Strand is an evergreen shrub community found on stabilized dunes. Based on the FNAI definition of a Coastal Strand, this ecotype is characterized as stabilized, wind-deposited coastal dunes that are vegetated with dense higher trophic level salt-tolerant shrubs. Dominant plant species observed within this habitat included saw palmetto (*Serenoa repens*), sand live oak (*Quercus geminata*), yaupon (*Illex vomitoria*), earleaf greenbrier (*Smilax auriculata*), Spanish bayonet (*Yucca aloifolia*), Florida rosemary (*Ceratiola ericoides*), cabbage palm (*Sabal palmetto*), tough bully (*Sideroxylon tenax*), red bay (*Reseas borbonia*), and live oak (*Quercus virginiana*). Coastal Strand occurs on deep, windblown sands. Shell fragments can be found mixed with the sand, but is rapidly leached in the course of a few hundred years (FNAI 1990; FNAI 2010).

GUIS Estuarine Emergent Wetlands – Coastal Interdunal Swales are common wetland features found within the project area on Santa Rosa Island as well as many other islands on the Florida panhandle coast. Common characteristics include a mix of grasslands, small ponds, and depression marshes where dune and swale topography has developed with influence from groundwater at the lower points of swales. Extensive flooding by saltwater is less common than saltwater flooding in coastal grasslands. Rainfall events also strongly influence the development and maintenance of these systems. Vegetative structure is dependent on elevation and groundwater/rainfall. Primary species found in these interdunal swale wetlands include saltmarsh hay, marsh fimbry (*Fimbristylis castanea*), and saltgrass but this habitat also supports black needlerush, largeleaf pennywort (*Hydrocotyle bonariensis*), sawgrass, and Gulf bluestem. Emergent wetlands dominated by grasses are low flat areas commonly found behind the foredunes on broader barrier islands, and is best developed along the Gulf Coast (FNAI 1990).

GUIS Estuarine Scrub-Shrub Wetlands – This wetland habitat is located adjacent to the beach dune or coastal strand habitat at the national seashore and can be contiguous with the emergent wetland habitat as described above, but is higher in elevation. Dominant species observed in the scrub-shrub wetland habitat includes wax myrtle, yaupon, Eastern baccharis in the shrub layer and earleaf green briar and southern dewberry in the woody vine layer. This type of wetland can also have emergent herbaceous plants interspersed in open areas, which include sawgrass, saltmarsh hay, and Gulf bluestem (FNAI 1990).

Wildlife

Gulf Island National Seashore is home to many wildlife species, though species from upland terrestrial habitats tend to be limited on barrier islands due to the constraints of water availability, access from mainland areas, and diversity of vegetation. Species that have been known in the project area historically may no longer occur given the dynamic ecosystem of barrier islands. Hurricanes, island migration, and geologic reshaping can alter the presence of species found at the national seashore. Wildlife species that are state or federally listed as endangered or threatened are discussed in the *Special-Status Species* section below.

Mammals – The Fort Pickens area of the national seashore is inhabited by several smaller species of mammals; larger terrestrial mammal species are not commonly found on Santa Rosa Island. Small mammal species found in the vicinity of the project area include the raccoon (*Procyon lotor*), and gray fox (*Urocyon cinereoargenteus*). The Santa Rosa beach mouse (*Peromyscus polionotus leuccocephalus*) is also found in the area, and is found on Santa Rosa Island and at Eglin Air Force Base. The Santa Rosa

beach mouse is a subspecies of the oldfield mouse or beach mouse (*P. polionotus*), which is common throughout Alabama, Georgia, southern South Carolina, and northern Florida (FNAI 2001). Five subspecies of beach mice are found along the Gulf Coast, and with the exception of the Santa Rosa beach mouse, all beach mice are federally protected, and five of the six beach mouse subspecies that exist in Florida are protected by state law (Florida FWC n.d). The Santa Rosa beach mouse was formerly listed as a species of special concern, but is no longer listed, in part due to the preservation of dune habitat within the national seashore. Santa Rosa beach mice are nocturnal, the lightest in coloration of the beach mice, and are found mainly in primary and secondary dunes that have a moderate cover of grasses and forbs (FNAI 2001). Non-native mammal species in this area include coyote (*Canis latrans*), armadillo (*Dasypus novemcinctus*), opossum (*Didelphis virginiana*), and red fox (*Vulpes vulpes*). River otters (*Lutra canadensis*) are sometimes found in the canals near Fort Pickens (NPS 2006b).

Birds – The national seashore is home to over 280 species of birds. These bird species use the islands for loafing, feeding, nesting, wintering, and migration. Some species are permanent residents but many are migratory or breeding and may spend only a portion of the year within the national seashore. Within the Fort Pickens unit of the national seashore, red-winged blackbirds (*Agelaius phoeniceus*) and mockingbirds (*Mimus polyglottos*) occur in the wooded areas. Bald eagles (*Haliaeetus leucocephalus*) are also found around Fort Pickens, and are discussed below in the *Special Status Species* section.

Several species of shorebirds nest in the national seashore, and the NPS implements seasonal closures to protect nesting shorebirds from human disturbance. Nesting bird species that nest in the vicinity of the project site in the Fort Pickens area include, Wilson's plover (*Charadrius wilsonia*), common nesthawk (*Chordeiles minor*), killdeer (*Charadrius vociferous*), gull-billed terns (*Gelochelidon nilotica*), and osprey (*Pandion haliaetus*). Black skimmer (*Rynchops niger*), which is a Florida species of special concern, also nests in the vicinity of the project area. Least terns (*Sterna antillarum*), which are federally listed, also nest in the Fort Pickens area, but are discussed below in the *Special Status Species* section.

Reptiles and Amphibians – A study completed from 2004 to 2006 identified 19 amphibian species and 32 reptile species in the national seashore (Mohrman and Qualls 2008). Species found within the Fort Pickens unit during this survey included the green treefrog (*Hyla cinerea*), squirrel treefrog (*Hyla squirella*), American alligator (*Alligator mississippiensis*), chicken turtle (*Deirochelys reticularia*), green anole (*Anolis carolinensis*), six-lined racerunner (*Cnemidophorus sexlineatus*), Mediterranean gecko (*Hemidactylus turcicus*), glass lizard (*Ophisarus* sp.), banded water snake (*Nerodia fasciata fasciata*), and eastern ribbon snake (*Thamnophis sauritus sauritus*) (Mohrman and Qualls 2008). The Fort Pickens area of the national seashore also provides habitat for the eastern diamondback rattlesnake (*Crotalus adamanteus*), coachwhip (*Masticophis flagellum*), black racer (*Coluber constrictor*), corn snake (*Elaphe guttata guttata*), and pygmy rattlesnake (*Sistrurus miliarius*).

Invertebrates – Approximately 254 species of invertebrates have been found in the national seashore, including both terrestrial and aquatic species. Several crab species are found at the national seashore, including ghost crabs (*Ocypode* spp.), mole crabs (*Emerita* spp.), fiddler crabs (*Uca* spp.), and hermit crabs (*Paguroidea* spp.).

Special-Status Species

The ESA of 1973, as amended, requires impacts on all federally listed threatened or endangered species be considered in planning for federal actions. NPS policy also requires examination of the impacts on federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species.

Under the consistency clause (Section 7[a]) of the ESA, NPS is required to consult with USFWS and NMFS if federally protected special status species may be present in the area affected by the proposed

project. NMFS and USFWS share authority over certain federally protected species and have total jurisdiction over others. In accordance with Section 7 of the ESA, the NPS sent a letter on April 23, 2014, to the USFWS and NMFS to solicit comments regarding the existence of threatened or endangered species within the project area. On May 8, 2014 a response was received from the NMFS noting that no adverse effect to ESA listed species or critical habitat was anticipated from the proposed project. A response was received from the USFWS on May 30, 2014. The letter expressed concerns about impacts to listed species, including the snowy plover (*Charadrius alexandrines tenuirostris*), least tern (*Sterna antillarum*), and piping plover (*Charadrius melodus*). A response was also received from the Florida FWC on June 5, 2014 that expressed concerns about impacts to the snowy plover and least tern from the proposed road realignment. Both letters are included in Appendix B.

Federal Status is the legal protection status of a species as determined by the USFWS Office of Endangered Species, in accordance with the ESA. Definitions for the following categories have been modified from 50 CFR 17:

- Federally Endangered: Taxa in danger of extinction throughout all or a significant portion of their range.
- Federally Threatened: Taxa likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

In Florida, state status is the legal protection status of a species as determined by the Florida Administrative Code chapter 68A-27.001, which defines special status species. The full definition is available in Appendix D. The FNAI offers this abbreviated description of state threatened wildlife species:

- Florida Endangered and Threatened Species – species that are designated by Commission rule as either:
    a) Federally-designated Endangered and Threatened species; or
    b) State-designated Threatened species as defined below.
- Florida State-designated Threatened Species – State population listed as threatened by the Florida FWC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future (FNAI n.d).

Special-status species known in the vicinity of the project area include the species listed below in table 4. Several species in the Gulf Islands National Seashore are federally or state listed, but were not analyzed in this EA due to the lack of appropriate habitat in the project area, or for because they were aquatic species, which were dismissed from analysis. A table of the listed species found in the national seashore is included in Appendix D.

Table 4. Special-Status Species Known in the Vicinity of the Project Area

Scientific Name	Common Name	Federal Status	Florida Status
Reptiles			
Alligator mississippiensis	American Alligator	SAT	--
Caretta caretta	Loggerhead Sea Turtle	FT	FT
Chelonia mydas	Green Sea Turtle	FE	FE
Dermochelys coriacea	Leatherback Sea Turtle	FE	FE

Scientific Name	Common Name	Federal Status	Florida Status
Lepidochelys kempii	Kemp's Ridley Sea Turtle	FE	FE
Birds			
Haliaeetus leucocephalus	Bald Eagle	D	--
Charadrius alexandrines tenuirostris	Snowy Plover	--	ST
Charadrius melodus	Piping Plover	FE	--
Calidris canutus rufa	Red Knot	PT	--
Sterna antillarum	Least Tern	--	ST
Cistohorus palustris mariana	Marian's Marsh Wren	--	ST
Plants			
Chrysopsis gossypina cruiseana	Cruise's Golden Aster	--	SE

FE – Federally endangered; FT – Federally Threatened; PT – Proposed Threatened; SE – State Endangered; ST – Florida Threatened; SAT – Similarity of Appearance (threatened); D – delisted
Source: Florida FWC 2013; USFWS 2014b

American Alligator – The American alligator is a large and semi-aquatic reptile found in many parts of the Florida, and is found in the wetlands of the Fort Pickens area and is sometimes reported on the beaches. They can grow larger than 12 feet, and are blackish in appearance with pale markings on the back and sides. Alligators are found in swamps, rivers, estuaries, lakes, and marshes, but are also capable of swimming in marine waters. They feed largely on fish, turtles, and other aquatic organisms. Although the alligator was formerly listed and is considered fully recovered, it remains listed as threatened throughout its range due to the similarity in appearance to the endangered crocodile. Because of the similarities in appearance, the USFWS regulates the hunting and legal trade of alligator products, including skins (NPS 2014a).

Green Sea Turtle – Green sea turtles are typically found in shallow waters, particularly areas with seagrass, but also utilize open ocean habitats while migrating. Adults are entirely herbivorous, and feed mainly on seagrass and algae. They are distributed worldwide in the Atlantic, Pacific, and Indian Oceans in tropical and subtropical waters. Green sea turtles can be as large as 440 pounds but are usually 300-350 pounds. They have a heart-shaped shell and small light-brown head with yellow markings. The carapace (top shell) varies in coloration from black, gray, green, brown, or yellow, and the plastron (bottom shell) is often a whitish yellow color. Females generally nest between June and September in the Southeastern U.S., and lay an average of five nests a season; but may lay up to nine clutches in a season. Females lay nests at roughly 2-week intervals and clutches are generally between 75-200 eggs (USFWS 2012a; NMFS 2014).

Loggerhead Sea Turtle – Loggerhead sea turtles are widely distributed in temperate and tropical zones in the Atlantic, Pacific, and Indian Ocean. They are found in a variety of habitats, including the open ocean, bays, lagoons, marshes, ship canals, and large river mouths. Loggerheads are known to nest at the national seashore in the Fort Pickens area, where they come ashore at night to nest on the beaches (figure 6). A loggerhead turtle was reported to NPS after being hit and killed by a car along Highway 399 in the Santa Rosa unit of the national seashore in 2013. Loggerheads weigh on average around 200-250 pounds, and are characterized by their large head and strong jaws. They have reddish-brown flippers and carapace (top shell), and a yellowish plastron (bottom shell). This species typically feeds on mollusks, such as whelks and conchs, as well as crustaceans, fish, and other marine animals. Female loggerheads nest between April and September, and usually lay three to five nests per season; but may nest from one to seven times within a nesting season. Loggerheads nest at 14-day intervals; in Florida hatchlings typically emerge 55-60 days later. Hatchling loggerheads from Florida are believed to spend between 7 and 12

years in the North Atlantic gyre in the open ocean. Juvenile loggerheads are found feeding in shallow coastal waters including lagoons, estuaries, bays, and river mouths (USFWS 2012b; NMFS 2013a).

Kemp's Ridley Sea Turtle – The range of Kemp's Ridley sea turtles is the Gulf of Mexico, and the Atlantic coast of North America. They have been found as far north as Nova Scotia and Newfoundland. Adults are typically found in the northern Gulf of Mexico in nearshore and inshore waters. They are often found in the neritic zones with muddy or sandy bottoms. A Kemp's Ridley sea turtle was observed in the national seashore on the Fort Pickens Road, near parking lot #22. The Kemp's Ridley sea turtle is considered the smallest marine turtle in the world, reaching a weight of around 100 pounds. They have an oval or nearly circular, olive-gray carapace (top shell), with a pale yellow plastron (bottom shell). Kemp's Ridley turtles feed primarily on crab, but may also feed on fish, jellyfish, and mollusks. Nesting occurs from April through July primarily in Mexico, but also in parts of the United States. Females participate in synchronized emergences, which are called *arribadas*. The triggers for these events have not been determined, but theories include lunar cycles, offshore winds, and the release of pheromones. Females lay two or three clutches that average 100 eggs. Eggs incubate for 50-60 days before hatching. Once they have emerged, hatchlings swim to open water developmental habitat in patches of floating *Saragassum* seaweed for approximately 2 years (USFWS 2012c; NMFS 2013b).

Leatherback Sea Turtle – The leatherback is the most pelagic of the sea turtle species. They are found distributed worldwide in the tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans, and are sometimes found as far north as British Columbia and as far south as Australia and Argentina (USFWS 2012d; NMFS 2013c). The first leatherback nesting was documented in the national seashore in 2000 (NPS 2014b). Jellyfish are the main staple of the leatherback diet, but they may also eat sea urchins, squid, crustaceans, tunicates, fish, algae, and seaweed. The leatherback sea turtle is the largest deep diving sea turtle, weighing up to 2,000 pounds. They are the only sea turtles that do not have a hard bony shell, but a shell that consists of a thick leathery connective tissue over a mosaic of small bones. They have predominantly black skin with spotting. Leatherbacks prefer to nest on sandy beaches backed by vegetation and a slope that limits the distance between the water and dry land. They prefer beaches with proximity to deeper waters and rough seas. In the U.S., nesting occurs from March through July, and females nest an average of five to seven times per season, or at 8- to 12-day intervals. Nests may have up to 100 eggs. Eggs incubate for 55-75 days before hatching. The distribution and development of hatchlings and juveniles is poorly understood (USFWS 2012d; NMFS 2013c)

Bald Eagle – The bald eagle was listed on the federal endangered species list until 2007, when it was removed from the list for the contiguous 48 states due to species recovery. Although this species has been delisted, it is still afforded protection under the Bald Eagle and Golden Eagle Protection Act, the Migratory Bird Treaty Act (MBTA), and the Lacey Act (USFWS 2013a). These federal laws prevent the take of, possession, transportation, selling, importing, or exporting of bald eagles and bald eagle products (USFWS 2013a). Bald eagles have a white head and brown body, with white tail feathers, and a wingspan of 8 feet. Bald eagles live near waterbodies including rivers, lakes, and marshes. Their main food is fish, but they also eat waterfowl, turtles, rabbits, snakes, and other small animals, as well as carrion (USFWS 2007). Bald eagles are frequently observed in the Fort Pickens area.

Snowy Plover – Snowy plovers are small shorebirds with a thin black bill, grey legs, and a greyish or light-brown body with a white belly and a black patch on the forehead and ears. The have a wingspan of 13.4 inches. Snowy Plovers feed on small invertebrates. They are found along sandy beaches, as well as some inland saline lakes and riverbeds. Florida has two disjunct breeding populations, including one located in northwest Florida. In Florida, snowy plovers are found on open sandy beaches of the Gulf Coast for nesting during February through August. Snowy Plovers nest in the Fort Pickens area of the national seashore (figure 6). Nests are usually made up of scrapes in open sand, but are often well camouflaged. Females usually lay three eggs. Males and females both take the responsibilities of egg

incubation, as well as rearing chicks. Once hatched, chicks will leave the nest within hours, but do not fledge for approximately 28-35 days (Florida FWC 2014a).

Piping Plover – Piping plovers are small shorebirds with a sandy-colored body, white underside, and orange legs. Breeding plumage includes a black forehead, a black breast band, and an orange bill. They have a wingspan of 14-15.5 inches. Piping plovers feed on insects, spiders, and crustaceans. They are found in areas with wide, flat, open sandy beaches with sparse vegetation. Although piping plovers do not breed in Florida, they winter in Florida. Nesting occurs in May and June. Piping plovers nest in the Santa Rosa area of the national seashore. Nests are usually a depression in the sand with pebbles lining the nest. Piping plovers lay up to four eggs, which incubate for 31 days. Hatchlings fledge at 30 days old, but are able to forage with adults only hours after hatching (Florida FWC 2014b; USFWS n.d).

Red Knot – Red knots are small shorebirds that have a wingspan of 20 inches, and during the spring have finely mottled coloration with black, grey, and ochre forming stripes on the crown of the head. The throat, breast, and side of the head are cinnamon brown, with a gray line through the eye, and a white abdomen and undertail. Winter plumage has a more ashy color from the crown to the rump, and the breast is lightly streaked. Red knots fly more than 9,300 miles each direction during a spring and autumn migration, making them some of the longest-distance migrating species in the world. Florida is a stopover during the migration of red knots. While in Florida, they may eat easily digested foods, including those with no shell or thin shells, in order to gain weight for fueling the next leg of the migration. Food sources include juvenile clams and mussels, and horseshoe crab eggs (USFWS 2013b; USFWS 2014c).

Least Tern – Least terns are the smallest species of terns found in North America, with a wingspan of 21-23 inches. They have a yellow beak, grey back, and white belly, with a black cap. Least terns are found along seacoasts, bays, estuaries, lakes, rivers, and lagoons. In Florida, they are found along the coasts in most coastal areas, as well as in estuaries and bays. The diet of the least tern is largely fish, but they occasionally eat small invertebrates as well. Least terns nest at the national seashore in the Fort Pickens area. Nests are built in shallow depressions in bare beach sands, and the females will lay eggs from the middle of April to the beginning of May. Eggs incubate for approximately 21 days before hatching, and hatchlings are able to leave the nest within 3-4 days (Florida FWC 2014c).

Marian's Marsh Wren – The Marian's marsh wren is a small wren with a wingspan of 5 inches, and a dark brown neck, back, head, wings, and tail. They have a light brown underside, a white band above their eyes, and a white-streaked black triangle on their backs. Marian's marsh wrens eat spiders, insects, and other invertebrates. They are found in marshes dominated by black needlerush and cordgrass (*Spartina alterniflora*), and nest in areas with these species. Marian's marsh wrens nest in colonies, building 5-12 domed nests that contain a side entrance, which are used in both courting and nesting. Females lay 3-5 eggs in one nesting. Eggs incubate for 11-12 days (Florida FWC 2014d).

Cruise's Golden Aster – This species is a perennial herb with basal rosettes and long flowering stems about 1.5 feet long. The flowers are yellow and about 1 inch wide, and are grouped in flat-topped clusters. Flowering occurs in mid-October to mid-November. They are found in stable dune areas along the coasts of the western Florida Panhandle. This species of golden aster is distinguished from other species in the Florida Panhandle by its "unbranched, sprawling stems; oval, nearly hairless leaves on the flowering stems; hairless, glandless bracts of the flower heads; and by its dune habitat" (FNAI 2000). A species of aster was identified during the March 2014 wetland surveys; however, a photo of the plant was sent to a botanist at University of Florida, who confirmed it was not one of the three listed *Chrysopsis* species found in Florida.

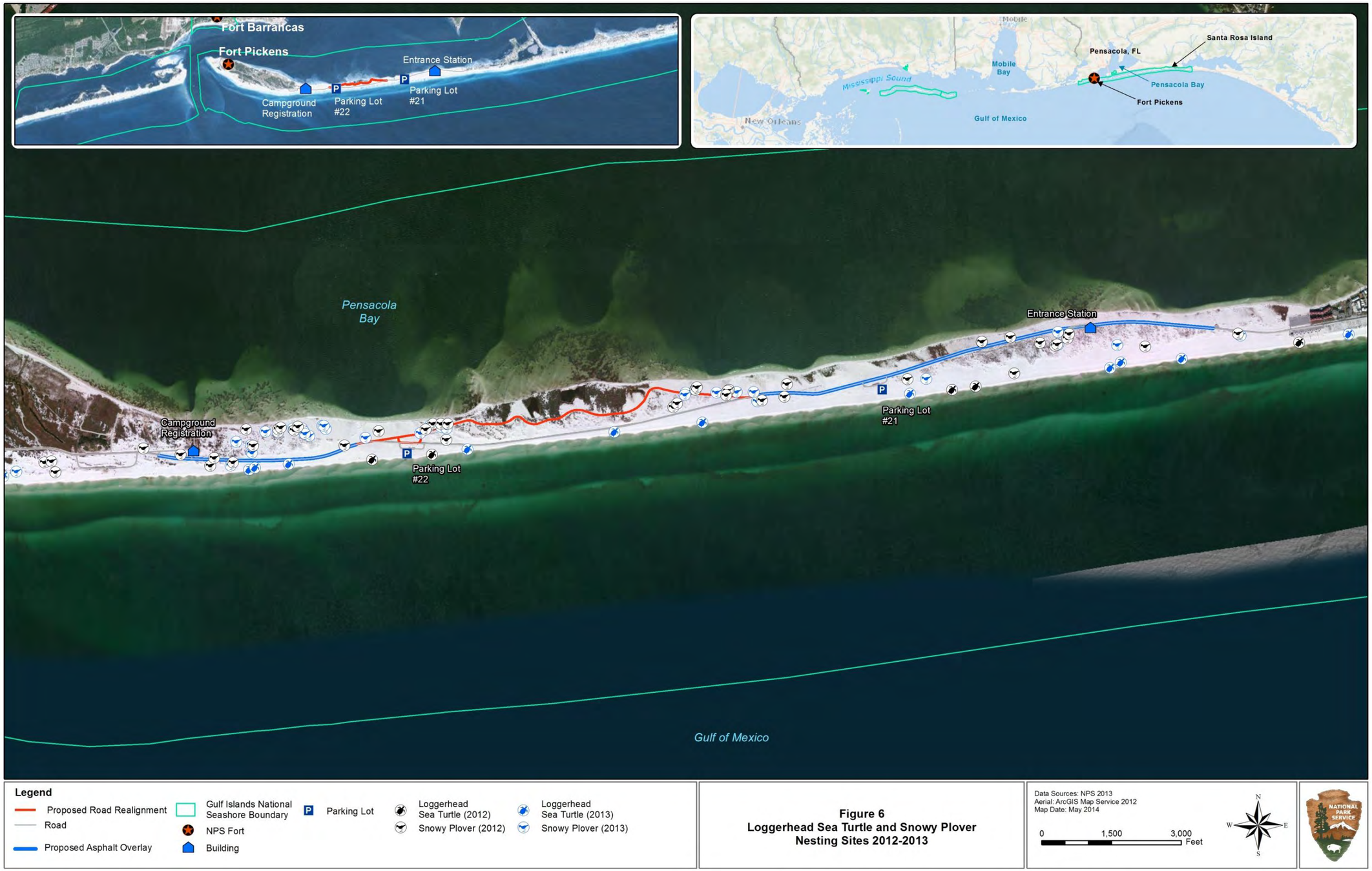

Figure 6
Loggerhead Sea Turtle and Snowy Plover Nesting Sites 2012-2013

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Socioeconomics

The project area is located in proximity to gateway communities to the national seashore in both Florida and Mississippi. Visitors to the national seashore provide an economic benefit to these communities through the creation of jobs in hospitality and other sectors. In 2012, Gulf Island National Seashore received 4.97 million visitors, who spent nearly $200,000 locally; this created 2,671 local jobs in Mississippi and Florida. Approximately 75 percent of visitors to the national seashore visited within the Florida portion (Cullinane Thomas et al. 2014).

The Region of Influence (ROI) is a geographic area selected as the basis on which demographic and economic impacts of project alternatives are analyzed. The ROI for socioeconomic conditions is considered to be the communities in closest proximity to the Florida portion of the national seashore, which is Gulf Breeze, Florida. The city of Gulf Breeze (which includes the community of Pensacola Beach in Census reports) had a population of approximately 5,763 in the 2010 U.S. Census. The population of Gulf Breeze is 95.7 percent white; 1.4 percent Asian; 0.6 percent American Indian or Alaska Native; 0.3 percent African American; 0.5 percent some other race; and 1.3 percent multi-racial, which includes individuals who report two or more races. According to the United States Census Bureau (USCB), the population of persons reporting as Hispanic or Latino in Gulf Breeze was 2.6 percent (USCB 2010). The median household income in Gulf Breeze in 2012 was estimated to be $75,954 (USCB 2012).

Transportation

The Fort Pickens area is accessed by automobile from taking U.S. 98 east across the Pensacola Bay Bridge. U.S. 399 crosses English Navy Cove, and meets up with Fort Pickens Road on Santa Rosa Island. Visitors primarily access the Fort Pickens area of the national seashore by automobile via Fort Pickens Road. In the past, storm events and hurricanes have damaged Fort Pickens Road, sometimes preventing access to Fort Pickens and campground areas. Hurricane Ivan destroyed a large section of the road, which was closed from September 2004 through May 2009, during reconstruction of several sections of the road.

Fort Pickens Road closed 5 times from June 2013 to June 2014 due to localized flooding from non-hurricane rain events. The portion of the Gulf Islands National Seashore accessed by Fort Pickens Road is a popular use area. Visitors entering the Fort Pickens area of the national seashore by vehicle pass through an entrance station along Fort Pickens Road. This entrance station includes a visitor entrance lane, employee entrance lane, and fee collection booth, as well as a visitor exit lane. On days with high visitation, delays at the entrance station of up to 40 minutes may occur in order to process guests. These delays are common on weekends and may cause traffic delays extending along Fort Pickens Road to Pensacola Beach. Parking is available at two lots within the project area, lots #21 and #22.

The NPS collects traffic count data at the entrance lane to Fort Pickens. Traffic counts include only incoming vehicles, but may include recreation, non-recreation, and employee vehicles entering the national seashore. Traffic counts at the Fort Pickens area are typically highest between April and July. In 2013, total traffic counts were approximately 440,539 vehicles (NPS 2014c). Traffic vehicle counts completed in 2003 along Fort Pickens Road from the east national seashore boundary to the ranger station found that the average daily vehicle count was approximately 1,185 cars, with an adjusted seasonal volume of 1,318 cars. Vehicle counts were typically highest on weekend days of the month between April and August (ERES Consultants 2004).

Health and Safety

Safety is a top priority at the national seashore. Safety concerns that may be present within the national seashore include park visitors tripping or falling, particularly in areas around the fort where many surfaces

are uneven and may be slippery when damp. Some stairways in the fort may not have handrails, and some areas may not have electric lighting. Visitors are not allowed to climb on the mounds and cannons at the historic forts (NPS 2014d). Another hazard visitors may encounter at the national seashore is stepping on sharp objects while barefoot; for this reason glass bottles and containers are not allowed on the beach. Currents and hazardous surf present safety concerns for visitors who are swimming or boating. Wildlife encounters or contact with venomous or potentially hazardous species found within the national seashore are also potential safety risks. Dangerous sea life includes sharks, jellyfish, and stingrays; while terrestrial species that could present a hazard to visitors include venomous snakes, stinging or biting insects, and plants that can irritate skin (NPS 2014d).

Within the project area, driving accidents pose a potential safety concern to the public. The posted speed limit along Fort Pickens Road is 35 miles per hour, and drivers should watch for pedestrian walkways in congested areas. Speed limits are reduced to 20 miles per hour during shorebird nesting season. In addition, flooding of Fort Pickens Road during storm events creates hazardous driving conditions for visitors in vehicles on portions of Fort Pickens Road.

Visitor Use and Experience

The national seashore stretches across 160 miles of coast in Mississippi and Florida along the Gulf of Mexico. It includes barrier islands and a coastal mainland with a total of 139,175 acres, including 3,800 acres of designated wilderness. In 2013 the national seashore received more than 4.8 million visitors. Visitation is typically highest between April and August, with peak visitation occurring in June and July. In 2013 the national seashore received 619,796 visitors in June, and 581,249 in July. Of these visitors, approximately 167,295 visited the Fort Pickens area in June 2013, and 164,037 in July (NPS 2014c).

All Florida units of the national seashore are open year-round, unless posted, though operating hours vary seasonally. The Fort Pickens area is open daily from 7:00 am to sunset. The visitor center and museum is open from 9:00 am to 5:00 pm, but varies seasonally. It is open from 9:30 am to 5:00 pm from March through October, and 8:30 am to 4:00 pm in November. An entrance fee is charged at the entrance station for Fort Pickens. Entrance fees are collected year round, and are $3.00 per person (ex. Motorcycle, jogger, walker, etc.), and $8.00 per vehicle for vehicles with less than 15 passenger capacity. Entrance fees are valid for 1-7 days. Seasonal access, night access, and camping passes are also available for a fee (NPS 2014e). In the Fort Pickens area of the national seashore, visitors can enjoy a multitude of activities, including exploring the historic Fort Pickens, hiking, swimming, snorkeling, fishing, beach combing, bird watching, boating, and camping. A visitor center is located at Fort Pickens, and ranger guided tours are available at 2:00 pm (NPS 2014f).

Park Operations

Staff at the Gulf Islands National Seashore includes the Superintendent's Office and Administrative Division, Resource Education Division, Resource and Visitor Protection Division (law enforcement), Science and Resources Management Division, and the Facility Management Division.

The staff of the Superintendent's Office and Administrative Division guide resource protection efforts to ensure that the experience of the national seashore is safe and enjoyable. This office also includes responsibilities related to the management of the national seashore, finances, human resources, and information technology. The Resource Education Division serves to provide visitors with interpretive and education programs about the national seashore. This division includes interpretive and educational programs, visitor center management, interpretive media, and concessions management. The Resource and Visitor Protection Division is focused on the protection of visitors and natural and cultural resources from hazards, or inappropriate or illegal activity. One component of this division is Law Enforcement, who patrol to assure a safe experience for visitors and employees at the national seashore. Staff also

collects fees at the entrance stations. The Science and Resources Management Division preserves, manages, and researches natural and cultural resources in the national seashore. This includes resource protection, research, restoration efforts, resource management plans, and archives and collections management. This division also develops stewardship programs to cultivate science-related projects to support resource preservation. The Facilities Management Division is responsible for activities required for the management, operation, and maintenance of infrastructure at the national seashore, including buildings, roads, trails, and campgrounds. Responsibilities include maintaining operation of infrastructure, janitorial operations, basic sanitation, and other duties. In Florida, one major responsibility of this division is keeping roads free of sand and in good condition (NPS 2014a).

The national seashore is divided up into 12 different units, including Fort Pickens. Currently the Fort Pickens unit of the national seashore includes 15 employees.

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ENVIRONMENTAL CONSEQUENCES

This *Environmental Consequences* chapter analyzes both beneficial and adverse impacts that would result from implementing any of the alternatives considered in this EA. This chapter also includes definitions of impact thresholds (e.g., negligible, minor, moderate, and major), methods used to analyze impacts, and the analysis methods used for determining cumulative impacts. As required by CEQ regulations implementing NEPA, 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 resource discussions contained in Chapter 3: Affected Environment.

General Methodology for Establishing Impact Thresholds and Measuring Effects by Resource

The following elements were used in the general approach for establishing impact thresholds and measuring the effects of the alternatives on each resource category:

- General analysis methods as described in guiding regulations, including the context and duration of environmental effects
- Basic assumptions used to formulate the specific methods used in this analysis.
- Thresholds used to define the level of impact resulting from each alternative.
- Methods used to evaluate the cumulative impacts of each alternative in combination with unrelated factors or actions affecting national seashore resources.
- Methods and thresholds used to determine if impairment of specific resources would occur under any alternative.

