



CUMBERLAND ISLAND

National Seashore



Former Reserved Properties Management Plan and
Environmental Assessment

**U.S. Department of the Interior
National Park Service**

FINAL

Former Reserved Properties Management Plan and Environmental Assessment

**Cumberland Island National Seashore
Camden County, Georgia**

July 2012

Summary

The National Park Service (NPS) has developed a management plan for certain properties at Cumberland Island National Seashore (CUIS) that come into full NPS ownership following the expiration of reserved property agreements in 2010 and 2011. This plan (the Former Reserved Properties Management Plan or “FRPMP”) describes, in particular, how NPS will manage the various structures located on these reserved properties. It also develops a process to be used in determining the use of land and structures on reserved properties that expire at a later date.

The environmental assessment (EA) associated with the FRPMP analyzes potential impacts to the human environment resulting from two alternative courses of action. These alternatives are: Alternative A (no action) and Alternative B (allow a mixture of removal and adaptive re-use of structures). Under Alternative A, the NPS would minimally maintain all non-historic structures and preserve three historic structures (i.e., The Grange, Beach Creek Dock House, and Stafford Beach House) in accordance with the Secretary of Interior’s Standards for the Treatment of Historic Properties. Under Alternative B, NPS would take the following actions: (a) remove all non-historic structures on the properties known as Nancy’s Fancy, Toonahowie, and the Schwartz-Jenkins property; (b) reuse the non-historic Goodsell and Phillips properties as employee/volunteer/ researcher housing; (c) reuse the historic Grange and Beach Creek Dock House for visitor services, education, and/or recreation; and (d) reuse the historic Stafford Beach House for employee/volunteer/researcher housing. Alternative B would preserve and protect historic structures at The Grange, Beach Creek Dock House, and Stafford Beach House as required by applicable law and policy.

Alternative B is the environmentally preferred alternative. The impacts from Alternative B range from “negligible” to “moderate.” Alternative B will not impair park resources or values.

Procedural History

The FRPMP and EA was released for public review in July 2011. The availability of the document was announced through local and regional news media, targeted mailings to stakeholders and through the NPS Planning, Environment, and Public Comment (PEPC) website

at <http://parkplanning.nps.gov/cuis>. A public meeting was held on July 27, 2011, in St. Marys, Georgia. During the meeting, NPS representatives presented an overview of the plan and attendees were able to submit oral and written comments. A total of 32 people attended the meeting. Two comment cards were generated from the meetings, and ten persons provided testimony to a court reporter.

The NPS received 2,225 comments during the EA comment period, including the comments received at the public meeting. (Note: this figure is approximate, as some individuals commented multiple times and it is unlikely that every instance of this was detected.) Comments were received for and against Alternative B (NPS' preferred alternative). The vast majority of comments dealt with the proposed treatment of The Grange as set forth in the preferred alternative, with most commenters favoring Alternative B's use of The Grange for visitor services, education, and/or recreation purposes. Most of those expressing opposition to Alternative B favored preservation of The Grange through a historic lease with a private entity.

The majority of comments were from individual citizens, but comments were also submitted by the National Trust for Historic Preservation, Partners in Preservation, Inc., the Georgia Trust for Historic Preservation, the Georgia Conservancy, the Georgia Chapter of the Sierra Club, and Friends of Georgia.

This final version of the FRPMP incorporates changes made in response to public comment.

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1.0 PURPOSE AND NEED FOR ACTION

1.1 Introduction

Cumberland Island National Seashore (CUIS or the Seashore) was established by Congress as a unit of the National Park System in the Act of October 23, 1972 (Public Law (PL) 92-536, codified at 16 U.S.C. 459i *et seq.* (the Act)). The purpose of the park, as stated in Section 1 of the Act, is “to provide for public outdoor recreation use and enjoyment of certain significant shoreline lands and waters of the United States and to preserve related scenic, scientific, and historical values.” Section 6 of the Act sets forth additional preservation mandates by stating that “the seashore shall be administered, protected and developed in accordance with the provisions of the Act of August 25, 1916 (39 Stat. 535; 16 U.S.C. 1, 2-4)” which established the National Park Service (NPS). On September 8, 1982, much of the northern half of Cumberland Island was designated as wilderness or potential wilderness to be managed as part of the National Wilderness Preservation System (PL 97-250, as amended by PL 108-447, 16 U.S.C. 1131 *et seq.*).

At present, the federal government owns most of the upland areas within the Seashore boundary. Some areas within the Seashore remain in full private ownership, while additional areas constitute what are often referred to as “reserved estates” (in this document they will be referred to as “reserved properties”). These reserved properties are in use by third parties but will convert to full government possession after a specified period. The enabling legislation for the Seashore includes a provision that permitted the owners of improved property to reserve for themselves and their successors or assigns a limited right of use and occupancy after the Federal Government or its agents acquired these properties, as follows:

[A]ny owner or owners of improved property on the date of its acquisition by the Secretary may, as a condition of such acquisition, retain for themselves and their successors or assigns a right of use and occupancy of the property for noncommercial residential purposes, for twenty-five years, or, in lieu thereof, for a term ending at the death of the owner or his spouse, whichever is later.

This provision was exercised by entering into one of two types of Reserved Property Agreements (RPAs): (1) a term for a specified number of years, or (2) a life estate that ended at the death of the owner. (Note: Certain landowners concluded RPAs with the National Park Foundation before establishment of the Seashore. These RPAs had varying terms, including terms of 36 and 40 years.) Upon fulfillment of the terms specified in each RPA, the rights of use and occupancy granted to the former owners, successors, or assigns would terminate and full use of the property would revert to the NPS. Twenty RPAs were created during the land acquisition process for the Seashore. The terms of use and occupancy were negotiated individually in each RPA and thus each agreement varies within the established framework. The result is that RPAs will expire at various points during in the life of Seashore.

In recent years, one RPA concluded in January 2000 and three others expired in late 2010. A fifth RPA expired in May 2011. Assets associated with these five expired agreements are located throughout the Seashore. In total, the list of assets associated with these five expired agreements

includes seven properties or tracts, comprising approximately 50 acres of land; seven residential homes; and a number of smaller structures.

In recognition of the importance of these expiring RPAs, NPS decided to develop the present management plan for these properties. This plan will be referred to hereafter as the Former Reserved Properties Management Plan (“FRPMP” or “plan”).

As noted above, the five RPAs addressed in this FRPMP comprise seven properties or tracts of land, with associated structures. The location of these tracts is indicated in Figure 1 below.

Descriptions of the individual tracts are provided below and in Figures 2 through 7:

The Grange (expired 12-15-10) – 4.94 acres. The Grange and its surrounding property are contributing features of the Dungeness Historic District, which is listed in the National Register of Historic Places (NRHP). The property is located in the heart of the historic district (see Figure 2) and, until its RPA expired, had been the only private inholding within the district. The Grange building itself contains 7,000 SF of finished interior space plus additional attic and basement areas. The Grange has been rehabilitated several times over the years and is in good condition. A small dock provides intermittent boat access depending on tide conditions. The Grange and Beach Creek Dock House are listed on the NPS List of Classified Structures. (The List of Classified Structures is an evaluated inventory of all historic and prehistoric structures that have historical, architectural and/or engineering significance within the parks of the National Park System, and in which the National Park Service has, or plans to acquire, any legally enforceable interest.) Non-historic structures on the tract include a 2-bay, wood-frame garage.

Nancy's Fancy (expired 12-15-10) – 9.9 acres. Located between Stafford and Little Greyfield (see Figure 3). This isolated tract is the only developed site in its general environs. It is just inside the tree-line at the interface with the ocean-side dune field and lies approximately 250 yards from the beach. The wood-frame house is elevated on wood pilings, with the lower level partially enclosed.

Phillips Tract (expired 9-29-10) – .38 acres. Located north of Greyfield (see Figure 4) in the Davisville area on the southern part of the island. The smaller of two tracts under an RPA with the Cumberland Island Holding Company. Assets include a small, modern bungalow house of wood-frame construction. The tract is located near existing NPS housing.

Goodsell Tract (expired 9-29-10) – 6.55 acres. Located north of Greyfield (see Figure 4) in the Davisville area on the southern part of the island. The larger of the two tracts under an RPA with the Cumberland Island Holding Company. Assets include a modest-sized, modern, ranch style house of wood-frame construction. There is an adjacent shed also of wood-frame construction. The tract is located near existing NPS housing.

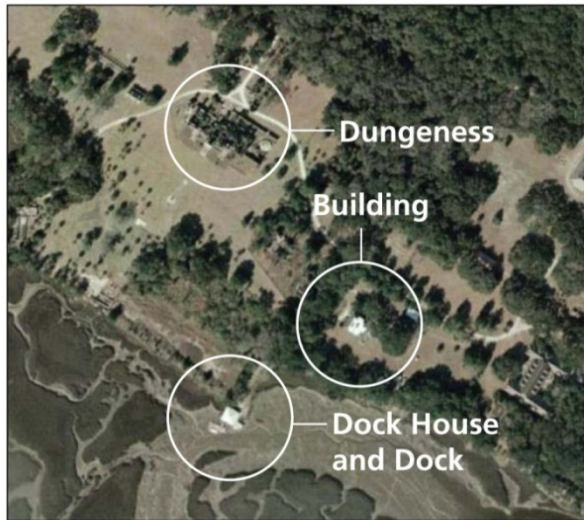
Schwartz-Jenkins Tract (expired 10-8-10) – 7.5 acres. Located between Stafford and Little Greyfield on the west side of the island (see figure 5), the tract is approximately 1/3-mile from the NPS dock on Old House Creek and has frontage on Old House Creek marsh. Assets include a modern, ranch style house of wood-frame construction; a modern efficiency-type residence designed for the mobility impaired; a small modern, guest cabin; and a pole shed.

Stafford Beach House (expired 1-02-00) – 1 acre. This tract is located on the western edge of the dune field at the interface with the maritime oak forest, approximately 250 yards from the ocean beach (see Figure 6). It is east of the Stafford Historic District, outside of the district boundary, but potentially eligible for nomination to the National Register of Historic Places and List of Classified Structures. Assets include a small, two-wing beach bungalow centered on a large, wooden deck and a detached, small, modern addition.

Toonahowie (expired 5-27-11) – 20 acres. Located on the west side of Table Point within an area that is designated wilderness (see Figure 7). It is the only developed site in its general environs. Structures include a modern, ranch-style house of wood-frame construction built on brick piers, with lap siding and an attached carport and shed built on a concrete slab. The property has a dock and deep-water access on Mumford Creek.

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The Grange



Property Highlights

Tract size: 4.94 Acres.

Agreement Status: Expired.

Location: Dungeness Historic District near Dungeness ruins.

Water Access: Fronts on Beach Creek and marsh. A small dock provides limited access depending on tide conditions.

Primary Structures: A 2-story residential structure. Approximately 7000 SF of interior space. Includes finished attic and unfinished basement. In good condition.

Secondary Structures: Dock House is wood frame on brick and tabby piers. In fair condition.

National Register Status: Residence and Dock House on NRHP and LCS.

Figure 2: The Grange

Nancy's Fancy



Property Highlights

Tract size: 9.9 Acres.

Agreement Status: Expired.

Location: Between Stafford and Little Greyfield. Approximately 250 yards from the beach just inside of the Maritime forest. Near the ocean-side dune line.

Water Access: None.

Primary Structure: Elevated modern wood-frame beach house constructed on wood piers. First level is partially enclosed. In fair condition.

Secondary Structures: None.

National Register Status: Determined not eligible.

Figure 3: Nancy's Fancy

Goodsell and Phillips Tracts



Property Highlights

Tract size: 7 acres combined.

Agreement Status: Expired.

Location: North of Greyfield and west of Main Road. Goodsell tract has frontage on the marsh at Old House Creek.

Water Access: No significant water access.

Primary Structures: Modern ranch-style and bungalow homes of wood frame construction. Goodsell house in fair condition; Phillips house in good condition.

Secondary Structures: Goodsell tract includes a wood-framed shed structure.

National Register Status: Determined not eligible.

Figure 4: Goodsell and Phillips Tracts

Schwartz-Jenkins Tract



Property Highlights

Tract size: 7.5 Acres.

Location: Approximately 1/3 mile from the NPS dock on Old House Creek.

Agreement Status: Expired.

Water Access: Good access on Old House Creek.

Primary Structure: Modest-size modern ranch-style wood frame house. In poor condition.

Secondary Structures: Addition to primary structure, small guest cabin, and storage shed. In poor to fair condition.

National Register Status: Determined not eligible.

Figure 5: Schwartz-Jenkins Tract

Stafford Beach House



Property Highlights

Tract size: 1 Acre.

Agreement Status: Expired.

Location: Located on the western edge of the dune field at the interface with the maritime oak forest. Approximately 250 yards from the ocean beach.

Water Access: No water access.

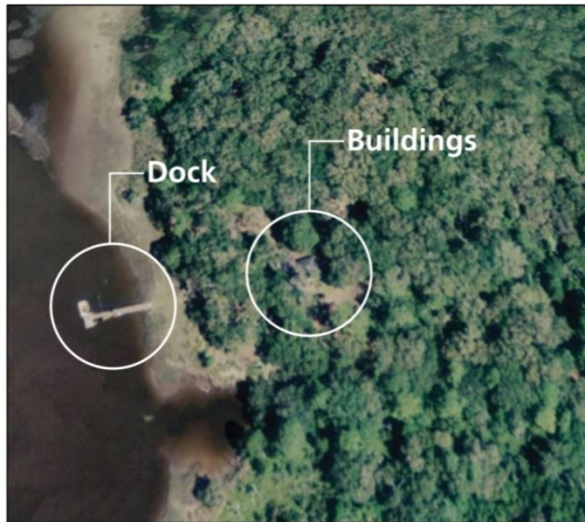
Primary Structures: Two adjoining lap-sided wood structures; multi-level wood deck. In fair condition.

Secondary Structures: Detached modern addition. In poor condition.

National Register Status: East of the Stafford Historic District and outside of the district boundary. Potentially eligible for NRHP and LCS.

Figure 6: Stafford Beach House

Toonahowie



Property Highlights

Tract size: 20 Acres.

Agreement Status: Expired.

Location: West side of Table Point with frontage on Mumford Creek. Within boundary of Designated Wilderness Area.

Water Access: Deep-water access on Mumford Creek. Wood pier and floating dock in poor condition.

Primary Structures: Modern ranch-style home of wood frame construction on brick piers. In fair condition.

Secondary Structures: Attached carport and shed on concrete slab; dock. In fair condition.

National Register Status: Determined not eligible.

Figure 7: Toonahowie

1.2 Purpose of the Plan

The primary purpose of the plan is to determine the most beneficial and appropriate use of the land and structures associated with the five expired RPAs. A secondary purpose of the plan is to create a decision making process that can be used to analyze assets associated with reserved agreements that expire in the future.

1.3 Need for the Plan

The plan is needed to determine the management approaches that NPS will take with respect to the land and structures coming into full NPS ownership after the RPAs expire. Each of the seven tracts coming into NPS ownership has been under private control for decades, with little direct NPS involvement. NPS needs to identify the most beneficial and appropriate use of these tracts and the structures located thereon.

1.4 Project Location

The former reserved properties are located at various points within the Seashore, as illustrated in Figure 1.