These elements are described in the following sections.

General Analysis Methods

The analysis of impacts follows CEQ guidelines and DO #12 procedures (NPS 2001). 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, the results of site-specific surveys (wetlands, vegetation, and special status species), best professional judgment, and national seashore staff insight.

Assumptions

Several guiding assumptions were made to provide context for this analysis. These assumptions are described below.

Geographic Area Evaluated for Impacts (Area of Analysis) – The geographic area evaluated for impacts in this chapter varies depending on the resource being analyzed. Geographic areas are described in the analysis of each resource below.

Impact Thresholds

Determining impact thresholds is a key component in applying NPS *Management Policies* and DO #12. These thresholds provide the reader with an idea of the intensity of a given impact on a specific topic. The impact threshold is determined primarily by comparing the effect to a relevant standard based on applicable or relevant/appropriate regulations or guidance, scientific literature and research, or best

professional judgment. Because definitions of intensity vary by impact topic, intensity definitions are provided separately for each impact topic analyzed in this document. Intensity definitions are provided throughout the analysis for negligible, minor, moderate, and major impacts. In all cases, the impact thresholds are defined for adverse impacts. Beneficial impacts are addressed qualitatively.

Potential impacts of all alternatives are described in terms of type (beneficial or adverse), context, duration (short- or long-term), and intensity (negligible, minor, moderate, major). Definitions of these descriptors include:

Beneficial: A positive change in the condition or appearance of the resource.

Adverse: A change that declines, degrades, and/or moves the resource away from its natural appearance or condition.

Context: Context is the affected environment within which an impact would occur, such as site-specific, park-wide, regional, global, affected interests, society as whole, or any combination of these. Context is variable and depends on the circumstances involved with each impact topic. As such, the impact analysis determines the context, not vice versa.

- **Site-specific:** The impact would affect the project site.
- **Local:** The impact would affect areas within the general vicinity of the project area.
- **Park-wide:** The impact would affect areas outside the project site yet within the national seashore.
- **Regional:** The impact would affect localities, cities, or towns surrounding the national seashore.

Duration: The duration of the impact is described as short-term or long-term. Duration is variable with each impact topic; therefore, definitions related to each topic are provided in the specific impact analysis narrative.

Intensity: Because definitions of impact intensity (negligible, minor, moderate, and major) vary by impact topic, intensity definitions are provided separately for each impact topic analyzed.

Cumulative Impacts Analysis Method

The CEQ regulations to implement NEPA require the assessment of cumulative impacts in the decision making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7). As stated in the CEQ handbook, *Considering Cumulative Effects* (CEQ 1997), cumulative impacts need to be analyzed in terms of the specific resource, ecosystem, and human community being affected, and should focus on effects that are truly meaningful. Cumulative impacts are considered for all alternatives, including the no action alternative.

Cumulative impacts were determined by combining the impacts of the alternative being considered with other past, present, and reasonably foreseeable future actions. Therefore, it was necessary to identify other ongoing or reasonably foreseeable future projects and plans at the national seashore and, if applicable, the surrounding area.

The analysis of cumulative impacts was accomplished using four steps:

Step 1 – Identify Resources Affected - Fully identify resources addressed in chapters 3 and 4 affected by any of the alternatives.

Step 2 – Set Boundaries - Identify an appropriate spatial and temporal boundary for each resource.

Step 3 – Identify Cumulative Action Scenario - Determine which past, present, and reasonably foreseeable future actions to include with each resource. Past, present, and reasonably foreseeable future actions are described below.

Step 4 – Cumulative Impact Analysis - Summarize impacts of these other actions (x) plus impacts of the proposed action (y), to arrive at the total cumulative impact (z). This analysis is included for each resource in chapter 4.

Two projects were identified within the vicinity of the project area and were considered in the cumulative impact analysis for each resource:

- Ferry Boat Dock/ Ferry Service Project – A ferry boat dock/pier was completed in preparation for the Gulf Islands National Seashore Ferry Project, which would fund the purchase of up to three pedestrian visitor ferries for service between the City of Pensacola, Pensacola Beach, and Fort Pickens. The pier is located behind Fort Pickens. The ferry service, not yet in operation, would travel between Fort Pickens, Pensacola Beach Pier, and the Pensacola Pier. Providing water access to the Fort Pickens area would help the national seashore better manage traffic congestion and parking issues associated with high visitation days, as well as road closure issues due to storm damage (NOAA [National Oceanic and Atmospheric Administration] 2013a; NPS 2010).

- Gulf Islands National Seashore Beach Enhancement Project – Hurricane and storm events damage to Fort Pickens Road (and other roads throughout the national seashore) have left chunks of black asphalt scattered throughout the white sand beaches and dune areas of Gulf Island National Seashore. The proposed project would include the removal of tens of thousands of cubic yards of asphalt fragments and road base material scattered across the national seashore. This material is found throughout many areas of wildlife habitat in vegetated and unvegetated dunes, as well as along flat and open beaches and in intertidal and subtidal areas of the Gulf. Fragments range in size from pea-sized pieces to 10-foot large slabs. Asphalt would be removed from the beaches and dune areas using large sifters, though crews with hand tools would be used in sensitive areas such as wetlands and densely vegetated dunes. Cleanup activities would occur during the winter months to minimize disturbance to visitors and wildlife. This project is one of the Deepwater Horizon Oil Spill Natural Resource Damage Assessment Phase III Proposed Early Restoration Projects, and is being funded by British Petroleum (NOAA 2013b).

Soundscapes

NPS defines "soundscape" as the way in which humans perceive the acoustic environment. Specifically, the natural soundscape encompasses all of the natural sounds that occur in parks, including the physical capacity for transmitting those natural sounds and the interrelationships among park natural sounds of different frequencies and volumes.

The analysis of impacts for soundscapes assesses the potential impact associated with constructing and operating the proposed project being evaluated as part of this EA.

Methodology and Assumptions

Information on the soundscape of the national seashore was collected from previous sound monitoring efforts and other materials. Several factors may influence the distance that sounds travel, including topography, atmospheric conditions, and vegetation. Some sounds may also travel faster as temperature and humidity rise. These factors may influence the impacts of human sounds on the natural soundscape at the national seashore.

For this resource, the project area was assumed to be the Fort Pickens area of the national seashore.

Impact Thresholds

The thresholds used to determine impacts on the soundscape are provided below.

Beneficial: Actions that would result in a reduction of human-generated sources and/or levels of sound.

Negligible: The effects on the existing soundscape would be localized and barely detectable; natural sounds would prevail. Effects on the natural sound environment would be at or below the level of detection and such changes would be so slight that they would not be of any measurable or perceptible consequence to the visitor experience or to biological resources.

Adverse: Actions that would result in an increase in human-generated sources and/or levels of sound.

Minor: The effects on the existing soundscape would be readily detectable. Natural sounds would still be predominant in natural areas, with infrequent human-generated sound. Effects on natural sound would be localized and short-term and would be small and of little consequence to the visitor experience or to biological resources. Human-generated noise would be occasionally be heard during the day.

Moderate: The effects on existing soundscape would be obvious. Natural sounds would prevail but human-generated sound would be consistently audible. In areas with greater human activity, human-generated sound would predominate and sounds from the proposed action would be audible periodically.

Major: The effects on the existing soundscape would be significant. Natural sounds would be affected by activity noise frequently for extended periods of time. Effects on the natural sound environment would be obvious and long-term and would have substantial consequences to the visitor experience or to biological resources at the national seashore.

No Action Alternative (Alternative A)

Under the no action alternative, noise levels within the national seashore would remain at current levels, since the site would not be altered from proposed project activities. However, current noise sources include vehicles, boat operation in nearby waters, and recreational activities in and around the fort. In addition, under the no action alternative, there would be construction noise associated with the continued repair and maintenance of the existing road following storm events, resulting in short-term minor adverse impacts to soundscapes.

Cumulative Impacts: Cumulative impacts on soundscapes would result from the ferry boat service and the beach enhancement projects. Noise from the operation of the ferry and the use of construction equipment including heavy machinery for beach enhancement would occur in proximity to the project area, resulting in short- and long-term minor adverse impacts on the soundscape. Upon completion of the beach enhancement project, noise-related impacts from construction would cease; however, long-term minor adverse impacts would be associated with the sounds from ferry operation. When the short-term minor adverse impacts from the no action alternative are combined with the impacts of these other future projects, cumulative impacts to the soundscape would be long-term minor adverse.

Conclusion: There would be short-term minor adverse impacts from noise associated with the no action alternative due to ongoing repair and maintenance of the existing road. Cumulative impacts to soundscapes would be long-term minor adverse.

Preferred Alternative (Alternative B)

Under the preferred alternative, construction activities would include realigning a portion of Fort Pickens Road, repaving (asphalt overlay) portions of Fort Pickens Road, and reconfiguring the entrance station and parking lot #22. Construction activities are anticipated to create short-term minor adverse impacts to soundscapes. Impacts would be temporary and localized in nature, lasting for the duration of the construction activities. Noise impacts are not expected to disrupt areas beyond the project area.

Long-term sources of noise would be associated with the daily vehicular use of road, and are not anticipated to change from current conditions.

Cumulative Impacts: Short- and long-term minor adverse cumulative impacts on the soundscape would result from the projects discussed above under the no action alternative. When the short-term minor adverse impacts of the preferred alternative are combined with the impacts associated with these future projects, the cumulative impacts would be long-term minor adverse.

Conclusion: There would be short-term minor adverse impacts to soundscapes associated with the construction of the proposed project. After construction is complete, noise impacts would be the same as the existing noise levels. The preferred alternative would result in long-term minor adverse cumulative impacts to soundscapes.

Soils

Methodology and Assumptions

Potential impacts on soil resources were assessed based on the extent of disturbance to soils, including natural undisturbed soils, the potential for soil erosion resulting from disturbance, and limitations associated with the soils. Disturbance to soil occurs when topsoil or native soils have been removed from a portion of land for purposes of construction.

Primary steps for assessing impacts on soils include identifying potential changes in soils, potential changes to soil productivity, and potential changes to soil erosion rates. The alternatives were evaluated based on their potential to impact soil resources. Information on the soils of the project area within the national seashore was collected using the National Resources Conservation Service's (NRCS) soil data mapper. This mapping tool was used to gather information on soils within the project area.

For this resource, the project area includes the proposed road realignment area (100-foot wetland survey boundary), asphalt overlay of the remaining portion of Fort Pickens Road within the NPS boundary, and the reconfiguration of the entrance station and parking lot #22.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts to soil resources. Intensities (minor, moderate, major) are used for adverse impacts but not for beneficial impacts.

Beneficial: A beneficial impact is a positive change from the current conditions when compared to the no action alternative. In general, a beneficial impact would include a decrease in soil removal, erosion, or compaction potential or would provide net benefits through revegetation.

Negligible: Impacts would be at such low levels of detection that there would be no discernible effect on soils or soil function. In general, a negligible impact would include a low risk of ground disturbance or removal, compaction, or erosion of soil.

Adverse: **Minor**: Impacts on soils would be detectable and would slightly change soil characteristics in a relatively small area but the change would not appreciably alter the potential for erosion. Impacts on soils would include soil disturbance, erosion, and compaction.

Moderate: Impacts on soils would be readily apparent and would appreciably change soil characteristics over a relatively large area. The potential for erosion to remove small quantities of additional soil would increase or decrease. The rate of soil erosion would be appreciably changed; an increase in erosion would occur. Degradation of soil properties would occur through soil loss and/or compaction.

Major: Impacts on soils would be readily apparent and substantially change the character of the soils over a large area in or outside of the national seashore. The actions would have a substantial, highly noticeable influence on the rate of erosion; there would be a strong likelihood that the potential for erosion to remove large quantities of additional soil would increase or decrease. Compaction would occur over a large area and would result in a large amount of loss of soil productivity.

No Action Alternative (Alternative A)

Under the no action alternative, no disturbance to soils would occur from proposed project activities since these activities would not occur. However, soil disturbance associated with the continued repair of the existing Fort Pickens Road after storm damage would have long-term minor adverse impacts on soils. Impacts would result from soil removal, compaction, and disturbance during road repair activities.

Cumulative Impacts: The previous construction of the ferry boat dock and the proposed beach enhancement project would have adverse impacts from disturbance of soils and sediments, resulting in short- and long-term minor adverse impacts. This project is located in the vicinity of the proposed project, but is not within the project area defined for soils. The construction of the boat dock would have resulted in the removal and compaction of soils and sediments and the beach enhancement project would result in soil disturbance due to the need of heavy equipment to remove the asphalt. However, the proposed beach enhancement would result in long-term beneficial effects through the removal of asphalt from the soils. This benefit is expected to outweigh the adverse impacts from dock construction and asphalt removal. When the long-term minor adverse impacts from the no action alternative are combined with the impacts of these other past and future projects, cumulative impacts on soils would be negligible.

Conclusion: There would be long-term minor impacts on soils associated with the no action alternative due to some soil disturbance during maintenance and repair of the existing road after storm events. Cumulative impacts to soils would be negligible.

Preferred Alternative (Alternative B)

Construction activities associated with the realignment of the road, entrance station reconfiguration, and reconfiguration of parking lot #22 would have adverse impacts on soils within the project area. Construction activities would disrupt and compact soils within the proposed road realignment and areas for proposed reconfiguration. Impacts on soils from construction activities would be long-term minor adverse; however, these impacts would be localized to the project area. In addition, the removal of the existing road alignment would have beneficial effects on soils, as the area would be allowed to return to natural conditions and this area would not be subjected to continued road maintenance in the future. The proposed asphalt overlay of Fort Pickens Road is not anticipated to result in adverse impacts on soils since the overlay would occur within the existing road footprint.

Cumulative Impacts: The cumulative impacts on soils from projects in the vicinity of the proposed action would be the same as discussed above under the no action alternative. When the long-term minor adverse impacts of the preferred alternative are combined with the impacts associated with the past and future projects, cumulative impacts on soils would be negligible.

Conclusion: The preferred alternative would have long-term minor adverse impacts on soils from the road realignment and reconfiguration of the entrance station and parking lot and beneficial impacts from the restoration of the existing road alignment to natural conditions. Cumulative impacts to soils under the preferred alternative would be negligible.

Coastal Zone and Coastal Barrier Resources System (CBRS) Areas

Methodology and Assumptions

Potential impacts to the coastal zone were assessed, including the consistency of the project with the FCMP. Activities proposed within the coastal zone by a Federal agency, such as the NPS, require a consistency determination from the state. Impacts were assessed to determine if they would be consistent to the greatest extent practicable with the FCMP. For the CBRS areas, the proposed project area is within an OPA, and was assessed to determine impacts to the characteristics and function of this area.

For this resource, the project area includes the proposed road realignment area (100-foot wetland survey boundary), asphalt overlay of the remaining portion of Fort Pickens Road within the NPS boundary, and the reconfiguration of the entrance station and parking lot #22.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts to the coastal zone and CBRS areas. Intensities (minor, moderate, major) are used for adverse impacts but not for beneficial impacts.

Beneficial: A beneficial impact is a positive change from the current conditions when compared to the no action alternative. In general, a beneficial impact would include improvements to the coastal zone or CBRS areas.

Negligible: Impacts would be at such low levels of detection that there would be no discernible effect on the coastal zone or the CBRS areas.

Adverse: **Minor**: Impacts on the coastal zone or CBRS areas would occur in a localized or relatively small area; these adverse changes would not appreciably alter the characteristics of the coastal zone or CBRS areas.

Moderate: Impacts on the coastal zone or CBRS areas would be readily apparent and would appreciably change the characteristics of these areas over a relatively large area.

Major: Impacts on the coastal zone or CBRS areas would be readily apparent and substantially change the character of these areas in a large area in or outside of the national seashore. The actions would significantly alter the coastal zone or CBRS areas characteristics or functions.

No Action Alternative (Alternative A)

Under the no action alternative, the proposed project would not occur and would therefore not affect the coastal zone or CBRS areas.

Cumulative Impacts: The previous construction of the ferry boat dock and the proposed beach enhancement project would have potentially impacted the coastal zone and coastal barrier resources system areas. However, these projects would have received a federal consistency determination from the state prior to construction as required by FLDEP. Additionally these projects are located with the OPA area, resulting in long-term negligible impacts on the character of the Coastal Barrier Resources System areas. When the lack of impacts under the no action alternative are combined with the negligible impacts of these and other past and future projects, cumulative impacts on the coastal zone and CBRS areas would be negligible.

Conclusion: There would be no impacts on the coastal zone or CBRS areas associated with the no action alternative as no construction or increases in impervious surface would occur in the project area. Cumulative impacts would be negligible.

Preferred Alternative (Alternative B)

Construction activities associated with the realignment of the road, entrance station reconfiguration, and reconfiguration of parking lot #22 would have adverse impacts on the coastal zone and CBRS areas from the alteration of the characteristics of these areas. The pavement overlay would not affect the coastal zone or CBRS areas since this portion of the roadway is currently an impervious surface.

Activities proposed within the coastal zone by a federal agency, such as the NPS, require consistency determination from the state. A consistency determination is supported by necessary data and information that a proposed activity or development complies with the FCMP and that such activity shall be conducted in a manner consistent with the program. A federal consistency is the review of federal projects for consistency with state coastal policies. The term "federal consistency" refers to the review process mandated by Section 307 of the CZMA, and NOAA regulations (15 CFR Part 930). The CZMA requires that federal actions, which are reasonably likely to affect land or water use, or natural resource of a state's coastal zone, be conducted in a manner that is consistent with the federally approved Coastal Management Program. The NPS would be consistent to the extent practicable for the proposed project to be in compliance with the FCMP. The NPS has determined the project is in compliance with the FCMP, and will request concurrence from the FCMP to ensure compliance between the federal and state coastal zone management programs. Per Florida Statutes Chapter 380.23(10)(d)(4), if an environmental assessment is prepared for NEPA, this document can serve as the basis of the federal consistency determination; the NPS would also prepare a letter stating that the project is consistent, to the maximum extent practicable with the FCMP. The FCMP agencies would review the consistency determination and

decide if the project is in compliance with the FCMP, and the FCMP would determine if the project is consistent. Overall the project is anticipated to have short-term minor adverse impacts on the coastal zone during construction activities, but the project is expected to be consistent to the maximum extent practicable with the FCMP.

The proposed project would be located within an OPA, which are CBRS areas that are relatively undeveloped and are within the boundaries of an area established under a federal, state, or local law and held by a qualified organization. The construction of the proposed road realignment would have adverse impacts on the OPA; however, the removal of the existing road would have beneficial impacts to the character of the OPA. As a result, overall impacts on CBRS areas would be long-term and negligible.

Cumulative Impacts: The cumulative impacts on the coastal zone and the CBRS areas from projects in the vicinity of the proposed action would be the same as discussed above under the no action alternative. When the short-term minor adverse impacts of the preferred alternative on the coastal zone and negligible impacts on the CBRS areas are combined with the impacts associated with the past and future projects, cumulative impacts on the coastal zone and CBRS areas would be negligible.

Conclusion: The preferred alternative would have short-term minor adverse impacts on the coastal zone from the construction of the road realignment and reconfiguration of the entrance station and parking lot, and long-term negligible impacts to the CBRS areas from the construction in the OPA area. Cumulative impacts to the coastal zone and CBRS areas under the preferred alternative would be negligible.

Floodplains

Methodology and Assumptions

In accordance with DO #77-2: *Floodplain Management*, NPS policy is to preserve floodplain values and avoid impacts associated with modification of the floodplain. The location of the 100-year floodplain was analyzed using Federal Emergency Management Agency (FEMA) flood insurance rate mapping. To determine impacts the scope of the proposed actions within the floodplain was considered and the area of proposed ground disturbance in the floodplain was determined. Predictions of short-term and long-term impacts were based on an assessment of floodplain functions and values, professional judgment, and similar projects. A Statement of Findings has been prepared for this project and can be found in Appendix C of this EA.

For this resource, the project area includes the proposed road realignment area (100-foot wetland survey boundary), asphalt overlay of the remaining portion of Fort Pickens Road within the NPS boundary, and the reconfiguration of the entrance station and parking lot #22.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts on the floodplain (1% annual chance of flood). Intensities (minor, moderate, major) are only used for adverse impacts, not for beneficial impacts.

Beneficial: Improvement in the ability of the floodplain to convey floodwaters and/or the removal of structures located in the floodplain.

Negligible: There would be no measurable change in the values and functions of the floodplain or its ability to convey floodwaters. The project would not contribute to flooding.

Adverse: **Minor**: Changes in the values and functions of a floodplain or its ability to convey floodwaters would be detectable and local, although the changes may not be measurable. Project would not contribute to flooding.

Moderate: Changes in the values and functions of a floodplain or its ability to convey floodwaters would be measurable and local. Project could contribute to flooding.

Major: Changes in the values and functions of a floodplain or its ability to convey floodwaters would be measurable and widespread. Project would contribute to flooding.

No Action Alternative (Alternative A)

Under the no action alternative, the proposed project would not occur and would therefore not affect the floodplain. However, there would be negligible impacts to the floodplain from the continued maintenance of Fort Pickens Road following storm since the road is located in the floodplain. The 100-year floodplain includes the entire Fort Pickens area of the national seashore.

Cumulative Impacts: Since the ferry dock is located in the floodplain long-term adverse impacts on the floodplain have occurred; however these impacts are minor since the footprint of the dock and pier is small and this project would not contribute to flooding. Although this project is not within the project area defined for floodplains, it is located in the vicinity of the proposed project. The proposed beach enhancement project would result in long-term beneficial effects to the floodplain through the removal of large pieces of asphalt from the floodplain. This benefit is expected to outweigh the adverse impacts from the existing ferry dock. Since there would be no additional impacts on the floodplain from other past and future projects combined with the negligible impacts of the no action would result in negligible cumulative impacts.

Conclusion: The no action alternative would result in negligible impacts on the floodplain, as road maintenance activities would continue in the project area. Cumulative impacts would be negligible.

Preferred Alternative (Alternative B)

All of the proposed project construction activities would be located within the floodplain. Construction of the new realigned road would disrupt floodplain functions and values, resulting in long-term minor adverse impacts in a localized area. However, the removal of the existing road alignment and restoration of this area would have a beneficial impact on the floodplain by allowing this area to return to natural conditions. When these actions are considered together, the preferred alternative would result in negligible adverse impacts to the floodplain. The proposed asphalt overlay portion of the project would not have any additional impacts on the floodplain since this activity would occur within the footprint of the existing road.

Cumulative Impacts: Impacts from the ferry dock and beach enhancement projects would be the same as described above under the no action alternative. When the negligible impacts of the preferred alternative are combined with the negligible impacts of these other projects, cumulative impacts to the floodplain would be negligible.

Conclusion: The preferred alternative would result in negligible impacts on the floodplain; long-term minor adverse impacts would result from the realignment of the road, but the removal of the existing road would have a beneficial impact on the floodplain. Cumulative impacts would be negligible.

Wetlands

Methodology and Assumptions

The NPS has adopted a policy of "no net loss" of wetlands. EO 11990, "Protection of Wetlands", states that federal agencies are to avoid to the extent possible long-term and short-term impacts associated with the destruction and modification of wetlands to avoid direct and indirect support of new construction in wetlands whenever practical alternatives exist. The USACE regulates development in wetland areas pursuant to Section 404 of the Clean Water Act (33 CFR, 320-330). NPS DO #77-1: *Wetland Protection* (2002) and *Procedural Manual* (2012) provide NPS policies and procedures for complying with EO 11990, as follows:

Actions proposed by NPS that have the potential to have adverse impacts on wetlands are addressed in an EA. If the preferred alternative in an EA would result in adverse impacts on wetlands a *Statement of Findings* documenting compliance with DO #77-1 (NPS 2002) and PM #77-1 (NPS 2012) would be completed. Actions that may be excepted from the *Statement of Findings* requirement are identified in the PM.

Impact analysis and the conclusions for possible impacts on wetlands were based on review of existing literature and studies, information provided by national seashore staff and other agencies, and on-site investigation. Where possible, locations of wetlands were overlain with the alternatives to determine impacts on wetlands. A Statement of Findings has been prepared for this project and can be found in Appendix C of this EA.

For this resource, the project area was assumed to include the proposed road realignment area (100-foot wetland survey boundary), as well as the entrance station, parking lots, and remaining portion of Fort Pickens Road within the NPS boundary proposed for the asphalt overlay.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts on wetlands. Intensities (minor, moderate, major) are only used for adverse impacts, not for beneficial impacts.

Beneficial: Actions that enlarge or enhance the integrity and connectivity of the wetlands.

Negligible: A barely measurable or perceptible change in wetland size, integrity, or continuity could occur. No observable or measurable change to wetland vegetation, hydrology, or functions.

Adverse: **Minor**: The impact would be easily measurable or perceptible. Impacts on wetlands and their vegetation, hydrology, and functions to support wildlife would be slightly detectable, but localized in a small area. A small change in size, integrity or continuity could occur. However, the overall functionality and viability of the wetland would not be affected.

Moderate: Impacts on the integrity of wetlands would be readily apparent in a localized area. The impact would be sufficient to cause an appreciable change in at least one wetland parameter – size, integrity, or continuity – and resource viability could be affected.

Major: The action would result in a substantial change in multiple parameters (size, integrity, and continuity) or a loss of large wetland areas. The impact would be substantial and highly noticeable. Impacts on the integrity of wetlands would be detectable over a relatively large area and would be of widespread consequence to functionality.

No Action Alternative (Alternative A)

Under the no action alternative, existing conditions would continue at the national seashore. The proposed road realignment would not be completed, the entrance station and parking lot #22 would not be reconfigured, and Fort Pickens Road would not be repaved. As a result, the no action alternative would have no impacts on wetlands.

Cumulative Impacts: The completed ferry dock would have included construction activities that resulted in short- and long-term moderate adverse impacts on wetlands in the tidally-influenced surf zone from pier construction. The lack of impacts on wetlands from the no action alternative combined with the short-term to long-term moderate adverse impacts of the proposed ferry dock construction would result in long-term moderate adverse cumulative impacts.

Conclusion: Overall, the no action alternative would result in no impacts on wetlands, as existing conditions would remain in the project area. Cumulative impacts would be long-term moderate adverse.

Preferred Alternative (Alternative B)

On May 27, 2014, an agency response email from the USACE was received regarding wetlands in the vicinity of the project area. In this letter, the USACE stated that their agency is familiar with the site since the USACE authorized road reconstruction in 2008. The asphalt overlay on the existing road and parking lots would not impact wetlands or require USACE authorization (Appendix B). Although the asphalt overlay would not affect wetlands, wetlands under the jurisdiction of the USACE (and NPS) are present in the areas between the existing road and Pensacola Bay within the proposed road realignment, as previously described in the *Wetlands* section of Chapter 3.

During scoping, letters regarding impacts of the proposed project on wetlands were also received from the FLDEP and the NWFWMD. The FLDEP letter noted that the project may require an Environmental Resource Permit (ERP) for the project for wetland impacts or roadway stormwater management. The NWFWMD noted that unavoidable impacts to wetlands may occur under the project, and would require appropriate mitigation, but that the project may also have potential improvements to water-related resources from the regeneration of coastal scrub and dune habitat on the Gulf side of the island. These letters can be found in Appendix B.

Approximately 0.336 acre of wetlands was delineated within the 100-foot wetland survey boundary. Wetlands 1, 2, 3, and 6 are located within the wetland survey boundary (100-foot wetland survey boundary). Although wetlands 1, 2, and 3 are located within the survey boundary, they are not located within the proposed road realignment. Construction activities would occur only within the footprint of the proposed road realignment (30 feet); as a result there would be no impact to wetlands 1, 2, and 3 under the preferred alternative. Wetland 6 is located within the proposed road realignment footprint (30 feet), as well as within the wetland survey boundary. Construction activities would occur only within the footprint of the proposed road realignment. There would be no impact to the portion of Wetland 6 located to the north of the proposed road realignment under the preferred alternative, which would remain connected to the extended portion of wetland 6 outside the wetland survey boundary. However, a portion of wetland 6 to the south of the proposed roadway would be isolated hydrologically by the roadway, resulting in indirect impacts as this wetland could be potentially lost.

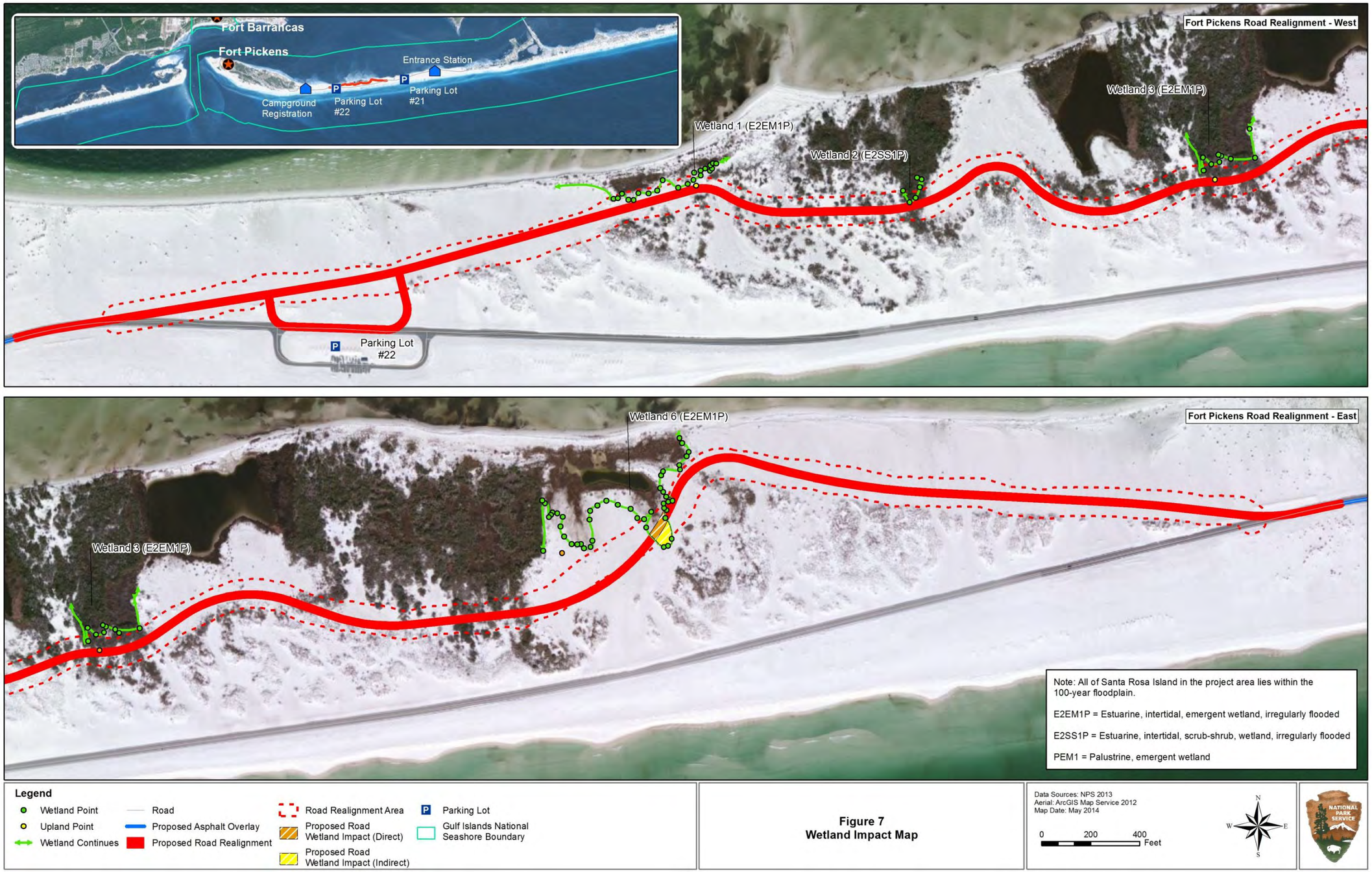

Figure 7
Wetland Impact Map

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Approximately 0.065 acre of Wetland 6 is located within the 30-foot proposed roadway footprint. Therefore, a total of 0.065 acre of wetlands would be permanently and directly impacted under the preferred alternative. Additionally, approximately 0.069 acre of wetland 6 would be isolated from the rest of wetland 6 by the proposed roadway. This would result in indirect impacts to 0.069 acre of wetland under the preferred alternative. Table 5 below shows the wetland and acreage that would be permanently impacted by the proposed road realignment. No wetlands delineated during the March 2014 wetland survey would be impacted by the proposed entrance station reconfiguration or the asphalt overlay on Fort Pickens Road.

Construction may alter the functions and values of Wetland 6 within the roadway footprint. Construction activities and equipment may have permanent impacts on the values of this wetland, including wildlife habitat, recreation and tourism, and visual/aesthetic values, as well as on the functions of these wetlands, which are primarily flood attenuation/alteration and sediment/shoreline stabilization. Construction can result in the removal of hydrophytic vegetation and other vegetation, as well as the excavation of soils; though this would be minimized to the greatest extent possible.

Table 5. Wetland Impact Acreages of the Preferred Alternative

Wetland	Wetland Type	Acres Directly Impacted Roadway (30-foot Roadway)	Acres Indirectly Impacted (Isolated due to the Roadway)
6	E2EM1P	0.065	0.069
Total Permanent Wetland Impacts (Direct and Indirect)			**0.134**

The use of the new road realignment would have long-term permanent direct and indirect impacts on Wetland 6 in the proposed roadway. Wetland 6 would be partially bisected by the proposed roadway. The roadway would influence the wetland functions and values by altering the soils and removing the vegetation within the proposed roadway. Additionally, the proposed road realignment would isolate an approximately 0.069 acre portion of the wetland south of the proposed roadway. Approximately 0.065 acre of Wetland 6 would be permanently altered by the road realignment, as previously discussed above, and a portion of the wetland outside the proposed roadway realignment would be isolated and potentially lost, as discussed above. The functionality of this wetland has been slowly impaired in this area primarily due to filling in by sand blown in from the surrounding dunes. The proposed roadway would have long-term adverse direct and indirect impacts on this wetland through the potential alteration of the functions and values of the wetland.

Guidelines have been established by the United States EPA when evaluating activities regulated under Section 404 of the Clean Water Act. In accordance with the 404(b)(1) Guidelines, wetland impacts must be avoided where practicable to minimize unavoidable wetland impacts, and provide compensatory mitigation for any remaining impacts. Projects with very minor impacts may meet the conditions of general permits such as Nationwide Permit 14 (Linear Transportation Projects), which generally allow a more rapid permitting decision. Additionally, in order to implement the "no net loss of wetlands" policy and the goal of net gain for wetlands, DO #77-1 states that for new actions where impacts on wetlands cannot be avoided, proposals must include plans for compensatory mitigation that restores wetlands on NPS lands at a minimum acreage ratio of 1 to 1 for the preferred alternative. Because alternative B is the preferred alternative and wetland impacts are expected, mitigation under the NPS DO #77-1 (NPS 2012) would be required and is discussed in detail in the SOF for wetlands (Appendix C). Whenever possible, every effort is made to ensure that the same wetland restoration proposal meets the compensation requirements of both the NPS and the USACE processes to avoid any duplication of effort. Additional mitigation measures would be used as applicable and would be determined during the permitting process.

Cumulative Impacts: Cumulative impacts would be the same as those discussed above under the no action alternative. When the long-term moderate adverse cumulative impacts are combined with the long-term minor adverse impacts from the preferred alternative, cumulative impacts would be long-term moderate and adverse.

Conclusion: The preferred alternative would have long-term minor adverse direct and indirect impacts on wetlands from impacts to a maximum of 0.134 acre of wetlands within the project area boundary. Cumulative impacts would be long-term moderate adverse. As a result of the wetland impacts from the proposed road realignment, a Joint Application for Environmental Resource Permit/Authorization to use State Owned Submerged Lands/Federal Dredge and Fill Permit would be completed and submitted to both USACE and Florida Department of Environmental Protection. In addition, a SOF for wetlands is included in Appendix C that discusses wetland impacts and proposed compensation in more detail as required under DO #77-1.

Vegetation

Methodology and Assumptions

In order to evaluate impacts on vegetation, vegetative species composition within the project area was considered. Types of beach and dune shrubs and trees, grasses, and other herbaceous plants potentially affected by the proposed project were determined. Intensity levels of potential impacts were determined based on the anticipated extent of vegetation removal needed for project construction.

For this resource, the project area includes the proposed road realignment area (100-foot wetland survey boundary), asphalt overlay of the remaining portion of Fort Pickens Road within the NPS boundary, and the reconfiguration of the entrance station and parking lot #22.

Impact Thresholds

The following thresholds were used to assess impacts on vegetation. Intensities (minor, moderate, major) are used only for adverse impacts, not for beneficial impacts.

Beneficial: The action would result in an improvement in conditions for vegetation, including an increase in the abundance as well as the distribution, quality, and quantity of the vegetation. Additionally, the action would result in a reduction of invasive species.

Negligible: Some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. Impacts would not be readily apparent and would not cause a measurable modification in cover type, habitat structural stages, vegetation patterns, and/or species composition.

Adverse: **Minor**: The proposed action could affect the abundance or distribution of some individual native plants in a localized area, but would not affect the viability of local populations or overall community size, structure, or composition.

Moderate: The proposed action would affect the abundance or distribution of local populations and localized changes to community size, structure, or composition and ecological processes would occur. Impacts on native plant communities would be readily apparent and would cause a measurable modification in cover type, habitat structural stages, vegetation patterns, and/or species composition.

Major: The proposed action would have a considerable effect on the abundance or distribution of local or regional native plant populations and community size, structure, or composition would be highly altered over a relatively large area. Impacts on native plant communities would be readily apparent and would cause a measurable modification in cover type, habitat structural stages, vegetation patterns, and/or species composition within the project area.

No Action Alternative (Alternative A)

Under the no action alternative, existing conditions would continue at the national seashore and the proposed project would not occur. Vegetation would continue to be impacted from the continued maintenance and repair of Fort Pickens Road, resulting in short-term minor adverse impacts to vegetation in the project area. Nearby vegetation could be damaged from maintenance vehicles during road repair. However, this impact would be localized and vegetation would continue to function naturally after repairs have ceased. The no action alternative would result in short-term minor adverse impacts on vegetation.

Cumulative Impacts: The proposed beach enhancement project could result in damage to vegetation in areas that are sparsely vegetated during asphalt removal, but these areas would be replanted once cleanup activities were completed. Therefore, short-term minor adverse impacts are expected to vegetation from this project. When the short-term minor adverse impacts from the no action alternative is combined with the impacts of this future beach enhancement project, there would be short-term minor adverse cumulative impacts on vegetation.

Conclusion: The no action alternative would have short-term minor adverse impacts on vegetation within the project area, due to the disturbance of vegetation associated with the continued repair of Fort Pickens Road following storm events. The existing road would continue to be used, and the entrance station and parking lots would not be reconfigured. There would be short-term minor adverse cumulative impacts to vegetation.

Preferred Alternative (Alternative B)

Under the preferred alternative, vegetation clearing would be needed for the construction of the road realignment, and entrance and parking lot reconfigurations, but this clearing would be localized resulting in long-term minor adverse impacts. Construction equipment also has the potential to damage some vegetation in the project area, resulting in short-term minor adverse impacts since any damaged vegetation would be replanted and the area restored to pre-construction conditions. The asphalt overlay on Fort Pickens Road would not have any adverse impacts on vegetation since this project activity would occur in the road footprint. The removal of the existing roadway would have beneficial impacts on vegetation, as the area would be restored to natural conditions, and vegetation would be reestablished. This would have long-term beneficial impacts. Overall impacts on vegetation under the preferred alternative would be short- and long-term minor and adverse.

Cumulative Impacts: The impacts of the cumulative projects on vegetation would be the same as those described above under the no action alternative. When the short- and long-term minor adverse impacts of the preferred alternative are combined with the short-term minor adverse impacts of the beach enhancement project, there would be long-term minor adverse cumulative impacts on vegetation.

Conclusion: The preferred alternative would have long-term minor adverse impacts on vegetation from the localized removal of vegetation along the proposed road realignment, and in the areas proposed for the entrance station and parking lot reconfiguration. The removal of the existing roadway would have

long-term beneficial impacts on vegetation since this area would be restored to natural conditions. Cumulative impacts on vegetation would be long-term minor and adverse.

Wildlife

Methodology and Assumptions

Section 4.4.1 of the NPS Management Policies 2006 states that NPS "will minimize human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them" (NPS 2006a). Information on the national seashores' wildlife was gathered from existing data from the NPS and the Florida FWC. The wildlife species that occur in the project area and that could be measurably affected by actions proposed in this EA include reptiles and amphibians, birds, and mammals.

Wildlife impacts were determined by examining the potential effects of the project activities on native wildlife species, their habitats (including quality, quantity, and distribution of habitats), or the natural processes sustaining them.

The USFWS provided initial comments on the proposed project in a May 30, 2014 consultation letter. In this letter, the USFWS expressed concerns about the proposed project's impact on the Santa Rosa beach mouse, as well as concerns about impacts to other non-listed species such as the black skimmer. Similarly, a consultation letter from the Florida FWC also expressed potential concerns about impacts from the project on non-listed wildlife species including the Santa Rosa beach mouse, Wilson's plover, and species of reptiles and passerine birds. Copies of both letters are included in Appendix B.

For this resource, the project area was assumed to be the Fort Pickens area of the national seashore.

Impact Thresholds

The following impact thresholds were established to describe the relative changes in wildlife habitat and wildlife under the alternatives being considered. Intensities (minor, moderate, major) are used only for adverse impacts, not for beneficial impacts.

Beneficial: Actions that would result in an improvement in conditions for wildlife and wildlife habitat, including migratory birds.

Negligible: There would be no observable or measurable impacts on native wildlife populations or habitat, or the natural processes sustaining wildlife. Impacts would be well within natural fluctuations. No measurable or perceptible changes would occur in the amount, distribution, connectivity, or integrity of wildlife habitat or populations.

Adverse: **Minor**: Impacts would be detectable but they would not be expected to be outside the natural range of variability of native populations, their habitats, or the natural processes sustaining them. Changes to the amount of wildlife habitat would be localized and would not affect the overall connectivity or integrity of habitat in the study area.

Moderate: Impacts on native species, their habitats, or the natural processes sustaining them would be detectable and could be outside the natural range of variability. Effects would be measurable and perceptible over a larger area and could affect the overall amount, integrity, and connectivity of habitat in the study area. Mortality or interference with activities necessary for survival, such as feeding, reproduction, overwintering, or migration, could be expected on an occasional basis, but would not be expected to threaten the continued existence of the species in the national seashore.

Major: Impacts on native populations, their habitats, or the natural processes sustaining them would be detectable and would be expected to be outside the natural range of variability. Effects would be extensive and would have drastic consequences on the amount, integrity, or connectivity of wildlife habitat. The functionality of contiguous habitat would change and loss of habitat might affect the viability of some native species. Key ecosystem processes might be disrupted. Loss of habitat might affect the viability of at least some native populations.

No Action Alternative (Alternative A)

Under the no action alternative, proposed project activities would not occur. Although existing conditions would continue at the national seashore, there would be impacts to wildlife resulting from disturbance to wildlife during repair and maintenance of Fort Pickens Road following storm events. This disturbance would be from the noise and human-activity associated with road maintenance vehicles. Additionally, the current mortality of wildlife species associated with vehicle strikes along the road would continue. Wildlife species, including the Santa Rosa beach mouse, have been struck by automobiles on the current road alignment. Under the no action alternative, these wildlife strikes would continue to occur. A 2013 study on vehicle mortality of wildlife species on Fort Pickens Road found that over a 6-week period, the carcasses of wildlife species were found along the road and included amphibians, reptiles, passerine bird species, shorebirds, and mammals. During this period, a total of 39 carcasses of wildlife species were found, including six carcasses of the Santa Rosa beach mouse (Cohen and Durkin 2013). No mortality to Wilson's plover was documented along Fort Pickens Road during this study (Cohen and Durkin 2013). Current efforts to prevent mortality to wildlife species include speed limit signs posted along Fort Pickens Road, the use of radar signs displaying vehicle speed, enforcement, and education. It is expected that wildlife mortality from vehicle strikes under the no action alternative would continue to occur, as well as disturbance to wildlife species through noise and human activity associated with road maintenance. Overall, the no action alternative would result in long-term, minor adverse impacts to wildlife.

Cumulative Impacts: The proposed beach enhancement project would result in short-term minor adverse impacts on wildlife. Wildlife may be disturbed by equipment used to remove asphalt from the sand, including sensitive wildlife areas; however, removal activities would not occur during the height of shorebird nesting, from March 15 to August 15. Concluding the removal of asphalt long-term beneficial impacts on wildlife and wildlife habitat would result. Future ferry service could have long-term minor adverse impacts on wildlife from disturbance during ferry operation. When the short-term minor adverse impacts from the no action alternative are combined with these other future projects, there would be long-term minor adverse cumulative impacts to wildlife.

Conclusion: The no action alternative would have adverse impacts on wildlife resulting from short-term minor disturbance during the continued repair and maintenance activities for Fort Pickens Road realignment, and long-term minor adverse impacts associated with wildlife mortality along the existing road. There would be long-term minor adverse cumulative impacts to wildlife under the no action alternative.

Preferred Alternative (Alternative B)

Wildlife within the Fort Pickens area would be impacted during construction activities through disturbance of wildlife sand dune habitat. Disturbance of feeding, foraging, and nesting of local species, including shorebirds would occur from noise associated with construction equipment, as well as the presence of construction workers. Disturbances to the Santa Rosa beach mouse during construction are also expected to occur, although this species is nocturnal and would likely only be active at night. Removal of vegetation could also result in disturbance of wildlife species, and the removal of vegetation for the roadway could remove or diminish the habitat for wildlife species. Construction impacts on shorebirds, including the Wilson's plover would be minimized by restricting construction to months outside of shorebird nesting season. Once construction is complete and Fort Pickens Road had been realigned, it is generally expected that shorebirds and other wildlife in the area would relocate nesting, foraging, and other activities to areas away from the new road alignment. It is also anticipated that wildlife would begin to use the new habitat created from the old road alignment, which would be allowed to naturally restore to previous conditions.

The current road alignment is inhibiting the southern end of the primary dune line. With the removal of the current road, a more complete primary dune line would form and the area where the current road is located would develop in to primary dune habitat. This additional primary dune habitat would provide some benefits for the Santa Rosa beach mouse and other wildlife species. A portion of the existing road area would also create some areas of open beach, which could benefit shorebird species. In the past, the NPS has realigned roads within the national seashore and has observed that areas where roads were removed quickly become quality habitat to numerous wildlife species when they are allowed to naturally restore. The proposed new road has been designed to avoid dune habitat as much as possible. However, some removal of dune habitat as a result of the proposed road realignment would occur and would adversely impact some wildlife species that are unique to this habitat. Mortality of wildlife species along the roadway, including the Santa Rosa beach mouse and passerine bird species, is likely to continue along the proposed road realignment, and is anticipated to be similar to current rates of mortality, as discussed above under the no action alternative. It is possible that the proposed road could further fragment habitat utilized by the Santa Rosa beach mouse. However, the habitat for the beach mouse is currently fragmented to the east and to the west of the project area from the roadway, but the population is stable regardless of the existing road.

Efforts to reduce mortality to the Santa Rosa beach mouse and other wildlife species would include those currently in place at the national lakeshore, such as speed limit signs, radar speed signs, enforcement of speed limits, and educational efforts. Also, the proposed road would have added curves designed to avoid dune habitat, which would naturally cause motorists to slow down. Wildlife mortality from vehicle strikes under the preferred alternative would result in long-term minor adverse impacts. If the new road realignment resulted in higher levels of wildlife mortality, additional mitigation measures could be determined. Potential mitigation measures for the Santa Rosa beach mouse could include notifying construction personnel of the potential presence of the Santa Rosa beach mouse, keeping construction noise to a minimum when possible, only completing construction activities in daytime hours, and not storing equipment and vehicles in areas where they could be colonized by mice, when feasible. Overall, the preferred alternative would have short-term moderate adverse impacts to wildlife during construction and minor adverse impacts on wildlife in the long term.

Cumulative Impacts: Impacts from cumulative projects in the Fort Pickens area on wildlife would be the same as discussed above under the no action alternative, long-term minor adverse. When the short- to long-term minor to moderate adverse impacts of the preferred alternative are combined with the impacts associated with the other future projects, the cumulative impacts to wildlife would be long-term minor adverse. Cumulative impacts are not expected to rise to moderate since effects to wildlife would be

measurable and perceptible but would not affect the overall amount, integrity, and connectivity of habitat in the project area.

Conclusion: There would be short-term moderate adverse impacts associated with disturbance of wildlife during the construction of the proposed road realignment and entrance station reconfiguration. After construction is completed, impacts would be long-term minor adverse from the loss of two areas of dune habitat, and the continued potential for wildlife mortality due to automobile strikes. However, new dune habitat areas would be created from the old road alignment location, and the realignment of the road would allow for the development of primary dune habitat in this area. Shorebirds and other wildlife could use this primary dune habitat for nesting, foraging, and other activities. The preferred alternative would result in long-term minor adverse cumulative impacts on wildlife.

Special Status Species

Methodology and Assumptions

The USFWS and NOAA Fisheries guidance for implementing section 7 consultation under the ESA defines the terminology used to assess impacts on listed species as follows (USFWS and NOAA 1998, xvi):

> *No Effect*: When a proposed action would not affect a listed species or designated critical habitat.
>
> *May Affect, Not Likely to Adversely Affect*: Effects on special-status species are discountable (extremely unlikely to occur and not able to be meaningfully measured, detected, or evaluated) or are completely beneficial.
>
> *May Affect, Likely to Adversely Affect*: When an adverse impact on a listed species may occur as a direct or indirect result of proposed actions and the effect is not discountable or beneficial.

The above thresholds pursuant to section 7 would be used in conjunction with the following thresholds to determine the magnitude of effects on federally listed special-status species and their associated habitat (including designated critical habitat) that would result from implementation of any of the alternatives. The thresholds also have incorporated thresholds for species listed by the USFWS and the state of Florida. Intensities (minor, moderate, major) are only used for adverse impacts, not for beneficial impacts.

For this resource, the project area was assumed to include the proposed road realignment area (100-foot wetland survey boundary), as well as the entrance station, parking lots, and remaining portion of Fort Pickens Road within the NPS boundary proposed for the asphalt overlay.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts on special-status species. Intensities (minor, moderate, major) are used only for adverse impacts, not for beneficial impacts.

Beneficial: Actions that would result in an improvement in conditions, including a decrease in take or result in habitat improvements for listed and non-listed species. For federally listed species, this impact intensity would equate to a determination of "may affect, not likely to adversely affect."

Negligible: No special-status species would be affected, or the action would affect an individual or its habitat, but the change would be so small that it would not be of any measurable or perceptible consequence to the individual or its population. Impacts would be well within natural fluctuations. For federally listed species, this impact intensity would equate to a determination of "may affect, not likely to adversely affect."

Adverse: **Minor**: The action would result in detectable impacts on an individual(s), their habitat, or to the natural processes sustaining them but the effects would be limited and localized. Small changes to local population numbers, population structure, and other demographic factors might occur. Occasional responses to disturbance by some individuals could be expected but would not affect population levels. Sufficient habitat would remain functional to maintain the viability of the population. This impact intensity would equate to a determination of "may affect, likely to adversely affect" under section 7 of the ESA.

Moderate: Impacts on species, their habitats, or the natural processes sustaining them would be over a larger area and could affect the overall amount, integrity, and connectivity of habitat in the study area and would be expected to sometimes be outside the natural range of variability. The action would result in detectable impacts on individuals or a relatively small proportion of the population, habitat, or the natural processes sustaining them over a large area. Impacts would have limited changes to population demographics (e.g., population numbers, structure) but would not affect the viability of the population. This impact intensity would equate to a determination of "may affect, likely to adversely affect" under section 7 of the ESA.

Major: Populations, habitat, or the natural processes sustaining them would be measurably affected such the viability of the population would likely be affected. Impacts on species, their habitats, or the natural processes sustaining them would be detectable, outside the natural range of variability, and long lasting. Local population numbers, population structure, and other demographic factors might experience large declines. For federally listed species, this impact intensity would equate to a determination of "likely to jeopardize proposed species or adversely modify proposed critical habitat (impairment)" under section 7 of the ESA.

No Action Alternative (Alternative A)

Under the no action alternative, existing conditions would continue at the national seashore and the proposed project would not occur. The current road alignment is located in an area of sea turtle nesting habitat, and sea turtles have been observed by national seashore staff on the roadway during the nesting season. Four species of sea turtles have been documented nesting at the national seashore and include the loggerhead, green, leatherback, and Kemp's Ridley turtles. The most common sea turtles at the national seashore are loggerheads. In 2012 and 2013, five loggerhead sea turtles nested along the existing roadway proposed for realignment. In 2013, a loggerhead sea turtle was struck and killed by a vehicle along Highway 399 in the Santa Rosa area of the national seashore, and sea turtle mortality along Fort Pickens Road is a concern. Under the no action alternative, sea turtles would still continue to cross the road and nest near the roadway, resulting in a long-term minor adverse impact, corresponding to a "may affect, likely to adversely affect" impact under section 7 of the ESA.

Under the no action alternative, listed shorebird species use habitats near the proposed road realignment, including the snowy plover and least tern. These shorebirds would continue to be affected by the potential for mortality due to vehicle strikes. Bird mortality along the existing roadway has been documented at the national seashore. A 2013 study on vehicle mortality of wildlife species on Fort Pickens Road found that over a 6-week period, least tern adults and chicks, as well as snowy plover chicks, were struck and killed along the road (Cohen and Durkin 2013). A total of seven listed shorebird carcasses (both least tern and snowy plover) were identified along Fort Pickens Road during the survey (Cohen and Durkin 2013). Current efforts to prevent mortality to shorebird species include speed limit signs posted along Fort Pickens Road, the use of radar signs displaying vehicle speed, enforcement, and education. It is expected that some shorebird mortality from vehicle strikes (both least tern and snowy plover) under the no action alternative would continue to occur as well as disturbance to these species through noise and human activity associated with road maintenance. Overall, the no action alternative would result in long-term moderate adverse impacts to the snowy plover and least tern.

The federally-listed piping plover is rarely sited in the Fort Pickens area, and roosting or feeding habitat is not located within the project area. Although the piping plover is not commonly found in the Fort Pickens area, NPS recorded a plover that was struck and killed along the road in this area of the national seashore during separate surveys regularly conducted for this shorebird (NPS unpublished data). No mortality to piping plover was documented along Fort Pickens Road during the 2013 study on vehicle mortality of wildlife species (Cohen and Durkin 2013). Overall, the no action alternative would result in a long-term minor adverse impact to the piping plover. Although this shorebird is unlikely to occur within the project area since no roosting or feeding habitat occurs in this area, one instance of mortality to this species has been recorded in the project area and could occur in the future. It is possible that the no action alternative could affect an individual piping plover, but this occurrence would be rare and would not affect their habitat, population or the natural processes sustaining them; the effects would be limited and localized. This impact intensity would equate to a determination of "may affect, likely to adversely affect" under section 7 of the ESA.

With the exception of sea turtles and the piping plover, the no action alternative would have no impact on other federally-listed species of special status in the project area boundary, corresponding to a "no effect" impact under section 7 of the ESA.

Cumulative Impacts: The completed ferry dock construction would have had short- and long-term minor adverse impacts on special status species, including sea turtle species. Although this project is not within the project area defined for special status species, it is in the vicinity of the proposed project. The proposed beach enhancement project could adversely impact listed species through the disturbance and removal of habitat during asphalt removal, but work would not be completed during the sea turtle and shorebird nesting season. When the long-term minor to moderate adverse impacts of the no action alternative are combined with other projects, cumulative impacts would be long-term minor to moderate adverse.

Conclusion: The no action alternative would have long-term minor adverse impacts on sea turtle species and piping plovers, corresponding to a "may affect, likely to adversely affect" impact under section 7 of the ESA. The no action alternative would also have long-term moderate adverse impacts on the snowy plover and least tern. The current alignment of Fort Pickens Road is located in sea turtle nesting habitat, and sea turtles would continue to cross the road and could likely be struck by vehicles. In addition, mortality of shorebird species resulting from vehicle collisions would also continue to occur. Cumulative impacts would be long-term minor to moderate and adverse to special-status species.

Preferred Alternative (Alternative B)

As stated above in the no action alternative, four species of sea turtles have been documented nesting at the national seashore and include the loggerhead, green, leatherback, and Kemp's Ridley turtles. In 2012 and 2013, five loggerhead sea turtles nested along the roadway proposed for realignment. In 2013 a loggerhead sea turtle was struck and killed by a vehicle along Highway 399 in the Santa Rosa area of the national seashore, and sea turtle mortality along Fort Pickens Road is a possibility. It is unlikely that the preferred alternative would impact sea turtles directly through disturbance during construction activities. Sea turtle nesting season occurs from May to September, when female turtles crawl onto the beach to nest. All construction activities would be completed outside of the sea turtle nesting season, thus limiting any impacts on sea turtles. The realignment of Fort Pickens Road out of sea turtle habitat would have long-term beneficial impacts on sea turtle species, corresponding to a "may affect, not likely to adversely affect" impact under section 7 of the ESA.

As previously discussed in Chapter 3 *Special-Status Species*, the national seashore supports numerous ground nesting shorebirds, including the state threatened snowy plover and least tern. Areas where birds are nesting are closed to the public and marked accordingly with signs. A shorebird nesting area is located within the proposed road realignment and 21 snowy plover nests were documented in sandy, dune habitat in the vicinity of the proposed roadway in 2012 and 2013 (figure 6). Ground nesting shorebirds utilize habitat at the national seashore from about March until August, when nesting is complete. All construction activities would be completed outside of the snowy plover nesting season, thus limiting any impacts on ground nesting shorebirds. Although the proposed realignment of Fort Pickens Road is within an area with documented snowy plover nests, this species is anticipated to continue nesting in the area where the current alignment of Fort Pickens would be removed.

Shorebird species that nest in the Fort Pickens area of the national seashore are found in areas both north and south of the proposed road realignment (NPS unpublished data). Shorebird species have also been noted nesting in areas of previous roadways that were realigned in the past due to storm damage from hurricanes. The existing road realignment is inhibiting the southern end of the primary dune line. With the removal of the existing road, a more complete primary dune line would form, and the area where the existing road is located would develop in to primary dune habitat. Additionally, a portion of the existing road area would be converted into areas of open beach, which would benefit shorebird species. This would create nesting habitat for the snowy plover from the primary dunes down to the wrack line, as snowy plovers nest on the upper beach down to the wrack line. Least terns could also nest in this area. The barrier island environment within the project boundary is dynamic and storm events cause sands and vegetation to shift regularly, including within the shorebird nesting area. Snowy plovers do not necessarily place nests at the same locations each year, but require suitable sandy beaches to create nests in shallow depressions. Although the road is being realigned within a shorebird nesting area, the existing roadway would be removed, creating new shorebird nesting habitat.

As stated above, all construction activities would be completed outside of the shorebird nesting season; these time of year restrictions would limit any impacts on ground nesting shorebirds associated with the road construction. However, listed shorebird species would still be at risk from the potential for vehicle strikes along the new roadway reconfiguration. Listed shorebird species that use habitats near the proposed road realignment, including the snowy plover and least tern, would continue to be impacted by the potential for mortality due to vehicle strikes. Bird mortality along the existing roadway has been documented at the national seashore, as discussed above under the no action alternative. The proposed road realignment would have similar impacts as the existing alignment. Efforts to prevent shorebird mortality along Fort Pickens road would include measures currently in place, such as speed limits along Fort Pickens Road, the use of radar signs displaying vehicle speed, enforcement, and education. Also, the proposed road would have added curves designed to avoid dune habitat, which would naturally cause motorists to slow down. Mortality from vehicle strikes to the least tern and snowy plover under the

preferred alternative would continue to occur. Overall, impacts to the snowy plover and least tern would be long-term moderate and adverse.

The federally-listed piping plover is rarely sited in the Fort Pickens area, and roosting and feeding habitat are not located within the project area or in the three ponds area where the proposed road alignment would be located. Although the piping plover is not commonly found in the Fort Pickens area, NPS has recorded a plover that was struck and killed along the road as described above in the no action alternative (NPS unpublished data). No mortality to piping plover was documented along Fort Pickens Road during the 2013 study on vehicle mortality of wildlife species (Cohen and Durkin 2013). Overall, the preferred alternative would result in a negligible impact to the piping plover. Although this shorebird is unlikely to occur within the project area since no roosting or feeding habitat occurs in this area, one instance of mortality to this species has been recorded in the project area and could occur in the future. It is possible that the preferred alternative could affect an individual piping plover, but this occurrence would be rare and would not affect their habitat, population, or the natural processes sustaining them; the effects would be limited and localized. This impact intensity would equate to a determination of "may affect, not likely to adversely affect" under section 7 of the ESA.

With the exception of sea turtles and the piping plover, the preferred alternative would have no impact on other federally listed species of special status in the project area boundary, corresponding to a "no effect" impact under section 7 of the ESA.

Cumulative Impacts: Cumulative impacts would be the same as the projects described above under the no action alternative. When the long-term beneficial impacts of the preferred alternative on sea turtles, negligible impact on the piping plover, and long-term moderate adverse impact on the snowy plover and least tern are combined with the other project discussed under the preferred alternative, cumulative impacts on special status species would be long-term minor to moderate adverse.

Conclusion: The preferred alternative would have long-term beneficial impacts on sea turtles, special status species, corresponding to a "may affect, not likely to adversely affect" impact under section 7 of the ESA. Realigning Fort Pickens Road outside of sea turtle nesting habitat would provide additional habitat for sea turtle nesting and remove the danger of sea turtles being struck by cars. The preferred alternative would have negligible adverse impacts on the piping plover, resulting in a "may affect, not likely to adversely affect" impact under section 7 of the ESA. The preferred alternative would also have long-term moderate adverse impacts on snowy plovers and least terns due to potential mortality from vehicle strikes along the new realignment. All construction activities would be completed outside of the shorebird nesting season; these time of year restrictions would limit impacts on ground nesting shorebirds associated with the road construction. Cumulative impacts would be long-term minor to moderate and adverse to special-status species.

Socioeconomics

This section evaluates the potential impacts of the alternatives on the social and economic elements of the surrounding communities. Impacts were determined by considering the effect of the existing conditions and the proposed construction and operation of Fort Pickens Road on the overall socioeconomic conditions in the area.

Methodology and Assumptions

Socioeconomic conditions were evaluated and the impacts of each alternative were analyzed in terms of their direct and indirect effects on social and economic values. Values of the social environment mainly include quality of life, while economic values include direct and indirect economic benefits or losses to

local communities. Impacts were determined by considering the effect of the existing conditions and the proposed construction and operation of the project on communities and populations that could be affected by the project. No statistical or other quantitative analysis was completed during the course of this socioeconomic impact analysis.

For socioeconomics, the project area was assumed to include the surrounding local areas, including Pensacola Beach and Gulf Breeze, Florida.

Impact Thresholds

The following impact thresholds were established to describe the relative changes in socioeconomic conditions under the alternatives. Intensities (minor, moderate, major) are only used for adverse impacts, but not for beneficial impacts.

Beneficial: Actions that would result in an improvement in socioeconomic conditions.

Negligible: Little or no measurable effect on economic activity, employment, population migration or immigration, or neighborhood cohesion would occur.

Adverse: **Minor**: Slight changes in economic activity, employment, population migration or immigration, or neighborhood cohesion would occur. Only a small sector of the local and regional economies would be affected.

Moderate: Measurable changes in overall economic activity, employment, population migration or immigration, or neighborhood cohesion within the region would occur. Basic socioeconomic functions or structure would not be altered, but changes in the relationship between sectors of the local and regional economies would occur.

Major: Widespread, substantial changes in overall economic activity, employment, population migration or immigration, or neighborhood cohesion would occur. Shifts in socioeconomic functions and structure would occur. Some established economic sectors may be eliminated, while others may be created.

No Action Alternative (Alternative A)

Under the no action alternative, the proposed project activities would not occur; therefore, the no action alternative would initially have no impact on socioeconomics. However, storm events would continue to impact Fort Pickens Road resulting in closures of the road for repair thus restricting access to the Fort Pickens area and situations may arise in the future where conditions become so altered that it is no longer feasible to repair or maintain the road. If road repairs were no longer feasible and vehicle access to the Fort Pickens area of the national seashore was no longer permitted, visitors would no longer access the national seashore from the Pensacola Beach area. This would reduce visitation to this area, resulting in less use of the local shopping areas, restaurants, and recreation areas in nearby Pensacola Beach and Gulf Breeze area. Additionally, the removal of vehicular access to the national seashore could reduce visitation, lessening the number of local employees at the national seashore. The no action alternative would have long-term moderate adverse impacts on local economy of the study area.

Cumulative Impacts: The proposed ferry service would provide an additional concession operation thus creating new jobs in the area resulting in beneficial impacts in the long term. The proposed beach enhancement project would result in short-term beneficial impacts from the creation of jobs during the enhancement activities (asphalt removal). When the long-term moderate adverse impacts of the no action

alternative are combined with the beneficial impacts of these future projects, there would be negligible cumulative impacts on socioeconomics.