1.5 Required Management of the National Seashore

This plan has been developed in a manner consistent with applicable laws, regulations, and other legal mandates governing management of Cumberland Island National Seashore. A review of these mandates and related commitments is provided in this section.

1.5.1 Legislative Mandates. Legislative mandates and special commitments include those measures that apply to the entire National Park System, plus Seashore-specific requirements. The intent of all the mandates and commitments is to establish sustainable conservation and to avoid unacceptable impact to the Seashore and its natural and cultural resources.

The National Park Service was established and its general obligations set forth in its Organic Act (16 U.S.C. 1, 2-4) and the General Authorities Act (16 U.S.C. 1a-8). These acts direct the agency to conserve the scenery, the natural and historic objects, and the wildlife, and to provide for the enjoyment of those resources in such a manner as to leave them unimpaired for future generations. In furtherance of these acts, the NPS works to protect all resources in its care, without privileging one set of resources over another except as required by specific law or policy. The enabling legislation for Cumberland Island National Seashore (16 U.S.C. 459i *et seq.*) obligates the National Park Service to manage the area in a manner consistent with the Organic Act. The Act specifically provides that, apart from areas especially adaptable to recreational uses, the “seashore shall be permanently preserved in its primitive state, and no development of the project or plan for the convenience of visitors shall be undertaken which would be incompatible with the preservation of the unique flora and fauna or the physiographic conditions now prevailing.” Congress further protected the northern part of the island in 1982 by

establishing the Cumberland Island Wilderness (see P.L. 97-250). This area is to be managed in accordance with the Wilderness Act of 1964, 16 U.S.C. 1131-1136.

NEPA: The National Environmental Policy Act (NEPA)(42 U.S.C. 4321 *et seq.*) is the Nation's basic charter for environmental protection. Among other actions, it calls for an examination of the impacts of a proposed major federal action on the components of affected ecosystems. Various Seashore and NPS policies provide general direction for the protection of natural and cultural resources, including the Seashore's *General Management Plan* (1984), its *Resource Management Plan* (1994), *NPS Management Policies* (2006), Director's Order # 12 (Conservation Planning, Environmental Impact Analysis, and Decision Making), NPS-28 (*Cultural Resource Management Guideline*), and NPS-77 (*Natural Resources Management*).

As part of this planning and environmental analysis effort, appropriate federal, state, and local agencies will be contacted for input and review consistent with legislative and executive requirements.

Special Status Species: Section 7 of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) requires all federal agencies to consult with the U.S. Fish and Wildlife Service to ensure that any act authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitats. Consultation with the U.S. Fish and Wildlife Service is required if any impacts to threatened and endangered species are anticipated.

Cultural Resources: The National Historic Preservation Act, as amended (NHPA) (16 U.S.C. 470 *et seq.*) sets forth the policy of Congress for preserving "the historical and cultural foundations of the Nation" and preserving irreplaceable examples important to our national heritage to maintain "cultural, educational, aesthetic, inspirational, economic, and energy benefits." The NHPA also established the National Register of Historic Places, composed of "districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture." Section 106 of the NHPA requires that federal agencies take into account the effects of their actions on properties eligible for or included in the National Register of Historic Places, and permit the Advisory Council on Historic Preservation an opportunity to review such actions. Federal agencies consult as appropriate with state historic preservation officers, tribal historic preservation officers or representatives, and other interested parties in fulfilling section 106 requirements. Section 110 of the NHPA requires federal agencies, in consultation with the state historic preservation officer, to locate, nominate, and inventory all properties that appear to qualify for the National Register of Historic Places. It also requires federal agencies to manage and maintain historic properties under their jurisdiction in a manner that considers the preservation of historic, archeological, architectural, and cultural values. Section 111 of the NHPA authorizes federal agencies to lease to any person or organization historic structures that are not needed for current or projected agency purposes. The agency must determine that any such lease will adequately insure the preservation of the historic property. NPS Director's Order # 38 (Real Property Leasing) sets forth guidance for the leasing of historic structures in the National Park System.

1.5.2 Contractual Mandates: RPAs. Under the Seashore's enabling legislation, the National Park Service is required to honor valid, pre-existing legal rights of island residents (see RPAs

discussion above). The rights of the current private residents can be traced back to the period between 1865 and 1890, when three significant occupancies took place: (1) the creation of “the Settlement at Half Moon Bluff” at the north end, consisting of former slaves (or their descendants) from plantations on the island; (2) the establishment of the Cumberland Island Hotel (also called “High Point”), also on the north end, which later was sold to the Candler family; and (3) the acquisition through the late 19th-century by Thomas Carnegie of most of the island (south of the other two areas) and the construction thereon of several large estates. Almost all of the present private interests derive from one of these three settlements.

1.5.3 Administrative Mandates: NPS Management Policies. NPS management policies prescribe the manner in which the National Park Service will strive to meet its obligations under the Organic Act and the General Authorities Act, including the requirement that resources in its care be maintained unimpaired for future generations. The mandate to conserve park resources and values applies equally to all such resources and values, including natural, cultural, and other resources. (*Management Policies* section 1.4.3). The policies recognize, however, that not all impacts to resources constitute impairment. The policies specifically state that “[t]he laws ... give the Service management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values” (*Management Policies* section 1.4.3). Impairment is defined as an impact that would harm the integrity of park resources or values, or opportunities for enjoyment of these resources or values, in the professional judgment of the responsible NPS manager.

1.6 Relationship of the Proposed Action to Previous Planning Efforts

Management of reserved properties at the Seashore is addressed by the Cumberland Island National Seashore General Management Plan (1984), as well as the Seashore’s Statement for Management (1990), Resource Management Plan (1994), and the Seashore’s current Strategic Plan.

1.7 Objectives in Taking Action

NEPA requires that any decision made with respect to the proposed action be based on analysis of a reasonable range of alternatives that are likely to meet project objectives. Objectives, in turn, are “what must be achieved to a large degree for the action to be considered a success” (NPS Director’s Order #12). All alternatives selected for detailed analysis must meet these objectives to a large degree, as well as fulfill the project purpose and need for action. Objectives for the proposed action must be grounded in the park’s enabling legislation, as well as its purpose, significance, and mission goals. The objectives must also be compatible with direction and guidance provided by the park’s GMP.

The objective in taking this action is to establish preferred uses for each reserved property that: (a) protect natural, cultural, and wilderness resources, (b) enhance the visitor experience, and (c) improve the overall operational efficiency of the Seashore.

The following specific objectives related to management of the former reserved properties were developed with park staff during internal scoping:

General

- Make available to the public those parts of the reserved properties that have significant natural, historic, or scenic value.
- Utilize available structures in such a way as to improve operation, management, and administration of the Seashore.

Natural Resources

- Protect natural resources including soil, water, vegetation, and wildlife resources from impacts associated with proposed future uses for each of the former reserved properties.

Cultural Resources

- Protect cultural resources, including historic features and possible archeological sites.
- Protect the context of existing features that are on or are eligible for listing on the National Register of Historic Places.

Wilderness

- Enhance wilderness character of former reserved properties located in wilderness.

1.8 Issues and Impact Topics

Park and regional staff began internal scoping in early 2009 to identify issues and concerns arising out of the proposed action, following up with dedicated workshops in August and October 2009. Based on the results of internal scoping, the major issues raised by the proposed action are as follows:

1.8.1 Issues

Issue 1. *Impacts to Natural Resources.*

The proposed actions may have environmental impacts on soils, vegetation, wildlife, and other natural resources at the Seashore.

Issue 2. *Impacts to Cultural Resources.*

The proposed actions may have impacts to archeological, historic, and other cultural resources at the Seashore.

Issue 3. *Impacts to Wilderness*

The proposed actions may have impacts on the wilderness character of the Seashore's designated wilderness.

Issue 4. *Impacts to Park Operations.*

The proposed actions may have impacts to a number of the Seashore's operations, including management, budget, maintenance, interpretation, resource management, and law enforcement. There are also long-term management implications for the park as additional reserved property agreements expire in the future. The RPAs addressed in this FRPMP are among the first of those agreements to expire.

1.8.2 *Identifying Resources and Concerns*

Based in part on the issues raised during internal scoping, the interdisciplinary team identified a number of resources and values that potentially could be affected by implementation of the proposed action. These resources and values generated "impact topics" for further analysis, selected from the universe of impact topics set forth in Table 1.1. Candidate impact topics were identified based on legislative requirements, executive orders, topics specified in *Director's Order #12 and Handbook* (NPS 2001), *Management Policies 2006* (NPS 2006c), guidance from the National Park Service, input from other agencies, public concerns, and resource information specific to Cumberland Island National Seashore.

TABLE 1.1
IMPACT TOPICS AND APPLICABLE LEGAL AND POLICY REQUIREMENTS

Impact Topic	Relevant Regulations or Policies
Climate Change	National Park Service Management Policy 1.6 (2006)
Air Quality	Federal Clean Air Act (CAA); CAA Amendments of 1990 (CAAA); National Park Service Management Policy, 4.7.1 (2006)
Aquatic Resources	National Park Service Management Policy 4.6 (2006); Federal Water Pollution Control Act [The Clean Water Act of 1972 (as amended in 1977)]; Magnuson-Stevens Fishery Conservation and Management Act; Coastal Zone Management Act of 1972
Hydrology and Water Quality	Executive Order 12088 (Federal Compliance with Pollution Control Standards); Executive Order 11990 (Protection of Wetlands); National Park Service Management Policy 4.6.3 (2006); Federal Water Pollution Control Act [The Clean Water Act of 1972 (as amended in 1977)]
Floodplains and Wetlands	Executive Order 11990 (Protection of Wetlands); Clean Water Act Section 404; National Park Service Director's Order #77-1; Executive Order 11988 (Floodplain Management); Federal Coastal Zone Management Act; National Park Service Management Policies 4.6.4, 4.6.5, and 9.1.1.6 (2006)
Geology	National Park Service Management Policy 4.8 (2006)

Soils	National Park Service Management Policy 4.8.2.4 (2006)
Vegetation	National Park Service Management Policy 4.4.2 (2006) ; Executive Order 13112 (Invasive Species)
Fish and Wildlife	National Park Service Management Policy 4.4.2 (2006); Executive Order 13186 (Migratory Birds)
Species of Special Concern and their Habitats	Endangered Species Act of 1973; National Park Service Management Policy 4.4.2.3 (2006); 40 Code of Federal Regulations 1500 (regulations for implementing the National Environmental Policy Act)
Ecologically Critical Areas or other Unique Natural Resources	36 Code of Federal Regulations 62 (criteria for national natural landmarks); National Park Service Management Policies (2006)
Natural Soundscape/Noise	National Park Service Management Policy 4.9 (2006)
Natural Lightscape (night sky)	National Park Service Management Policy 4.10 (2006)
Cultural Resources (i.e., important scientific, archeological, and other cultural resources, including historic properties listed or eligible for the National Register of Historic Places)	Section 106 of the National Historic Preservation Act (16 U.S.C. 470 et seq.); Section 110 of the National Historic Preservation Act; Section 111 of the National Historic Preservation Act (16 U.S.C. 470 et seq.); 36 Code of Federal Regulations 800; Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68); National Environmental Policy Act (42 U.S.C. 4321 et seq.); Executive Order 13007 (Indian Sacred Sites); National Park Service Director's Orders 24, 28, and 38; National Park Service Management Policy 5.3.5 (2006); Native American Graves Protection and Repatriation Act (NAGPRA); Archeological Resources Protection Act (ARPA); National Parks Act of August 25, 1916 ("Organic Act"); Antiquities Act of 1906; 40 CFR 1500 (regulations for implementing National Environmental Policy Act), section 1508.27
Sacred Sites	Executive Order 13007 (Indian Sacred Sites); National Park Service Management Policy 5.3.5.3.2 (2006)
Indian Trust Resources	Department of the Interior Secretarial Order No. 3206; Secretarial Order No. 3175
Visitor Use and Experience	National Parks Act of August 25, 1916 ("Organic Act"); National Park Service Management Policy 8.2 (2006)
Public Health and Safety	National Park Service Management Policy 8.2.5 (2006); U.S. Coast Guard Boating Safety Regulations
Park Operations	National Park Service Management Policy 9.1 (2006)

Concessionaires and Contracts	National Park Service Management Policy 10.2 (2006)
Economics and Socioeconomics	40 Code of Federal Regulations 1500 (regulations for implementing National Environmental Policy Act)
Transportation (local and regional)	National Park Service Management Policy 9.2 (2006)
Socially or Economically Disadvantaged Populations	Executive Order 12898 (Environmental Justice)
Accessibility for Individuals with Disabilities	National Park Service Management Policy 9.1.2 (2006); Architectural Barrier Act of 1968 (42 U.S.C. 4151 et seq.); Rehabilitation Act of 1973 (29 U.S.C. 701 et seq.); Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Stat. 327); Uniform Federal Accessibility Standards
Mineral and Agricultural Resources	National Park Service Management Policy 8.7 and 8.6.7 (2006)
Prime and Unique Agricultural Lands	Council on Environmental Quality 1980 memorandum on prime and unique farmlands; 40 Code of Federal Regulations 1500 (regulations for implementing National Environmental Policy Act), section 1508.27
Energy Requirements and Conservation Potential; Natural or Depletable Resource Requirements and Conservation Potential	National Park Service Management Policy 9.1.7 (2006) ; 40 CFR 1500 (regulations for implementing National Environmental Policy Act), section 1502.16
Urban Quality, Historic and Cultural Resources, and Design of the Built Environment	40 Code of Federal Regulations 1502.16 (regulations for implementing the National Environmental Policy Act); National Park Service Director's Order #12
Community Character	National Park Service Management Policy 8.11 (2006)
Possible Conflicts between the Proposal and Land Use Plans, Policies, or Controls for the Area Concerned (including local, state, or Indian tribe) and the Extent to which the Park Would Reconcile the Conflict	40 Code of Federal Regulations 1500 (regulations for implementing National Environmental Policy Act), sections 1502.16, 1506.2(d))

All of the impact topics listed above were presented and discussed by the planning team during the scoping process. At the end of this process, the planning team selected a subset of these topics for detailed analysis in the EA, as discussed in more detail below.

1.8.3 Impact Topics Analyzed in this Environmental Assessment

Regulations issued by the Council on Environmental Quality require the NPS to “identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review, narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere” (40 CFR 1501.7(a)(3)).

Of the impact topics initially considered, the following were determined to warrant further study, and are carried through the EA for detailed analysis:

Archeological Resources. Humans have inhabited Cumberland Island for thousands of years, and numerous archeological sites are present within Seashore boundaries. Two archeological districts (Rayfield and Table Point) have been established at the Seashore in accordance with the Seashore’s Cultural Resource Management Plan. Both of these districts are included in the National Register of Historic Places.

Management actions under consideration would involve ground disturbance in five locations in order to remove existing structures and outbuildings. Each of these areas has been previously disturbed and therefore the likelihood of finding intact archeological resources is low. On the other hand, none of these sites has been surveyed in detail for archeological resources. Therefore, archeological resources will be addressed as an impact topic in this document.

Historic Structures. The National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*); the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*); the National Park Service’s Director’s Order #28, *Cultural Resource Management Guideline* (1997); *Management Policies* (2006); and Director’s Order #12, *Conservation Planning, Environmental Impact Analysis, and Decision making* (2001) require the consideration of impacts on historic structures and buildings listed in or eligible for listing in the National Register of Historic Places.