Conclusion: The no action alternative would have long-term moderate adverse impacts on socioeconomics due to continued road repair closures in the future as well as the potential for the existing Fort Pickens Road to be permanently closed; vehicular access would no longer be permitted at the national seashore. This would result in reduced visitation to nearby Pensacola Beach and the Gulf Breeze area thus affecting the local economy. Cumulative impacts to socioeconomics would be negligible.

Preferred Alternative (Alternative B)

Construction activities associated with the preferred alternative would have beneficial impacts on the local economy due to the creation of construction jobs, as local contractors would be used. After construction is complete, the preferred alternative would have beneficial impacts due to the continued vehicular access to the Fort Pickens area of the national seashore. Less road closures for repair would be expected under this alternative. This alternative would help to ensure continued visitation in the Pensacola Beach and Gulf Breeze area in the future; visitors would continue to use local restaurants, shopping areas, and visit recreation activities. Overall, there would be long-term beneficial impacts to socioeconomics under the preferred alternative.

Cumulative Impacts: Cumulative impacts from other projects would be the same as described above under the no action alternative. When the beneficial impacts of the preferred alternative are combined with the beneficial impacts of other future projects, there would be beneficial cumulative impacts to socioeconomics.

Conclusion: The preferred alternative would have long-term beneficial impacts on socioeconomics due to continued vehicular access to the Fort Pickens area, resulting in continued visitation to the Pensacola Beach and Gulf Breeze area, as well as short-term beneficial impacts from the creation of jobs during the construction period. Cumulative impacts on socioeconomics would also be beneficial.

Transportation

Methodology and Assumptions

Implementation of the proposed project would impact roadways and transportation in the vicinity of the national seashore, as well as within the national seashore boundaries. NPS applied logic, experience, and professional expertise and judgment was used to analyze potential impacts that would result from each alternative on the existing transportation conditions in the vicinity of the study area.

For this resource, the study area was assumed to include the roadways and parking areas within the Fort Pickens area of the national seashore, as well as the roadway leading in to the national seashore.

Impact Thresholds

The following impact thresholds were established to determine the impacts of transportation under the alternatives. Intensities (minor, moderate, major) are only used for adverse impacts but not for beneficial impacts.

Beneficial: Actions that would result in an improvement in conditions for infrastructure, circulation, or access related to transportation.

Negligible: Very few roadways or individuals would be impacted. Impacts would be nonexistent, barely detectable, or detectable only through indirect means and with no discernible impact on local transportation conditions.

Adverse: **Minor**: A few roadways or individuals would be impacted. Impacts would be small but detectable, limited to a small geographic area, comparable in scale to typical year-to year or seasonal variations, and not be expected to substantively alter transportation conditions over the long term. The change in transportation access would result in some detours and/or delays, noticeably affecting, but not appreciably limiting, the ability of the public to easily access desired destinations.

Moderate: Many roadways or individuals would be impacted. Impacts would be readily apparent and detectable across a wider geographic area and may have a noticeable effect on transportation conditions over the long term. The change in daily traffic on a roadway segment would be apparent. The change in transportation access would result in several detours and/or increased travel delays. These delays would measurably limit the ability of the public to easily access desired destinations.

Major: A large number of roadways or individuals would be impacted. Impacts would be readily detectable and observed, extend across much of the study area, and would have a substantial influence on transportation conditions over the long term. The change in daily traffic on a roadway segment would be obvious. The change in transportation access would result in substantial detours and/or traffic delays. These delays would limit the ability of the public to easily access desired destinations to the extent that those destinations are avoided.

No Action Alternative (Alternative A)

Under the no action alternative, road improvement activities would not occur. Currently, the configuration of the entrance station results in delays of up to 40 minutes during busy days of high visitation in the summer. This can cause traffic backups which sometimes reach Pensacola Beach. Under the no action alternative, these traffic backups and delays would continue to occur, resulting in long-term moderate adverse impacts.

Cumulative Impacts: The proposed ferry service to Fort Pickens would have beneficial impacts on transportation due to the reduction in vehicular visitation within the national seashore. Some visitors may choose to use the ferry to visit the Fort Pickens area, rather than driving in to the national seashore. When the long-term moderate adverse impacts of the no action alternative are combined with the beneficial impacts of the future ferry service project, there would be long-term minor adverse impacts on transportation. The ferry service would reduce some of the delays at the entrance station, but is not expected to eliminate the delays. The ferry service has a yearly projected ridership of approximately 60,000 visitors a year, well below the over 700,000 visitors that access Fort Pickens annually.

Conclusion: The no action alternative would have long-term moderate adverse impacts on transportation, as the current configuration of the entrance station causes traffic delays and backups on high visitation days. Cumulative impacts on transportation would be negligible.

Preferred Alternative (Alternative B)

During the construction period of the proposed project, the preferred alternative would have adverse impacts on traffic since Fort Pickens Road may be unavailable during the asphalt overlay. However, this delay would only last for a short period. This delay would result in short-term moderate adverse impacts. During the road realignment portion of the project, the existing Fort Pickens Road would provide access for visitors to the Fort Pickens area, but may have reduced vehicular speed limits for safety. Once construction is completed, the new road realignment and reconfiguration of the entrance station would help to relieve traffic congestion and delays during high visitation days, resulting in long-term beneficial impacts.

Cumulative Impacts: Cumulative impacts from other projects that have the potential to impact transportation would the same as described above for the no action alternative. When the beneficial impacts of the preferred alternative to transportation are combined with the benefits of the future ferry service project, there would be long-term beneficial cumulative impacts to transportation in the study area.

Conclusion: The preferred alternative would have long-term beneficial impacts from the reconfigured entrance station, which would ease traffic delays and congestion during days of high visitation. Short-term moderate adverse impacts would occur during the asphalt overlay. Cumulative impacts to transportation would long-term and beneficial.

Health and Safety

Methodology and Assumptions

The analysis of human health and safety was determined by examining the potential effects of construction activities and operation on the health and safety of national seashore visitors and staff.

For this resource, the project area was assumed to include the Fort Pickens area of the national seashore.

Impact Thresholds

The following impact thresholds were established to describe the relative changes in health and safety under the alternatives. Intensities (minor, moderate, major) are only used for adverse impacts but not for beneficial impacts.

Beneficial: Actions that improve health and safety for national seashore visitors, national seashore employees, and the general public.

Negligible: Human health and safety for national seashore visitors, national seashore employees, and the general public would not be affected, or the effects would be at such low levels of detection that no appreciable effect on human health or safety would be measurable.

Adverse: **Minor**: Effects on human health and safety for national seashore visitors, national seashore employees, and the general public would be detectable but would not be large enough to be quantified. Changes to human health and safety would be slight and localized and the visitor would be aware of the effects.

Moderate: Effects would be readily apparent and would result in substantial, noticeable effects to human health and safety for national seashore visitors, national seashore employees, and the general public.

Major: Effects would be readily apparent and would result in substantial, noticeable effects to human health and safety for national seashore visitors, national seashore employees, and the general public. Revision of national seashore policies would be required to ensure human health and safety. Changes in visitor use and/or experience would be readily apparent, severely adverse, and would have major consequences. Visitors would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

No Action Alternative (Alternative A)

Under the no action alternative, construction of the proposed project would not occur. The current alignment of Fort Pickens Road presents a hazard to visitors and national seashore staff due to its proximity to the Gulf of Mexico. Although national seashore staff does their best to predict and communicate the potential for flood events before they occur, some storm events may not be predicted, presenting a risk to visitors by becoming temporarily stranded in the national seashore or in less extreme floods having to drive through shallow salt water. As a result, the no action alternative would have long-term minor adverse impacts on health and safety.

Cumulative Impacts: The proposed ferry service could impact the health and safety of visitors in the long-term due to potential accidents associated with boarding and disembarking the ferry, but these impacts are expected to be infrequent and minor. Similarly, the proposed beach enhancement project could have short-term minor adverse impacts on the health and safety of contractors that would be operating construction equipment needed for sifting and removing asphalt from the sand. When the long-term minor adverse impacts of the no action alternative are combined with the long-term minor adverse impacts from the future projects, there would be long-term minor adverse cumulative impacts on health and safety.

Conclusion: The no action alternative would have long-term minor adverse impacts on health and safety of national seashore visitors and staff due to flooding hazards associated with the current alignment of Fort Pickens Road. Cumulative impacts to the health and safety national seashore visitors, national seashore employees, and the general public would also be long-term minor adverse.

Preferred Alternative (Alternative B)

During the construction period for the proposed project, the use of heavy construction machinery would present safety concerns for national seashore visitors, national seashore staff, and contractors, resulting in short-term minor adverse impacts. Once construction is completed, the preferred alternative would have long-term beneficial impacts on health and safety due to the realignment of Fort Pickens Road further away from the Gulf of Mexico. This would help to prevent hazardous conditions resulting from flooding of the current road during storm events.

Cumulative Impacts: The impacts of other projects on health and safety would be as described above under the no action alternative. The long-term beneficial impacts of the preferred alternative would outweigh the long-term minor adverse impacts from the future projects resulting in long-term beneficial cumulative impacts to the health and safety national seashore visitors, national seashore employees, and the general public.

Conclusion: The preferred alternative would result in short-term minor adverse impacts from construction of the project and long-term beneficial impacts from the reduction of potential flooding hazards to visitors and national seashore staff in the Fort Pickens Road area. Cumulative impacts to the health and safety of national seashore visitors, national seashore employees, and the general public would be long-term and beneficial.

Visitor Use and Experience

Methodology and Assumptions

The purpose of the visitor use and experience impact analysis was to determine if the activities proposed among the alternatives are compatible or in conflict with the purpose of the national seashore, its visitor experience goals, and the direction provided by NPS *Management Policies 2006*.

The potential for change in visitor experience was evaluated by assessing the limitations and assumed changes to visitor access and associated visitor uses related to the proposed alternatives and determining whether these projected changes would affect the visitor experience.

The project area for the impacts analysis of visitor use and experience includes the Fort Pickens area of the national seashore.

Impact Thresholds

The following impact thresholds were established to describe the relative changes in visitor use and experience under the alternatives. Intensities (minor, moderate, major) are only used for adverse impacts but not for beneficial impacts.

Beneficial: Actions that would result in an improvement in conditions for visitor use and experience.

Negligible: Visitors would likely be unaware of impacts associated with construction and operation of the alternative. There would be no noticeable change in overall visitor use and enjoyment of national seashore resources or in any defined indicators of visitor satisfaction or behavior.

Adverse: **Minor**: Visitors would be aware of the effects associated with the alternative, but only slightly. Changes in visitor use and experience would be slight and detectable, but would not appreciably limit or enhance visitor access or recreational/interpretive opportunities. Overall visitor satisfaction would remain stable.

Moderate: Visitors would be aware of the effects associated with the alternative. Changes in visitor use and experience would be noticeable. Visitor access or recreational/interpretive opportunities may be limited or enhanced. Some visitors who desire their continued use and enjoyment of the activity might pursue their choices in other areas of the national seashore. Sensitivity of visitors to changes would be considerable based on activity, awareness, and/or duration. Overall visitor satisfaction would begin to decline.

Major: Multiple critical characteristics affecting visitor use and enjoyment of national seashore resources would change and/or the number of participants engaging in an activity would be greatly reduced or increased. Visitors would be highly aware of the effects associated with the alternative. Changes in visitor use and experience would be highly apparent and visitor access or recreational/interpretive opportunities would be appreciably limited or enhanced. Sensitivity of visitors to changes would be substantial based on activity, awareness, and/or duration. Overall visitor satisfaction would markedly decline.

No Action Alternative (Alternative A)

Under the no action alternative visitors would continue to use the existing Fort Pickens Road to access the Fort Pickens area. However, storm events would continue to erode and damage the roadway, resulting in long-term moderate adverse impacts on visitor use and experience during road repairs that result in road closures. Additionally, the erosion of the roadway during storm events could result in situations in the future where conditions become so altered that it is no longer feasible to repair or maintain the road. If this were to occur, visitors would no longer be able to access national seashore amenities on the western portion of the island by vehicle, including Fort Pickens, campgrounds, and the visitor center. If this occurs, the no action alternative would result in long-term major adverse impacts on visitor use and experience since visitors would no longer be able to access many of the national seashore features by car; visitation would decrease at the national seashore. Additionally, the entrance station would not be reconfigured and existing traffic delays and backups would continue to occur during high visitation days at the national seashore resulting in additional long-term adverse impacts to visitors. Overall, impacts to visitor use and experience under the no action alternative would be long-term moderate to major and adverse.

Cumulative Impacts: The proposed ferry service to Fort Pickens would have beneficial impacts on visitor use and experience, as it would provide visitors an additional way to access the western portion of the island. The ferry service would also benefit visitors during future road closures needed for road repairs after storm events, or if Fort Pickens Road was permanently closed in the future. In addition, the ferry service is also expected to lessen vehicular traffic at the entrance station, lessening the occurrence of delays on high visitation days. The proposed beach enhancement project would have beneficial impacts on visitor use and experience by improving the aesthetics of the national seashore. When the long-term moderate to major adverse impacts of the no action alternative are combined with the benefits of these future projects, adverse cumulative impacts on visitor use and experience are expected to lessen due to the benefits of the ferry service resulting in long-term minor to moderate adverse impacts.

Conclusion: Overall, the no action alternative would have long-term moderate to major adverse impacts on visitor use and experience from impacts associated with access to the western portion of the island during road closures, which could be permanent if repairs to the road are not deemed feasible in the future and ongoing delays at the entrance station. There would be long-term minor to moderate adverse cumulative impacts to visitor use and experience.

Preferred Alternative (Alternative B)

During construction of the realignment of Fort Pickens Road, and the reconfiguration of the entrance station and parking lot #22 visitors could experience delays, and Fort Pickens Road may be unavailable for a short period during the asphalt overlay. However, during the road realignment, the existing Fort Pickens Road would provide access for visitors to the Fort Pickens area, but the road may have a reduced speed for safety. These activities would result in short-term moderate adverse impacts to visitor use and experience. At the conclusion of construction, the preferred alternative would have beneficial impacts on

visitor use and experience. The road realignment, repaving, and reconfiguration of the entrance station would benefit visitors by reducing road closures due to storm damage thus allowing continued vehicle access to the Fort Pickens area, and lessening delays at the entrance station on days with high visitation.

Cumulative Impacts: The impacts of other projects on visitor use and experience would be as described above under the no action alternative. When the benefits from these projects are considered with the long-term beneficial impacts of the preferred alternative, there would be long-term beneficial cumulative impacts on visitor use and experience.

Conclusion: The preferred alternative would have short-term moderate adverse impacts on visitors during construction, but would have long-term beneficial impacts on visitor use and experience resulting from continued access vehicle access to the Fort Pickens area, and a reduction in delays at the entrance station during high visitation days. Cumulative impacts to visitor use and experience would be long-term and beneficial.

Park Operations

Methodology and Assumptions

Impacts on national seashore operations and management are assessed with regards to staffing and annual operating budget. The alternatives could change the national seashore's existing staff requirements and budgetary expenditures. Management and operations, for the purpose of this analysis, refer to the quality and effectiveness of NPS staff with regards to maintaining and administering resources and providing for an appropriate visitor experience. Construction and operation of the proposed project may affect national seashore operations. National seashore staff could be required to monitor and oversee construction activities as well as visitor safety mitigation procedures.

The evaluation of impacts on national seashore operations focuses on the amount of staff available to perform management practices, the ability of national seashore staff to protect and preserve resources given current funding and staffing levels, and the projected need for additional staff time and materials in relationship to accomplishing additional tasks under each of the alternatives.

The study area for the impacts analysis of national seashore operations includes the Fort Pickens area of the national seashore.

Impact Thresholds

The following thresholds were used to determine the magnitude of impacts on national seashore operations. Intensities (minor, moderate, major) are only used for adverse impacts but not for beneficial impacts.

Beneficial: Action would improve national seashore operations or enhance the ability to provide services.

Negligible: National seashore operations would not be impacted or the impact would not have a noticeable or measurable impact. There would be no change in the number of employees or in the national seashore budget.

Adverse: **Minor**: National seashore operations would be affected, and the effect would be detectable, but current levels of funding and staff would be adequate and other national seashore operations would not be reduced. Impacts would be noticeable and would result in measurable, localized, changes in operations at the national seashore for at least one type of service.

Moderate: National seashore operations would be affected, the effect would be readily apparent and increased staff and funding would be needed or other national seashore operations would have to be reduced and/or priorities changed. Impacts would be readily apparent and would result in a substantial change in the operations for the national seashore.

Major: National seashore operations would be affected, the effect would be readily apparent, increased staff and funding would be needed or other national seashore programs would have to be eliminated. The change would be over a regional impact affecting more than two types of services.

No Action Alternative (Alternative A)

Under the no action alternative, the existing alignment of Fort Pickens Road would continue to be damaged during storm events and require repairs. This need for ongoing repairs and maintenance activities would have long-term moderate adverse impacts on national seashore operations due to continued staffing and funding needs for future road repairs.

Cumulative Impacts: The proposed ferry service would require some long-term NPS oversight and involvement, placing a demand on national seashore operations. The proposed beach enhancement project would also require some NPS oversight and monitoring during the project, but this would be temporary. These future projects would result in short- and long-term minor adverse impacts on national seashore operations. When the long-term moderate adverse impacts of the no action alternative are combined with the long-term minor adverse impacts of future projects, the result would be long-term moderate adverse impacts on national seashore operations.

Conclusion: The no action alternative would have long-term moderate adverse impacts on national seashore operations, as there would be a continued need for repairs and maintenance of Fort Pickens road due to damage from storm events. Cumulative impacts would also be long-term moderate and adverse on national seashore operations.

Preferred Alternative (Alternative B)

During the construction period for the preferred alternative NPS staff would oversee and monitor construction activities and ensure visitor safety during construction resulting in short-term moderate adverse impacts to national seashore operations. However, following the realignment of Fort Pickens Road, the preferred alternative would have long-term beneficial impacts on national seashore operations due to the reduction in the need for maintenance and repair of Fort Pickens Road following storm events thus reducing the cost and additional need for national seashore staff.

Cumulative Impacts: The types of impacts from other projects in the vicinity of the Fort Pickens Road would be the same as discussed above under the no action alternative. When the long-term beneficial impacts of the preferred alternative are combined with the long-term minor adverse impacts associated with the future projects, the cumulative impacts on national seashore operations would be beneficial. The beneficial impacts of the preferred alternative would outweigh the adverse impacts of the other projects on national seashore operations.

Conclusion: The preferred alternative would have short-term moderate adverse impacts on national seashore operations during construction, and long-term beneficial impacts after construction due to the reduction in maintenance needs of Fort Pickens Road. Cumulative impacts would be beneficial to national seashore operations.

MITIGATION AND PERMIT REQUIREMENTS

Compliance Needs

The regulatory program in Florida regulates most land (upland, wetland, and other surface water) alterations throughout the state. Florida implements an independent state permit program that operates in addition to the federal dredge and fill permit program. The regulatory permit program includes a statewide regulatory environmental resource and wetland resource permit under part IV of chapter 373 of the Florida Statutes. The ERP program addresses dredging, filling, and construction in wetlands and other surface waters under chapter 62-330, *Florida Administrative Code*, and is required for any wetland impacts and roadway stormwater management. The program ensures that activities in uplands, wetlands, and other surface waters do not degrade water quality or habitat. The NWFWMD and the FLDEP Northwest District's Submerged Lands and Environmental Resource Program are responsible for implementing the ERP program. Issuance of the ERP also constitutes a water quality certification or waiver under 401 of the Clean Water Act (33 U.S.C. 1341). Issuance of an ERP in coastal counties constitutes a finding of consistency under Florida Coastal Zone Management Program, section 307 of the Coastal Zone Management Act. When a corresponding federal dredge and fill permit is required, it is issued independently from the state permit by the USACE after the issuance or waiver of the state water quality certification and applicable coastal zone consistency concurrence (FLDEP 2011).

The following is a list of required permits, licenses, certifications, and assessments that may be required for the construction and implementation of the project.

- Environmental Resource Permit (ERP) from the FLDEP under chapter 62-330, *Florida Administrative Code*
- Nationwide Permit 14 under Section 404 of the CWA
- A Florida Coastal Construction and Excavation Permit (Florida Code ch. 62B-33)
- A Florida Joint Coastal Permit (Florida Code ch. 62B-49)
- Florida Coastal Construction Control Line Permit
- Florida Joint Coastal Permit (ch 161, Florida Statutes)
- FLDEP Wetland Permit

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CONSULTATION AND COORDINATION

Scoping is the effort to involve agencies and the general public in determining the scope of issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates issues determined to be not important, allocates assignments among the interdisciplinary team members and/or participating agencies, identifies related projects and associated documents, identifies other permits, surveys, consultations, etc. required by other agencies, and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping includes consultation with any interested agency, or any agency with jurisdiction by law or expertise to obtain early input and permits needed for implementation. Scoping also includes coordination with the public regarding the proposed project. All public involvement documents are included in Appendix A, and all agency consultation and coordination documents are included in Appendix B.

Agency Consultation

External scoping refers to the interdisciplinary process used to define issues, alternatives, and data needs. Consultation letters were mailed to state and federal agencies on April 23, 2014 requesting consultation and comments regarding the proposed project at the national seashore. Appendix B contains a list of agencies that received the consultation letter and a copy of the consultation letter. Responses were received from several agencies. A letter was received from the FLDEP on June 11, 2014 that included responses from several agencies, including the FLDEP, NWFWMD, Florida FWC, and FLDOS. The letter also indicated that the Florida Department of Transportation, West Florida Regional Planning Council, and Escambia County had no comments on the proposed project. Copies of the agency responses are also included in Appendix B.

Special Status Species Consultation

In accordance with federal and state requirements for special status species, consultation letters were mailed to state and federal agencies on April 23, 2014, including the USFWS, the NMFS, and the Florida Fish and Wildlife Conservation Commission (Appendix B). 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. A response was also received from the Florida Department of Environmental Protection on May 6, 2014 indicating that the letter had been passed along to the appropriate agencies for review.

Section 106 Consultation

Agency consultation was initiated with the Florida SHPO and 15 tribes to comply with Section 106 of the NHPA. Section 106 of the NHPA (36 CFR, Part 800) requires federal agencies to take into account the effects of their undertakings on historic properties, and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. A letter was mailed to the SHPO and 15 tribes on May 9, 2014 requesting consultation and comments on the proposed project (Appendix B). This letter also included a copy of the two archeological surveys in the project area that produced negative results for archeological materials. A response was received from the SHPO on May 22, 2014 indicating that the project would not have an impact on cultural resources. A copy of the letter is included in Appendix B. A response was also received from the Miccosukee Tribe of Indians of Florida on June 27, 2014 indicating that the tribe did not have any issues with the project, or knowledge of any resources in the area.

The SHPO and tribes will have the opportunity to comment on this EA during the public review period. In addition to the EA, a second letter requesting the concurrence of No Adverse Effect will be sent to the SHPO to complete the consultation process.

Public Involvement

External scoping is the process used to gather public input. For this project, a scoping newsletter was mailed in March 2014 to individuals, organizations, stakeholders, and agencies in order to notify the public that an environmental assessment is being completed for this proposed project. The newsletter was also available to the public in the park's visitor center. A notification announcing the project and newsletter was displayed in *The Pensacola News Journal* newspaper. The newsletter provided the park background, current conditions within the project area, a project background and description, a description of the NEPA process, and a description of the public scoping period. The public had the opportunity to comment on the proposed project for a total of 33 days (March 27, 2014 through April 28, 2014) using the NPS PEPC website or by sending a written comment to the national seashore. Twenty-two comments were received during the comment period on the scoping newsletter. The newsletter is included in Appendix A.

This EA will be distributed to agencies for public and agency review and comment for a period of at least 30 days; comments received will be addressed in an errata sheet to be attached to the FONSI, assuming there are no issues that may lead to significant impacts from the preferred alternative. Following the completion of the EA and response to comments, the FONSI will be signed and dated by the NPS Southeast Regional Director.

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United State Fish and Wildlife Service and National Oceanic and Atmospheric Administration (USFWS and NOAA)

1998 *Endangered Species Consultation Handbook*. March. Available [online]: http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf. Accessed May 27, 2014.

United States Geological Survey (USGS)

2014a *Map Unit Description: Corolla-Duckston sands, gently undulating, flooded – Escambia County, Florida.* U.S. Department of Agriculture Natural Resources Conservation Service. National Cooperative Web Soil Survey. Available [online]: http://websoilsurvey.sc.egov.usda.gov/WssProduct/n3ynrcvwaq3mcvczmtfcxrb4/n3ynrcvwaq3mcvczmtfcxrb4/20140508_15214903147_82_Map_Unit_Description_Corolla-Duckston_sands_gently_undulating_flooded--Escambia_County_Florida.pdf. Accessed May 8, 2014.

2014b *Map Unit Description: Newhan-Corolla complex, rolling, rarely flooded – Escambia County, Florida.* U.S. Department of Agriculture Natural Resources Conservation Service. National Cooperative Web Soil Survey. Available [online]: http://websoilsurvey.sc.egov.usda.gov/WssProduct/n3ynrcvwaq3mcvczmtfcxrb4/n3ynrcvwaq3mcvczmtfcxrb4/20140508_15285403772_76_Map_Unit_Description_Newhan-Corolla_complex_rolling_rarely_flooded--Escambia_County_Florida.pdf. Accessed May 8, 2014.

2014c *Map Unit Description: Direго Muck, tidal – Escambia County, Florida.* U.S. Department of Agriculture Natural Resources Conservation Service. National Cooperative Web Soil Survey. Available [online]: http://websoilsurvey.sc.egov.usda.gov/WssProduct/n3ynrcvwaq3mcvczmtfcxrb4/n3ynrcvwaq3mcvczmtfcxrb4/20140508_15351503601_82_Map_Unit_Description_Dirego_muck_tidal--Escambia_County_Florida.pdf. Accessed May 8, 2014.

White, CL

2014 *Gulf Islands National Seashore: Acoustic monitoring report.* Natural Resource Report NPS/NRSS/NRTR—2014/835. National Park Service, Fort Collins, Colorado.

APPENDIX A

Public Involvement

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NEPA Process

The National Park Service (NPS) must follow the National Environmental Policy Act of 1969 (NEPA) to ensure consideration of environmental, cultural, and human issues. The Fort Pickens Road pavement overlay and realignment project will be analyzed during the NEPA process.

The environmental effects resulting from the proposed project will be evaluated in an Environmental Assessment. The analysis will consider impacts to topics such as wetlands, wildlife, vegetation, special-status species, cultural resources, socioeconomics, visitor use and experience, and park operations.

The document will analyze both short-term and long-term, as well as, cumulative effects of the proposed roadway improvements, along with the "no-action alternative". By comparing the proposed action alternative with the no-action alternative, and identifying mitigation measures that would minimize adverse effects, the Environmental Assessment will assist stakeholders in the decision-making process.

Public Scoping Period

At this time, the Superintendent is announcing a 30-day public scoping period to solicit comments on the proposed roadway improvements. During this period, the public is invited to identify issues or concerns they might have with the proposed project so that the NPS can appropriately consider them in the Environmental Assessment. You may submit your comments electronically at the NPS's Planning, Environment, and Public Comment website (https://parkplanning.nps.gov/GUIS). If you are unable to access this website, please submit written comments to:

Superintendent
Subject: Fort Pickens Road Realignment
Gulf Islands National Seashore
3500 Park Road
Ocean Springs, MS 39564

Faxed comments, emails, and telephone messages will not be accepted. Please submit comments by April 28, 2014. Once the Environmental Assessment is developed, it will be made available for public review for a 30-day period. If you wish to be added to the park's mailing list, please be sure to indicate that in your response.

It is NPS practice to make all comments, including names and addresses of respondents who provide that information, available for public review. Individuals may request that the NPS withhold their name and/or address from public disclosure. If you wish to do this, correspondents using the website can make such a request by checking the box "keep my contact information private." If submitting written comments please state this request at the beginning of your comment. The NPS will honor such requests to the extent allowable by law.

National Park Service
U.S. Department of the Interior

Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, FL 32563

EXPERIENCE YOUR AMERICA

Gulf Islands National Seashore
Mississippi and Florida

National Park Service
U.S. Department of the Interior

Fort Pickens Road Realignment

Scoping Newsletter
March 2014

From the Superintendent -

Dear Park Friend:

We are beginning a new planning effort at Gulf Islands National Seashore - the realignment of a portion of Fort Pickens Road. The road realignment would allow safe automobile access to the Fort Pickens area while protecting park resources. An Environmental Assessment is being prepared to analyze impacts to natural and cultural resources from the proposed action.

This newsletter shares information about this planning effort including the purpose, need, and objectives of the project and the preliminary project alternative.

We invite you to stay engaged as additional opportunities will become available to share your thoughts and ideas about how to manage and access the Fort Pickens area. I look forward to hearing from you in the future.

Sincerely,

Daniel R. Brown
Superintendent
Gulf Islands National Seashore


Sand Dunes within the Fort Pickens Area

Project Purpose and Need

The purpose of this project is to repave 4.5 miles and realign a 1.7 mile section of Fort Pickens Road to continue providing access to the Fort Pickens area of Gulf Islands National Seashore (National Seashore). Fort Pickens Road is a segment of National Park Service (NPS)-owned and –maintained road on Santa Rosa Island, Escambia County, Florida. The entire road extends approximately nine miles between Pensacola Beach and Fort Pickens, with approximately seven miles of road within the NPS boundary. This road has been in place for over 50 years; however, over the past ten years the eastern four miles of the road has been destroyed multiple times during storm events, causing road closures resulting in no access to the western portion of the island. During annual storm events, the roadway becomes washed out causing the Fort Pickens area to close for a period of time ranging from a few days up to weeks during repair of the road. The road realignment is needed due to continued erosion of the existing road from hurricanes and other storm and high wind events at the national seashore. Portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline. The asphalt from the realigned portion of the road would be removed and the area would be allowed to return to a natural dune community.

The current roadway is also located within sea turtle nesting habitat. This has caused issues with sea turtle nesting, as some sea turtles have traveled onto the roadway while searching for a nest site and have been struck by automobiles. This project would move the roadway away from the Gulf of Mexico shoreline, out of sea turtle nesting areas, and more inland at higher roadway elevations.

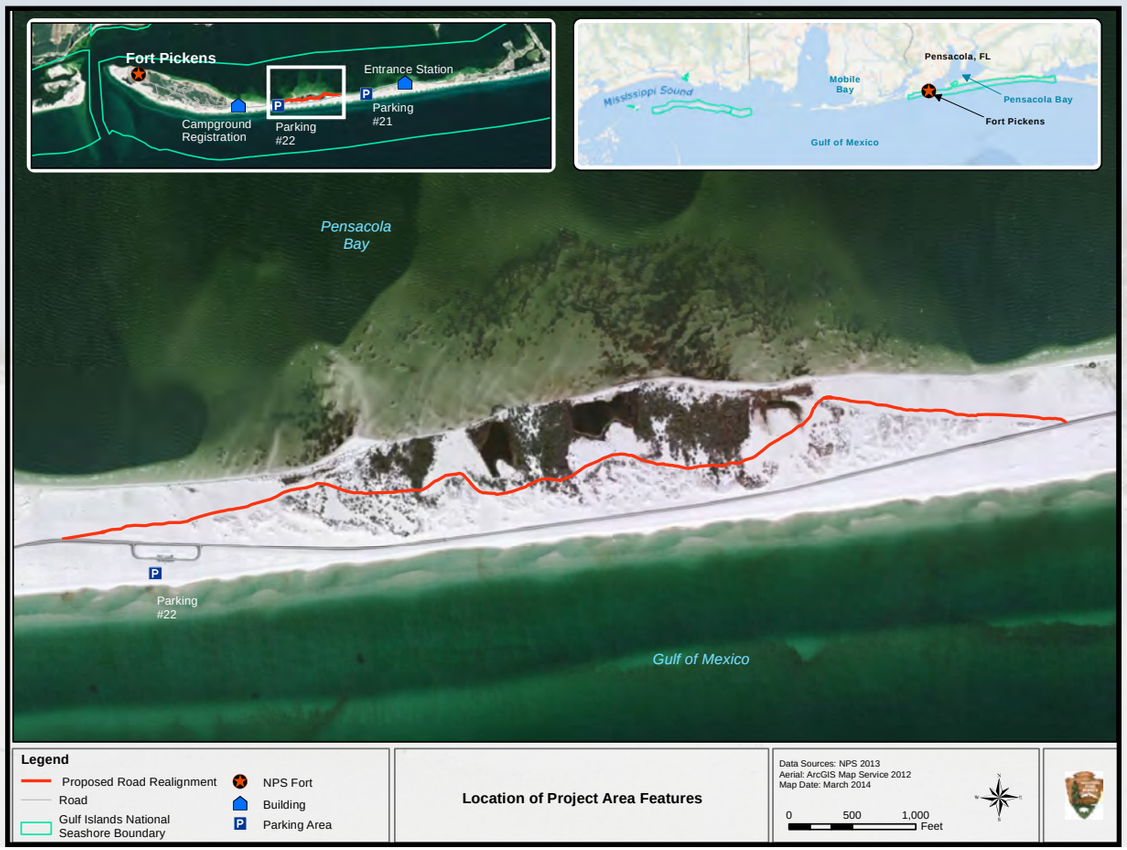
In addition to the road realignment, the NPS entrance station on Fort Pickens Road would be reconfigured. Currently, the entrance station includes one visitor entrance lane, and employee entrance, fee collection booth, and a visitor exit lane. A reconfiguration is needed because current entrance delays of up to 40 minutes to process guests are common on busy weekends. These delays cause traffic congestion along Fort Pickens Road and extending into Pensacola Beach. Therefore, an additional lane is proposed at the visitor entrance station allowing two visitor entrance lanes, an employee access lane, and a visitor exit lane.

Project Objectives

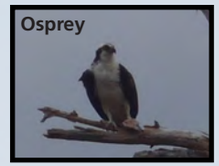
The following objectives have been identified for this project:

- Continue safe visitor access to the Fort Pickens area via Fort Pickens Road.
- Reduce maintenance and repair of the existing Fort Pickens Road.
- Reduce the number of road closures in the National Seashore due to overwash damage of Fort Pickens Road.
- Relocate Fort Pickens Road outside of sea turtle nesting habitat and provide new nesting areas.
- Reduce traffic delays at the visitor entrance station.

Female Loggerhead Sea Turtle on Fort Pickens Beach



Snowy Plover



Osprey

Least Tern

No-Action Alternative

Under the no-action alternative, Fort Pickens Road would not be realigned. Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens Area. Two small beach access areas with parking would continue to be provided. Bike and pedestrian access would continue to be permitted along the road shoulders. However, storm events would continue to impact the roadway and situations may arise in the future where conditions become so altered that it is no longer feasible to repair or maintain the road. This would be determined on a case-by case basis. If road repairs are not feasible, Fort Pickens Road would be closed and access to the area would no longer be permitted by automobile. As a result, visitors would not be able to access, by vehicle, park amenities at the western portion of the island, such as the fort, batteries, visitor center, and camping areas. The only access to the area would be by ferry which is planned to be established in three years.

Preliminary Draft Alternative

NPS would realign a 1.67 mile portion of the Fort Pickens Road. The roadway would be moved north of the Gulf of Mexico into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. The existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish as a natural dune community. Visitors would continue to have access to the Fort Pickens area via the existing road during the construction period. In addition to the road realignment, parking lot 22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance.

An asphalt overlay would take place on the remaining portion of Fort Pickens Road within the NPS boundary (5 miles) and within parking lots 21 and 22. The cyclic asphalt overlay would add approximately two to three inches of asphalt over the existing five mile roadway and parking lots. No disturbance to the adjacent area is expected from this action.

The project would also include a reconfiguration of the NPS entrance station on Fort Pickens Road. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. Construction of the entrance lane would be similar to the road realignment.

APPENDIX B

Agency Consultation

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United States Department of the Interior
National Park Service
Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, Florida 32563

IN REPLY REFER TO:

L7617 (GUIS-SRS)

April 23, 2014

Ms. Lauren Milligan
Florida Department of Environmental Protection
3900 Commonwealth Blvd, Mail Station 47
Tallahassee, Florida 32399

Subject: Request for Information for the Environmental Assessment for the Fort Pickens Road Realignment, National Park Service, Gulf Islands National Seashore, Florida and Mississippi

Dear Ms. Milligan:

The National Park Service (NPS) is initiating an Environmental Assessment (EA), in accordance with NPS regulations for compliance with the National Environmental Policy Act (NEPA), for evaluating the environmental impacts associated with the Fort Pickens Road realignment and pavement overlay at Gulf Islands National Seashore (National Seashore). Fort Pickens Road is located on Santa Rosa Island, Escambia County, Florida (see attached map).

Fort Pickens Road has been in place for over 50 years; however, over the past 10 years the eastern four miles of the road has been destroyed multiple times during storm events, causing road closures resulting in no access to the western portion of the island. Portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline. The road realignment is needed at the National Seashore due to continued erosion of the existing road from hurricanes and other storm and high wind events. NPS would realign a 1.67 mile portion of the Fort Pickens Road and the roadway would be moved north of the Gulf of Mexico into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. The existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish as a natural dune community. An asphalt overlay would be installed on the remaining portion of Fort Pickens Road within the NPS boundary (5 miles) and within parking lots 21 and 22. The cyclic asphalt overlay would add approximately two to three inches of asphalt over the existing five mile roadway and parking lots.

In addition, this project would also include a reconfiguration of the NPS entrance station on Fort Pickens Road. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane.

The NPS is requesting that you respond in writing concerning any resources that may experience potential impacts from the proposed project relative to the interests of your agency. In addition, the process and documentation required for the preparation for the EA will be used to comply with Section 7 of the Endangered Species Act and the document will serve as a Biological Assessment.

Please provide any comments or information within 30 days of receipt of this letter to: Jolene Williams, Gulf Islands National Seashore, 3500 Park Road, Ocean Springs, Mississippi 39564. Jolene Williams, Environmental Protection Specialist, is also the contact for the project at the National Seashore and can be reached at 228-230-4132 or Jolene_Williams@nps.gov. Please contact Ms. Williams directly if you have any questions or concerns.

Sincerely,

Daniel R. Brown
Superintendent

Legend

- Proposed Road Realignment
- Road
- Gulf Islands National Seashore Boundary
- NPS Fort
- Building
- Parking Area

Location of Project Area Features

Data Sources: NPS 2013
Aerial: ArcGIS Map Service 2012
Map Date: March 2014

0 500 1,000 Feet

List of Agencies Contacted

Ms. Lauren Milligan
Florida Department of Environmental Protection
3900 Commonwealth Blvd, Mail Station 47
Tallahassee, Florida 32399

Mr. William Benson
U.S. Environmental Protection Agency
1 Sabine Island Drive
Gulf Breeze, Florida 32561

Dr. Thomas Eason
Florida Fish and Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399

Ms. Patty Kelly
U.S. Fish and Wildlife Service
1601 Balboa Avenue
Panama City, FL 32405

Mr. David Bernhart
National Marine Fisheries Service
263 13th Avenue South
St. Petersburg, Florida 33701

Col. Alan Dodd
U.S. Army Corps of Engineers
PO Box 4970
Jacksonville, Florida 32232

IN REPLY REFER TO:

United States Department of the Interior

National Park Service
Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, Florida 32563

L7617 (GUIS-SRS)

May 12, 2014

Dr. Tim Parson
Deputy State Historic Preservation Officer,
Bureau of Historic Preservation
Division of Historical Resources
Florida Department of State
500 S. Bronough Street
Tallahassee, FL 32399-0250

Subject: Request for Concurrence for the Environmental Assessment for the Fort Pickens Road Realignment, National Park Service, Gulf Islands National Seashore, Florida and Mississippi and Notification of Intent to Use NEPA to meet NHPA Section 106 Obligations

Dear Dr. Parson:

The National Park Service (NPS) is initiating an Environmental Assessment (EA), in accordance with NPS regulations for compliance with the National Environmental Policy Act (NEPA), for evaluating the environmental impacts associated with the Fort Pickens Road realignment and pavement overlay at Gulf Islands National Seashore (National Seashore). Fort Pickens Road is located on Santa Rosa Island, Escambia County, Florida (see attached map). In accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. In addition, the process and documentation required for the preparation for the EA will be used to comply with Section 106 of the NHPA. In accordance with section 800.8(c) of the Advisory Council on Historic Preservation's regulations (36 Code of Federal Regulations (CFR) Part 800), I am notifying your office in advance of the park's intention to use the EA to meet its obligations under Section 106 of NHPA.

Fort Pickens Road has been in place for over 50 years; however, over the past 10 years the eastern four miles of the road has been destroyed multiple times during storm events, causing road closures resulting in no access to the western portion of the island. Portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline. The road realignment is needed at the National Seashore due to continued erosion of the existing road from hurricanes and other storm and high wind events. NPS would realign a 1.67 mile portion of the Fort Pickens Road and the roadway would be moved north of the Gulf of Mexico into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. The existing roadway would be

demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish as a natural dune community. An asphalt overlay would be installed on the remaining portion of Fort Pickens Road within the NPS boundary (5 miles) and within parking lots 21 and 22. The cyclic asphalt overlay would add approximately two to three inches of asphalt over the existing five mile roadway and parking lots.

In addition, this project would also include a reconfiguration of the NPS entrance station on Fort Pickens Road. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane.

In September 2013, the NPS Southeast Archeological Center (SEAC) performed a Phase 2 archeological survey along the proposed area for the road realignment. A total of 595 shovel tests were performed, with the majority containing road fill debris from storm damage to the previous road segments. All shovel tests were negative for cultural materials. In March 2014, SEAC performed a Phase 2 archeological survey in the area surrounding the proposed reconfiguration of the NPS entrance station. A total of 39 shovel tests were performed and these were all also negative for cultural materials. We have determined that the project will have "No Adverse Effect" pursuant to 36 CFR 800.5.

Attached for your review are copies of relevant documents supporting our finding, including the SEAC reports for the September 2013 and March 2014 Phase 2 archeological surveys and a map showing the location of the proposed project. This documentation satisfies requirements set forth at 36 CFR §800.11(e).

In accordance with 36 CFR §800.5(c), your office has thirty days to object to this finding. If you concur, please sign on the line below and return a copy of this letter to: Jolene Williams, Gulf Islands National Seashore, 3500 Park Road, Ocean Springs, Mississippi 39564.

If you have questions regarding this finding, please direct them to Jolene Williams, Environmental Protection Specialist at 228-230-4132 or Jolene_Williams@nps.gov. Thank you for your attention to this matter.

Sincerely,

Daniel R. Brown
Superintendent

CONCURRENCE:

_____ _____

State Historic Preservation Officer Date

IN REPLY REFER TO:

United States Department of the Interior

National Park Service
Gulf Islands National Seashore
1801 Gulf Breeze Parkway
Gulf Breeze, Florida 32563

L7617 (GUIS-SRS)

May 9, 2014

Mr. Ronnie Thomas, Tribal Council Chairperson
Alabama-Coushatta Tribe of Texas
571 State Park Rd 56
Livingston, TX 77351

Subject: Request for Information for the Environmental Assessment for the Fort Pickens Road Realignment, National Park Service, Gulf Islands National Seashore, Florida and Mississippi and Notification of Intent to Use NEPA to meet NHPA Section 106 Obligations

Dear Mr. Thomas:

The National Park Service (NPS) is initiating an Environmental Assessment (EA), in accordance with NPS regulations for compliance with the National Environmental Policy Act (NEPA), for evaluating the environmental impacts associated with the Fort Pickens Road realignment and pavement overlay at Gulf Islands National Seashore (National Seashore). Fort Pickens Road is located on Santa Rosa Island, Escambia County, Florida (see attached map).

Fort Pickens Road has been in place for over 50 years; however, over the past 10 years the eastern four miles of the road has been destroyed multiple times during storm events, causing road closures resulting in no access to the western portion of the island. Portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline. The road realignment is needed at the National Seashore due to continued erosion of the existing road from hurricanes and other storm and high wind events. NPS would realign a 1.67 mile portion of the Fort Pickens Road and the roadway would be moved north of the Gulf of Mexico into the more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. The existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to re-establish as a natural dune community. An asphalt overlay would be installed on the remaining portion of Fort Pickens Road within the NPS boundary (5 miles) and within parking lots 21 and 22. The cyclic asphalt overlay would add approximately two to three inches of asphalt over the existing five mile roadway and parking lots.

In addition, this project would also include a reconfiguration of the NPS entrance station on Fort Pickens Road. An additional lane would be added to the entrance area to allow simultaneous processing of two visitor entrance lanes. Construction of the entrance lane would be similar to

the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane.

In September 2013, the NPS Southeast Archeological Center (SEAC) performed a Phase 2 archeological survey along the proposed area for the road realignment. A total of 595 shovel tests were performed, with the majority containing road fill debris from storm damage to the previous road segments. All shovel tests were negative for cultural materials. In March 2014, SEAC performed a Phase 2 archeological survey in the area surrounding the proposed reconfiguration of the NPS entrance station. A total of 39 shovel tests were performed and these were all also negative for cultural materials.

The NPS invites your participation in the planning process. In order that potential environmental effects of the project may be fully evaluated and considered, the NPS is requesting that you respond in writing concerning any beneficial or adverse impacts relative to the interests of your tribal government. In addition, the process and documentation required for the preparation of the EA will be used to comply with Section 106 of the National Historic Preservation Act (NHPA). In accordance with section 800.8(c) of the Advisory Council on Historic Preservation's regulations (36 Code of Federal Regulations (CFR) Part 800), I am notifying your office in advance of the park's intention to use the EA to meet its obligations under Section 106 of NHPA.

Federal regulations for the implementation of Section 106 of the NHPA of 1966, as amended, require consultation with federally recognized Native American tribes (36 CFR 800.2) on a government-to-government basis, as specified in Executive Order 13175. The administration of Gulf Islands National Seashore is committed to honoring in full good faith its obligations and responsibilities toward the sovereign, federally recognized Indian tribes under all United States laws, regulations, and policies. As part of my responsibility to "make a reasonable and good faith effort to identify Indian tribes...that shall be consulted in the 106 process," I am writing to inquire if you desire to consult with the National Seashore regarding the proposed Fort Pickens Road realignment.

If you wish to consult with Gulf Islands National Seashore regarding the proposed project, please provide any comments or information within 30 days of receipt of this letter to: Jolene Williams, Gulf Islands National Seashore, 3500 Park Road, Ocean Springs, Mississippi 39564. Jolene Williams, Environmental Protection Specialist, is also the contact for the project at the National Seashore and can be reached at 228-230-4132 or Jolene_Williams@nps.gov. Please contact Ms. Williams directly if you have any questions or concerns.

Thank you for your attention to this request. We are looking forward to your reply and to establishing a continuing relationship with your tribal government.

Sincerely,

Daniel R. Brown
Superintendent

Florida SHPO and List of Tribes Contacted

Dr. Tim Parson
Deputy State Historic Preservation Officer,
Bureau of Historic Preservation
Division of Historical Resources
Florida Department of State
500 S. Bronough Street
Tallahassee, FL 32399-0250

Mr. Ronnie Thomas, Tribal Council Chairperson
Alabama-Coushatta Tribe of Texas
571 State Park Rd 56
Livingston, TX 77351

Mr. Bryant J. Celestine, Historic Preservation Officer
Alabama-Coushatta Tribe of Texas
571 State Park Road 56
Livingston, TX 77351

Mr. Tarpie Yargee, Chief
Alabama-Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

Ms. Augustine Asbury, Director of Cultural Preservation
Alabama-Quassarte Tribal Town
P.O. Box 187
Wetumka, OK 74883

Mr. Bill Anoatubby, Governor
Chickasaw Nation
P.O. Box 1548
Ada, OK 74821

Ms. Virginia Nail, NAGPRA Representative
Chickasaw Nation
P.O. Box 1548
Ada, OK 74821

Mr. Gregory E. Pyle, Chief
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702-1210

Mr. Ian Thompson, Tribal Historic Preservation Officer
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74702-1210

Mr. Kevin Sickey, Chief
Coushatta Tribe of Louisiana
P.O. Box 818
Elton, LA 70532

Dr. Linda Langley, Tribal Historic Preservation Officer
Coushatta Tribe of Louisiana
P.O. Box 10
Elton, LA 70532

Ms. Cheryl Smith, Chief
Jena Band of Choctaw Indians
P.O. Box 14
Trout, LA 71342

Ms. Dana Masters, Tribal Historic Preservation Officer
Jena Band of Choctaw Indians
P.O. Box 14
Trout, LA 71342

Mr. Tiger Hobia, Mekko
Kialegee Tribal Town
P.O. Box 332
Wetumka, OK 74883

Mr. Colley Billie, Chairman
Miccosukee Tribe of Indians of Florida
Tamiami Station, P.O. Box 440021
Miami, FL 33144

Mr. Fred Dayhoff, NAGPRA and Section 106 Coordinator
Miccosukee Tribe of Indians of Florida
HC 61 SR 68 Old Loop Rd
Ochopee, FL 32141

Ms. Phyllis J. Anderson, Chief
Mississippi Band of Choctaw Indians
P.O. Box 6257
Philadelphia, MS 39350

Mr. Kenneth Carleton, Tribal Archeologist/THPO
Mississippi Band of Choctaw Indians
P.O. Box 6257
Philadelphia, MS 39350

Mr. George Tiger, Principal Chief
Muscogee Creek Nation
P.O. Box 580
Okmulgee, OK 74447

Mr. Terry Cole, Interim Manager Assistant
Muscogee Creek Nation
P.O. Box 580
Okmulgee, OK 74447

Mr. Emman Spain, Tribal Historic Preservation Officer
Muscogee Creek Nation
P.O. Box 580
Okmulgee, OK 74447

Mr. Buford Rolin, Tribal Chairman
Poarch Band of Creek
5811 Jack Springs Road
Atmore, AL 36502-5025

Mr. Robert Thrower, Tribal Historic Perservation Officer
Poarch Band of Creek
5811 Jack Springs Road
Atmore, AL 36502-5025

Mr. Leonard Harjo, Principal Chief
Seminole Nation of Oklahoma
Seminole Tribal Office, Hwy 59 and 270 Intersection
Wewoka, OK 74884

Ms. Natalie Harjo, Historic Preservation Officer
Seminole Nation of Oklahoma
P.O. Box 1768
Wewoka, OK 74884

Mr. James E. Billie, Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, FL 33024

Mr. Paul Backhouse, Tribal Historic Preservation Officer
Seminole Tribe of Florida
30290 Josie Billie Hwy. PMB 1004
Clewiston, FL 33440

Mr. George Scott, Town King
Thlopthlocco Tribal Town
P.O. Box 188
Okemah, OK 74859-0188

Mr. Charles Coleman, Tribal Historic Preservation Officer
Thlopthlocco Tribal Town
P.O. Box 188
Okemah, OK 74859

Mr. Earl Barbry Sr., Chairman
Tunica-Biloxi Indian Tribe
P.O. Box 1589
Marksville, LA 71351

Mr. Earl Barbry Jr., Tribal Historic Preservation Officer
Tunica-Biloxi Indian Tribe
P.O. Box 1589
Marksville, LA 71351

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

MARJORY STONEMAN DOUGLAS BUILDING
3900 COMMONWEALTH BOULEVARD
TALLAHASSEE, FLORIDA 32399-3000

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

June 11, 2014

Ms. Jolene Williams
Environmental Protection Specialist
Gulf Islands National Seashore
3500 Park Road
Ocean Springs, MS 39564

RE: National Park Service – Scoping Notice – Fort Pickens Road Realignment Project at Gulf Islands National Seashore – Escambia County, Florida.
SAI # FL201405026881C

Dear Ms. Williams:

The Florida State Clearinghouse has coordinated a review of the referenced public notice under the following authorities: Presidential Executive Order 12372; § 403.061(42), *Florida Statutes*; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4347, as amended.

The Florida Department of Environmental Protection's (DEP) Northwest District Office staff in Pensacola recommends that the National Park Service (NPS) apply for a wetland delineation from the DEP to ensure that no adverse impacts to surface waters or wetlands result from the proposed road realignment project. The new roadway design will also be required to meet current criteria for stormwater control. It is recommended that a pre-application meeting be conducted prior to commencement of the project. The NPS will likely be required to obtain an environmental resource permit (ERP) from the DEP under Chapter 62-330, *Florida Administrative Code*, for any wetland impacts and roadway stormwater management. For further assistance with the state's ERP requirements, please contact the DEP Northwest District's Submerged Lands and Environmental Resource Program at (850) 595-0614.

Northwest Florida Water Management District (NWFWMD) staff has reviewed the proposal and notes that, based on the documents provided, there may be unavoidable wetland impacts from road construction. It is presumed that these would be minimized to the degree possible and then remediated through appropriate mitigation. The realignment would allow for regeneration of coastal scrub and associated dune-related habitat on the Gulf side, rather than the current erosion of the Gulf shoreline immediately adjacent to the existing roadway. Thus, NWFWMD staff supports this project with respect to potential improvements to water-related resources, especially if the existing roadway is removed and the site restored or allowed to restore itself. A more detailed review will be performed following completion of the

anticipated environmental assessment. Staff also advises that an ERP application for this project would be processed by the DEP. Please don't hesitate to contact the NWFWMD if staff can be of further assistance.

The Florida Fish and Wildlife Conservation Commission (FWC) requests that the NPS include sufficient information on the effects of the Preliminary Draft Alternative, and any additional alternatives developed, on fish and wildlife in the proposed environmental assessment to assist in a comparative evaluation of those alternatives. While benefits to sea turtles were mentioned in the brochure outlining the proposed project, several other species – Santa Rosa beach mouse, least tern, snowy plover and Wilson's plover – would be affected by the project and those impacts should be considered in the continued development of this project. FWC staff recommends that a population assessment and road mortality impact assessment of the Santa Rosa beach mouse be conducted prior to replacement or realignment of the road. In addition, the referenced bird species have historically nested north of the existing road and relocation of that nesting habitat south to any areas prone to overwash could reduce nesting success. Construction during the nesting season, February through August, would likely result in take and could cause costly construction delays. Minimizing road length, avoiding remnant scrub and snag habitat areas, installing traffic calming measures and implementing dune design features beneficial to beach-nesting birds would reduce the overall impacts of the project. Please refer to the enclosed FWC letter and contact Ms. Nancy Douglass at (863) 648-3827 or Nancy.Douglass@MyFWC.com for additional details and assistance.

The Florida Department of State (DOS) advises that the NPS' Southeast Archeological Center (SEAC) informed DOS staff that the proposed alignment was subjected to an archaeological survey in 2013, which did not identify any archaeological materials. In addition, existing sites in the area were not relocated. The DOS, therefore, finds that the proposed realignment will not impact cultural resources. Staff also requests a copy of trip report/survey report that documents the negative findings of the archaeological survey to ensure consistency with NEPA and Section 106 of the National Historic Preservation Act of 1966. Please refer to the enclosed DOS letter for additional information.

Based on the information contained in the scoping notice and comments provided by our reviewing agencies, at this stage, the state has no objections to the proposed federal activities. To ensure the project's consistency with the Florida Coastal Management Program (FCMP), the concerns identified by the state must be addressed prior to project implementation. The state's continued concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of any issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process, in accordance with Section 373.428, *Florida Statutes*.

Thank you for the opportunity to review this proposal. Should you have any questions regarding our letter, please don't hesitate to contact me at Lauren.Milligan@dep.state.fl.us or (850) 245-2170.

Yours sincerely,

Lauren P. Milligan, Coordinator
Florida State Clearinghouse
Office of Intergovernmental Programs

Enclosures

cc: Ashley Livingston, DEP Northwest District
Duncan Cairns, NWFWMD
Scott Sanders, FWC
Timothy Parsons, DOS

Project Information	
Project:	FL201405026881C
Comments Due:	06/04/2014
Letter Due:	06/17/2014
Description:	NATIONAL PARK SERVICE - SCOPING NOTICE - FORT PICKENS ROAD REALIGNMENT PROJECT AT GULF ISLANDS NATIONAL SEASHORE - ESCAMBIA COUNTY, FLORIDA.
Keywords:	NPS - FORT PICKENS ROAD REALIGNMENT, GULF ISLANDS NAT. SEASHORE - ESCAMBIA CO.
CFDA #:	15.916

Agency Comments:

FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

The FWC requests that the NPS include sufficient information on the effects of the Preliminary Draft Alternative, and any additional alternatives developed, on fish and wildlife in the proposed environmental assessment to assist in a comparative evaluation of those alternatives. While benefits to sea turtles were mentioned in the brochure outlining the proposed project, several other species - Santa Rosa beach mouse, least tern, snowy plover and Wilson's plover - would be affected by the project and those impacts should be considered in the continued development of this project. FWC staff recommends that a population assessment and road mortality impact assessment of the Santa Rosa beach mouse be conducted prior to replacement or realignment of the road. In addition, the referenced bird species have historically nested north of the existing road and relocation of that nesting habitat south to any areas prone to overwash could reduce nesting success. Construction during the nesting season, February through August, would likely result in take and could cause costly construction delays. Minimizing road length, avoiding remnant scrub and snag habitat areas, installing traffic calming measures and implementing dune design features beneficial to beach-nesting birds would reduce the overall impacts of the project. Please refer to the enclosed FWC letter and contact Ms. Nancy Douglass at (863) 648-3827 or Nancy.Douglass@MyFWC.com for additional details and assistance.

TRANSPORTATION - FLORIDA DEPARTMENT OF TRANSPORTATION

FDOT's District Three staff has reviewed the public notice and has no comments on the realignment of CR 399. If the FDOT can be of further assistance, please contact Ms. Virgie Bowen of the District Three Planning Department at (850) 330-1530 or Virgie.Bowen@dot.state.fl.us.

WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL

The WFRPC has no comments and notes that the proposal is generally consistent with the West Florida Strategic Regional Policy Plan.

ESCAMBIA - ESCAMBIA COUNTY

No Comments

ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP Northwest District Office staff in Pensacola recommends that the NPS apply for a wetland delineation from the DEP to ensure that no adverse impacts to surface waters or wetlands result from the proposed road realignment project. The new roadway design will also be required to meet current criteria for stormwater control. It is recommended that a pre-application meeting be conducted prior to commencement of the project. The NPS will likely be required to obtain an environmental resource permit (ERP) from the DEP under Chapter 62-330, Florida Administrative Code, for any wetland impacts and roadway stormwater management. For further assistance with the state's ERP requirements, please contact the DEP Northwest District's Submerged Lands and Environmental Resource Program at (850) 595-0614.

STATE - FLORIDA DEPARTMENT OF STATE
The DOS advises that the National Park Service's Southeast Archeological Center (SEAC) informed DOS staff that the proposed alignment was subjected to an archaeological survey in 2013, which did not identify any archaeological materials. In addition, existing sites in the area were not relocated. The DOS, therefore, finds that the proposed realignment will not impact cultural resources. Staff also requests a copy of trip report/survey report that documents the negative findings of the archaeological survey to ensure consistency with NEPA and Section 106 of the National Historic Preservation Act of 1966.
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
NWFWMD staff has reviewed the proposed Fort Pickens Road Realignment and has the following comments. Based on the documents provided, there appear to be some unavoidable wetland impacts, it is presumed that these would be minimized as much as possible and then remediated through appropriate mitigation. The realignment would allow for regeneration of coastal scrub and associated dune-related habitat on the Gulf side, rather than the existing situation of the Gulf shoreline immediately adjacent to the structure of the existing road. Thus, NWFWMD staff supports this project with respect to potential improvements to water-related resources, especially if the existing roadway is removed and the site restored or allowed to restore itself. A more detailed review would be possible following completion of the anticipated environmental assessment. Of note, an Environmental Resource Permit application for this project would be processed by the Florida Department of Environmental Protection. Please don't hesitate to contact us if we can be of further assistance.

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

Visit the Clearinghouse Home Page to query other projects.

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MyFWC.com

June 5, 2014

Ms. Lauren P. Milligan, Coordinator
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 47
Tallahassee, FL 32399-3000
Lauren.Milligan@dep.state.fl.us

Re: SAI #FL201405026881C, Scoping Notice and Request for Information for the Environmental Assessment for the Fort Pickens Road Realignment, National Park Service, Gulf Islands National Seashore, Florida and Mississippi, Escambia County, Florida

Dear Ms. Milligan:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the Scoping Notice, and provides the following comments and recommendations for your consideration in accordance with Chapter 379, Florida Statutes, and in accordance with the Coastal Zone Management Act, Florida's Coastal Management Program.

Project Description

The National Park Service (NPS) is initiating, through a Scoping Notice, an Environmental Assessment (EA) for evaluating environmental impacts associated with the Fort Pickens Road realignment and pavement overlay at Gulf Islands National Seashore. The Preliminary Draft Alternative proposes to repave 4.5 miles and realign 1.7 miles of Fort Pickens Road within Gulf Islands National Seashore (National Seashore). Over the past 10 years, portions of this road have been destroyed multiple times during storm events. The road realignment will move the road further from the shoreline in an attempt to reduce impacts from hurricanes and other storm and high wind events. The existing roadway would be demolished and removed which would be followed by restoration of the natural dune community. The entrance to the park would also be reconfigured with the construction of additional lanes. Currently, the NPS is seeking comments to identify issues to consider in the EA.

Comments and Recommendations

The information in the brochure describing the project was not sufficient for staff to make detailed determinations regarding impacts to fish and wildlife. FWC recommends the NPS include sufficient information on the impacts to fish and wildlife of the Preliminary Draft Alterative, and any additional alternatives developed, so that these alternatives may be accurately compared to one another and the No-Action Alternative with regard to fish and wildlife impacts.

While benefits to sea turtles were mentioned in the brochure outlining the proposed project, several other species would be affected by this project and FWC recommends that those impacts be considered in the continued development of this project.

The Santa Rosa beach mouse (*Peromyscus polionotus leucocephalus*) (SRBM) occurs in this region. The planned road realignment moves the road into currently undisturbed mouse habitat which will likely create more adverse impacts to this species. The Santa Rosa beach mouse is the only sub-species of beach mouse that is not currently federally listed. Reasons for not listing it included the fact that it occurred along a contiguous 40-mile stretch of pristine beach habitat, much of it understood to be protected under federal ownership, including the National Seashore. This subspecies' habitat is no longer contiguous; the population is now sub-divided into 4 geographically isolated sub-populations by development, making the loss of individuals to road mortality locally significant. Preliminary findings of an ongoing shorebird research project on the impacts of road mortality also documented an unexpectedly high rate of road mortality of the SRBM. FWC recommends that a population assessment and a road mortality impact assessment be conducted prior to replacement or realignment of the road.

Two species of state-listed birds nest in the habitat currently identified as being impacted by the realignment: least tern (*Sternula antillarum,* State Threatened [ST]) and snowy plover (*Charadrius alexandrines,* ST). Take of State Threatened species is prohibited by Rule 68A-27.003(2)(a), Florida Administrative Code, unless authorized by FWC rule or permit. Impacts to these species, along with the Wilson's plover (*Charadrius wilsonia*, not listed) which also nests in this area, will depend not only on the location, but also the design and the timing of construction of this project. Within the area proposed for realignment, these species have historically nested north of the current road. If realignment forces the birds to relocate to the area of the beach below the proposed road realignment in a zone that is more prone to overwash, lower productivity would be anticipated.

Construction during the beach-nesting bird nesting season, February through August, would likely result in take and could cause costly construction delays. Therefore, it is recommended that all phases of the project, including pre-construction activities such as surveys, be conducted during the non-nesting season.

Ensuring the road length is minimized (reducing the overall footprint and square footage of asphalt) and including traffic calming measures such as speed humps at sufficient intervals to ensure slow speeds will reduce the overall impacts. The costs and availability of law enforcement support should be factored into the project budget. Dune restoration design should incorporate features beneficial to beach-nesting birds.

The proposed alignment would take the road through the last pocket of scrub and snags remaining on the east end of the island. The animals, particularly reptiles and passerine birds, occupying that habitat are currently somewhat isolated from the road and would be subjected to higher rates of road mortality by running the road through the middle of this patch of habitat. It will be important to understand what species may be impacted in this area to minimize impacts. Species-specific wildlife surveys are time sensitive, and FWC recommends that all wildlife surveys follow survey protocols established by U.S. Fish and Wildlife Service and the FWC. Surveys should also be conducted by qualified individuals with recent documented experience for each potential species. Basic guidance for conducting wildlife surveys may be found in the Florida Wildlife Conservation Guide (http://myfwc.com/conservation/value/fwcg/).

At this early stage of the Fort Pickens road realignment project, we find the project consistent with our authorities under Florida's Coastal Zone Management Act.

FWC looks forward to continuing collaboration as more detailed plans are developed. If you need any further assistance, please do not hesitate to contact Jane Chabre at (850) 410-5367 or FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, please contact Nancy Douglass at (863) 648-3827 or Nancy.Douglass@myfwc.com.