The Grange and Beach Creek Dock House are contributing features of the Dungeness Historic District, which is listed in the National Register of Historic Places. In addition, the Stafford Beach House is potentially eligible for listing on the NRHP. This plan will directly affect future use and management of those structures, and will establish a process that may apply to other listed structures in the future. Therefore, historic structures/buildings will be addressed as an impact topic in the environmental assessment.

Cultural Landscapes: The National Historic Preservation Act, as amended in 1992 (16 U.S.C. 470 *et seq.*); the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*); the National Park Service’s Director’s Order #28, *Cultural Resource Management Guideline* (1997); *Management Policies* (2006); and Director’s Order #12, *Conservation Planning, Environmental*

Impact Analysis, and Decision Making (2001) require the consideration of impacts on cultural landscapes listed in or eligible for listing in the National Register of Historic Places.

According to the National Park Service's *Cultural Resource Management Guideline* (DO-28), a cultural landscape is

... a reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Thus, cultural landscapes are the result of the long interaction between people and the land, the influence of human beliefs and actions over time upon the natural landscape.

Management actions taken with respect to the former reserved properties could affect the integrity of the cultural landscape. Therefore, cultural landscapes will be addressed as an impact topic in the environmental assessment.

Soils: According to the National Park Service's *Management Policies* (2006), the National Park Service will strive to understand and preserve the soil resources of park units and to prevent, to the extent possible, the unnatural erosion, physical removal, or contamination of the soil or its contamination of other resources.

Management actions taken with respect to the expiring RPAs could result in disturbance to soils on or near associated sites. Therefore, soils will be addressed as an impact topic in the environmental assessment.

Water Quality: National Park Service policies require protection of water quality consistent with the mandates of the Clean Water Act. Management actions under consideration with respect to the former reserved properties could affect surface water and/or groundwater resources. Land disturbance associated with the removal of structures could affect surface waters, while continued use of existing wells and septic systems could affect groundwater. Therefore, water quality has been retained as an impact topic in this environmental assessment.

Vegetation and Wildlife: The National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) calls for an examination of the impacts a proposed action may have on all components of affected ecosystems. National Park Service policy is to maintain all of the components and processes of naturally occurring ecosystems, including the natural abundance, diversity, and ecological integrity of plants and animals (National Park Service *Management Policies* 2006).

Management actions taken with respect to the former reserved properties could result in disturbance to vegetation and wildlife on or adjacent to the sites. Therefore, vegetation and wildlife will be addressed as an impact topic in the environmental assessment.

Wilderness: Congress has designated approximately 9,886 acres of the Seashore as wilderness and identified another 10,550 acres as potential wilderness. There are a total of five reserved properties in the Seashore's designated wilderness, one of which expired in May 2011. Management actions taken with respect to the former reserved properties could affect the wilderness character of the Seashore's wilderness area. Therefore, wilderness will be addressed as an impact topic in the environmental assessment.

Visitor Use and Experience: Visitor Use and Experience is addressed because each of the possible future uses of the former reserved properties could affect visitor use or experience.

Public Health & Safety, including Accessibility: By policy, NPS will strive to identify hazards and prevent injuries from recognizable threats to the health and safety of visitors and employees. See *NPS Management Policies* (2006) Section 8.2.5. The proposed action could affect public health and safety by opening new structures to use by the public and NPS staff, and by removing others. Some structures in good condition may be adapted to new uses (e.g., housing or visitor use), with potential improvements to public health and safety. Other structures that are deteriorating or unoccupied may be removed, in accordance with standard work safety practices. In addition, any new use of structures on the former reserved properties must be accomplished in compliance with the Rehabilitation Act of 1973 and other applicable laws related to access for the disabled. Therefore, public health and safety (including accessibility) will be retained as an impact topic in this document.

Park Operations: The expiration of former reserved properties will expand the Seashore's land base and increase the number of structures for which NPS is responsible. Impacts will be felt by the Seashore's maintenance, interpretation, resource management, and law enforcement divisions, among others. Therefore, park operations will be retained as an impact topic in this document.

1.8.4 Impact Topics Dismissed from Further Analysis

Climate Change: Climate change refers to any significant changes in average climatic conditions (such as mean temperature, precipitation, or wind) or variability (such as seasonality and storm frequency) lasting for an extended period (decades or longer). Recent reports by the U.S. Climate Change Science Program, the National Academy of Sciences, and the United Nations Intergovernmental Panel on Climate Change provide evidence that climate change is occurring as a result of rising greenhouse gas (GHG) emissions and could accelerate in the coming decades. While climate change is a global phenomenon, it manifests differently depending on regional and local factors. General changes that are expected to occur in the future as a result of climate change include hotter, drier summers; warmer winters; warmer water; higher ocean levels; more severe wildfires; degraded air quality, more heavy downpours and flooding, and increased drought. Climate change is a far-reaching, long-term issue that could affect Cumberland Island National Seashore, its resources, visitors, and management. Although some effects of climate change are considered known or likely to occur, many potential impacts are unknown, particularly at the local or site-specific level. Much depends on the rate at which the temperature would continue to rise and whether global emissions of GHGs can be reduced or mitigated. Climate change science is a rapidly advancing field and new information is being

collected and released continually. The actions in this plan would neither contribute materially to, nor be affected by, global climate change. Increased emissions of GHGs, if any, would be negligible, and retained structures would not be affected by rising sea levels for many years, if ever. Therefore, climate change has been dismissed as an impact topic.

Geology and Topography: The National Park Service's *Management Policies* (2006) require the protection of significant geologic and topographic features. Cumberland Island National Seashore is located on the largest barrier island on the coast of Georgia. As a barrier island, Cumberland is inherently dynamic and is characterized by slowly shifting topography caused by wind and tidal action. Management actions taken with respect to the former reserved properties would have no, or negligible, effect on the geology or topography of the island. Therefore, geology and topography have been dismissed as impact topics.

Wetlands and Floodplains: Executive Order 11990, *Protection of Wetlands*, requires federal agencies to avoid, where possible, adversely impacting wetlands. Similarly, Executive Order 11988, *Floodplain Management*, requires all federal agencies to avoid construction within the 100-year floodplain unless no other practicable alternatives exist. Proposed actions that have the potential to have an adverse affect on wetlands and certain construction activities in the 100-year floodplain must be addressed in a Statement of Findings.

The proposed actions, which are confined to upland areas on Cumberland Island, would have no effect on the 100-year floodplain or on any tidal or freshwater wetlands. Therefore, a Statement of Findings for wetlands and floodplains will not be prepared. Because the proposed action would not affect wetlands or floodplains, this impact topic was dismissed from further consideration in this document.

Air Quality: Section 118 of the Clean Air Act, as amended (33 U.S.C. 7401 *et seq.*) requires each park unit to meet all federal, state, and local air pollution standards. Cumberland Island National Seashore is designated as a Class II air quality area under the Clean Air Act. A Class II designation indicates the maximum allowable increase in concentrations of sulfur dioxide and particulate matter over baseline concentrations, as specified in Section 163 of the Clean Air Act. Further, the Act provides that the federal land manager has an affirmative obligation to protect air quality-related values (including visibility, plants, animals, soils, water quality, cultural resources, and visitor health) from adverse pollution impacts.

Management actions taken with respect to the former reserved properties would have no, or negligible, impacts on the air quality of the island. Therefore, air quality has been dismissed as an impact topic.

Special Status Species: The Endangered Species Act requires an examination of impacts on all federally listed threatened or endangered species. National Park Service policy also requires an assessment of the impacts on all federal candidate species, as well as state-listed threatened, endangered, candidate, rare, declining, and sensitive species. The federally listed threatened or endangered species, candidate species, and species of special concern that may be potentially found in Camden County, Georgia, are listed in Appendix A.

Management actions taken with respect to the former reserved properties would not affect any of the listed special status species. Proposed actions relating to the former reserved properties would not occur near any breeding, foraging, or resting grounds for any special status species. These actions would not alter behavior of special status species, and would not alter their habitat. Therefore, the topic of threatened, endangered and candidate species, and species of special concern will not be addressed as an impact topic in the environmental assessment. The NPS' specific finding under Section 7 of the Endangered Species Act is "no effect."

Lightscape Management: In accordance with National Park Service *Management Policies* (2006), the National Park Service strives to preserve natural ambient landscapes that exist in the absence of human-caused light. Management actions taken with respect to the former reserved properties would not change to any material degree the extent of lightscape impacts at the park or the surrounding environment. Impacts would continue to be negligible. Therefore, lightscape management was dismissed as an impact topic.

Soundscape Management: In accordance with National Park Service *Management Policies* (2006) and Director's Order #47, *Sound Preservation and Noise Management*, an important part of the National Park Service mission is preservation of natural soundscapes associated with national park units. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all natural sounds that occur in park units, together with the physical capacity for transmitting natural sounds. Natural sounds occur within and beyond the range of sounds that humans can perceive and can be transmitted through air, water, and solid materials. The frequencies, magnitudes, and duration of human-caused sound considered acceptable varies among National Park Service units, as well as potentially throughout each park unit, being generally greater in developed areas and less in undeveloped areas.

Management actions taken with respect to the former reserved properties would have only temporary impacts to the park's soundscape. Renovation and/or demolition sounds would be temporary, confined to a small part of the island, and negligible in intensity. Therefore, soundscape management was dismissed as an impact topic.

Ethnographic Resources: The National Historic Preservation Act, as amended in 1992 (16 U.S.C. 470 *et seq.*); the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*); the National Park Service's Director's Order #28, *Cultural Resource Management Guideline* (1997); *Management Policies* (2006); and Director's Order #12, *Conservation Planning, Environmental Impact Analysis, and Decision Making* (2001) require the consideration of impacts on ethnographic resources listed in or eligible for listing in the National Register of Historic Places.

Ethnographic resources are defined by the National Park Service as any "site, structure, object, landscape or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (Director's Order #28, *Cultural Resource Management Guideline*: pg. 191). None of the buildings on the former reserved properties have been assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it. Therefore, the subject of ethnographic resources will not be addressed as an impact topic.

Museum Collections: The National Park Service’s *Management Policies* (2006) and Director’s Order #28, *Cultural Resource Guideline* (1997) require the consideration of impacts on museum collections (historic artifacts, natural specimens, and archival manuscript material). Because the proposed actions do not involve museum collections and will have no impacts on any park collections, the subject of museum collections was dismissed as an impact topic.

Socioeconomic Environment: The socioeconomic environment is not addressed because the direct and indirect economic impacts of the proposed actions on the local area would be negligible. Neither the removal nor continued use of structures at the former reserved properties would have a material impact on the local or regional socioeconomic environment.

Prime and Unique Farmland: In August, 1980, the Council on Environmental Quality (CEQ) directed that Federal agencies must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture’s Natural Resource Conservation Service as prime or unique. Prime or unique farmland is defined as soil that particularly produces specialty crops such as fruits, vegetables, and nuts. No qualifying soils exist on Cumberland Island. The proposed action would result in neither the degradation nor irreversible conversion of existing prime farmland to nonagricultural uses. Therefore, the topic of prime and unique farmland was dismissed as an impact topic.

Environmental Justice: According to the Environmental Protection Agency, environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Presidential Executive Order 12898, “General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The proposed actions would not have health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency’s Draft Environmental Justice Guidance (July 1996). Therefore, environmental justice was dismissed as an impact topic.

Note: Title V of the McKinney-Vento Act provides that “suitable” Federal properties categorized as unutilized, underutilized, excess, or surplus are to be made available for use to assist homeless persons. Such properties are to be made available to States, units of local government, and non-profit organizations. However, a property will *not* be considered suitable if it has certain specified defects, including documented health and safety deficiencies and a lack of access by public roads. 24 CFR § 581.6. It is anticipated that none of the structures on the former reserved properties, if declared unutilized, underutilized, excess, or surplus, would qualify as “suitable” under the McKinney-Vento Act.

2.0 ALTERNATIVES

2.1 Introduction

Over the past three years the NPS has conducted internal scoping regarding possible future uses of the structures on former reserved properties. External scoping was also conducted in 2009-10, including public meetings, to solicit public input on the future disposition of the reserved properties. The NPS used that input to develop five management options potentially applicable to each property. These management alternatives are thought to represent the full range of feasible approaches for managing resource conditions and visitor experiences at each tract. The five types of management are described in section 2.2 below.

It should be emphasized that the management alternatives described below are conceptual in nature. Specific design or development decisions related to the implementation of a preferred management option would be examined and determined in subsequent planning and design processes. Specific action plans for each property will need to undergo further NEPA and NHPA review before implementation to assess potential effects.

2.2 Options for Managing Former Reserved Properties

The five potential management alternatives evaluated in this planning study are:

- Reuse for Exclusive Private Residential Purposes
- Reuse for Park Operational Purposes
- Reuse for Visitor Service/Education/Recreation Purposes
- Removal/Disposal
- Reuse as Employee, Volunteer, and/or Cooperator Housing

These management alternatives are described in more detail below:

2.2.1 Reuse for Exclusive Private Residential Purposes

A number of comments from the public and interested parties suggested the possibility of using a lease or some other mechanism to allow the families and associates of the former agreement holders to use historic and non-historic structures on the former reserved properties for private residential purposes. The majority of these comments dealt with The Grange, located in the Dungeness Historic District. Internal and external scoping also recommended evaluating the option of private residential use not only for The Grange, but for all of the former reserved properties.

In evaluating the park's former reserved properties for potential private residential use, the NPS considered a number of factors. These factors would be especially relevant if NPS were to consider allowing private residential use under a lease, partnership agreement or other similar arrangement. Some of the factors considered were:

- Short and long-term maintenance and operational costs for the structure(s);
- Location and setting of the structure in conjunction with park resources and visitor use/experience;
- Potential functions and activities of the property as defined in a lease or similar instrument;
- Type/duration of residential occupancy, i.e. permanent, seasonal, weekly, etc. and the inherent consequences of each type
- The number and diversity of visitors who would be affected by the exclusive, private residential use and the amount of public access afforded to Seashore resources;
- Status of the structure relative to the NRHP;
- Location of the property relative to the Cumberland Island Wilderness;
- Potential effect of private residential occupants and their activities on cultural and natural resources on the island;
- Management and administration of private residential sites and activities of residential occupants; and
- Compatibility of exclusive, private residential use with guiding park legislation and other mandates.

Exclusive, private residential use has the potential to provide definite benefits to the Seashore. As the manager of one of the largest collections of historic and non-historic structures in the United States, the NPS recognizes the ongoing operations and maintenance costs of its facilities and the need to be able to sustain them over time. In appropriate circumstances, the NPS can partially defray the cost and management burden associated with its large inventory of historic and non-historic buildings by entering into leases, partnership agreements, cooperative agreements, or other similar arrangements that allow private residential use. One frequently used tool is a lease as provided for under Part 18 of Title 36 of the Code of Federal Regulations (Center for Park Management 2010). As lessor, the NPS grants limited exclusive use rights to the lessee in exchange for the lessee assuming some of the NPS' risk and liability for maintaining the leased property. Three objectives encourage the leasing of eligible properties. One is to have third parties pay for the maintenance and repair of park area property. Another is to obtain rent revenue for the park area. The third is to encourage uses that support park area management objectives.