Sincerely,

Bradley J. Gruver, Ph.D.
Section Leader
Species Conservation Planning Section

bjg/nd
ENV 1-3-2
Fort Pickens Road Realignment Project at Gulf Islands National Seashore_19174_060514

cc: Ms. Jolene Williams, NPS (Jolene_Williams@nps.gov)
Ms. Kristi Yanchis, USFWS (Kristi_Yanchis@fws.gov)
Ms. Cindy Fury, USFWS (Cindy_Fury@fws.gov)
Ms. Traci Wallace, FWC-HSC

FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

May 22, 2014

Ms. Lauren Milligan
Florida Department of Environmental Protection
3900 Commonwealth Blvd., Mail Station 47
Tallahassee, FL 32399

Re: SHPO Project #: 2014-1838 (2014-1495)'
SAI#: FL201405026881C
Realignment of 1.67 mile portion of Fort Pickens Road at Gulf Islands National Seashore

Dear Ms. Milligan:

The Florida State Historic Preservation Office reviewed the submitted materials in accordance with the National Environmental Policy Act. The National Park Service has stated its intent to initiate an Environmental Assessment to evaluate the environmental impacts associated with the realignment of Fort Pickens Road at Gulf Islands National Seashore on Santa Rosa Island in Escambia County.

John Cornelison of the National Park Service Southeast Archeological Center (SEAC) informed me that the proposed alignment was subjected to archaeological survey in 2013. The SEAC survey did not identify any archaeological materials and the existing sites in the area were not relocated. It is therefore my opinion that the proposed realignment will not impact cultural resources.

I would like to request from Gulf Islands National Seashore a copy of the trip report/survey report that documents the negative findings of the archaeological survey. This will ensure consistency with NEPA and will account for consultation requirements for federal undertakings under Section 106 of the National Historic Preservation Act of 1966 (and the National Park Service system-wide Programmatic Agreement).

If you have any questions, please contact me by email at *Timothy.Parsons@DOS.MyFlorida.com*, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely,

Timothy A. Parsons, Ph.D., RPA
Deputy State Historic Preservation Officer
for Compliance and Review

Florida Department of Transportation

RICK SCOTT
GOVERNOR

1074 Highway 90
P. O. Box 607, Chipley, Florida 32428

ANANTH PRASAD, P.E.
SECRETARY

Planning Department
May 12, 2014

Ms. Lauren Milligan
Florida Department of Environmental Protection
3900 Commonwealth Blvd., Mail Station 47
Tallahassee, Florida 32399

Subject: Request for Information for the Environmental Assessment for the Fort Pickens Road Realignment, National Park Service, Gulf Islands National Seashore, Florida and Mississippi

Dear Ms. Milligan:

The Department has reviewed the National Park Service letter and public notice regarding the proposed relocation of a portion of Fort Pickens Road (CR 399) within Gulf Islands National Seashore. The Department has no comments related to the realignment of CR 399. If the Department can be of further service, please feel free to contact me at (850) 330-1530 or by e-mail at virgie.bowen@dot.state.fl.us.

Sincerely,

Virgie Bowen

Virgie Bowen, AICP
Planning Department

Copy: Ray Kirkland, D3

/vb

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721
Tel: (850) 769-0552
Fax: (850) 763-2177

IN REPLY REFER TO:

May 30, 2014

Ms. Jolene Williams
Gulf Islands National Seashore
3500 Park Road
Ocean Springs, Mississippi 39564

Re: FWS No. 2014-TA-0174
Gulf Islands National Seashore
Fort Pickens Road Realignment
Escambia County, Florida

Dear Ms. Williams:

Thank you for your letter dated April 23, 2014, received May 1, 2014, requesting U.S. Fish and Wildlife Service (Service) comments prior to your initiating an Environmental Assessment (EA) for the Fort Pickens Road Realignment. This response is to inform you of our initial concerns with the proposed project. It is our understanding that our concerns will be evaluated under the National Environmental Policy Act (NEPA, 42 U.S.C. 4332(2)(C)) and subsequently used to comply with Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§703-712).

Gulf Islands National Seashore (GUIS) proposes to realign a 1.67-mile portion of the Fort Pickens Road northward to higher elevation. The road would meander and follow the natural topography of the area with minimal dune cuts. Construction would include compacting the sand and overlaying pavement. The existing road would be removed and left to re-establish as natural dune habitat. Additionally, GUIS proposes to install an asphalt overlay on the remaining portion of Fort Pickens Road within the GUIS boundary (approximately 5 miles) and on parking lots 21 and 22. Reconfiguration of the entrance station is also proposed. This change would involve construction of an additional entrance lane adjacent to the existing one. No dune habitat would be impacted, but open sand will be covered with asphalt.

GUIS has managed their land in such a way as to facilitate habitat for numerous nesting, migratory, and wintering shorebirds and waterbirds (listed and non-listed), listed sea turtles, and the Santa Rosa beach mouse (SRBM). The Service recognizes this effort and urges the National Park Service (NPS) to maintain this conservation endeavor for our natural resources. While

realigning the road northward may be beneficial for nesting sea turtles, this action has the potential to be detrimental to SRBM and possibly shorebirds.

The SRBM depends on higher elevation habitat to persist through hurricanes and other damaging storms. Even though the proposed road realignment avoids the highest dune habitat, it is proposed to meander through this secondary dune habitat that is currently undisturbed. The SRBM is not presently listed as a federally endangered species. This is largely in part due to the protection of habitat and management techniques of GUIS, one of two Federal land owners whose land this mouse resides and relies on. It is the responsibility of all Federal agencies to attain the widest range of beneficial uses of the environment without degradation and to preserve the natural aspects of our national heritage, and maintain an environment which supports diversity. Recent studies on Fort Pickens observing shorebird roadkill abundance also documented concerning amounts of SRBM kills. Future efforts to understand the population status on the SRBM are encouraged as well as ways to reduce roadkill of SRBM especially if the new road location may increase these impacts. Understanding the effects at the population level is recommended.

We encourage consideration of how the realignment may impact nesting shorebirds and waterbirds as GUIS provides up to 25 percent of the state's snowy plover nesting population and an increasing Wilson's plover population. GUIS also houses the largest known colony of least terns in Florida with sporadic use by black skimmer colonies as well. Consideration of road impacts is needed in order to determine whether the new alignment would separate nesting birds from their primary feeding areas, possibly provide better connectivity between habitats, or have no effect. Researchers currently on-site at GUIS and NPS staff biologists should be able to provide input on localized bird movements.

The federally listed wintering piping plover uses specific locations within GUIS and park staff conduct regular surveys to identify these areas. One piping plover has died from a vehicle strike, most likely while crossing from feeding on the bayside to roosting on the Gulf shoreline. We recommend you review your current piping plover habitat locations and analyze whether the new alignment would impact any known areas or is of little concern. Since the new road will be on upland sands, no direct piping plover foraging habitat is expected to be impacted. To our knowledge, roosting habitat is not limiting.

It is the Service's opinion that the proposed realignment of the 1.67 miles of the Fort Pickens Road could impact undisturbed secondary dune habitat and be detrimental to SRBM and possibly nesting and wintering shorebirds. Potential loss of habitat and increased road kill of shorebirds and SRBM are of concern. Depending on the realignment's location in conjunction with foraging habitat for nesting shorebirds and waterbirds, impacts may be alleviated, increased, or unchanged. The EA should include a careful analysis of the impacts (both beneficial and adverse) to these species, as well as to sea turtles, for both the build and no-build alternatives. A no-build alternative that includes other potential means of access to the park (*e.g.* the ferry or a shuttle service) may be most beneficial in the long term for species and natural processes. For the build alternative, the EA should also evaluate the most optimal timing to realign the road. For example, would impacts to species and their habitat be reduced by leaving the existing

road until it is destroyed by a catastrophic storm, or will reconstruction prior to storm damage allow for a more complete cleanup?

Thank you for the opportunity to comment on this project. We are available to provide technical assistance throughout development of the EA. Please contact Kristi Yanchis (ext. 252) of this office if you have any questions or comments on SRBM or listed species. We recommend that you coordinate directly with the Service's Florida/Caribbean Migratory Bird Field Office (FCFO) for nesting shorebirds and waterbirds questions.

Sincerely,

Mary A Mitiga

for Dr. Catherine T. Phillips
Acting Project Leader

cc: (by email)
FCFO, Tallahassee, FL (Cindy Fury)
FWC, Lakeland, FL (Nancy Douglass)
FWC, Tallahassee, FL (Scott Sanders)

From: **Sarfert, Edward P SAJ** <Edward.P.Sarfert@usace.army.mil>
Date: Tue, May 27, 2014 at 8:05 AM
Subject: Fort Pickens Road Realignment - USACE Comments for Environmental Assessment (UNCLASSIFIED)
To: "jolene_williams@nps.gov" <jolene_williams@nps.gov>
Cc: "Payne, Lyal C SAJ" Lyal.C.Payne@usace.army.mil

Classification: UNCLASSIFIED
Caveats: NONE

Jolene Williams
Environmental Protection Specialist
Gulf Islands National Seashore
3500 Park Road
Ocean Springs, MS 39564

Dear Ms. Williams: Thank you for the opportunity to provide comments on potential impacts that should be addressed in the National Park Service's (NPS) Environmental Assessment for the Fort Pickens Road realignment and pavement overlay at Gulf Islands National Seashore, Santa Rosa Island, Escambia County, Florida. The US Army Corps of Engineers (Corps) received your request for comments on 08 May 2014.

The NPS proposes to realign 1.67 miles of Fort Pickens Road north, into the more inland areas of the island, and away from the Gulf of Mexico. Portions of the road have been destroyed multiple times in storm events over the last 10 years. NPS would also install an asphalt overlay on the remaining portions of Fort Pickens Road (approximately 5 miles of road), and within parking lots 21 and 22.

Our evaluation of the potential for impacts to resources that are within the regulatory purview of the Corps was focused solely on potential Section 404 of the Clean Water Act impacts. No potential Section 10 of the Rivers and Harbors Act or other Corps-regulated impacts were noted in our review of the letter, nor were impacts to species considered that might be coordinated with other federal agencies under Sections 7 or 9 of the Endangered Species Act, nor were impacts to resources that might require review in accordance with the National Historic Preservation Act.

The letter references moving the roadway to "more inland and higher areas of the island." The Corps is familiar with the site, having authorized road reconstruction in 2008. During previous inspections, wetlands under the jurisdiction of the Corps have been present in areas between the road and Pensacola Bay. Those wetlands have been dynamic, shifting in size and location in response to storm events. If the road realignment selected by the NPS would intersect with any of the wetlands found in those areas, an evaluation of the proposed project can occur as soon as any required application is submitted to the Corps. The asphalt overlay on existing road and parking lots would not require Corps authorization.

Where applicable, in accordance with the 404(b)(1) Guidelines, an applicant must avoid wetland impacts where practicable, minimize unavoidable wetland impacts, and provide compensatory

mitigation for any remaining impacts. Projects with very minor impacts may meet the conditions of general permits such as Nationwide Permit 14, which generally allow a more rapid permitting decision. The Corps is available to participate in pre-application meetings to provide feedback on proposed road alignments and the practicability of any less environmentally-damaging alternatives.

Thank you again for the opportunity to provide input.

Respectfully,

Ed Sarfert
Senior Project Manager
Pensacola Regulatory Office
Jacksonville District
US Army Corps of Engineers
850-439-9533
Classification: UNCLASSIFIED
Caveats: NONE

From: **Eric Hawk - NOAA Federal** <eric.hawk@noaa.gov>
Date: Wed, May 7, 2014 at 1:42 PM
Subject: L7617 (GUIS-SRS) Your April 23, 2014 letter to David Bernhart
To: Jolene_Williams@nps.gov

Re: Proposed Action: Fort Pickens Road Realignment

Ms. Williams,

I can envision no plausible route of adverse effects to ESA listed species or ESA designated critical habitat from the proposed action as described in your letter. If you are of a different opinion, please send a consultation request package with supporting documentation, requesting initiation of ESA Section 7 consultation, to nmfs.ser.esa.consultations@noaa.gov.

Thank you for the opportunity to comment.

--

Eric G. Hawk
NMFS Southeast Region
ESA Regional Section 7 Coordinator/PCTS Regional Manager
Ofc (727) 551-5773
Fax (727) 824-5309

"How inappropriate to call this planet '**Earth**' when it is quite clearly '**Ocean**'."
Arthur C. Clarke

From: **Milligan, Lauren** <Lauren.Milligan@dep.state.fl.us>
Date: Tue, May 6, 2014 at 10:30 AM
Subject: NPS - Fort Pickens Road Realignment at Gulf Islands National Seashore
To: "Jolene_Williams@nps.gov" <Jolene_Williams@nps.gov>

Hi Jolene:

RE: National Park Service – Scoping Notice – Fort Pickens Road Realignment Project at Gulf Islands National Seashore – Escambia County, Florida.
SAI # FL201405026881C
Clearinghouse Letter Due: 6/17/2014

We received your scoping notice on Fort Pickens Road and have distributed it to our partner state agencies for review. I gave them a bit more time to solicit their comments, but please let me know if you are running up against any hard deadlines.

Best regards,

Lauren

Lauren P. Milligan, Coordinator
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Blvd, M.S. 47
Tallahassee, FL 32399-3000
ph. (850) 245-2170
fax (850) 245-2190
Lauren.Milligan@dep.state.fl.us

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APPENDIX C

Statement of Findings: Wetlands and Floodplains

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STATEMENT OF FINDINGS

FOR

EXECUTIVE ORDER 11990 (PROTECTION OF WETLANDS)

AND

EXECUTIVE ORDER 11988 (FLOODPLAIN MANAGEMENT)

Proposed Fort Pickens Road Realignment

Gulf Islands National Seashore
Santa Rosa Island, Florida

Recommended:

_____ _____
Superintendent Date

Certification of Technical Adequacy and Servicewide Consistency:

_____ _____
Chief, Water Resources Division Date

Approved:

_____ _____
Regional Director Date

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ACRONYMS AND ABBREVIATIONS

BMP ..... Best Management Practices
DO ..... Director's Order
EO ..... Executive Order
FLDEP ..... Florida Department of Environmental Protection
FLEPPC ..... Florida Exotic Pest Plant Council's
NPS ..... National Park Service
NWFWMD ..... Northwest Florida Water Management District
NWI ..... National Wetlands Inventory
PM ..... Procedural Manual
PWS ..... Professional Wetland Scientist
SOF ..... Statement of Findings
USACE ..... U.S. Army Corps of Engineers
USFWS ..... U.S. Fish and Wildlife Service

STATEMENT OF FINDINGS FOR EXECUTIVE ORDER 11990 (PROTECTION OF WETLANDS) AND EXECUTIVE ORDER 11988 (FLOODPLAIN MANAGEMENT)

Proposed Fort Pickens Road Realignment

Gulf Islands National Seashore
Santa Rosa Island, Florida

1. INTRODUCTION

1.1 Wetlands

Executive Order (EO) 11990: *Protection of Wetlands*, issued May 24, 1977, directs all federal agencies to avoid to the maximum extent possible the long- and short-term adverse impacts associated with the occupancy, destruction, or modification of wetlands, and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. In the absence of such alternatives, parks must modify actions to preserve and enhance wetland values and minimize degradation.

To comply with EO 11990 within the context of the agency's mission, the National Park Service (NPS) has developed a set of policies and procedures found in Director's Order (DO) #77-1: *Wetland Protection* (NPS 2002) and Procedural Manual (PM) #77-1: *Wetland Protection* (NPS 2012). These policies and procedures emphasize: 1) exploring all practical alternatives to building on, or otherwise adversely affecting, wetlands; 2) reducing impacts to wetlands whenever possible; and 3) providing direct compensation for any unavoidable wetland impacts by restoring degraded or destroyed wetlands on other NPS properties. If a preferred alternative would have adverse impacts on wetlands, a Statement of Findings (SOF) must be prepared that documents the above steps and presents the rationale for choosing an alternative that would have adverse impacts on wetlands.

1.2 Floodplains

Pursuant to EO 11988: *Floodplain Management*, DO #77-2: *Floodplain Management* (NPS 2003), and PM #77-2: *Floodplain Management* (NPS n.d), the NPS has evaluated flooding hazards related to the road realignment and entrance reconfiguration at Gulf Islands National Seashore (national seashore). This SOF describes the preferred alternative, project site, floodplain determination, use of floodplain, investigation of alternatives, flood risks, and mitigation for the continued use of facilities within the floodplain.

2. PREFERRED ALTERNATIVE

The NPS is proposing to repave 2.70 miles and realign a 1.87 mile section (4.56 total miles) of Fort Pickens Road to continue providing access to the Fort Pickens area of the national seashore. Fort Pickens Road is a segment of NPS-owned and –maintained road on Santa Rosa Island, Escambia County, Florida (figure 1). The entire road extends approximately 9 miles between Pensacola Beach and Fort Pickens, with approximately 7 miles of road within the NPS boundary. This road has been in place for over 50 years; however, over the past 10 years the eastern 4 miles of the road within the Fort Pickens area has been damaged or destroyed multiple times during storm events, causing road closures that result in no access to the western portion of the island. During annual storm events, the roadway becomes washed out, causing the park to close it for a period of time during road repair work, ranging from days to weeks.

Large portions of Fort Pickens Road have been damaged by hurricanes, other storms, and high winds throughout the years. NPS considered relocating the road after each damaging storm; however, because of funding constraints and the relatively moderate extent of damage, the relocation alternative was not implemented. The eastern 4 miles of the road were destroyed by Hurricane Ivan in September 2004, and damaged by subsequent tropical events in 2005. Following these storms, the road was closed to vehicular traffic. In January 2005, the NPS Southeast Regional Director approved reconstruction of Fort Pickens Road along an alignment away from the shore, closer to Santa Rosa Sound. Reconstruction began in February 2005 along the approved alignment, with a projected opening of June 2005. Unfortunately, within five days of the re-opening of the road, Tropical Storm Arlene made landfall and damaged portions of the newly constructed road. Necessary repairs were underway when Hurricanes Cindy and Dennis subsequently struck the Florida Panhandle in July 2005, destroying portions of the work that had been completed up to that time and resulting in the cessation of all construction activities. Fort Pickens Road was then later repaired and reopened in May of 2009, but has continued to be a maintenance issue during storm events.

The road realignment is needed due to continued erosion of the existing road from hurricanes and other storm and high wind events at the national seashore. Portions of the existing roadway are now very close to the eroding Gulf of Mexico shoreline. The asphalt from the realigned portion of the road would be removed and the area returned to near natural conditions.

Under the preferred alternative, NPS would realign a 1.87 mile portion of the Fort Pickens Road (figure 2). The roadway would be moved north of the Gulf of Mexico to more inland and higher areas of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The realignment would follow the natural topography of the area, with minimal dune cuts as needed. Any embankment needed for this project would include the use of on-site sand. The park has a sand borrow area near Battery Landing behind the carpentry shop that has been previously used for sand borrow. The existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to reestablish a natural dune community. The current utilities located under the existing roadway or in the existing road corridor would stay in place following the road demolition. In the future, there is potential for relocating the current utilities within the new proposed road corridor if the utilities become affected by a storm event. Construction of the new roadway is expected to occur between September 2015 through March 2016 to comply with time of year restrictions for nesting shorebirds and sea turtles. Visitors would continue to have access to the Fort Pickens area via the existing road during the construction period. The construction staging areas would be located on existing impervious surface in parking lot #22 and parking lot #21. In addition to the road realignment, parking lot #22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance.

An asphalt overlay would take place on the remaining portion of Fort Pickens Road within the NPS boundary (2.70 miles) and within parking lots #21 and #22. The cyclic asphalt overlay would add approximately 2 to 3 inches of asphalt over the existing roadway and parking lots. No disturbance to the adjacent area is expected from this action.

In addition to the road realignment, the NPS entrance station on Fort Pickens Road would be reconfigured. Currently, the entrance station includes one visitor entrance lane, an employee entrance, fee collection booth, and a visitor exit lane. A reconfiguration is needed because currently delays related to guest processing commonly last up to 40 minutes on high visitation days. These delays cause traffic congestion along Fort Pickens Road and extend into Pensacola Beach. Therefore, an additional lane is proposed at the visitor entrance station allowing two visitor entrance lanes, an employee access lane, and a visitor exit lane. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand. No grading or dune cuts would be required to construct the additional lane.

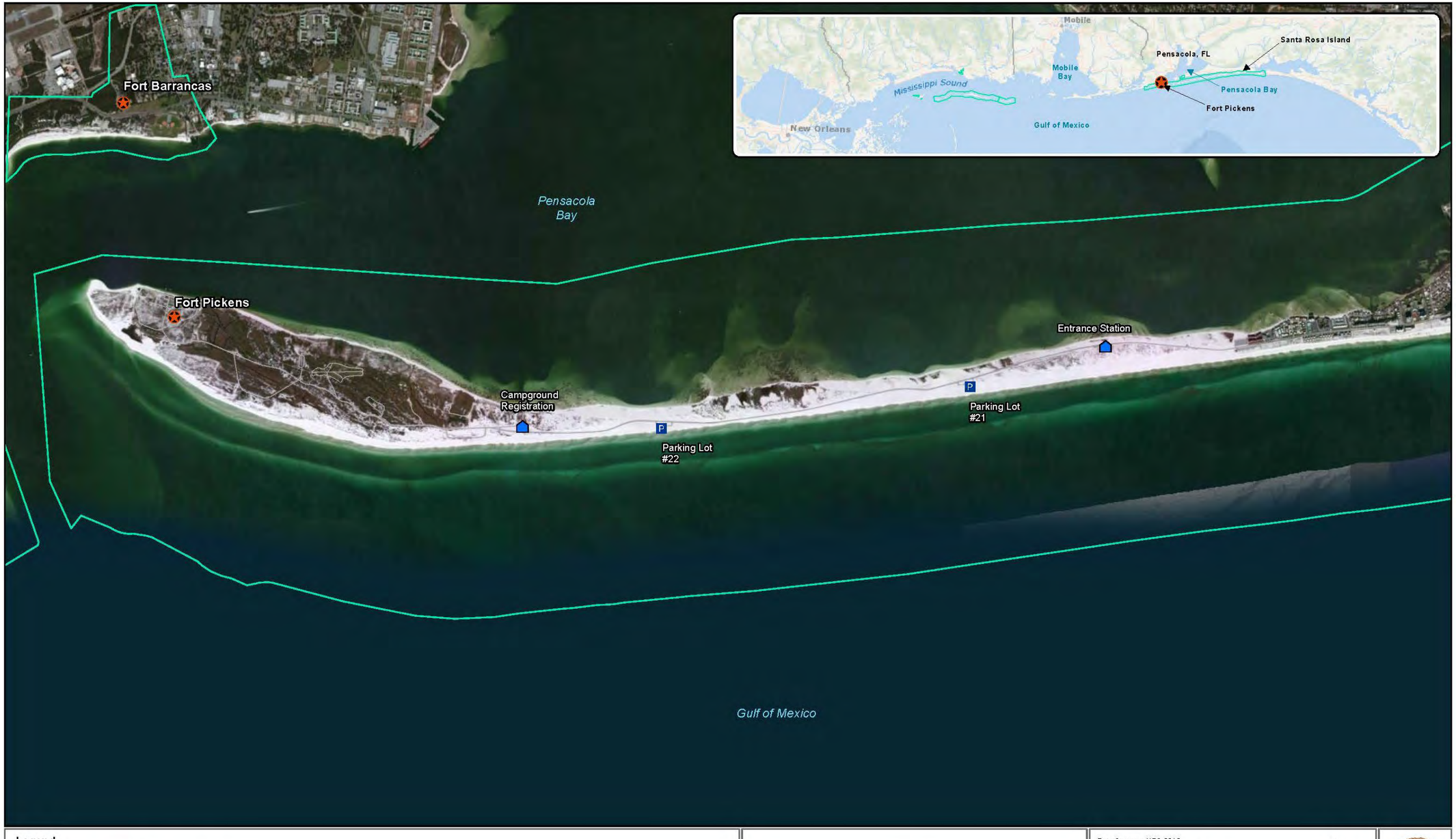

Figure 1
Project Area Location

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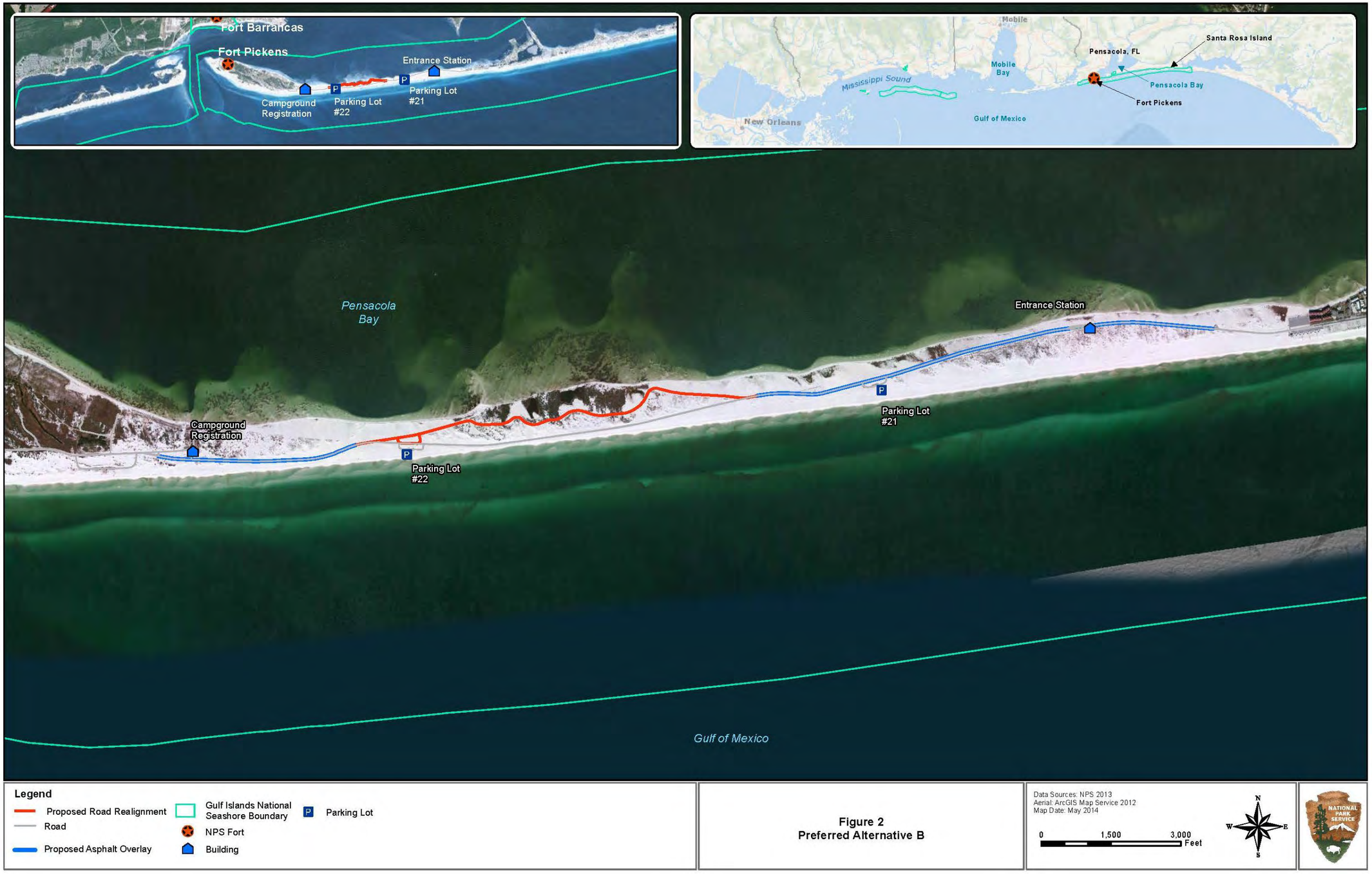

Figure 2
Preferred Alternative B

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3. PROJECT SITE

Fort Pickens Road is a segment of NPS-owned and –maintained road on Santa Rosa Island, Escambia County, Florida. Santa Rosa Island is a barrier island bound on the north by Pensacola Bay and on the south by the Gulf of Mexico. The entire road extends approximately 9 miles between Pensacola Beach and Fort Pickens, with approximately 7 miles of road within the NPS boundary. The project site for the proposed road realignment includes approximately 1.87 mile portion of the road identified in figure 1. The project site would also include the entrance station, which would be reconfigured under the preferred alternative, and the road realignment area, which would include two 11-foot lanes and a 4-foot bike lane on either side, for a total of 30 feet. An analysis of wetlands was completed for 50 feet along each side of the proposed road realignment for 100-foot wetland survey area.

4. DESCRIPTION OF WETLANDS AND FLOODPLAINS WITHIN PROJECT AREA

4.1 Wetlands

For the NPS, any area that is classified as a wetland according to the U.S. Fish and Wildlife Service's (USFWS) *Classification of Wetlands and Deepwater Habitats of the United State*s (Report FWS/OBS-79/31) (Cowardin et al. 1979) is subject to NPS DO #77-1: *Wetland Protection* (deepwater habitats are not subject to DO #77-1). Under the Cowardin definition, a wetland must have one or more of the following three attributes:

1. At least periodically, the land supports predominantly hydrophytes (wetland vegetation);
2. The substrate is predominantly undrained hydric soil; or
3. The substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.

The Cowardin wetland definition encompasses more aquatic habitat types than the definition and delineation manual used by the U.S. Army Corps of Engineers (USACE) for identifying wetlands subject to Section 404 of the Clean Water Act. The 1987 *Corps of Engineers Wetlands Delineation Manual* requires that all three of the parameters listed above (hydrophytic vegetation, hydric soil, wetland hydrology) be present in order for an area to be considered a wetland. The Cowardin wetland definition includes such wetlands, but also adds some areas that, though lacking vegetation and/or soils due to natural physical or chemical factors such as wave action or high salinity, are still saturated or shallow inundated environments that support aquatic life (e.g., unvegetated stream shallows, mudflats, rocky shores).

The National Wetlands Inventory (NWI) of the USFWS produces information on the characteristics, extent, and status of the nation’s wetlands and deepwater habitats. The wetlands on the maps are based upon the Cowardin wetland definition and classification system (Cowardin 1979), so (subject to ground-truthing) they are considered wetlands by the NPS. Based on the NWI maps for the site, wetlands within the proposed road realignment include the wetland types listed in table 1.

It is important to note that NWI wetland maps may not accurately reflect current conditions at the site. This is particularly true of the Gulf Islands National Seashore, which is a dynamic ecosystem that experiences natural disturbances on a regular basis. During large storm events and hurricanes the Fort Pickens area may be completely washed over by water, which can alter hydrology and vegetation in the short-term as well as soils in the long-term.

Table 1. National Wetland Inventory Wetlands in the Project Area

NWI Mapping Code	NWI Wetland Classification	Area of Project Area
E2EM1P	Estuarine, intertidal, emergent, persistent vegetation, irregularly flooded	Road realignment
PEM1C	Palustrine, emergent, persistent vegetation, seasonally flooded	Near road realignment
E1AB3L*	Estuarine, subtidal, aquatic bed with rooted vascular plants (grass flats)	Entrance station
E2USM*	Estuarine, intertidal, unconsolidated bottom with irregularly exposed water regime	Entrance station

* These NWI maps classify these areas as intertidal, which include submerged wetlands that support submerged aquatic vegetation. The March 2014 survey of this area (discussed below) indicates that these types of wetlands are not present at the entrance station.
Source: USFWS/NWI 2014

Site-Specific Field Survey

In March 2014, a wetland assessment (using the three-parameter approach of defining wetlands as provided by the USACE and the one-parameter approach of defining wetlands as accepted by the USFWS and the NPS) was performed at the project area. In addition, this wetland assessment was completed to ground-truth the wetlands as mapped by the NWI (discussed above) as well as map USACE-defined wetlands and NPS-defined wetlands in the project area. The wetland delineation survey included only those areas where proposed projects would occur outside the footprint of the current road (the Fort Pickens road realignment and the entrance station realignment). The wetland delineation along the proposed roadway included mapping wetlands that were 50 feet or less on either side of the proposed roadway (for a total of a 100-ft wetland survey boundary) as well as the entrance station. Therefore, full wetland polygons were not mapped unless they were small or isolated, since the majority of wetlands at the site extended beyond 50 feet off the proposed roadway. After the wetland delineation was completed, an updated road design (30%) was made available by FHWA. This proposed FHWA roadway design was located within the entire wetland delineation area (the 100-ft survey boundary), except for one small location, where the road was located slightly outside of the area delineated. However, no wetlands were observed within this area and it is only noted here to explain Figure 3, in which the proposed roadway extends beyond the area delineated in one location by approximately 40 ft.

The NWI maps of Fort Pickens road and the entrance station within the proposed project area were ground-truthed during the site visit by wetland delineator Sarah T. Koser. Ms. Koser is a Professional Wetland Scientist (PWS) and Board Certified Environmental Scientist (BCES), has received a certificate of training from a recognized wetland delineation training provider, and has over 14 years of experience in wetland delineation. The Regional Wetlands Ecologist from the NPS Southeast Region, Mark Ford, Ph.D., PWS, was also present during the field wetland delineation at the site. During the site visit, eleven wetlands were delineated within the proposed project site and are presented in figures 3 and 4:

Wetland 1 – Wetland 1 is characterized as an estuarine, intertidal, emergent, persistent, irregularly flooded wetland (E2EM1P), located along the western portion of the proposed roadway and partially within the 100-foot wetland survey boundary. The portion of wetland that lies within the project area totals 0.102 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 1 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 1 is dominated by saltmeadow cordgrass (*Spartina patens*), marsh fimbry (*Fimbristylis castanea*), saltgrass (*Distichlis spicata*), and largeleaf pennywort (*Hydrocotyle bonariensis*). A primary hydrology indicator observed in this wetland, as well as most of the other wetlands

at the site, was the presence of an algal crust (known as aufwuchs, or a community of algae and other microorganisms) attached to the soil surface. Soil samples exhibited redox features in sandy soils as the primary hydric soil indicator. The primary function present at Wetland 1 included *Sediment/Shoreline Stabilization* due to close proximity of this wetland to a large waterbody (Pensacola Bay) and location along the shoreline of Santa Rosa Island, a barrier island in the Gulf of Mexico. The secondary function present included *Flood Attenuation/Alteration* due to the ability of this wetland to stabilize the shoreline against erosion and due to Wetland 1 existing in a relatively flat area that has flood storage potential. The primary value at this wetland included *Wildlife Habitat,* and the secondary value included *Recreation/Tourism* due to presence within a National Seashore.

Wetland 2 – Wetland 2 is characterized as an estuarine, intertidal, scrub-shrub wetland, broad-leaved deciduous, irregularly flooded wetland (E2SS1P), located along the western portion of the proposed roadway and partially within the 100-foot wetland survey boundary. The portion of wetland that lies within the project area totals 0.030 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 2 to Pensacola Bay. At this wetland, only two of the three parameters (hydrology and vegetation) were met. Wetland 2 is dominated by wax myrtle (*Morella cerifera*), yaupon (*Ilex vomitoria*), and Eastern baccharis (*Baccharis halimifolia*) in the shrub layer and earleaf greenbrier (*Smilax auriculata*) and southern dewberry (*Rubus trivialis*) in the woody vine layer. This wetland also supports emergent herbaceous plants interspersed in open areas which include saltmarsh hay (*Spartina patens*), sawgrass (*Cladium jamaicense*), and Gulf bluestem (*Schizachyrium maritimum*). Evidence of hydrology includes the primary indicator of drift lines and the secondary indicators of drainage patterns and geomorphic position. Therefore, hydrology and hydrophytes are documented at this wetland, but soils did not exhibit any strong hydric indicators. Given that some organics were present in the soil, it is possible that hydric soils have not had a chance to develop yet in this highly dynamic ecosystem dominated by sand in the substrate. Therefore, Wetland 2 is considered a marginal wetland per Cowardin et al. (1979) and PM #77-1, but would not qualify as a wetland under the USACE (1987) Manual. This is the only wetland delineated at the site that would not qualify as a wetland under the USACE methodology. All other delineated areas are considered wetlands under both NPS and USACE requirements. Similar to Wetland 1, the primary function present at Wetland 2 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export* due to detritus development present within this wetland and the high degree of plant community structure/species diversity exhibited within Wetland 2. Also similar to Wetland 1, the primary value at Wetland 2 included *Wildlife Habitat*; secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic.* Since wetland views have no signs of disturbance, the wetland is considered a valuable wildlife habitat, and low noise levels are present at primary viewing locations.

Wetland 3 – Wetland 3 is characterized as an E2EM1P wetland, located along the central portion of the proposed roadway and partially within the 100-foot wetland survey boundary. The portion of wetland that lies within the project area totals 0.005 acre; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 3 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 3 is dominated by saltmeadow cordgrass, sawgrass, and black needlerush (*Juncus roemerianus*). Primary hydrology indicators observed in this wetland included saturation, drift deposits, and inundation visible on aerial photography. Wetland 3 exhibits that same functions and values as Wetland 2. The primary function present at Wetland 3 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 3 included *Wildlife Habitat* (open water habitat present); secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*.

Wetland 4 – Wetland 4 is characterized as an E2EM1P wetland and is the same and contiguous with Wetland 3. Wetland 4 is located along the central portion of the proposed roadway, north of the 100-foot wetland survey boundary. No portion of this wetland lies within the project area. Wetland 4 exhibits the same functions and values as wetlands 2 and 3. The primary function present at Wetland 4 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 4 included *Wildlife Habitat*; secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*.

Wetland 5 – Wetland 5 is characterized as an E2SS1P wetland and is similar to Wetland 2, but contiguous with Wetland 4 and Wetland 6. Wetland 5 is located adjacent to the central portion of the proposed roadway, north of the 100-foot wetland survey boundary. No portion of this wetland lies within the project area. Wetland 5 exhibits that same functions and values as wetlands 2, 3, and 4. The primary function present at Wetland 5 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 5 included *Wildlife Habitat*; secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*.

Wetland 6 – Wetland 6 is characterized as an E2EM1P wetland, located along the eastern portion of the proposed roadway and partially within the 100-foot wetland survey boundary, and within the proposed roadway. The proposed roadway would bisect the southern portion of Wetland 6. The portion of wetland 6 that lies within the project area totals 0.199 acre in the wetland survey boundary, 0.065 acre within the proposed road realignment; however, the wetland extends outside of the project area to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from Wetland 6 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 6 is dominated by saltmeadow cordgrass, saltgrass, marsh fimbry, black needlerush (*Juncus roemerianus*), largeleaf pennywort, and panic grass (*Panicum amarum*). Primary hydrology indicators observed in this wetland included saturation, drift deposits, and an algal crust (or aufwuchs). Soil samples exhibited redox features in sandy soils as the primary hydric soil indicator. Wetland 6 exhibits that same functions and values as wetlands 2, 3, 4, and 5. The primary function present at Wetland 6 included *Sediment/Shoreline Stabilization,* and secondary functions present included *Flood Attenuation/Alteration* and *Production Export*. The primary value at Wetland 6 included *Wildlife Habitat* (open water habitat present); secondary values included *Recreation/Tourism* and *Visual Quality/Aesthetic*. The park has noted that the functionality of wetland 6 has slowly been impaired primarily due to sand filling in area from the surrounding dunes.

Wetland 7 – Wetland 7 is characterized as an isolated, palustrine, emergent (PEM1) wetland, located south of the visitor entrance station. No portion of this wetland lies within the project area. It is unlikely that this wetland is hydrologically connected to the Gulf of Mexico. The three parameters (soils, hydrology, and vegetation) were met at this site. This wetland is an example of an interdunal swale wetland, where dune and swale topography has developed with influence from groundwater at the lower points of swales, and the vegetative structure is dependent upon elevation and groundwater/rainfall. Rainfall events also strongly influence the development and maintenance of these systems. Because Wetland 7 is small and isolated and exhibits very little plant diversity, few functions and values are present and are extremely weak if present at all. The primary function at Wetland 7 included *Flood Attenuation/Alteration* because the wetland is in close proximity to an existing road and the wetland has the potential to receive and retain overland or sheet flow runoff from surrounding uplands. No wetland values were present due to lack of plant diversity.

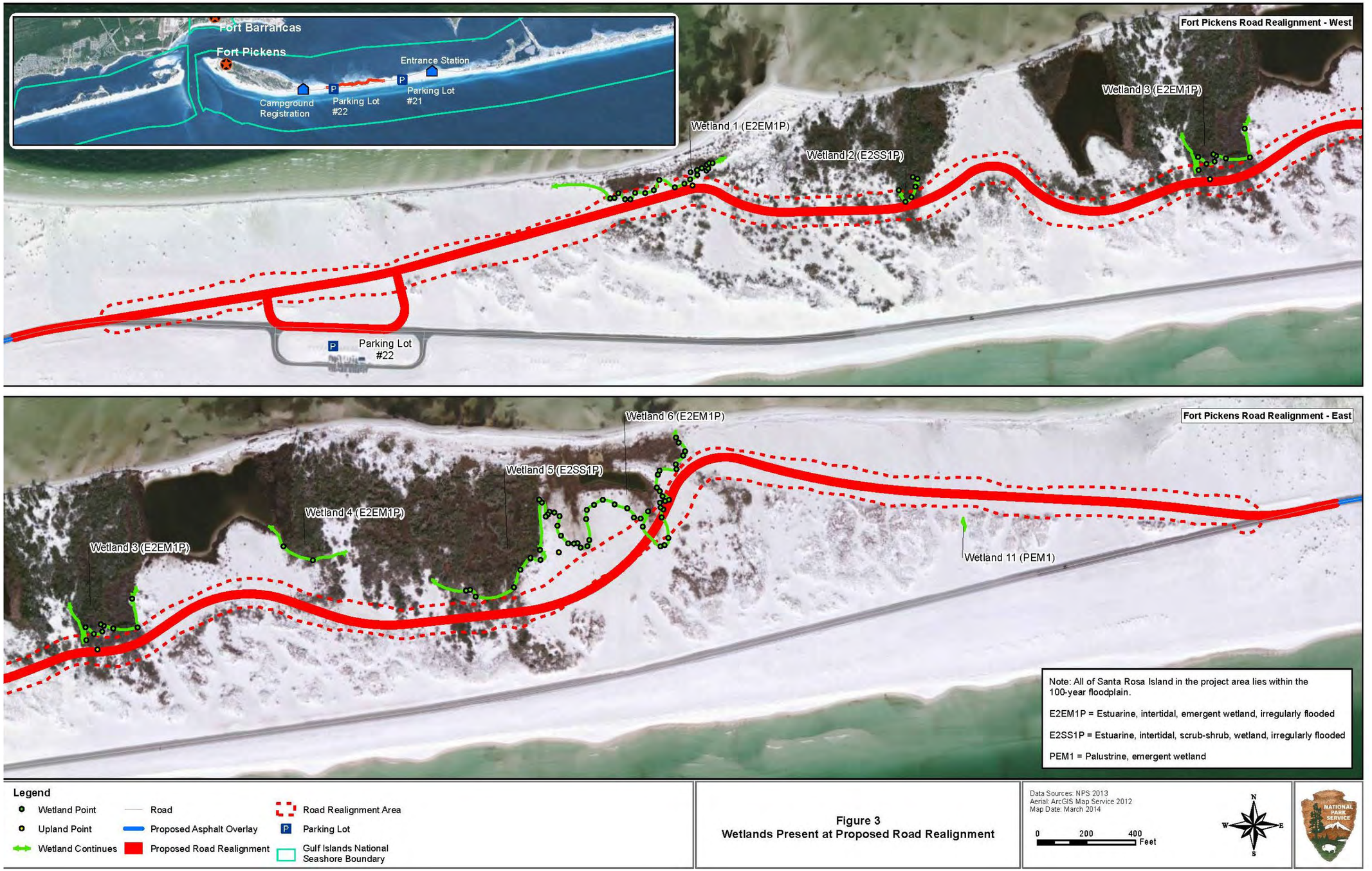

Figure 3
Wetlands Present at Proposed Road Realignment

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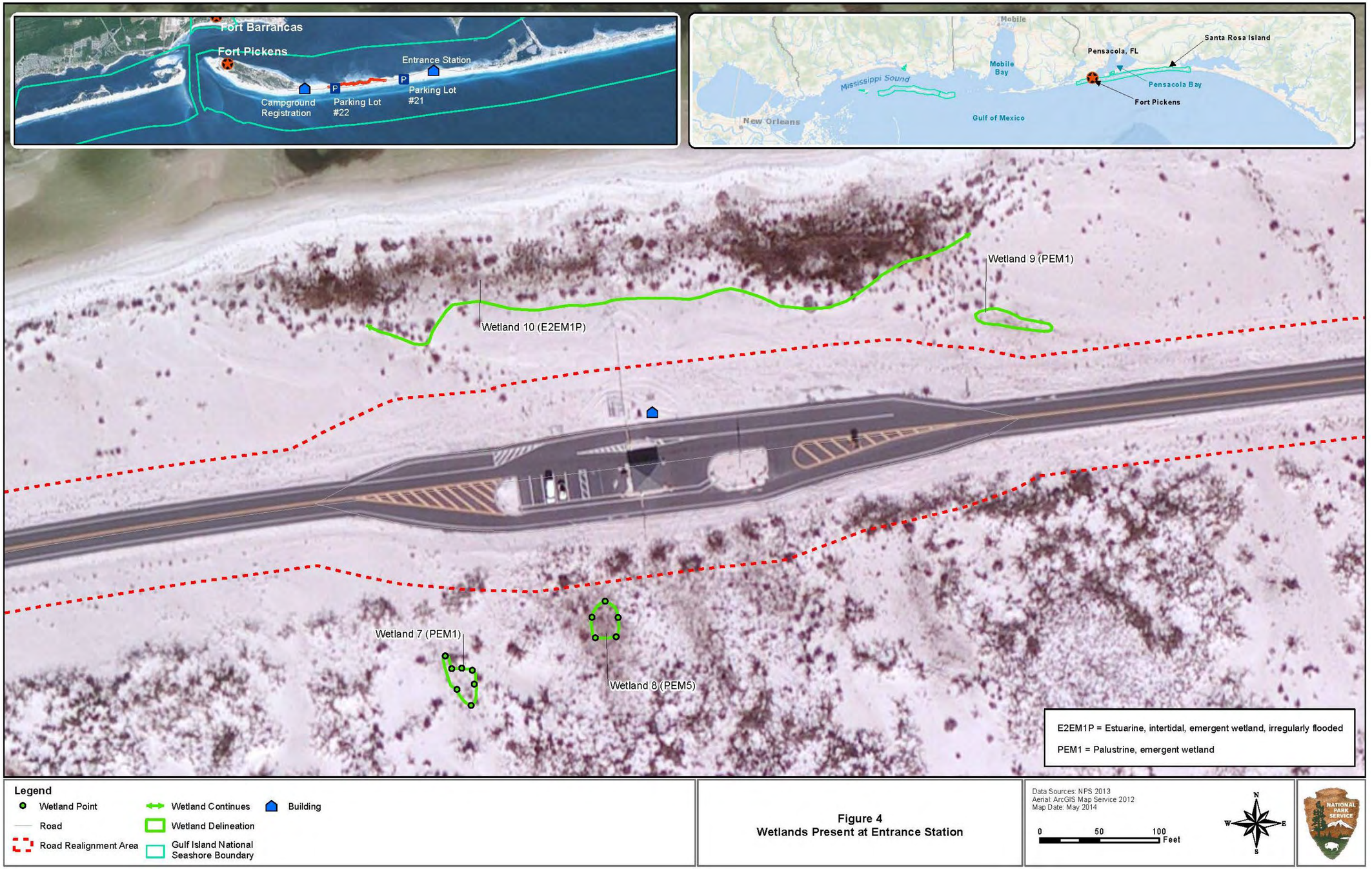

Figure 4
Wetlands Present at Entrance Station

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Wetland 8 – Wetland 8 is characterized as an isolated, palustrine, emergent wetland, dominated by common reed grass (*Phragmites australis*) and torpedo grass (*Panicum repens*) (PEM5) located south of the visitor entrance station. The three parameters (soils, hydrology, and vegetation) were met at this site. No portion of this wetland lies within the project area. Similar to wetland 7, this wetland is an example of an interdunal swale wetland that is not likely hydrologically connected to the Gulf of Mexico. The primary function at Wetland 8 included *Flood Attenuation/Alteration* because the wetland is in close proximity to an existing road and the wetland has the potential to receive and retain overland or sheet flow runoff from surrounding uplands. No wetland values were present due to lack of plant diversity.

Wetland 9 – Wetland 9 is characterized as a PEM1 wetland, located north of the visitor entrance station. No portion of this wetland lies within the project area. The three parameters (soils, hydrology, and vegetation) were met at this site. This wetland was dominated by salt fimbry and appears isolated but possibly could be hydrologically connected to Wetland 10 and ultimately Pensacola Bay. The primary function at Wetland 9 included *Flood Attenuation/Alteration* because the wetland is in close proximity to an existing road and the wetland has the potential to receive and retain overland or sheet flow runoff from surrounding uplands. No wetland values were present due to lack of plant diversity.

Wetland 10 – Wetland 10 is characterized as an E2EM1P wetland located north of the visitor entrance station. No portion of this wetland lies within the project area. This wetland is similar to wetland 1 and extends to the north and eventually connects to Pensacola Bay during seasonal inundation. During flood events and heavy rains, it is likely there is a direct overland connection from wetland 10 to Pensacola Bay. The three parameters (soils, hydrology, and vegetation) were met at this site. Wetland 10 is dominated by saltmeadow cordgrass and marsh fimbry. The primary hydrology indicator observed in this wetland was the presence of an algal crust (or aufwuchs) attached to the soil surface. Soil samples exhibited redox features in sandy soils as the primary hydric soil indicator. Functions and values present at this wetland were similar to Wetland 1. The primary function present at Wetland 10 included *Sediment/Shoreline Stabilization* and the secondary function present included *Flood Attenuation/Alteration*. The primary value at this wetland included *Wildlife Habitat,* and the secondary value included *Recreation/Tourism*.

Wetland 11 – Wetland 11 is characterized as an isolated PEM1 wetland, located along the eastern portion of the proposed roadway, south of the road and road realignment area. No portion of this wetland lies within the project area. The three parameters (soils, hydrology, and vegetation) were met at this site. This wetland was dominated by salt fimbry, exhibited an algal crust, and is an example of an interdunal swale wetland; rainfall events strongly influence the development and maintenance of this wetland. The primary function at Wetland 11 included *Flood Attenuation/Alteration* because the wetland has the potential to receive and retain overland or sheet flow runoff from surrounding uplands. No wetland values were present due to lack of plant diversity.

Wetlands delineated in the project area included some wetlands that were determined to be outside of the 100-foot proposed road realignment area. These wetlands would not be impacted by the proposed Fort Pickens Road realignment or entrance station reconfiguration. Table 2 below indicates wetlands inside and outside the road realignment area.

Table 2. Wetlands Delineated in the Project Area

Delineated Feature	Resource/Cowardin Classification*	Location
Wetland 1	E2EM1P	Within 100-foot wetland survey boundary
Wetland 2	E2SS1P	Within 100-foot wetland survey boundary
Wetland 3	E2EM1P	Within 100-foot wetland survey boundary
Wetland 4	E2EM1P	Outside of 100-foot wetland survey boundary
Wetland 5	E2SS1P	Outside of 100-foot wetland survey boundary
Wetland 6	E2EM1P	Within proposed road realignment and 100-foot wetland survey boundary
Wetland 7	PEM1	Outside of proposed project area (entrance station)
Wetland 8	PEM5	Outside of proposed project area (entrance station)
Wetland 9	PEM1	Outside of proposed project area (entrance station)
Wetland 10	E2EM1P	Outside of proposed project area (entrance station)
Wetland 11	PEM1	Outside of proposed project area (entrance station)

*E2EM1P = Estuarine, intertidal, emergent wetland, persistent, irregularly flooded
E2SS1P = Estuarine, intertidal, scrub-shrub wetland, broad-leaved deciduous, irregularly flooded
PEM1 = Palustrine, emergent wetland, persistent
PEM5 = Palustrine, emergent wetland, *Phragmites australis*

Wetland Functions and Values

Wetlands serve a wide range of ecological functions. They are valuable as holding areas for rising floodwaters. Wetland vegetation reduces floodwater velocity and depletes its destructive energy, thereby protecting mainland and upland areas. Wetland vegetation also forms buffers against erosion by absorbing current and storm energy, stabilizing substrates, and trapping sediments. Filtration of sediments, nutrients, pollutants, and toxic substances has the added advantage of improving water quality. Wetland functions are ecosystem properties that are present without regard to any subjective human values. They are considered to be the result of the biologic, geologic, hydrologic, biogeochemical and/or physical processes that take place within a wetland. Wetland values are considered to be the perceived benefits to society that can be derived from the ecosystem functions and/or other characteristics of a wetland. These values may depend on considerations such as location of the wetland, accessibility, human disturbance or pressures, economics, surrounding land uses, and cultural or historic information. The following functions and values were assessed for wetlands in the project area during the March 2014 surveys. Table 3 below shows the functions and values for these wetlands.

Functions

- *Ground water recharge/discharge*—Recharge is the potential of a wetland to contribute water to an aquifer; discharge is the potential of a wetland to discharge groundwater to the surface. The wetland's ability to help maintain stream base flow has also been included in this variable.

- *Flood attenuation/alteration*—The effectiveness of a wetland in reducing flood damage from prolonged periods of precipitation by storing and desynchronizing (i.e., gradually releasing at lower heights/velocities) floodwaters. The economic value of flood protection has also been included in this variable.

- *Fish/shellfish habitat*—The effectiveness of seasonal or permanent watercourses associated with a wetland to provide habitat and the essentials necessary for life for a diverse types and abundance of populations of fish/shellfish and other aquatic organisms. The economic value of the fishery was also considered in this variable. Both resident and migratory species were considered.

- *Sediment/toxicant retention*—The effectiveness of a wetland to reduce or prevent degradation of water quality by acting as a trap for sediments or toxic substances in runoff water that could adversely affect aquatic and terrestrial life.

- *Nutrient removal*—The effectiveness of a wetland to serve as a trap for nutrients carried by runoff from surrounding uplands or contiguous wetlands, and the wetland's ability to process these nutrients into other forms. The wetland also functions to prevent the adverse effects associated with excess nutrients entering aquifers or surface waters including streams, rivers, lakes, ponds, or estuaries.

- *Production export*—The effectiveness of a wetland to produce food or other usable products for living organisms (including humans). Detrital export to downstream systems has been included in this variable.

- *Sediment/shoreline stabilization*—The effectiveness of a wetland to stabilize streambanks against shear stresses and/or protect shorelines against erosion by reducing forces caused from waves. Other erosion and sediment control functions, such as reduction of water velocities and binding of the soil, have been included in this variable.

Values

- *Wildlife habitat*—The effectiveness of a wetland to provide habitat and the essentials necessary for life for diverse types and abundance of populations of wildlife species typically associated with wetlands, their associated water bodies, and the wetland edge. Both resident and migratory species were considered. Faunal productivity has also been included in this variable.

- *Recreation (consumptive/non-consumptive) and tourism*—The suitability of a wetland and associated watercourses to provide active and/or passive recreational opportunities for both local and nonlocal populations. Consumptive use includes activities such as hunting and fishing that diminish the plants, animals, or other resources that are intrinsic to the wetland. Non-consumptive use includes activities such as hiking, birding, boating and canoeing, that do not diminish the resources of the wetland. The economic value of tourism has also been included in this variable.

- *Education/scientific value*—The suitability of a wetland to serve as an "outdoor classroom," as a "reference site" for scientific study or research on ecosystems, or for interpretation.

- *Uniqueness/heritage*—The effectiveness of a wetland or its associated water bodies to provide certain wetland attributes or special functions and values related to aspects of public health, recreation, and habitat diversity. This may include the wetlands overall health and appearance, its role in the overall ecology of the area, or its relative importance as a typical wetland class for the geographic location.

- *Visual quality/aesthetics*—The effectiveness of a wetland in contributing to the visual or aesthetic quality or pleasing nature of the surrounding landscape.

- *Endangered species habitat*—The suitability of a wetland to support and/or provide the habitat requirements specific to endangered species.

Table 3. Functions and Values of the Wetland Systems Delineated

Function and Values	Wetland Number and Type										
	Wetland 1 E2EM1P	**Wetland 2 E2EM1P**	**Wetland 3 E2EM1P**	**Wetland 4 E2EM1P**	**Wetland 5 E2EM1P**	**Wetland 6 E2EM1P**	**Wetland 7 E2EM1P**	**Wetland 8 E2EM1P**	**Wetland 9 E2EM1P**	**Wetland 10 E2EM1P**	**Wetland 11 E2EM1P**
Groundwater recharge/discharge *											
Flood attenuation/ alteration	√	√	√	√	√	√	√	√	√	√	√
Fish/shellfish habitat											
Sediment/toxicant retention											
Nutrient removal											
Production export		√	√	√	√	√					
Sediment/shoreline stabilization	√	√	√	√	√	√				√	
Wildlife habitat	√	√	√	√	√	√					
Recreation and tourism	√	√	√	√	√	√					
Education/scientific											
Uniqueness/heritage											
Visual quality/aesthetic		√	√	√	√	√					
Endangered species habitat											

NOTES: √ = parameter is present; *although many of the wetlands delineated were considered interdunal swales dependent upon rainfall and groundwater, the groundwater recharge/discharge function was not selected because these wetlands do not contribute water to an aquifer and do not serve as an area where groundwater can be discharged to the surface.

4.2 Floodplains

The 1 percent annual flood (100-year flood), also known as the base flood, is the flood that has a 1 percent change of being equaled or exceeded in any given year. The 1 percent annual floodplain for the project area includes the entire project area, due to the nature of the site on a barrier island. The proposed project is within a Special Flood Hazard Area, which is the area subject to flooding by the 1 percent annual flood. The project area floodplain is Zone VE, which represents a coastal flood zone with velocity hazard (wave action); the base elevation of the area ranges between 12 and 14 (FEMA 2006a; 2006b). The Fort Pickens area of the national seashore often washes over entirely during large hurricane events and experiences frequent and extensive flooding during other storm events.

5. USE OF THE WETLANDS AND FLOODPLAINS

5.1 Historical Use

The Fort Pickens unit of the national seashore historically served as a defense fort built to defend Pensacola Bay and its navy yard. Fort Pickens was constructed in 1834, and the area saw active fighting during the civil war. After being abandoned in the 1940s, the fort was part of a Florida State Park until the creation of the Gulf Islands National Seashore in 1971. The fort was reopened after extensive repairs in 1976 (NPS 2014). This unit of the national seashore is used for recreation.

The portions of the national seashore within the project area have been used in recent years as parking lots, an entrance station, and a road providing access to Fort Pickens and campgrounds from Pensacola Beach. The site of the proposed road realignment is natural dunes. Due to the dynamic nature of barrier islands, this area is constantly changing due to large storm events and hurricanes, island migration, winds, and tides. These changes can alter hydrology, sand dunes, and vegetation, thus changing wetlands and wetland plant species frequently. Fort Pickens Road has been destroyed multiple times during storm events, and during annual storm events the roadway can become washed out. Access to the western portion of the island can be disrupted after these large storm events due to damage to the road, and the park must close the road for a period of time during repair. Road closures can last for a few days up to a few weeks.

Currently, the entrance station includes one visitor entrance lane, an employee entrance, fee collection booth, and a visitor exit lane. Delays of up to 40 minutes to process entering guests are common on busy weekends. These delays cause traffic congestion along Fort Pickens Road and extend into Pensacola Beach.

5.2 Proposed Use

The proposed project would include the realignment of a 1.87 mile portion of the Fort Pickens Road to a more inland and higher area of the island. Construction of the roadway would include compacting the sand and overlaying pavement on the compacted sand. The existing roadway would be demolished and removed following the construction of the new roadway. Once removed, the roadway area would be left to reestablish a natural dune community. In addition to the road realignment, parking lot #22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance. An asphalt overlay would take place on the remaining portion of Fort Pickens Road within the NPS boundary (2.70 miles) and within parking lots #21 and #22. The NPS entrance station on Fort Pickens Road would be reconfigured; an additional lane is proposed at the visitor entrance station allowing two visitor entrance lanes, an employee access lane, and a visitor exit lane. Construction of the entrance lane would be similar to the road realignment. Sand would be compacted and pavement would be placed over the sand.

With implementation of the preferred alternative, the use of the national seashore would remain the same, but visitor access would be improved by the reconfiguration of the entrance, and by realignment of the

road, which would prevent frequent closures of Fort Pickens Road during repair of damage due to storm events. Additionally, the current road alignment is located in sea turtle nesting habitat; the proposed road realignment would move the road outside of the nesting area, providing a benefit to sea turtle species.

6. INVESTIGATION OF ALTERNATIVES

The NPS has a responsibility to manage and protect the resources within the national seashore. In considering alternatives, the impacts to park resources that would result were taken into account. The preferred alternative outlined above in section 2 was considered, along with the no action alternative.

Under the no action alternative, Fort Pickens Road would not be realigned. Fort Pickens Road would continue to provide vehicular access between Pensacola Beach and the Fort Pickens Area. Two small beach access areas with parking would continue to be used. Bike and pedestrian access would continue to be permitted along the road shoulders. Storm events would continue to impact the roadway, and situations may arise in the future where conditions become so altered that it is no longer feasible to repair or maintain the road; this would be determined on a case-by case basis. If road repairs are not feasible, Fort Pickens Road would be closed and access to the area would no longer be permitted by automobile. As a result, visitors would not be able to access park amenities at the western portion of the island such as the fort, batteries, visitor center, and camping areas. Additionally, under the no action alternative, the road would not be moved out of sea turtle nesting habitat, and adverse impacts on sea turtles would continue. Park staff have stated that sea turtles are observed at least once a year on the existing roadway, and in 2013 a loggerhead sea turtle (*Caretta caretta*) was struck and killed by a vehicle in the Santa Rosa unit of the national seashore. The possibility of sea turtle mortality due to vehicle strikes is also a concern along Fort Pickens Road.

7. WHY THE PREFERRED ACTION WAS CHOSEN

In order to identify a preferred alternative, the NPS considered both the statutory missions of the Gulf Islands National Seashore, and the ongoing issues of road damage along Fort Pickens Road and traffic issues at the park entrance. Road damage from storm events has resulted in recurring closures of the road, preventing visitor access to the western portion of Santa Rosa Island. Additionally, the entrance gate is not sufficient to handle high levels of visitation, resulting in park entrance delays and traffic back-ups to Pensacola Beach during busy days.

The preferred alternative meets the objectives of the project, which include the following:

- Reduce maintenance and repair of Fort Pickens Road;
- Reduce the number of Fort Pickens Road closures;
- Provide additional sea turtle nesting habitat;
- Reduce traffic delays at the entrance station.

The preferred alternative was also selected in the environmental analysis as the environmentally preferred alternative because it best meets the definition established by the Council for Environmental Quality. Although the preferred alternative would result in higher levels of wetland impacts compared to the no action alternative, other factors were also considered in selection of the preferred alternative besides the amount and quality of wetland that would be impacted by each alternative. These factors include the objectives listed above. The preferred alternative best protects natural resources including special-status sea turtle species.

8. PROPOSED IMPACTS TO WETLANDS, FLOODPLAIN AND FLOOD RISK OF THE PROPOSED PROJECT AREA

8.1 Impacts to Wetlands

No Action Alternative

Under the no action alternative, no wetlands would be impacted. The existing Fort Pickens Road would remain in place, the entrance station and parking lot #22 would not be reconfigured, and Fort Pickens Road would not be repaved.

The Preferred Alternative

The preferred alternative would impact an estuarine wetland, wetland 6, as a result of the road realignment (figure 5). It is important to note that the dimensions of the proposed action as discussed in previous sections are approximate and may change during the more detailed design phase of this project. The wetland impacts discussed in this section represent the most current approximations at this time (July 2014).

Wetlands 1, 2, 3, and 6 are located within the wetland survey boundary (100-foot boundary). Although wetlands 1, 2, and 3 are located within the survey boundary, they are not located within the proposed road realignment. Construction activities would occur only within the footprint of the proposed road realignment (30 feet); as a result there would be no impact to wetlands 1, 2, and 3 under the preferred alternative. Wetland 6 is located within the proposed road realignment footprint (30 feet), as well as within the wetland survey boundary. Construction activities would occur only within the footprint of the proposed road realignment. There would be no impact to the portion of wetland 6 located to the north of the proposed road realignment under the preferred alternative, which would remain connected to the extended portion of wetland 6 outside the wetland survey boundary. However, a portion of wetland 6 to the south of the proposed roadway would be isolated hydrologically by the roadway, resulting in indirect impacts as this portion of the wetland could be potentially lost.

Approximately 0.0065 acre of wetland 6 is located within the 30-foot proposed roadway footprint. Therefore, a total of 0.065 acre of wetlands would be permanently and directly impacted under the preferred alternative. Additionally, approximately 0.069 acre of wetland 6 would be isolated from the rest of wetland 6 by the proposed roadway. This would result in indirect impacts to 0.069 acre of wetland under the preferred alternative. Table 4 below shows the wetland and acreage that would be permanently impacted by the proposed road realignment. No wetlands delineated during the March 2014 wetland survey would be impacted by the proposed entrance station reconfiguration or the asphalt overlay on Fort Pickens Road.