In evaluating the potential for a lease it is critical to note that in accordance with federal regulations, a lease may not be issued unless the NPS makes specific determinations regarding protection of the park area. The NPS must determine that:

- The lease will not result in the degradation of the purposes and values of the park area;
- The lease will not deprive the park area of property necessary for appropriate park protection, interpretation, visitor enjoyment, or administration of the park area;
- The lease contains such terms and conditions as will assure the leased property will be used for activity and in a manner that are consistent with the purposes established by law for the park area in which the property is located;
- The lease is compatible with the programs of the NPS;

- The lease is for rent at least equal to the fair market value rent of the leased property as described in 36 CFR § 18.5;
- The proposed activities under the lease are not subject to authorization through a concession contract, commercial use authorization or similar instrument; and
- If the lease is to include historic property, the lease will adequately insure the preservation of the historic property.

See 36 CFR §18.4. In appropriate circumstances, the NPS may enter into a historic lease with a non-profit organization or unit of government without going through a public solicitation process. 36 CFR §18.9. To enter into such a lease, the NPS must determine that the non-profit or governmental use of the property will contribute to the purposes and programs of the park area. All other requirements of 36 CFR Part 18 are applicable to leases with non-profits or governmental units.

It should be noted that a lease may not authorize a commercial activity that is subject to authorization by a concessions contract or commercial use authorization or similar instrument (36 CFR §18.6(b)).

Specific details about the terms of any future historic lease agreement or other similar agreement are beyond the scope of this planning document.

2.2.2 Reuse for Park Operational Purposes

NPS policy provides that when management facilities must be located inside a park, they are to be located away from primary resources and features of the park and sited so as not to adversely affect park resources or values or detract from the visitor experience. Thus, when new structures come into park ownership by operation of law, the NPS has a possible opportunity to move certain management operations away from less than optimal sites and relocate them to new, more appropriate locations.

The addition of structural assets to the Seashore via expired RPAs presents park management with the opportunity to relocate, expand, or otherwise better position NPS operational and administrative work spaces on the island, including offices, workshops, labs, and storage facilities. Locating such activities in developed areas outside of historic and/or high-use visitor areas would be preferred. Facilities with good access and a high capability for communication with the mainland would likewise be preferred.

The NPS strives to operate as efficiently as possible with the funds allotted to it by Congress. Before decisions are made with respect to possible re-use of newly-acquired assets, the NPS typically performs a detailed analysis of the cost of operation, maintenance and repair, recapitalization/replacement, and overall sustainment of facilities proposed or planned for re-use. Cultural resources personnel are involved in the analysis for real property heritage assets. Information obtained by this analysis is used to determine whether it is appropriate or feasible for NPS to re-use an asset based on cost of ownership over time.

A fundamental part of this planning effort has entailed a review of the structures on the former reserved properties to determine whether: (a) their locations would protect park resources and the visitor experience better than other sites presently occupied by the NPS; and (b) they provide a more cost-effective fit for Seashore administrative functions than other structures currently in use.

2.2.3 Reuse for Visitor Service/Education/Recreation Purposes

During scoping for the FRPMP, it was suggested that structures and grounds on the former reserved properties could be adapted or incorporated as facilities for interpretation and education and/or to provide visitor contact and orientation services. In evaluating a property's suitability for interpretation and/or visitor programs, the most important factor is its significance in the island's cultural and/or natural history. Beyond being part of the island's story, the property may also have the potential to support informational and interpretive facilities that the NPS often provides to assist park visitors in appreciating and enjoying parks and understanding their significance. A facility for visitor activities may include an information desk, lecture rooms, classrooms, discovery labs, exhibits, collections and artifacts, audiovisual programs, outdoor/living classrooms, work areas, and other spaces necessary for a high-quality visitor experience.

Newly available properties as well as additional infrastructure present the opportunity for the park to implement and even expand interpretation and visitor programs on the island that were previously not feasible or were otherwise unattainable. These activities could include core interpretive programs, heritage and environmental education, recreation, and other visitor activities. Prescribing specific development details for the reuse of individual properties for visitor activities is beyond the scope of this planning document.

Public commenters also suggested that one or more structures could be used to provide facilities and/or lodging for disabled visitors. (It should be noted that the NPS does not provide overnight lodging facilities for the general public at the Seashore.) Still others suggested using some of the structures for short-term rentals to visitors.

Any use of structures at the Seashore for commercial lodging or temporary visitor rentals would have to comply with the terms of Chapter 10 of NPS *Management Policies 2006* ("Commercial Visitor Services"). These policies, as well as the provisions of governing Federal law, provide that operating commercial accommodations within NPS units may only be authorized using concession contracts, unless otherwise provided by law. 16 U.S.C § 5952. More fundamentally, commercial lodging at the Seashore may only be provided if it is deemed to be consistent with the Seashore's enabling legislation. Section 6(b) of the Seashore's enabling legislation provides that,

Except for certain portions of the seashore deemed to be especially adaptable for recreational uses, particularly swimming, boating, fishing, hiking, horseback riding, and other recreational activities of similar nature, which shall be developed for such uses as needed, the seashore shall be permanently preserved in its primitive state, and no development of the project or plan for the convenience of visitors shall be undertaken

which would be incompatible with the preservation of the unique flora and fauna or the physiographic conditions now prevailing, nor shall any road or causeway connecting Cumberland Island to the mainland be constructed.

For purposes of this planning effort, the possibility of offering commercial overnight accommodations was assessed for each reserved property, primarily due to the interest expressed in this concept during public scoping. Ultimately, however, commercial lodging/temporary rental was not considered a feasible component of the “Visitor Service/Education/Recreation Purposes” management alternative. Use of the former reserved properties for overnight visitor accommodation would likely increase usage of many of these structures, which in the past have typically been vacant for substantial portions of the year. The increased presence and mobility of visitors made possible by access to commercial overnight facilities would likely increase impacts to cultural and natural resources, not only in the vicinity of the property, but elsewhere on the island as well. The visitor experience for the greater visiting public could also be impacted by commercial overnight accommodations, particularly in prime visitor areas or unique settings such as wilderness. In addition, providing access to these structures for a succession of renters has the potential to dramatically increase motorized traffic on the island, thereby increasing noise and dust and adversely affecting flora and fauna. In short, commercial overnight accommodations would not perpetuate or enhance the island’s primitive character, but would undermine the conditions that presently exist.

Regarding facilities for disabled persons, NPS policy provides that all reasonable efforts will be undertaken to make NPS facilities, programs, and services accessible to and usable by all people, including those with disabilities. In choosing among methods for providing accessibility, higher priority will be given to those methods that offer programs and activities in the most integrated setting appropriate. Special, separate, or alternative facilities, programs, or services will be provided only when existing ones cannot reasonably be made accessible. See *NPS Management Policies 2006* § 8.2.4.

Implementation of this management option does not preclude, but rather encourages, engaging in historic leases, partnerships and/or other arrangements to achieve its interpretive, educational, and recreational goals in ways that lower NPS costs and reduce maintenance responsibilities. Historic leasing could be an important tool for pursuing these arrangements in the future. Negotiation of the terms and conditions of any future leases or other agreements is beyond the scope of this planning document.

2.2.4 Removal/Disposal

NPS management policy requires that structures that are no longer functional in their present locations or are determined to be inappropriately placed in important resource areas be removed subject to appropriate compliance. Removal of structures may be indicated where removal would allow the restoration of primitive conditions on the island (per the Seashore’s enabling legislation), where other uses are not necessary or appropriate, or where structural issues make removal the most cost-effective option. The NPS recognizes the need to avoid the future operation and maintenance costs of unnecessary or ineffective facilities, regardless of how the asset is funded.

Park staff and stakeholder scoping comments indicate a deep concern about the potential impacts of non-historic structures in park areas that currently have wilderness character, or areas that could be modified to allow restoration of wilderness character.

In instances where removal was the preferred option, the NPS would exercise an appropriate level of sensitivity to the emotional ties previous reserve-holders and other stakeholders may hold for structures identified for removal. However, prescribing the methods and means of removing specific structures is beyond the scope of this planning document.

2.2.5 Reuse as Employee, Volunteer, and/or Cooperator Housing

Park housing can be provided for persons who are essential to the management and operation of the park. These may include not only NPS employees, but also Volunteers-In-the-Parks, Student Conservation Association interns, researchers, concession employees, technical assistants, essential cooperators (for example, university field programs, schoolteachers, health personnel, contractors, state or county employees), and employees of another federal agency (see NPS Director's Order No. 36).

The Seashore's staff has continued to grow over the years such that available housing units are perhaps more important now than ever before. There is every reason to believe that the staff will continue to increase in order to provide a more positive and safe experience for each of the Seashore's visitors. Therefore, housing will be required to fill the needs of the Seashore. In addition, there is an increasing reliance on volunteers and interns to sustain NPS programs. Due to the remoteness of the island and the lack of viable temporary housing on the mainland, the availability of such accommodations is essential for volunteer individuals and groups working on the island. Researchers, technical assistants, university field programs, and other cooperators also need temporary housing on the island to enable comprehensive and efficient access for their subjects/projects.

Occupancy of park housing by NPS personnel is either permissive or required. Permissive housing is available where it is determined that such occupancy is of benefit to the park. Required occupancy occurs where NPS must provide for timely response to park protection needs, ensure reasonable deterrence to prevent threats to resources, and protect the health and safety of visitors and employees.

There are a total of 12 units currently used for housing at the Seashore. Five of the 12 are for required-occupancy personnel. The remaining seven are occupied for various periods by Volunteers-in-the-Parks, interns, volunteer groups, and other cooperators.

Seven of the 12 housing units are historic. They are: (1) Dairy Manager's House, (2) Staff Quarters, (3) the Dormitory, (4) Black Barracks Apartment, (5) Black Barracks Dormitory (6) Plum Orchard Apartment No. 1, and (7) Plum Orchard Apartment No. 2. Structures 1-5 were built in the late 19th-century and are located in the Dungeness Historic District. The Plum Orchard apartments are located inside the Plum Orchard mansion and were constructed in the early 20th-century. The Dairy Manager's House and the Black Barracks Apartment are currently

used by required-occupancy personnel. Historic structures occupied by NPS personnel are not accessible to the public.

The availability of the former reserved properties as potential housing may allow the NPS to remove some of the existing housing activity from historic districts and in turn remove some of the non-historic structures from the cultural landscape of those districts. Acceptable and appropriate locations for future employee housing would need to be determined based on the need to provide critical law enforcement, resource protection, maintenance, and safety services to the public and thus help meet the NPS mission.

2.3 Evaluation of Management Options for Former Reserved Properties

2.3.1 Methodology

A preferred management alternative for each former reserved property was selected using the Choosing by Advantages (CBA) process and subsequent value analysis. CBA is a decision making process that calculates and compiles the advantages of alternative courses of action based on a variety of factors and subfactors. The five potential management alternatives described in Section 2.2 above served as the basis for the CBA analysis. For the purpose of the analysis, it was assumed that each management alternative would be the predominant or exclusive use of the structure being analyzed. This assumption was made in order to highlight the relative advantages among management alternatives for each structure. However, in practice, it would be possible for some mixture of uses to occur as long as the primary reuse goals are achieved in the context of the specific reuse management option identified for each property in the overall preferred alternative. For example, it is possible that some residential occupancy could be a component of a plan for use that primarily involved reuse for park operations or reuse for visitor service/education/recreation purposes.

The NPS uses the term “factor” to describe five standard categories of information that should be considered in the CBA decision making process. The five standard NPS CBA factors are:

- Prevent loss, maintain, and improve condition of resources
- Protect public and employee health, safety, and welfare
- Improve operational efficiency, reliability, and sustainability
- Provide visitor services and educational and recreational opportunities
- Provide other advantages to the NPS

However, for project-specific CBA analysis, the standard NPS factors can be further defined by a series of “subfactors” which more closely represent the most important project-specific conditions. Ten subfactors were identified and used in this CBA analysis:

- Reduces the visible and audible evidence of human occupation
- Enhances natural resource protection
- Enhances preservation of a historic structure or landscape
- Enhances employee, volunteer, and/or visitor safety

- Provides additional office and storage space for NPS use
- Enhances energy conservation or reduces energy consumption
- Provides infrastructure for visitor service, interpretation, and educational programs
- Minimizes the NPS maintenance and operational burden
- Provides additional indoor facilities that would allow persons to stay in the park overnight
- Improves access for persons with disabilities

Information was gathered and analyzed to determine the extent to which each management alternative addresses each of these factors and subfactors at a given property. This process yielded a set of ratings for each management alternative, broken out by subfactor. The planning team took these ratings and used them to identify the relative advantage of each management alternative for all subfactors.

Once the advantages for each management alternative were determined, the most important subfactor advantage was selected from the compiled list for each property and assigned an optimal importance value (numerical value of 100). The remaining advantages were then given importance values (numerical value from 0 to <100) relative to the most important advantage and totals calculated for each alternative for each property. The management alternative with the highest score at a particular property was deemed to have the greatest advantage. In addition, a conceptual cost estimate was prepared for each viable management option for each property. These estimates identified costs for internal and external repair and rehabilitation for a given structure to be retained, as well as removal and disposal costs for the structure to be demolished. For some alternatives, such as reuse for visitor services/education/recreation, costs were included that would be necessary to make the structure distinctively functional (exhibits, lighting, furnishings, etc.). The panel weighed the projected costs for the management alternatives for each property in relation to their respective total of importance values.

A full CBA report describing the CBA analysis for the FRPMP is attached to this document as Appendix C. Please note that the “Reuse for Exclusive Private Residential Purposes” option is referred to in the CBA report as “Exclusive Residential Lease.” The name for this option was changed after completion of the CBA report to focus attention on the actual use envisioned (i.e., reuse solely for residential purposes), and to avoid the implication that leasing was the only mechanism available to achieve that use.

The outcome of the CBA analysis is included below.

2.3.2 Preferred Management Alternative for each Former Reserved Property

THE GRANGE

Preferred Management Alternative: Reuse for Visitor Service/Education/Recreation Purposes.

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on the site's potential for: (a) preserving historic resources and promoting interpretation and educational programs when reused for visitor service/education/recreation purposes, and (b) minimizing the NPS's maintenance and operational burden when reused for exclusive private residential purposes. Of the two, preservation via reuse for visitor service/education/recreation purposes was deemed to have the higher level of importance. With regard to other potential uses, more appropriate sites exist to meet the Seashore's housing and administrative needs. Removal was not considered a feasible management option because of the structure's historical significance.

Overview of Value Analysis: Lower cost and moderate importance values were associated with reuse for exclusive private residential purposes. Lower cost and lower importance values were associated with park operations and housing. Higher cost and higher importance value were associated with visitor service/education/recreation.

Summary Recommendation: In considering the visitor service/education/recreation option and the exclusive private residential use option, it was ultimately determined that the advantages of reusing The Grange for visitor activities, enjoyment, and education outweighed the advantages of reusing the structure for exclusive private residential purposes. An essential advantage of the visitor use option is that it would integrate The Grange property into the most important interpretive area and program of the Seashore, the Dungeness Historic District and the "Footsteps Tour." The Grange is situated in the heart of the historic district and is a significant feature that has never been accessible to the public. It is an integral part of the story of Cumberland Island and the grounds and interior ought to be accessible to all island visitors.

The features of the property also present an excellent opportunity for adaptation as a center for heritage and environmental education programs. Such a facility would be in keeping with the goals of various NPS, State of Georgia, and park initiatives to foster education and outreach. While the historic character and features of The Grange building would be preserved, some of its facilities could be adapted for exhibits, classrooms, and discovery labs. The ample grounds and dock provide opportunities for outdoor programs. The Grange's proximity to the Dungeness Historic District, Beach Creek, and other resources on the island provides direct exposure to the island's natural and cultural resources. Its location is also important to support the logistical needs of the heritage and environmental education program.

Current NPS Director Jonathan Jarvis has identified four emphasis areas in which all units of the National Park System should strive to excel. Two specific areas, Education and Relevance, are areas where Cumberland Island National Seashore needs to improve its performance. The

Seashore's use of the Grange for visitor services, including a potential education center, would allow for marked improvement in these two critical service-wide goals. With respect to costs, the NPS understands the requirements associated with maintaining The Grange and the projected education and interpretation programs. However, the park anticipates developing partnerships or other appropriate agreements targeted specifically toward support of education and outreach programs that would help alleviate the park's operational and maintenance burdens. One possible mechanism for achieving this objective is a historic lease.

When evaluating the exclusive private residential use option, the ability to minimize the National Park Service's maintenance and operational burden was a very strong advantage. However, in looking at other factors, exclusive private residential use provided little or no comparative advantage. While income from a residential lease or similar agreement would help finance preservation and maintenance of the historic features, these advantages would be offset by the exclusivity of residential use, particularly because The Grange is located in the middle of the Dungeness Historic District and the primary visitor destination on the island.

As would be the case with commercial overnight accommodations (see p. 34 above), exclusive private residential use at The Grange would increase the potential for impacts to natural and cultural resources island-wide, and could similarly affect the visitor experience. One potential impact of increased residential use is likely to be additional beach driving under the State of Georgia's beach driving permitting system (Georgia Rule 391-2-2-.03.) Managing and supporting a lease also places its own set of administrative and operational burdens on the Seashore. In addition, exclusive private residential use would effectively make The Grange available to a very small segment of the American public and render it inaccessible to the overwhelming majority of visitors, in contravention of NPS policy. For these reasons, the circumstances of exclusive private residential use are not suitable considering the property's location.

The exact method of interpreting The Grange and implementing a potential visitor service/education/recreation function on the site is beyond the scope of this plan. Among the instruments that could be used are partnership agreements, cooperative agreements, and historic leases (36 CFR Part 18). Any of these could include provisions for part-time residential occupancy if such occupancy were determined to further the reuse for visitor service/education/recreation function and be compatible with historic preservation goals for The Grange.

NANCY'S FANCY

Preferred Management Alternative: Removal/Disposal.

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on reducing the evidence of human occupation, preserving natural resources, and reducing the NPS maintenance burden when removing the structure.

Overview of Value Analysis: Lower cost and higher importance value were associated with removal. Moderately low importance value and high costs were associated with the visitor

service option. Lower importance values and higher costs were associated with housing, and park operations options. Reuse for residential purposes provided little advantage.

Summary Recommendation: Removal. The property is located in a natural area near the beach and dunes that has the potential to revert to a natural, more primitive character. The house is threatened by the encroachment of dunes. In addition, professional inspection of the house indicates that its condition is such that bringing it up to NPS standards would be expensive. Such a cost would not be worthwhile given the greater advantages associated with natural restoration of the site and the minimal benefits the location provides for use alternatives. The somewhat remote and isolated location is not ideal for park administrative or housing purposes, nor is it near visitor use areas where it could readily be incorporated into visitor programs and activities. Reusing the property for residential purposes provides no other advantage aside from reducing NPS maintenance and operational burdens, which can be accomplished through removal.

GOODSELL/PHILLIPS

Preferred Management Alternative: Reuse as Employee, Volunteer, and/or Cooperator Housing.

Note: The Goodsell and Phillips properties were analyzed together. They are located immediately adjacent to each other in the small enclave of houses known as Davisville. Moreover, their age and overall character are similar.

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on enhancing preservation of a historic structure or landscape when the Goodsell/Phillips site was reused for housing or park operations because of the benefits obtained by relocating current non-compatible park functions from non-historic and historic structures in historic areas to the Goodsell/Phillips site. Relocating housing to this site would also allow the park to remove non-historic structures (associated with the modern White Cottage; currently used as housing) from the Dungeness Historic District.

Overview of Value Analysis: Lower cost and lower importance values were associated with removal and exclusive private residential use options. Higher cost and higher importance values were associated with reuse for park housing. (It should be noted those costs would be offset by the collection of rent from the resident employee.) Higher cost and moderately high importance were associated with reuse for park operations. Higher cost and lower importance were associated with reuse for visitor service/education/recreation purposes.

Summary Recommendation: Two houses on this tract are located near existing employee housing in the “Davisville” portion of the Seashore. Using this site for housing would allow NPS to move personnel out of non-historic and historic structures in the Dungeness Historic District. The non-historic structures at Dungeness could then be removed from the housing inventory, the historic district could be better interpreted to the public, and the cultural landscape restored. (Historic structures in the district no longer used for housing would be occupied periodically by persons

using the proposed environmental/heritage education facility at The Grange.) If further study reveals that the existing Goodsell/Phillips structure(s) cannot be repaired and maintained at reasonable cost, the structure(s) could be removed and the site potentially used for new housing. Maintenance costs associated with using Goodsell/Phillips for housing would be offset by the collection of rent from the resident employee.

SCHWARTZ-JENKINS

Preferred Management Alternative: Removal/Disposal

Note: The Schwartz-Jenkins tract includes three residential type structures of varying size as well as storage structures. Based on the variety of available structures, the property was originally considered to have value for several options of reuse despite its relatively isolated location and detachment from other park operations and activities. The Choosing by Advantages process identified reuse for employee, volunteer, and/or cooperator housing as the most advantageous management alternative. However, the CBA assessment and analysis were conducted prior to the NPS having sufficient access to the property and the ability to contract/authorize a structural inspection. The NPS has since been able to properly assess the property and a private contractor has completed a professional inspection on the three residential structures. The unfavorable results from those evaluations, as discussed below, have forced the NPS to reconsider the value of reuse in comparison to the significantly escalated cost to bring the facilities up to acceptable standards. Based on the new, more thorough information and subsequent analysis, the Preferred Management Alternative is removal/disposal. The potential advantages provided by the Schwartz-Jenkins property, including accessibility for mobility-impaired persons, can be met elsewhere on the island in more convenient and central locations as well as in a more cost-effective manner.

Summary Recommendation: Professional inspection of the primary residential structure on this tract indicates that its condition has deteriorated to the point that it is structurally unsound and cannot be brought up to NPS standards at a reasonable cost, and most likely would have to be replaced altogether. Most significantly, structural members have been compromised by extensive termite damage to the point that interior walls and floors are noticeably sagging. In addition, the septic system for the structure has been compromised due to the recent construction of an adjacent residential addition over top of the drain field. The septic system for the new addition is itself inadequate, as it was installed as a temporary measure during the construction and is not permitted or adequate for permanent use.

The new residential addition built on the property was initially thought to provide the most benefit for potential reuse due its design for the mobility-impaired. However, inspections and assessments reveal that there are numerous deficiencies (some of them serious) that would need to be addressed before the structure could be considered up to standards. To begin with, initial construction of the building was not completed. It is probably at 80% complete, with significant work needed on the HVAC system and ductwork, trim and finish work, electrical service, roof, basic fixtures, fire suppression, and access ramps. In addition, no permanent septic system for the structure has been installed and doing so would require new connecting lines, a tank, and a drain

field, which could mean potential resource impacts in addition to the financial costs. Above and beyond construction needs, the structural integrity of the addition may have been compromised from the outset as it was built on top of the septic system drain field for the primary residence. The structure's block foundation has fractured in places, but it cannot be determined if this fracturing is from poor construction or settling. Finally, there is evidence that the structure was not built by a licensed contractor nor were the proper inspections carried out during construction, which leaves questions regarding safety and quality of construction.

The third residential building on the property is a small log cabin. New electrical service and the replacement of logs and interior wood (damaged by termites and water) would be necessary for the structure to be brought up to standards for reuse.

In summary, any advantages identified for the facilities on the Schwartz-Jenkins tract in the original CBA analysis are outweighed by the financial burden required to bring those facilities up to acceptable standards or replace them in kind, based on new information. Moreover, the tract's relatively isolated, detached location makes it logistically problematic for inclusion in operations, visitor services, and/or housing. While the ADA accessibility of the new addition has significant advantages, those too must be weighed against the financial cost and potential resource impacts involved in completing the substandard ADA addition, which may have long-term safety and structural problems. Ultimately, the NPS has determined that efforts to improve accessibility on the island should be directed toward facilities that are more centrally located and serve more visitors with disabilities than what is possible at the Schwartz-Jenkins tract. Therefore, because the NPS cannot identify an appropriate reuse for the property that is financially practical, the management recommendation is for removal/disposal and restoration of the site to a primitive state.

STAFFORD BEACH HOUSE

Preferred Management Alternative: Reuse as Employee, Volunteer, and/or Cooperator Housing with the potential removal of non-historic elements.

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on minimizing the NPS maintenance burden if the site were reused for residential purposes. Evaluators placed a moderately high level of importance on providing infrastructure for visitor services, interpretive, and education programs when the site was reused for visitor activities. Complete removal was not considered a feasible management option because of the structure's historic significance. (However, a detached bedroom/garage addition, which is a non-historic element of the property, may be removed.) While reuse of the site as park housing was included among the highest importance values in only one subfactor, it was seen as having value across a relatively broader range of subfactors than the other management options and received the highest aggregate total importance value.

Overview of Value Analysis: Relatively moderate cost and lower importance values were associated with the park operations option. Higher cost and lower importance values were associated with the visitor service option. Lower cost and moderately high importance values

were associated with the residential reuse option. Moderately high cost and high importance values were associated with reuse of the site for housing.

Summary Recommendation: The structure's setting is well suited for housing researchers, university field students, and volunteers working on scientific and other resource projects. It could also be used to house NPS personnel. Maintenance costs associated with using the structure for housing would be offset by the collection of rent from the occupant. While the structure's setting has advantages for visitor interpretation and education programs, its relatively remote location, well away from most visitor destinations, makes this use impractical. Likewise, the distance of the structure from the park's principal administrative areas countered any advantages for park operational use. Residential reuse was strongly considered but its sole distinguishing advantage was to minimize NPS maintenance and operational burdens. That advantage would be offset by the effects of private residential use within the park, as previously discussed. Accordingly, the NPS' preferred management alternative for the Stafford Beach House is reuse for employee, volunteer, and/or cooperator housing.

TOONAHOWIE

Preferred Management Alternative: Removal/Disposal.

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on reducing the evidence of human occupation, enhancing natural resource protection, and preservation of historic features when the structure was removed. Reuse of the structure for park operations, visitor services, employee housing, or residential purposes were not considered feasible management options because of the structure's location in a designated wilderness area.

Overview of Value Analysis: Relatively higher importance value and lower cost were associated with removal.

Summary Recommendation: The house and related structures at Toonahowie are located in the Seashore's designated wilderness area. Under the Wilderness Act of 1964, designated wilderness is to be an area without permanent structures. 16 U.S.C. § 1133(b), (c). Accordingly, these structures need to be removed in order for the area to more fully achieve wilderness character.

2.4 Development of Alternatives for Evaluation in the Environmental Assessment

This section of the EA describes two alternatives that will be carried forward for analysis in Section 4 ("Environmental Consequences") of this document. These alternatives consist of a "no action" alternative and an "action" alternative. The no action alternative would continue current management of the reserved properties, which essentially involves monitoring their condition and acting to preserve and protect historic resources. In contrast, the action alternative combines the Preferred Management Alternatives for each former reserved property, as described in Section 2.3.2 above, into a comprehensive FRPMP. The action alternative is NPS' preferred alternative.

2.4.1 Alternative A – No Action (Continue Current Management)

Regulations promulgated by the President’s Council on Environmental Quality (CEQ) require NPS to consider a “no action” alternative. The no action alternative serves as a baseline against which to compare the impacts of the other alternative under consideration.

In the present instance, the no action alternative would entail leaving in place all non-historic and historic structures on the former reserved properties. All non-historic structures would be maintained in such a way as to prevent their deterioration and to rectify any safety hazards, but they would not be occupied or used for any purpose. All historic structures (i.e., The Grange, Beach Creek Dock House, and Stafford Beach House) would be maintained and preserved in accordance with the Secretary of Interior’s Standards for the Treatment of Historic Properties, as well as other applicable laws governing historic preservation. For all structures, the NPS would conduct periodic inspections and general maintenance to ensure roofs are intact, leaks are blocked, drainage problems are corrected, and rodent and insect controls are in place. For historic structures, any damage would be repaired in accordance with the Secretary’s standards.

2.4.2 Alternative B – Implement a Mixture of Removal and Adaptive Re-use of Structures (Preferred Alternative)

Under this alternative, the NPS would implement a comprehensive FRPMP consisting of the preferred management alternative for each reserved property as developed in the CBA process and subsequent evaluations. (See summary in Section 2.3.2 above.) These uses are:

- The Grange – Reuse property and structures for visitor interpretation, education, and recreation services. Remove secondary non-historic structures.
- Goodsell tract – Reuse structure for employee, volunteer, and/or cooperator housing. Use site for new housing structure if existing structure cannot be adapted at reasonable cost.
- Phillips tract – Reuse structure for employee, volunteer, and/or cooperator housing. Use site for new housing structure if existing structure cannot be adapted at reasonable cost.
- Schwartz-Jenkins tract – Remove structures.
- Nancy’s Fancy – Remove structures.
- Stafford Beach House – Reuse structure for employee, volunteer, and/or cooperator housing. Remove non-historic additions.
- Toonahowie – Remove structures.

Specific design considerations and construction plans for the structures reused or demolished under this alternative are beyond the scope of this document. No action involving historic properties can be implemented until compliance with Section 106 of the National Historic Preservation Act has been completed, including consultation with the Georgia State Historic Preservation Officer as appropriate.

2.5 Alternatives Considered but Dismissed

As previously discussed, the planning team considered five alternative future uses for each reserved property. These potential future uses were evaluated using the CBA process, and a preferred management alternative was generated for each reserved property. The preferred management alternatives were in turn rolled into an action alternative (Alternative B) for analysis in this EA. Those management options not included in Alternative B were either not feasible or offered fewer advantages to NPS or the public than the option carried forward for EA analysis. All potential future uses that were evaluated but not included in the action alternative constitute alternatives considered but dismissed.

2.6 Mitigation

For all action alternatives, best management practices and mitigation measures would be used to prevent or minimize potential adverse effects associated with the project. These practices and measures would be incorporated into the project implementation documents and plans.

Resource protection measures undertaken during project implementation would include, but would not be limited to those listed in Appendix B. The impact analyses in the “Environmental Consequences” section were performed assuming that these best management practices and mitigation measures would be implemented as part of the action alternative.

2.7 Environmentally Preferable Alternative

The NPS Handbook for implementing Director’s Order #12 (*Conservation Planning, Environmental Impact Analysis, and Decision Making*) requires that EAs identify the environmentally preferred alternative. Simply put, “this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources.” (Q6a) (516 DM 6 4.10(A)(5)).