Table 4. Wetland Impact Acreages of the Preferred Alternative

Wetland	Wetland Type	Acres Directly Impacted Roadway (30-foot Roadway)	Acres Indirectly Impacted (Isolated due to the Roadway)
6	E2EM1P	0.065	0.069
Total Permanent Wetland Impacts (Direct and Indirect)			**0.134**

Construction of the proposed road realignment would only occur within the footprint of the proposed road realignment (30 feet), but would also affect a portion of wetland 6 located south of the proposed roadway that would be isolated hydrologically from the rest of wetland 6. This portion of wetland 6 could be potentially lost due to the proposed roadway. The realignment would follow the natural topography of the

area, with minimal dune cuts as needed. Construction would include compacting the sand and overlaying pavement on the compacted sand. Any embankment needed for this project would include the use of onsite sand. The construction staging areas would be located on existing impervious surface, in parking lot #22 and parking lot #21. Construction staging areas would be located outside of all wetland areas and have no impacts on wetlands. In addition to the road realignment, parking lot #22 would also be reconfigured to be located near the new roadway, but would utilize portions of the existing roadway to minimize disturbance and would have no impacts on wetlands.

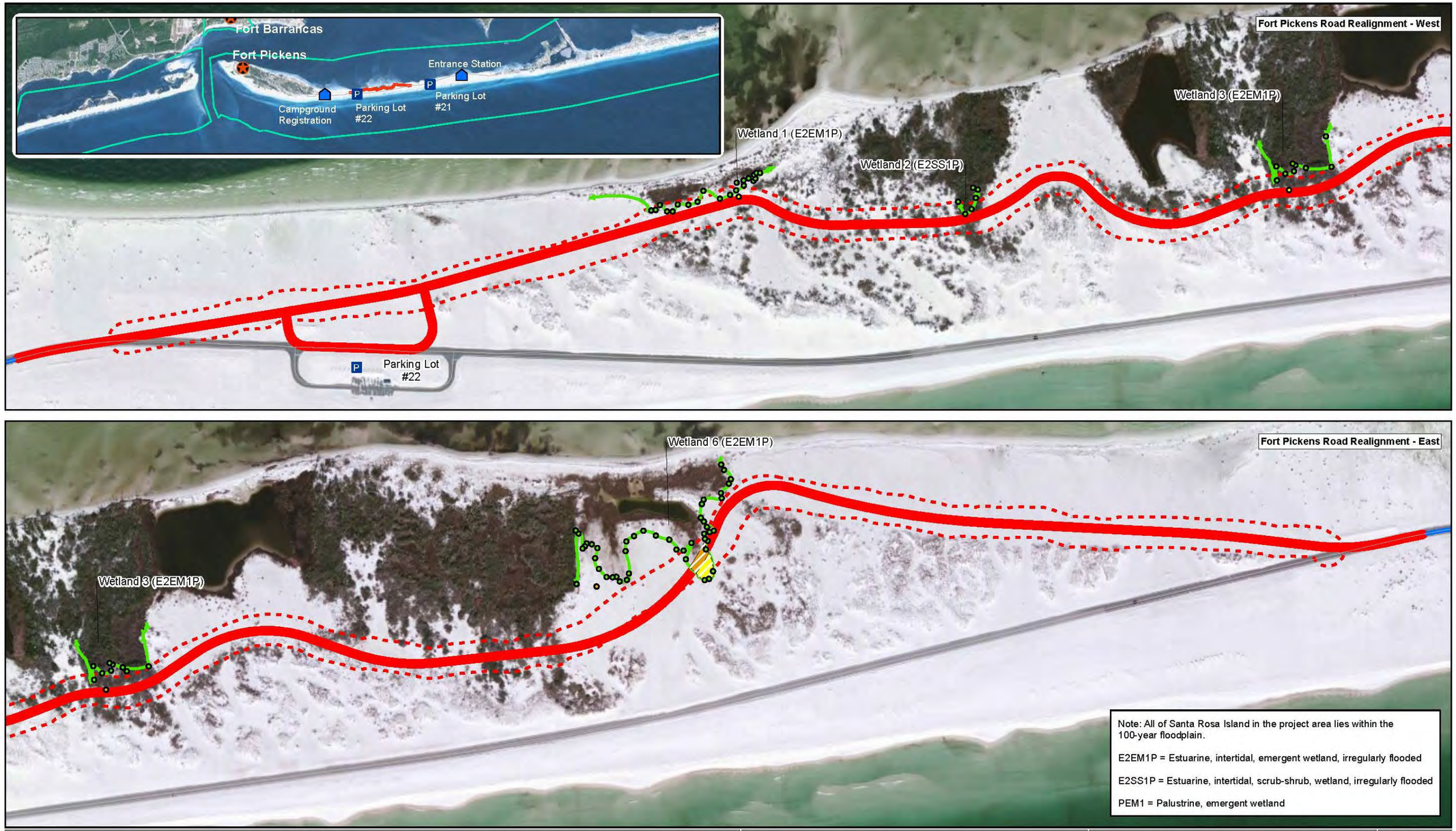
Construction may alter the functions and values of wetland 6 within the roadway footprint. Construction activities and equipment may have permanent impacts on the values of this wetland, including wildlife habitat, recreation and tourism, and visual/aesthetic values, as well as on the functions of these wetlands, which are primarily flood attenuation/alteration and sediment/shoreline stabilization. Construction can result in the removal of hydrophytic vegetation and other vegetation, as well as the excavation of soils; though this would be minimized to the greatest extent possible. However, the removal of vegetation and excavation in wetland areas could prevent wetlands from continuing to provide flood attenuation/alteration, sediment/shoreline stabilization, wildlife habitat, and recreation/tourism.

Approximately 0.336 acre of wetlands was delineated within the 100-foot wetland survey boundary. Wetlands within the proposed project area boundary but not within the proposed roadway (wetlands 1, 2, and 3) would not be impacted by roadway construction activities, which would be limited to the 30-foot roadway footprint. As a result, the road realignment would have no impact on these wetlands delineated within the 100-foot wetland survey boundary (wetlands 1, 2, 3). These wetlands would continue to provide functions and values. In addition, the realignment of the roadway would provide beneficial impacts to special-status sea turtle species by removing the existing road from sea turtle nesting habitat. Sea turtles are observed on the road, and a sea turtle was hit and killed by a vehicle in 2013 along the road in the Santa Rosa unit of the national seashore, and vehicle collisions are a possible threat to sea turtle species along Fort Pickens Road. Removing the road outside of sea turtle nesting habitat would add benefits to the value of *Endangered Species Habitat* in the nearby marine wetlands along the shoreline.

The use of the new road realignment would have long-term, permanent impacts on wetland 6 in the proposed roadway. Wetland 6 would be partially bisected by the proposed roadway. The roadway would influence the wetland functions and values, by altering the soils and removing the vegetation within the proposed roadway. Additionally, the proposed road realignment would isolate an approximately 0.069 acre portion of the wetland. Approximately 0.065 acre of Wetland 6 would be permanently and directly altered by the road realignment, as previously discussed above, and a portion of the wetland outside the proposed roadway (0.069 acre) realignment would be indirectly isolated and potentially lost. The proposed roadway would have long-term adverse impacts on this wetland through the potential alteration of the functions and values of the wetland.

Overall, the wetland direct and indirect impacts as a result of all components of the preferred alternative (0.134 acre total) would result in a long-term minor adverse impact. As a result of the wetland impacts from the proposed road realignment, a *Joint Application for Environmental Resource Permit/Authorization to use State Owned Submerged Lands/Federal Dredge and Fill Permit* would be completed and submitted to both USACE and Florida Department of Environmental Protection. The exact acreage of wetlands impacted and a mitigation plan for the loss of wetlands would be included in the joint application.

During scoping, letters regarding impacts of the proposed project on wetlands were received from the Florida Department of Environmental Protection (FLDEP), the Northwest Florida Water Management District (NWFWMD), and the USACE. The USACE letter noted that wetland impacts must be avoided where practicable, and that compensatory mitigation must be implemented for any wetland impacts under


Fort Barrancas
Fort Pickens
Campground Registration
Parking Lot #22
Entrance Station
Parking Lot #21
Fort Pickens Road Realignment - West
Wetland 1 (E2EM1P)
Wetland 2 (E2SS1P)
Wetland 3 (E2EM1P)
Parking Lot #22
Fort Pickens Road Realignment - East
Wetland 6 (E2EM1P)
Wetland 3 (E2EM1P)
Note: All of Santa Rosa Island in the project area lies within the 100-year floodplain.
E2EM1P = Estuarine, intertidal, emergent wetland, irregularly flooded
E2SS1P = Estuarine, intertidal, scrub-shrub, wetland, irregularly flooded
PEM1 = Palustrine, emergent wetland
Legend
Wetland Point
Upland Point
Wetland Continues
Road
Proposed Asphalt Overlay
Proposed Road Realignment
Road Realignment Area
Proposed Road Wetland Impact (Direct)
Proposed Road Wetland Impact (Indirect)
Parking Lot
Gulf Islands National Seashore Boundary
Figure 5
Wetland Impact Map
Data Sources: NPS 2013
Aerial: ArcGIS Map Service 2012
Map Date: May 2014
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NATIONAL PARK SERVICE

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Section 404 of the Clean Water Act. The FLDEP letter noted that the project may require an Environmental Resource Permit for the project for any wetland impacts or roadway stormwater management. The NWFWMD noted that unavoidable impacts to wetlands may occur under the project, and would require appropriate mitigation, but that the project may also have potential improvements to water-related resources from the regeneration of coastal scrub and dune habitat on the Gulf side of the island. These letters can be found in Appendix B of the Fort Pickens Road Realignment EA.

8.2 Flood Risk of the Proposed Project Area

Floodplain zones, as mapped by FEMA, are located within the proposed project area boundary. NPS has adopted guidelines pursuant to EO 11998 stating that it is NPS policy to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. The entire project area is found within the floodplain, due to the dynamic nature of barrier islands. However, the project is not anticipated to result in any changes to the floodplain or floodplain hazards, as the existing road alignment is also located within the floodplain. The proposed road realignment would bring Fort Pickens road inland and higher, lessening the potential for flood impacts to the road.

9. MITIGATION MEASURES

9.1 Wetland Mitigation

Implementation of the preferred alternative would involve impacting wetland areas. During the construction activities for the preferred alternative, applicable best management practices (BMPs) would be employed to minimize impacts to hydrology, water quality, and threatened and endangered species as described in detail in Chapter 5 of the Environmental Assessment to comply with both PM #77-1: *Wetland Protection* and PM #77-2: *Floodplain Management*. If necessary, a sediment and erosion control plan would be prepared prior to construction and submitted to appropriate local and state agencies. Whenever possible, construction activities, including heavy equipment use and stockpiling of materials, would be conducted outside of wetland areas.

For the purposes of implementing EO 11990, the NPS has determined that any area classified as wetland habitat according to the USFWS *Classification of Wetlands and Deepwater Habitats of the United States* is subject to DO #77-1: *Wetland Protection* and the implementation procedures outlined in the PM #77-1: *Wetland Protection*. DO #77-1 states that for new actions where impacts to wetlands cannot be avoided, proposals must include plans for compensatory mitigation that restores wetlands on NPS lands at a minimum acreage ratio of 1 to 1. For this project, the estimated direct impacts to wetlands is estimated at 0.065 acre, while indirect impacts to wetlands would total 0.069 of an acre, for a total of 0.134 acre of wetland impacts that require mitigation. The wetland impacts discussed in this section represent the most current approximations at this time; however, this impact and compensation acreage may decrease after final design. Whenever possible, every effort is made to assure that the same wetland restoration proposal meets the compensation requirements of both the NPS and the USACE processes to avoid any duplication of effort. Wetland compensation would include invasive plant species control in existing wetland areas within the wetland survey area delineated at the national seashore. Following discussions with the NPS Regional Wetlands Ecologist for the Southeast Region, wetland mitigation for this project is proposed at a 3:1 ratio, corresponding to invasive species treatment of 0.402 acre. Although not considered as mitigation under PM #77-1, additional measures and BMPs such as silt fencing would be employed, if necessary to protect wetland areas.

Invasive plant species can decrease native plant diversity and disrupt ecosystems. As a result, invasive species control is proposed throughout the park to improve existing wetland functions and values. The NPS has a mandate to preserve native species diversity and natural ecosystems. To mitigate impacts to wetlands at the park, the NPS would improve the overall functionality and values in wetlands within the general

wetland survey area at the national seashore through the removal of invasive plant species. In the national seashore's wetland areas, invasive plant species are currently being treated and include Chinese tallow tree (or popcorn tree, *Triadica sebifera*) and torpedo grass (*Panicum repens*) as well as Cogon grass (*Imperata cylindrica*) in more upland areas. As mitigation for this project, invasive treatment would take place for these species that occur within the area surveyed for the project. This work would take place during the appropriate time of year to maximize the potential treatment of the invasive plant species. Any pesticides or other treatment types used would have to be approved in advance by the NPS. The paragraphs below describe in detail the biography and rationale for choosing invasive species removal as compensation for wetland impacts.

Torpedo grass is characterized as a *Category I* plant on the Florida Exotic Pest Plant Council's (FLEPPC) 2013 List of Invasive Plant Species with a hydrophytic status of FACW (usually occur in wetlands, but may occur in non-wetlands) (FLEPPC 2013; USDA NRCS 2014). Plants are termed *Category I* invasives when they are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. Torpedo grass is native to Africa and/or Asia, and it was introduced to the United States before 1876, primarily through seed used for forage crops. In the early 1900's, the United States Department of Agriculture imported and distributed torpedo grass seed for planting in pasturelands; providing forage for cattle. Torpedo grass grows in or near shallow waters, forming monocultures where it can quickly displace native vegetation (UF IFAS 2008). Torpedo grass is found within the wetlands at Fort Pickens, including within wetland areas located adjacent to the proposed roadway (wetlands 2, 3, and 4 near the ponds). Although extensive treatment of these areas was completed in 2011, retreatment is necessary due to the persistent nature of this species. Additionally, treatment is needed for new or adjacent wetland areas not treated in 2011.

In Florida, Chinese tallow tree is considered a noxious weed with a hydrophytic status of facultative (FAC) (plant occurs in both wetlands and non-wetland areas) (USDA NRCS 2014). This plant is native to China and Japan and was introduced as an ornamental to be cultivated for seed oil. Chinese tallow is an aggressive woody invader of wetland, coastal, and disturbed habitats and has been shown to reduce native species diversity and richness, and alter ecosystem structure and function in Florida's natural areas (FLEPPC 2005). In the national seashore, Chinese tallow has invaded several areas of the park, including wetland areas. Eradication efforts in the late 1990s and early 2000s eliminated the majority of "seed" trees in the national seashore, and follow-up treatments have eliminated seed-bearing trees on neighboring properties. These efforts have helped to reduce the spread of this species. Areas for treatment at Fort Pickens are sparsely impacted, and contain small trees that can be hand-pulled, or treated with herbicides.

Cogon grass is a *Category I* invasive on the FLEPPC's 2013 List of Invasive Plant Species (FLEPPC 2013). Cogon grass is native to Southeast Asia, and was accidentally introduced into Florida in 1911. It was introduced in to the southeastern United States as a potential forage species and for soil stabilization, but was found to be of little forage benefit (UF IFAS 2014). Cogon grass is a perennial grass with light green leaves that grows in loose bunches. Seeds of the cogon grass are extremely small, and can be carried long distances by wind and animals. However, rhizomes are the primary method of survival and shorter-distance spread of the species. Cogon grass may produce over three tons of rhizomes per acre of established stand. These rhizomes are highly persistent, and may exude allelopathic substances, which inhibit the growth of other plant species. It is commonly found in ditch banks, pastures, road sides and right-of-ways, golf courses, and forests. As stands of cogon grass develop and the density increases, all other vegetation may be excluded and normal species succession may be inhibited (UF IFAS 2014).In the national seashore. Cogon grass is normally co-located with Torpedo grass, and is therefore also found within or near the wetlands at Fort Pickens, including within areas located adjacent to the proposed roadway (wetlands 2, 3, and 4 near the ponds). Although treatment of these areas was completed in 2011, retreatment is necessary due to the persistent nature of this species.

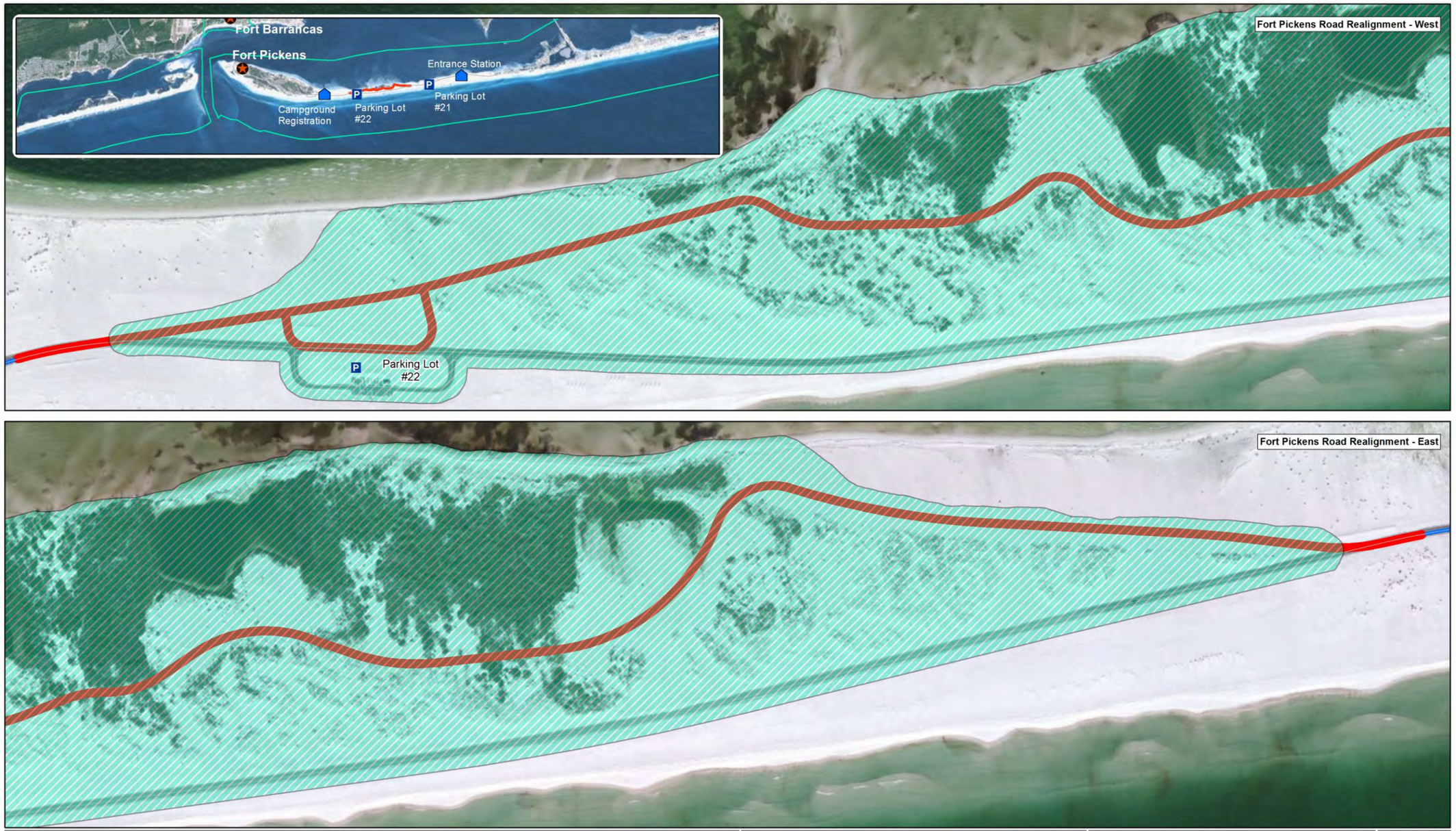

Figure 6
Proposed Wetland Mitigation Plan

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The invasive species treatment would occur within the general project area (figure 6), including wetland areas within and adjacent to the proposed roadway, as well as the areas where the old road would be removed. Invasive plant species are often opportunistic and pioneer in recently disturbed areas. The preferred alternative includes removal of a portion of the existing road, which has low lying areas that might have the potential to transition to wetland areas with, but may also support invasive plant species. Invasive plant species management would be completed following construction to ensure encroachment does not occur following the soil and wetland disturbance. As stated above, wetland mitigation for this project is proposed at a 3:1 ratio, corresponding to invasive species treatment of 0.402 acre. It is expected that at least 0.402 acre within proposed mitigation area shown in Figure 6 (134 acres) would be treated for invasive species, thus meeting NPS compensation requirements for this project.

The wetland types and functions of the areas proposed for invasive species treatment are the same as those previously described in wetlands 1 through 6 above in Section 4.1 *Wetlands*. Invasive species management would be conducted similarly to efforts that are currently occurring in the park. Treatment would be conducted by experienced persons and efforts would be made to avoid impacting adjacent plant species. Monitoring would be conducted every other year to determine the efficacy of treatment events. The anticipated time-frame for the full functioning of the wetlands treated for invasive plants would be a long-term, ongoing process and may take up to five years. If these goals are not met, maintenance would occur through adaptive management. The funding source for the wetland restoration as part of the mitigation is not currently known, but the NPS is committed to following PM #77-1 and preserving natural resources. Therefore, NPS commitment for funding of the compensatory restoration would meet the requirements and restrictions of Section 5.2.3, paragraph 6 of PM #77-1.

9.2 Floodplain Mitigation

The design of structures (including roadways) within the floodplain would incorporate methods for minimizing flood damage, as contained in the National Flood Insurance Program *Floodplain Management Criteria for Flood-Prone Areas* (CFR 44, 60.3), and in accordance with any state or county requirements for flood-prone areas.

10. SUMMARY

For the preferred alternative a total of 0.065 acre of wetland would be directly adversely impacted as a result of the road realignment and construction and 0.069 acre would be indirectly adversely impacted, resulting in approximately 0.134 acre of total direct and indirect wetland impacts. Wetland mitigation for this project is proposed at a 3:1 ratio, corresponding to invasive plant species treatment of 0.402 acre. The mitigation proposed in exchange for the wetland impacts would assure no net loss of wetland function on NPS-managed lands. The specific locations for compensation, the schedule for project completion, monitoring, and other details relating to wetlands compensation are described in this document and would be further refined in the future in consultation with NPS and appropriate resource agencies.

The NPS therefore finds that the preferred alternative, as stipulated, is consistent with Executive Order 11990 and the policies and procedures found in DO #77-1 and PM #77-1 (NPS 2012).

The proposed road realignment and reconfiguration of the entrance station would fall entirely within the floodplain. The proposed project is not anticipated to result in any increase of flood hazard either as the current road alignment and entrance station are already located within the floodplain, and the proposed road realignment would move the road higher and more inland. The mitigation proposed in exchange for the floodplain impacts would minimize impacts within the floodplain.

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APPENDIX D

Special-Status Species

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Threatened and Endangered Species within the Gulf Islands National Seashore (FL) and Escambia County, Florida			
Scientific Name	Common Name	Federal Status	Florida Status
Fish			
Acipenser oxyrhynchus desotoi	Gulf Sturgeon	T/CH	SSC
Amphibians and Reptiles			
*Alligator mississippiensis**	American Alligator	SAT	--
*Caretta caretta**	Loggerhead Sea Turtle	T	FT
*Chelonia mydas**	Green Sea Turtle	E	FE
Eretmochelys imbricata	Hawksbill Sea Turtle	E	FE
*Dermochelys coriacea**	Leatherback Sea Turtle	E	FE
Drymachron corais couperi	Eastern Indigo Snake	T	FT
Gopherus polyphemus	Gopher Tortoise	C	SSC
*Lepidochelys kempii**	Kemp's Ridley Sea Turtle	FE	FDE
Rana capito sevosa	Dusky Gopher Frog	E	--
Ambystoma bishop	Reticulated Flatwoods Salamander	E	FE
Birds			
Pelecanus occidentalis	Brown Pelican	D	SSC
Mycteria Americana	Wood Stork	E	E
Haliaeetus leucocephalus	Bald Eagle	D	--
Grus canadensis pulla	Mississippi Sandhill Crane	E	--
*Charadrius alexandrines tenuirostris**	Southeastern Snowy Plover	--	ST
*Charadrius melodus**	Piping Plover	T/CH	FT
Caladris canutus	Red Knot	PT	--
*Sterna antillarum**	Least Tern	--	ST
Picoides borealis	Red-Cockaded Woodpecker	E	--
*Cistohorus palustris marianae**	Marians Marsh Wren	--	ST
Mammals			
Canis rufus	Red Wolf	E	--
Peromyscus polionotus trissyllepsis	Perdido Key Beach Mouse	E/CH	E
Scientific Name	Common Name	Federal Status	Florida Status
Trichechus manatus latirostris	West Indian Manatee	E	E
Plants			
*Chrysopsis gossypina cruiseana**	Cruise's Golden Aster	--	E
Cladonia perforate	Florida Perforate Cladonia	E	E
Lupinus westianus	Gulf Coast Lupine	--	T
Clams			
Villosa choctawensis	Choctaw Beach	E	--
Fusconaia rotula	Round Ebonyshell	E	--
Ptychobranchus jonesi	Southern Kidneyshell	E	--
Fusconaia escambia	Narrow Pigtoe	T	--
Hamiota australis	Southern Sandshell	T	--

Pleurobema strodeanum	Fuzzy Pigtoe	T	--

C= candidate, E = endangered, T = threatened, SAT = similarity of appearance (threatened), D = delisted CH = Critical Habitat, SSC = Species of Special Concern, FT = federally threatened; FE =federally endangered; ST = state threatened; PT=proposed threatened.

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CHAPTER 68A-27
RULES RELATING TO ENDANGERED OR THREATENED SPECIES

68A-27.001 Definitions.
When used in this rule chapter, the terms and phrases listed below have the meaning provided:

(1) Florida Endangered and Threatened Species – species that are designated by Commission rule as either:

(a) Federally-designated Endangered and Threatened species as defined below; or

(b) State-designated Threatened species as defined below. Florida Endangered and Threatened species retain their status regardless of subsequent changes in scientific nomenclature or subsequent identification of species or subspecies within the species listed.

(2) Federally-designated Endangered and Threatened Species – species of fish or wild animal life, subspecies or isolated populations of species or subspecies, whether vertebrate or invertebrate, that are native to Florida and are classified as Endangered and Threatened under Commission rule by virtue of designation by the United States Departments of Interior or Commerce as endangered or threatened under the Federal Endangered Species Act, 16 U.S.C. § 1531 et seq. and rules thereto; the definition of Federally-designated Endangered and Threatened Species does not include species that are not within the Commission's constitutional authority.

(3) State-designated Threatened Species – As designated by the Commission, species of fish or wild animal life, subspecies, or isolated population of a species or subspecies, whether vertebrate or invertebrate, that are native to Florida and are classified as Threatened as determined by paragraph (a), (b), (c), (d), or (e) below in accordance with Rule 68A-27.0012, F.A.C. The designation of a species as threatened shall include all subspecies unless stated otherwise in Commission rule.

(a) Reduction in population size based on any of the following:

1. An observed, estimated, inferred or suspected population size reduction of at least 50% over the last 10 years or three generations, whichever is the longer, where the causes of the reduction are: clearly reversible and understood and ceased, based on (and specifying) any of the following:

a. Direct observation,

b. An index of abundance appropriate to the taxon,

c. A decline in area of occupancy, extent of occurrence and/or quality of habitat,

d. Actual or potential levels of exploitation,

e. The effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.

2. An observed, estimated, inferred or suspected population size reduction of at least 30% over the last 10 years or three generations, whichever is the longer, where the reduction or its causes may not have ceased or may not be understood or may not be reversible, based on (and specifying) any of sub-subparagraphs (a)1.a. to (a)1.e. above.

3. A population size reduction of at least 30%, projected or suspected to be met within the next 10 years or three generations, whichever is the longer (up to a maximum of 100 years), based on (and specifying) any of sub-subparagraphs (a)1.b. to (a)1.e. above.

4. An observed, estimated, inferred, projected or suspected population size reduction of at least 30% over any 10 year or three generation period, whichever is longer (up to a maximum of 100 years in the future), where the time period must include both the past and the future, and where the reduction or its causes may not have ceased or may not be understood or may not be reversible, based on (and specifying) any of sub-subparagraphs (a)1.a. to (a)1.e above.

(b) Geographic range in the form of either subparagraph (b)1. extent of occurrence or subparagraph (b)2. area of occupancy or both:

1. Extent of occurrence estimated to be less than 20,000 square kilometers (7,722 square miles), and estimates indicating at least two of sub-subparagraphs a.-c.:

a. Severely fragmented or known to exist at no more than 10 locations.

b. Continuing decline, observed, inferred or projected, in any of the following:

(i) Extent of occurrence,

(ii) Area of occupancy,

(iii) Area, extent and/or quality of habitat,

(iv) Number of locations or subpopulations,

(v) Number of mature individuals.

c. Extreme fluctuations in any of the following:

(i) Extent of occurrence,

(ii) Area of occupancy,

(iii) Number of locations or subpopulations,

(iv) Number of mature individuals.

2. Area of occupancy estimated to be less than 2,000 square kilometers (772 square miles), and estimates indicating at least two of sub-subparagraphs a.-c.:

a. Severely fragmented or known to exist at no more than 10 locations.

b. Continuing decline, observed, inferred or projected, in any of the following:

(i) Extent of occurrence,

(ii) Area of occupancy,

(iii) Area, extent and/or quality of habitat,

(iv) Number of locations or subpopulations,

(v) Number of mature individuals.

c. Extreme fluctuations in any of the following:

(i) Extent of occurrence,

(ii) Area of occupancy,

(iii) Number of locations or subpopulations,

(iv) Number of mature individuals.

(c) Population size estimated to number fewer than 10,000 mature individuals and either:

1. An estimated continuing decline of at least 10% within 10 years or three generations, whichever is longer, (up to a maximum of 100 years in the future); or

2. A continuing decline, observed, projected, or inferred, in numbers of mature individuals and at least one of the following (sub-subparagraphs a.-b.):

a. Population structure in the form of one of the following:

(i) No subpopulation estimated to contain more than 1000 mature individuals; or

(ii) All mature individuals are in one subpopulation.

b. Extreme fluctuations in number of mature individuals.

(d) Population very small or restricted in the form of either of the following:

1. Population size estimated to number fewer than 1000 mature individuals.

2. Population with a very restricted area of occupancy (typically less than 20 square kilometers [8 square miles]) or number of locations (typically five or fewer) such that it is prone to the effects of human activities or stochastic events within a very short time period in an uncertain future, and is thus capable of becoming endangered or threatened or even extinct in a very short time period.

(e) Quantitative analysis showing the probability of extinction in the wild is at least 10% within 100 years.

(4) Take – to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. The term "harm" in the definition of take means an act which actually kills or injures fish or wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. The term "harass" in the definition of take means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering.

(5) Incidental take – any taking otherwise prohibited, if such taking is incidental to, and not the purpose of the carrying out of an otherwise lawful activity.

(6) Management plan – a document approved by the Commission with the purpose of providing guidance for the management of the species. The intent of management plans is to provide guidance to conserve species so that their status improves and the species can be removed from the Florida Endangered and Threatened Species list as

well as to provide guidance to conserve the species so that they will not again need to be listed. It may be a comprehensive, single-species management plan; a multi-species plan; a document referencing applicable rules; or a document referencing a federal recovery plan that will be used for guidance in the management of the species. The management plan shall address biological status; identify measurable conservation objectives, including a time frame; identify any exempt activities if appropriate; identify conservation actions; identify incentives if appropriate; recommend rules for species if warranted; identify permitting standards for incidental and intentional take to be established in rule; consider and evaluate anticipated economic, ecological, and social impacts of implementing or not implementing the management plan including a projection of costs of implementing the management plan and identification of the funding sources for the costs as determined through involvement of affected stakeholders and public input; and include a revision schedule.

(7) Native – a species, subspecies or isolated populations of species or subspecies that occur naturally in Florida or that has been reintroduced into its historic range, rather than occurring in Florida as a result of accidental or deliberate introduction by humans.

(8) Candidate species – A species of fish or wild animal life, subspecies, or isolated populations of species or subspecies, whether invertebrate or vertebrate, that the Commission has determined warrants listing as a State-designated Threatened Species in accordance with Rule 68A-27.0012, F.A.C., and is awaiting final Commission action to be added to the list of Florida Endangered and Threatened Species in Rule 68A-27.003, F.A.C.

(9) Isolated population – A significant and discrete population of a species or subspecies of fish or wild animal life that is reproductively separated from other populations of the same species or subspecies as a consequence of physical, ecological, or other factors.

(10) Data deficient – the condition where a species was evaluated and found to have insufficient scientific and commercial data to recommend a listing status for the species.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History–New 11-8-10, Amended 11-14-11.

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