The Council on Environmental Quality (CEQ) regulations and NPS policy state that EAs prepared pursuant to NEPA must include a section stating how each alternative analyzed in detail would or would not achieve the requirements of NEPA sections 101 and 102(1) and other environmental laws and policies. 40 CFR 1502.2(d). This requirement is met within the National Park Service by: (a) describing how each alternative meets the criteria set forth in NEPA section 101(b), and (b) identifying any conflicts between the alternatives analyzed in detail and other environmental laws and policies.

Section 101(b) of NEPA identifies six criteria for assessing whether a proposed federal action complies with the national environmental policy as set forth in the act. Specifically, NEPA directs that a proposed federal action should:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.

- Ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
- Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Alternative B is the alternative that best achieves consistency with the above six bulleted values of Sections 101 and 102(1) of NEPA. Alternative B would allow maximum public access to The Grange, and would create important new opportunities for interpretation and environmental and cultural education. Alternative B would also improve overall management of the Seashore by moving employee housing to more appropriate areas. Relocating housing would open up historic structures to visitation by the public, allow the removal of non-historic structures and activities from historic areas, and/or dispose of facilities not suitable for housing. Alternative B would also allow for the enhancement of wilderness character in the Seashore's designated wilderness area by removing permanent structures from wilderness. Both alternatives A and B would fully protect historic structures on the former reserved properties. The principal environmental benefit of Alternative A is that it would have the fewest impacts to soils, vegetation, wildlife, and water quality because it calls for no demolition and removal of structures.

In summary, Alternative B attains the widest range of beneficial uses of the environment. It would also preserve diversity and variety of individual choice, a sharing of life's amenities, and healthful and pleasing surroundings. Therefore, Alternative B (preferred alternative) is also the environmentally preferable alternative.

2.8 How the Alternatives Meet the Objectives of the Proposed Action

Table 2.5 (below) provides a comparative summary of the two alternatives and whether each alternative would meet the project objectives. As shown on the table, the action alternative would successfully meet all of the objectives of this project. The alternative of no action/continue current management would meet only half of the project objectives, principally because it would not make historic structures available to the public and would not improve administration of the Seashore.

Table 2.5: Ability of the Alternatives to Meet Project Objectives

Objectives	Alternative A No Action/Continue Current Management	Alternative B Mixture of Removal and Adaptive Re-use (Preferred Alternative)
Make available to the public those parts of the reserved properties that have significant natural, historic, or scenic value.	No	Yes
Utilize available structures in such a way as to improve administration of the Seashore.	No	Yes
Protect soil, vegetation, and wildlife resources from impacts associated with proposed future uses for each of the former reserved properties.	Yes	Yes
Protect cultural resources, including historic structures and possible archeological sites.	Yes	Yes
Protect the context of existing features that are on, or are eligible for listing on, the National Register of Historic Places.	Yes	Yes
Enhance wilderness character of former reserved properties located in wilderness.	No	Yes

2.9 Summary of Impacts

Table 2.6 (below) briefly summarizes the effects of each of the alternatives on the impact topics that were retained for analysis. More detailed information on the effects of the alternatives is provided in Section 4.0 (“Environmental Consequences”).

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Table 2.6: Summary of Environmental Impacts

Impact Topic	<u>Alternative A</u> No Action/Continue Current Management	<u>Alternative B</u> Mixture of Removal and Adaptive Re-use (Preferred Alternative)
Archeological Resources	If archeological resources should exist at one or more of the reserved properties, maintaining all existing structures in place would ensure that impacts would be negligible, direct, long-term, and adverse. However, cumulative impacts would be moderate to major, long-term, and adverse. Alternative A would contribute a negligible increment to this cumulative impact.	If archeological resources exist at one or more of the reserved properties, removal of non-historic structures could result in injury or destruction to these resources. Impacts would be greater than under Alternative A because no structures would be removed under Alternative A. Mitigation actions would ensure that any impacts to archeological resources under Alternative B would be negligible to minor, direct, long term, and adverse. However, cumulative impacts would be moderate to major, long-term, and adverse. Alternative B would contribute a negligible to minor increment to this cumulative impact.
Historic Structures	Alternative A would preserve the fabric of The Grange, Beach Creek Dock House, and Stafford Beach House, but neither site would be occupied. Impacts to historic structures would be negligible to minor, indirect, long-term, and adverse. However, cumulative impacts would be long-term, minor to major, and adverse. The actions in Alternative A would contribute a negligible to minor increment to these cumulative impacts.	Under Alternative B, The Grange, Beach Creek Dock House, and Stafford Beach House would be re-used and NPS would undertake a more active maintenance and repair program for both structures than under Alternative A. Impacts to historic structures would be direct and indirect, long-term, and beneficial. However, cumulative impacts would be long-term, minor to major, and adverse. The actions in Alternative B would offset adverse cumulative impacts to a minor degree.

Impact Topic	<u>Alternative A</u> No Action/Continue Current Management	<u>Alternative B</u> Mixture of Removal and Adaptive Re-use (Preferred Alternative)
Cultural Landscapes	Retention of non-historic structures at The Grange would result in direct, long-term, moderate, and adverse impacts to the cultural landscape. Overall cumulative impacts would be long-term, minor to moderate and adverse. Alternative A would contribute to these cumulative impacts to a minor degree.	Removal of non-historic structures at The Grange and elsewhere in the Dungeness Historic District would result in long-term, direct and beneficial impacts to the cultural landscape. Overall cumulative impacts would be long-term, minor to moderate and adverse. Alternative B would offset these cumulative impacts to a minor degree.
Soils	Retention of structures and resulting diminution of human disturbance would result in direct and indirect, long-term, and beneficial impacts to soils. Cumulative impacts would be long-term, minor to moderate, and adverse. Alternative A would offset these cumulative impacts to a negligible degree.	Removal of structures and resulting diminution of human disturbance would result in direct and indirect, long-term, and beneficial impacts to soils. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset these cumulative impacts to a negligible degree, and slightly more than Alternative A.
Water Quality	Retention of existing structures would result in slightly less soil disturbance than at present. This beneficial impact would be supplemented by the discontinued use of septic systems, resulting in impacts to water quality that were direct, long-term, and beneficial. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative A would offset these cumulative impacts to a minor degree.	Adverse impacts to water quality from the removal of structures would be more than offset by discontinued use of septic systems, resulting in impacts to water quality that were direct, long-term, and beneficial. Beneficial impacts would be less than under Alternative A because fewer septic systems would be taken out of operation under Alternative B. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset these cumulative impacts to a minor degree.

Impact Topic	<u>Alternative A</u> No Action/Continue Current Management	<u>Alternative B</u> Mixture of Removal and Adaptive Re-use (Preferred Alternative)
Vegetation and Wildlife	Impacts to vegetation and wildlife under this alternative would be direct and indirect, short- and long-term, and beneficial. There would be direct and indirect, short- and long-term, minor, and adverse cumulative impacts to vegetation and wildlife at the Seashore. Alternative A would offset these cumulative impacts to a negligible degree.	Impacts to vegetation and wildlife under this alternative would be direct and indirect, short- and long-term, and both beneficial and adverse. Adverse impacts would be short-term. The long-term impacts of revegetation and habitat restoration would be direct and indirect and beneficial. Cumulative impacts would be the same as Alternative A, but Alternative B would offset these cumulative impacts to a greater degree than would Alternative A.
Wilderness	Alternative A would result in the retention of structures at Toonahowie, thereby perpetuating existing adverse impacts to the wilderness character of the Cumberland Island Wilderness. Impacts to wilderness character would be long-term, direct, moderate, and adverse. However, cumulative impacts would be long-term, moderate to major, and adverse. Alternative A would contribute to these cumulative impacts to a moderate degree.	Alternative B would result in the removal of structures at Toonahowie, thereby enhancing the wilderness character of the Cumberland Island Wilderness. Impacts to wilderness character would be long-term, direct, and beneficial. However, cumulative impacts would be long-term, moderate to major, and adverse. Alternative B would offset these cumulative impacts to a moderate degree.
Visitor Use and Experience	Maintaining structures in multiple out-of-the-way locations would result in direct, long-term, and neutral impacts to visitor use and experience. Cumulative impacts would be long-term, direct, and beneficial.	Making various historic structures in the Dungeness Historic District available for visitation would result in direct, long-term, and beneficial impacts to visitor use and experience. Beneficial impacts would be substantially greater than under Alternative A, which lacks a public access component. Cumulative impacts would be long-term, direct, and beneficial.

Impact Topic	<u>Alternative A</u> No Action/Continue Current Management	<u>Alternative B</u> Mixture of Removal and Adaptive Re-use (Preferred Alternative)
Public Health and Safety, including Accessibility	Alternative A would maintain non-historic and historic structures at the seven former reserved estates, but none would be occupied. Impacts to public health and safety would be negligible to minor, direct, long-term, and adverse. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative A would add a negligible increment to this cumulative impact.	Under Alternative B, four of the former reserved properties would be re-used, and NPS would undertake a more active maintenance and repair program for associated structures than under Alternative A. The structures would also be made accessible to the public and/or NPS staff. The resulting impacts to public health and safety, including accessibility, would be direct, long-term, and beneficial. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset this cumulative impact to a minor degree.
Park Operations and Management	Increased maintenance obligations and reduced options for operational efficiency would produce direct and indirect, long-term, minor to moderate and adverse impacts to park operations. Cumulative impacts would be long-term, moderate, and adverse.	Maintenance obligations for structures coming under NPS care would be greater than under Alternative A. These impacts would be partially offset by increased operational efficiencies related to revamping the park housing program. Obligations for the interpretive program would increase with the development of visitor activities at The Grange. These obligations could be offset through partnerships with non-government organizations. Overall impacts to park operations and management would be direct and indirect, long-term, moderate and adverse. Cumulative impacts would be long-term, moderate, and adverse.

3.0 AFFECTED ENVIRONMENT

3.1 Overview

This section describes the existing environmental resources of those areas that would be affected if any of the alternatives were implemented. Only those environmental resources that are relevant to the decision to be made are described. This section, together with the description of conditions in the no-action alternative, depicts the baseline conditions against which the environmental impacts of the proposed action are measured.

3.2 Natural Environment

Cumberland Island is the largest and southernmost of Georgia's barrier islands. Located in Camden County, the island is about 17 ½ miles long and 3 miles wide at its widest point. The closest upland area on the mainland is approximately 2 ¼ miles away.

Cumberland Island National Seashore is bounded by the Cumberland River on the west, by St. Andrews Sound on the north, and by Cumberland Sound on the south. The authorized boundary of the Seashore encompasses both Cumberland and Little Cumberland islands, but Congress directed that Little Cumberland Island remain in private ownership so long as the residents maintain an irrevocable trust or other irrevocable agreement that insures the preservation of that island's resources. Of the Seashore's 36,415 acres, approximately 19,565 acres are considered upland and 16,850 acres contain marsh, mud flats, and tidal creeks. The federal government (National Park Service) owns 18,815 acres within the Seashore boundary, with most of the remainder being privately owned, owned by the State of Georgia, or owned by the National Park Service subject to reserved agreements. (Two other federal entities own land at the Seashore: the U.S. Army Corps of Engineers (518 acres) and the U.S. Navy (139 acres).) In 1982, Congress designated approximately 8,840 acres in the northern section of the Seashore as part of the National Wilderness Preservation System. This area was expanded to 9,886 acres in 2004.

The barrier island landscapes are dynamic, with the ocean being the primary force of change. Beach sands are in constant motion as a result of southwest littoral (i.e., along-the-shore) currents, high waves and surge caused by storms, routine wave action, and rising sea levels. Sand movement changes the appearance of the island, sometimes accreting and sometimes eroding the shoreline.

Vegetation is critical in maintaining what little stability exists on the island. Extensive root systems of maritime grasses and herbaceous plants help to stabilize sediments, whether windblown or waterborne. The grasses themselves trap windblown sand. In this way, sand dunes build naturally and the topography is elevated just enough so that other plant life can take root. Shrubs and trees shield other vegetation from the harsh salt-spray allowing different plant life to grow. Therefore, the vegetation forms distinctive ecological zones across the island.

Just over 10% of the island is composed of dune plant communities. This includes sparse stands of grasses, forbs, and sedges along the primary dunes, interdune meadow and secondary dunes along the 17 ½-mile beach. Sea oats (*Uniola paniculata*), railroad vine (*Ipomoea pes-caprae*), beach morning glory (*Ipomoea stolonifera*), and beach pennywort (*Hydrocotyle bonariensis*) are important stabilizing plants.

The entire tidal area of the west side of the island is linked into a single functional unit. Extensive salt marshes meander along the streams and create pockets of stabilizing grasses dominated by salt-marsh cordgrass (*Spartina alterniflora*). *Spartina* grows over the entire marsh, is eaten by insects, dies, decomposes, and, as detritus, furnishes food for most of the other marsh fauna. Shrimp, crabs, and small fish use the marshes as a nursery and feeding area, moving in and out with the tides. Fiddler crabs are the most conspicuous animals that feed on the detritus covering the soft mud. The tidal amplitude in Georgia is large – approximately seven feet – so these “bar-built” estuaries are energy absorbing systems.

The aquatic systems of Cumberland Island are more extensive and diverse than those of other Georgia barrier islands. Permanent ponds comprise 0.2% of the island. Three quarters of these are freshwater ponds. Water levels in ponds and sloughs fluctuate, changing their salinity. These areas provide nesting, feeding, and roosting areas for a large number of wading birds and shore birds, as well as many amphibians, reptiles, and mammals.

Fire, storms, and grazing have been important driving forces in determining the present vegetation communities of Cumberland Island. Twenty-two plant communities have been described and mapped (Hillestad 1975). Mature forests are dominated by broadleaf evergreen species. Thirty-nine percent of the island is made up of five upland forest communities, with oak species playing an important role in every one. Important tree species include live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), several species of pine (*Pinus spp.*), and bayberry (*Myrica cerifera*). Common understory plants include saw palmetto (*Serenoa repens*), bristly panic grass (*Panicum aciculare*), other grasses and many vine species. No endangered plants have been found on the island.

The acorn crop provides an important food source for many native animals, including deer and turkey. There are resident populations of white-tailed deer (*Odocoileus virginianus*), gray squirrels (*Sciurus carolensis*), and raccoons (*Procyon lotor*). There are many smaller mammals, including rodents, bats, opossums, marsh rabbits, mice, and voles. Armadillos were first documented on the island in 1974. NPS reintroduced the bobcat in 1989.

Birds are by far the most numerous animals on the island, with approximately 323 species recorded within Seashore boundaries. Their abundance is due to the Seashore’s location on the Atlantic Flyway and to the lack of development and human disturbance. Of special importance are the bald eagle and peregrine falcon that use the Seashore in limited numbers for feeding and resting. The piping plover is threatened along the Atlantic coast. At least 101 species are known to nest on the island. Cumberland provides critical nesting habitat for 18 species of colonial nesters such as least and gull-billed terns, wood storks, herons, and egrets. Least terns nest in colonies behind beach/berm, among scattered low dunes, and on tidal flats. The mature oak

forest provides nesting habitat for 77 species of tree nesting birds and feeding habitat for over 100 species of insect-eating birds. Large multi-species flocks of shorebirds frequent the beaches.

The herpetofauna of Cumberland Island includes 34 species of reptiles and 18 species of amphibians. The loggerhead sea turtle (*Caretta caretta*), a federally threatened species, is a regular summer visitor to Cumberland Island, nesting on or near the base of dunes fronting the beach. In past years, the park has documented an average of 229 sea turtle nests laid per year. During the 2010 nesting season, as many as 38,274 hatchlings crossed Cumberland Island's beaches to enter the Atlantic Ocean. The park also reports strandings of green, Kemp's ridley, and leatherback sea turtles. The American alligator occurs commonly throughout aquatic areas. Many varieties of tree frogs, toads, snakes, and lizards are also common residents.

Marine animals inhabit the intertidal zones of the beaches, tidal flats and salt marshes. Burrowing mole crabs, ghost crabs, and coquina clams are found on the ocean beaches, and crustaceans and worms on the tidal flats. Many species of commercially valuable invertebrates and fish are supported by the food chain of the Seashore's salt marshes and tidal creeks.

3.3 Cultural Environment

For more than 4,000 years, a variety of human visitors and residents have interacted with and relied upon the natural resources of Cumberland Island. The island and its inhabitants have played important roles in numerous significant periods of American history. The first Indian occupation dates back to before 3000 BC, with early ceramic cultures appearing around 2000 BC. Cultural affiliations shifted over time, but at the time of first contact with Europeans the Timucuan Indians occupied Cumberland Island. Later, a tribe named the Gule by the Spanish used Cumberland Island seasonally, harvesting fish and shellfish.

Numerous shell middens and other archeological sites remain on Cumberland as a reminder of the long occupation by native people. Soon after the European discovery of the New World, the Sea Islands of North America's southeast coast were drawn into the larger Atlantic trading economy. In the sixteenth century, the natural abundance of Cumberland and other coastal islands attracted European galleons, which stopped long enough to load game birds, pelts, and naval stores. The sailors on these ships were drawn from various European and African trading areas, and these visits witnessed some of the first encounters among Europeans, Africans, and North American Indians.

The southeastern coast of North America, lying between Spanish Florida and the British settlements in Virginia, was contested ground from the early seventeenth to the late eighteenth century. Around 1600, Spanish priests and soldiers established a string of missions and related forts on the Georgia sea islands, including the missions of San Pedro de Mocama and San Pedro y San Pablo de Porturibo on Cumberland Island. The Spanish sought to Christianize the Indians and guard their more valuable possessions to the south.

The settlement of Carolina in 1670 led to increasing conflict between the British and Spanish and their respective Indian allies. Indian raids instigated by the British pushed the Spanish farther and

farther south. During King George's War in the 1740s, General James Oglethorpe, founder of the Georgia colony, fortified Cumberland Island against the Spanish with Fort St. Andrew at the north end of the island and Fort Prince William at the south end. The Battle of Bloody Marsh on St. Simons Island in 1742 ended the near-term threat of Spanish occupation in Georgia, but the fate of the Georgia sea islands continued to be disputed in the French and Indian War, the American Revolution, and the War of 1812.

The plantation system began to take root on Cumberland in the late eighteenth century. The primary engine of development in the New World, the plantation was based on African slavery and the production of staple crops for export. Although timber, citrus fruit, and olives were cultivated on Cumberland, long-staple cotton, commonly known as sea-island cotton, emerged as the most profitable crop, commanding as much as one dollar per pound in international markets. Revolutionary War hero Nathaniel Greene began the development of plantation agriculture on Cumberland in the 1780s, but his widow, Catherine, and their descendants were the key players. An 1802 map of the island shows a system of roads and cotton fields cleared by slave labor. By the 1840s, much of the island was under cultivation by some 200 to 400 enslaved African-Americans under the direction of two to three dozen whites. The substantial black majority in coastal South Carolina and Georgia and the area's relative isolation from outside influences produced a unique African-American cultural complex known as Gullah (in South Carolina) or Geechee (more commonly used in Georgia). Hallmarks of this culture are a distinctive Gullah language, and artistic, culinary, and religious traditions strongly influenced by African heritage. Although little is known specifically about Geechee culture on Cumberland, it undoubtedly resembled the more intensively studied Gullah culture of South Carolina.

Agricultural production on Cumberland peaked during the two decades preceding the Civil War. It was at this time that planter Robert Stafford assembled holdings on the island totaling some 8,000 acres. Early in the war, most white plantation masters abandoned their lands and field slaves when it became apparent that Confederate forces could not defend the sea islands. Union troops occupied Cumberland and surrounding waters in March 1862, holding the area for the remainder of the war. Much of the African-American population of Cumberland sought refuge under federal auspices on nearby Amelia Island, just across the sound in Florida. Following the war and short-lived efforts to redistribute confiscated land to freed people, the landholdings on Cumberland reverted to their pre-war owners.

In the 1870s, an expanding railroad and steamship network opened the coastal South to more intensive recreational use. By 1878, two hotels were operating at High Point on the northern end of Cumberland Island, served by steamers from Brunswick. The hotel operations at High Point reached a peak in the 1890s and 1900s, when groups like the Georgia Teachers Association and the Georgia State Dental Society held their annual meetings there. Starting in 1890, the hotel owners sold small plots of land at the nearby Settlement (also known as Half Moon Bluff) to several African-American families in order to ensure a steady supply of labor. The hotel shut down in 1920, when the Cumberland Island Club, a private organization, purchased the property. Eight years later, the property was acquired by the Candler family, which had made its fortune through the Coca-Cola Company.

Wealthy northern industrialist families also saw the potential for winter homes on the sea islands. In 1881, Thomas Morrison Carnegie – brother of Andrew Carnegie – purchased the Greene-Miller plantation at Dungeness for his wife Lucy Coleman Carnegie and their growing family. Despite Thomas' death in 1886, Lucy went on to acquire 90 percent of Cumberland Island and proceeded to turn it into a complex of family estates, which included homes with extensive landscaped grounds for four of her children. Lucy's home, Dungeness Mansion, was built on the ruins of Catherine Greene's original Dungeness plantation house. During Lucy's lifetime, Cumberland Island was a highly organized, largely self-sufficient private preserve. It was staffed by some 200 employees, most of whom were black, and through their labor the extended Dungeness family was supplied with produce and livestock, supplemented by provisions brought daily from Amelia Island on the family yacht.

Lucy Carnegie established a trust that kept the family's holdings intact until the death of her last child, which occurred in 1962. By this time, plans for exploiting and developing the island's natural and scenic resources threatened the island's future preservation. Wishing to maintain its character, Carnegie and Candler descendants who were interested in preserving the island banded together to seek alternative ways to protect Cumberland from development. They, along with environmental organizations and the Department of the Interior, succeeded in having Cumberland Island set aside in 1972 as a national seashore for all Americans.

The appearance of Cumberland Island today is largely a result of the overlay of these successive waves of human habitation and development. Many individual sites, such as Dungeness and Plum Orchard, bear the imprint of Indian settlement, followed by the plantation regime, with a final overlay of Carnegie-era development. From the late 1700s the bulk of the labor that developed and maintained human life on the island was supplied by African-Americans, enslaved until the 1860s, and as paid laborers thereafter. Although many of the prominent extant structures on the island represent the leisure activities of the island residents, the artifacts below ground – the ruins of slave villages, patterns of field and forest, gardens and outbuildings – represent the considerable contributions of Native Americans and African-Americans to the development of the island.

Historic districts have been established around the historic features at Dungeness, Plum Orchard, Stafford, and High Point – Half Moon Bluff. Each of these historic districts has been included in the National Register of Historic Places. Archeological districts have been established at Rayfield and Table Point, and these districts have likewise been included in the National Register of Historic Places.

3.4 Historic Structures on Former Reserved Properties

The Grange and Beach Creek Dock House – The Grange and its surrounding property are contributing features of the Dungeness Historic District, which is listed in the National Register of Historic Places. The Grange building itself contains 7,000 square feet of finished interior space plus additional attic and basement areas. The Grange has been rehabilitated several times over the years. Although in good condition at present, The Grange will need substantial maintenance attention in the years to come. The Beach Creek Dock House provides intermittent

boat access depending on tide conditions. The dock house is in relatively poor condition and needs immediate maintenance attention.

Stafford Beach House – This structure is located on the western edge of the dune field at the interface with the maritime oak forest, approximately 250 yards from the ocean beach. It is east of the Stafford Historic District, outside of the district boundary, but potentially eligible for nomination to the National Register of Historic Places and List of Classified Structures. The beach house is a small, two-wing beach bungalow centered on a large, wooden deck. It also includes a small, detached addition that is not historic. The bungalow is in fair condition and has recently received maintenance attention. The detached addition is in poor condition.

3.5 Non-historic Structures on Former Reserved Properties

Nancy's Fancy – This structure is located between Stafford and Little Greyfield. It lies just inside the tree-line at the interface with the ocean-side dune field and is approximately 250 yards from the beach. The wood-frame house is elevated on piers, with the lower level partially enclosed. The metal roof is at the end of its useful life, as is the air conditioning /heating system and internal copper piping. Several areas of soft and rotted wood exist on the exterior of the structure, and portions of the internal woodwork and sheetrock are in need of repair. An inspection of this structure commissioned by NPS recommended further evaluation by a structural/geotechnical engineer.

Phillips House – The house on this tract is located north of Greyfield in the Davisville area on the southern part of the island. It is a small, modern bungalow house of wood-frame construction. An inspection of this structure commissioned by NPS noted that the structure is in relatively good condition overall, but has several areas of rotted wood and other areas needing repair.

Goodsell House and Outbuildings – The house on this tract is located north of Greyfield in the Davisville area on the southern part of the island. It is a modest-sized, modern, ranch style house of wood-frame construction. There is an adjacent shed and a laundry/pump house that are also of wood-frame construction. An inspection of these structures commissioned by NPS noted that the main house was in good condition overall, but has several areas of rotted wood and other areas needing repair. The roofs on all of the structures are at the end of their useful lives and need to be replaced.

Schwartz-Jenkins House and Outbuildings – These structures are located between Stafford and Little Greyfield on the west side of the island, approximately 1/3-mile from the NPS dock on Old House Creek. Assets include a modern, ranch style house of wood-frame construction; a modern efficiency-type residence designed for the mobility impaired; a small modern, guest cabin; and a pole shed. An inspection of these structures commissioned by NPS noted soft rotted flooring, floor joists, and structural walls in parts of the main house. Extensive repairs are needed throughout the structure. The guest cabin is in better condition, but has areas of rotted wood and improper, unsafe wiring. The efficiency type structure is new, but has a number of areas where construction is incomplete. It is built over the drainfield of the main house's septic system and

appears to be experiencing settling issues as a result. It also lacks a permanent, permitted septic system of its own.

Toonahowie – This house is located on the west side of Table Point within an area that is designated wilderness. It is a modern, ranch-style house of wood-frame construction built on brick piers, with lap siding and an attached carport and shed built on a concrete slab. The property has a dock and deep-water access on Mumford Creek. An inspection of the house commissioned by NPS noted that the roof is at the end of its useful life and several areas of rotted wood need repair. Various appliance and utility repairs are needed as well.

3.6 Visitor Activities and Park Operations

The only available access to Cumberland Island is via water. A concession tour boat accommodating 146 passengers operates twice a day, five days a week, from December through February, and seven days a week the remainder of the year. Additional ferry trips are scheduled twice a month to Plum Orchard. Charters are also available.

Visitation to the Seashore from 2007 through 2010 ranged between 72,449 and 91,996 persons, which includes both island and mainland visitation. March, April, and May are consistently the busiest months of the year, accounting for about 40 percent of total annual visitation. Visitation is generally lowest during December. Visitation to Cumberland Island is limited to 300 persons per day (year round) by the General Management Plan.

Guests of Greyfield Inn, which is privately owned and operated, arrive at Greyfield Dock from Fernandina Beach via Greyfield's ferry service. Neither Greyfield's guests nor the guests of other island residents are counted against the 300 visitor per day use limit.

The first stop for the NPS concession's ferry is at Dungeness Dock, near the southern end of the island, where visitors can walk through the Dungeness Historic District, to the mansion ruins and other buildings from the Carnegie era. The latter include the Ice House Museum and the Dungeness Dock House. The second ferry stop is at Sea Camp, one mile to the north. Sea Camp facilities consist of a dock (also available for public docking), a front country campground with 16 sites and two group campsites (total 60 campers), an information center, and a boardwalk over the dunes providing access to the beach.

Four backcountry campgrounds, accommodating a maximum of 20 persons each (total not to exceed 60 permitted campers per night), are located in the middle and northern part of the island.

Brickhill campground is the only campground on the water and is a favorite stop for canoe and kayak tours and camping guides. Plum Orchard mansion also has a dock open to the public that is used by boaters.

As authorized by the Seashore's enabling legislation, the National Park Service conducts six managed hunts per year. Hunters may take deer and feral hogs in accordance with State regulations. The Plum Orchard area and Brickhill campground are designated hunt campsites.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

The National Environmental Policy Act requires that before any federal agency undertakes a major action, it must discuss the environmental impacts of that action, feasible alternatives to that action, and any adverse environmental effects that cannot be avoided if the proposed action is implemented. Accordingly, this section describes the environmental consequences associated with the alternatives described in Section 2 above. It is organized by impact topics, which allow a standardized comparison between alternatives based on issues. Consistent with NEPA, the analysis also considers the context, intensity, and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate impacts.

National Park Service policy also requires that the potential for “impairment” of resources be evaluated in all major actions. The impairment analysis is not part of the environmental assessment, but is treated separately, as appropriate, in the Finding of No Significant Impact.

The first part of this section discusses the methodology used to identify impacts and includes definitions of terms. The impact topics are then analyzed with reference to each of the two alternatives. The discussion of each impact topic includes a description of the affected environment for that topic, an analysis of the positive and negative effects of each alternative, a discussion of cumulative effects, if any, and a conclusion.

4.2 Methodology

Generally, the methodology for resource impact assessments follows direction provided in the Council on Environmental Quality (CEQ) Regulations for Implementing the National Environmental Policy Act, Parts 1502 and 1508. The impact analysis and the conclusions in this part are based largely on the review of existing literature and park studies, information provided by experts within the National Park Service and other agencies, park staff insights and professional judgment.

The impacts from the two alternatives were evaluated in terms of the context, duration, and intensity of the impacts, as defined below, and whether the impacts were considered beneficial or adverse to park resources and values.

4.2.1 Context

Each impact topic addresses effects on resources inside and outside the park, to the extent those effects are traceable to the actions set forth in the alternatives.

4.2.2 Duration

Short term Impacts – Those that would occur within one year of implementation.

Long-term Impacts – Those that would continue to exist after implementation.

4.2.3 Impact Intensity

Intensity definitions for the impact topics analyzed in this document are set forth in the following table:

TABLE 4.1: IMPACT INTENSITY DEFINITIONS

Impact Topic	Negligible	Minor	Moderate	Major
CULTURAL RESOURCES				
Archeological Resources	The impact would be at the lowest levels of detection or barely measurable, with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of section 106, the determination of effect would be <i>no adverse effect</i> .	The disturbance of a site(s) would be confined to a small area with little, if any, loss of important information potential. For purposes of section 106, the determination of effect would be <i>no adverse effect</i> .	Disturbance of a site would not result in a substantial loss of important information. For purposes of section 106, the determination of effect would be <i>no adverse effect</i> .	Disturbance of a site would be substantial and would result in the loss of most or all of the site and its potential to yield important information. For purposes of section 106, the determination of effect would be <i>adverse effect</i> .
Historic Structures	The impact would be at the lowest level of detection or barely perceptible and not measurable. For purposes of section 106, the determination of effect would be <i>no adverse effect</i> .	The impact would not affect the character defining features of a structure or building listed in or eligible for the National Register of Historic Places. For purposes of section 106, the determination of effect would be <i>no adverse effect</i> .	The impact would alter a character defining feature(s) of the structure or building but would not diminish the integrity of the resource to the extent that its national register eligibility would be jeopardized. For purposes of section 106, the determination of effect would be	The impact would alter a character defining feature(s) of the structure or building, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the national register. For purposes of section 106, the determination of effect would be <i>adverse effect</i> .

Impact Topic	Negligible	Minor	Moderate	Major
			<i>no adverse effect.</i>	
Cultural Landscapes	The impact is at the lowest levels of detection or barely perceptible and not measurable. For purposes of section 106, the determination of effect would be <i>no adverse effect.</i>	The impact would not affect the character-defining features of a cultural landscape listed in or eligible for the National Register of Historic Places. For purposes of section 106, the determination of effect would be <i>no adverse effect.</i>	The impact would alter a character-defining feature or features of the cultural landscape but would not diminish the integrity of the landscape to the extent that its national register eligibility would be jeopardized. For purposes of section 106, the determination of effect would be <i>no adverse effect.</i>	The impact would alter a character-defining feature(s) of the cultural landscape, diminishing the integrity of the resource to the extent that it would no longer be eligible to be listed in the national register. For purposes of section 106, the determination of effect would be <i>adverse effect.</i>
NATURAL RESOURCES				
Soils	The action would result in a change in soils but the change would be at the lowest level of detection, or not measurable.	The action would result in a detectable change, but the change would be slight and local. Soils might be slightly altered in a way that would be noticeable. There could be changes in a soil's profile in a relatively small area, but the change would not appreciably increase the potential for erosion.	The action would result in a clearly detectable change in soils— soils would be obviously altered, or a few features would show changes. There could be a loss or alteration of the topsoil in a small area, or the potential for erosion to remove small quantities of additional soil would increase.	The action would result in the permanent loss of an important soil or there would be highly noticeable, widespread changes in many soils. There would be a permanent loss or alteration of soils in a relatively large area, or there would be a strong likelihood for erosion to remove large quantities of additional soil as a result of the action.

Impact Topic	Negligible	Minor	Moderate	Major
Water Quality	Impacts are chemical, physical, or biological effects that would not be detectable, would be well below water quality standards or criteria, and would be within historical or desired water quality conditions.	Impacts (chemical, physical, or biological effects) would be detectable but would be well below water quality standards or criteria and within historical or desired water quality conditions.	Impacts (chemical, physical, or biological effects) would be detectable but would be at or below water quality standards or criteria; however, historical baseline or desired water quality conditions would be altered on a short-term basis.	Impacts (chemical, physical, or biological effects) would be detectable and would be frequently altered from the historical baseline or desired water quality conditions; and/or chemical, physical, or biological water quality standards or criteria would be slightly and singularly exceeded on a short-term basis.

Impact Topic	Negligible	Minor	Moderate	Major
Vegetation	The action might result in a change in vegetation, but the change would not be measurable or would be at the lowest level of detection.	The action might result in a detectable change, but the change would be slight. This could include changes in the abundance, distribution, or composition of individual species in a local area, but would not include changes that would affect the viability of vegetation communities. Changes to local ecological processes would be minimal.	The action would result in a clearly detectable change in a vegetation community and could have an appreciable effect. This could include changes in the abundance, distribution, or composition of nearby vegetation communities, but would not include changes that would affect the viability of plant populations in the park. Changes to local ecological processes would be of limited extent.	The action would be severely adverse to a vegetation community. The impacts would be substantial and highly noticeable, and they could result in widespread change. This could include changes in the abundance, distribution, or composition of a nearby vegetation community or plant populations in the park to the extent that the population would not be likely to recover. Key ecological processes would be altered, and “landscape-level” (regional) changes would be expected.
Wildlife	There would be no observable or measurable impacts to native species, their habitats, or the natural processes sustaining them. Impacts would be of short duration and well within natural fluctuations.	Impacts would be detectable, but they would not be expected to be outside the natural range of variability and would not be expected to have any long-term effects on native species, their habitats, or the natural processes sustaining them.	Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they could be outside the natural range of variability for short periods of time.	Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they would be expected to be outside the natural range of variability for long periods of time or be permanent.

Impact Topic	Negligible	Minor	Moderate	Major
Wilderness	There would be little or no change in wilderness character or wilderness experience.	One or more attributes of wilderness character and wilderness experience would change temporarily or in small ways in one or more locations.	One or more attributes of wilderness character and wilderness experience would change in substantial ways in a single distinct area, or it affects multiple areas but is not permanent.	One or more attributes of wilderness character and wilderness experience would change substantially across more than one distinct area on either a permanent or temporary but frequent basis.
VISITOR USE AND EXPERIENCE				
Visitor Use and Experience	Visitors would likely be unaware of any effects associated with implementation of the alternative. There would be no noticeable changes in visitor use and/or experience or in any defined indicators of visitor satisfaction or behavior.	Changes in visitor use and/or experience would be slight but detectable, but would not appreciably diminish or enhance critical characteristics of the visitor experience. Visitor satisfaction would remain stable.	Few critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be altered. The visitor would be aware of the effects associated with implementation of the alternative and would likely be able to express an opinion on the changes. Visitor satisfaction would begin to either decline or increase as a direct result of the effect.	Multiple critical characteristics of the desired visitor experience would change and/or the number of participants engaging in an activity would be greatly reduced or increased. The visitor would be aware of the effects associated with implementation of the alternative and would likely express a strong opinion about the change. Visitor satisfaction would markedly decline or increase.

Impact Topic	Negligible	Minor	Moderate	Major
Public Health and Safety, including Accessibility	Public health and safety would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on the public health or safety.	The effect would be detectable, but would not have an appreciable effect on public health and safety.	The effect would be readily apparent, and would result in substantial, noticeable effects on public health and safety on a local scale. Changes in rates or severity of injury could be measured.	The effects would be readily apparent, and would result in substantial, noticeable effects on public health safety on a regional scale. Changes could lead to changes in mortality.
PARK OPERATIONS				
Park Operations	The effect would be at or below the level of detection, and would not have an appreciable effect on park operations and management.	The effects would be detectable, but would be of a magnitude that would not have an appreciable effect on park operations and management.	The effects would result in a change in park operations and management in a manner readily apparent to staff and possibly to the public.	The effects would result in a substantial and widespread change in park operations and management in a manner readily apparent to staff and the public.

4.2.4 Impact Type and Mitigation

For each alternative, the impacts under each impact topic are described as being either beneficial, adverse, or neutral.

CEQ regulations and the National Park Service's *Conservation Planning, Environmental Impact Analysis and Decision-making* (Director's Order #12) call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an impact from major to moderate or minor. The action alternative assumes that park managers would apply mitigation measures to minimize or avoid impacts (see Appendix B). If appropriate mitigation measures were not applied, the potential for resource impacts would increase and the magnitude of those impacts would rise.

4.2.5 Direct versus Indirect Impacts

Direct effects would be caused by an action and would occur at the same time and place as the action. Indirect effects would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

4.3 Specific Methodology for Assessing Effects on Cultural Resources

This EA includes an analysis of the effects that the two alternatives may have on relevant cultural resources at the Seashore (i.e., on historic structures and cultural landscapes). The method for assessing effects on cultural resources is designed to comply with the requirements of both the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA), and with implementing regulations 40 CFR 1500 and 36 CFR 800, respectively, while considering the differences between NEPA and NHPA language and recognizing that compliance with one does not automatically mean compliance with the other. Accordingly, the assessment of effects discusses the following characteristics of effects:

- Direct and indirect effects
- Duration of the effect (short-term, long-term)
- Context of the effect (site-specific, local, regional)
- Intensity of the effect (negligible, minor, moderate, major, both adverse and beneficial)
- Cumulative nature of the effect

In accordance with 36 CFR 800, the regulations implementing Section 106 of NHPA, effects on cultural resources are identified and evaluated by:

- Determining the area of potential effect (APE) [36 CFR 800.4(a)]
- Identifying historic properties in the APE that are listed in or eligible for listing in the National Register of Historic Places [36 CFR 800.4(b)-(c)]. The results are either:
 - *No historic properties affected* – either there are no historic properties present or there are historic properties present but the undertaking will have no effect upon them [36 CFR 800.4(d)(1)]; or
 - *Historic properties affected* – there are historic properties that may be affected by the undertaking [36 CFR 800.4(d)(2)].
- Applying the criteria of adverse effect to affected historic properties in the area of APE [36 CFR 800.5.(a)(1)], as follows:
 - An *adverse effect* is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be

farther removed in distance or be cumulative. [Examples of adverse effect are provided in 36 CFR 800.5(a)(2).]

- A finding of *no adverse effect* is found when the undertaking's effects do not meet the criteria of 800.5(a)(1) [36 CFR 800.5.(b)].
- Considering ways to avoid, minimize, or mitigate or otherwise resolve adverse effects. The following are considered:
 - Consultation with the SHPO/THPO and others to develop and evaluate strategies to mitigate adverse effects [36 CFR 800.6].
 - CEQ regulations and Director's Order 12 call for the discussion of mitigating impacts and an analysis of how effective the mitigation would be in reducing the intensity of an impact, such as reducing it from moderate to minor intensity. Any resultant reduction in impact intensity is, however, an estimate of the effectiveness of mitigation under NEPA only.
 - Such reduction in impact intensity does not suggest that the level of effect as defined by Section 106 and 36 CFR 800 is similarly reduced. Cultural resources are non-renewable resources and adverse effects generally consume, diminish, or destroy the original historic materials or form, resulting in a loss of integrity that can never be recovered. Therefore, although actions determined to have an adverse effect under Section 106 and 36 CFR 800 may be mitigated, the effect remains adverse.

A Section 106 Summary is included in the impact analysis sections. The Section 106 summary provides an assessment of effect of the undertaking (implementation of the alternative), on historic properties, based on the Section 106 regulations cited above.

Note: Section 106 analysis is provided in this document for informational purposes only. This EA is not intended to satisfy the requirements of Section 106 of the NHPA. For purposes of this project, the NPS is not combining the NEPA and Section 106 processes, but is pursuing separate Section 106 consultation with the Georgia SHPO.

Definitions of impact intensity with respect to historic structures and cultural landscapes are provided in Table 4.1 above.

4.4 Cumulative Impacts

Regulations implementing NEPA issued by the CEQ require the assessment of cumulative impacts in the decision-making process for federal actions. 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 non-federal) or person undertakes such other actions" (40 CFR 1508.7). Cumulative impacts can

result from individually minor but collectively significant actions taking place over a period of time.

The cumulative impacts analyzed in this document consider the incremental effects of the two alternatives in conjunction with past, current, and future actions at the Seashore. Cumulative impacts were determined by combining the effects of a given alternative with other past, present, and reasonably foreseeable future actions. The impact analysis and conclusions are based on information available in the literature, data from National Park Service studies and records, and information provided by experts within the National Park Service and other agencies. Unless otherwise stated, all impacts are assumed to be direct and long-term.

To assess cumulative impacts, it was necessary to identify other past, ongoing, or reasonably foreseeable future actions at and around Cumberland Island National Seashore. Past and ongoing actions include, but are not limited to:

- The letter and intent of the park's guiding documents, particularly its enabling legislation;
- NPS Management, responsibilities, and coordination associated with private inholdings on the island;
- Past deterioration of structures associated with the Dungeness and Plum Orchard historic districts;
- Recent maintenance and repair activities at Plum Orchard mansion;
- Imminent institution of motorized tours to the middle and north end of Cumberland Island;
- Possible issuance of a Commercial Use Authorization (CUA) to the Greyfield Inn for motorized tours of the island (an application for a CUA has been received by the Seashore);
- Ongoing interpretation and education programs at the park;
- Continuing loss of historic structures in the region surrounding the Seashore;
- The expiration of 14 other reserve property agreements (all lifetime agreements) in the foreseeable and long-range future;

Other reasonably foreseeable projects and plans include the continuing development of the St. Marys, Georgia, area and surrounding region.

4.5 NPS Management Policies 2006, Section 1.4: The Prohibition on Impairment of Park Resources and Values

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of

the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC 1a-1).

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

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

The NPS has discretion to allow impacts on Park resources and values when necessary and appropriate to fulfill the purposes of a Park (NPS 2006c sec. 1.4.3). However, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006c sec 1.4.3). An action constitutes an impairment when its impacts “harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006c sec 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006c sec 1.4.5).

4.6 Topics Dismissed from Further Analysis

The topics dismissed from further analysis, and the reasons therefore, are discussed in section 1.8.4 above.

4.7 Methodology for Analyzing Individual Impact Topics

Set forth below is an analysis of the effects of implementing each alternative, by impact topic. Developing the analysis for each impact topic has involved the following steps:

- Define issues of concern, based on internal and external scoping.
- Identify the geographic area that could be affected.
- Define the resources within that area that could be affected.
- Impose the action on the resources within the area of potential effect.
- Identify the effects caused by the alternative, in comparison to the baseline represented by the No Action Alternative, to determine the relative change in resource conditions.

- Characterize the effects based on the following factors:
 - Whether the effect would be beneficial or adverse.
 - The intensity of the effect, either negligible, minor, moderate, or major. Impact-topic-specific thresholds for each of these classifications are provided in Table 4.1. Threshold values were developed based on federal and state standards, consultation with regulators from applicable agencies, and discussions with subject matter experts.
 - Duration of the effect, either short-term or long-term, as well as the area affected by the alternative.
 - Whether the effect would be a direct result of the action or would occur indirectly because of a change to another resource or impact topic. An example of an indirect impact would be increased structural deterioration that would occur due to opening a structure to visitation without appropriate safeguards.
- Determine cumulative effects by evaluating the effect in conjunction with the past, current, or foreseeable future actions for Cumberland Island National Seashore and the region.

The analyses of individual impact topics follow below.

4.7.1 Archeological Resources

Effects of Alternative A

Analysis: Alternative A would not involve any ground disturbance on any of the seven reserved properties, as no historic or non-historic residential structures and/or outbuildings would be removed. Furthermore, each of the seven reserved properties has been previously disturbed. As a result, there is a very low likelihood of disturbing archeological resources under this alternative. At this point, any impact to archeological resources is purely speculative since systematic site surveys have not been completed; however, if such resources exist, impacts would be negligible, direct, long-term, and adverse.

Cumulative Impacts: Archeological resources on Cumberland Island are protected by law and NPS policy. Some loss of archeological resources occurs on a continuing basis due to erosion on the sound side of the island, where many of the Seashore's archeological resources are located. In addition, a recent land exchange with a private landowner on the island resulted in the transfer of archeological resources out of NPS ownership and protection. On balance, cumulative impacts to archeological resources at the Seashore are moderate to major, direct and indirect, long-term, and adverse. When the potential negligible, direct, long-term, and adverse effects of implementing Alternative A are added to the moderate to major adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term moderate to major adverse cumulative impacts to the archeological resources at the Seashore. Alternative A would contribute a negligible increment to this cumulative impact.

Conclusion: If archeological resources should exist at one or more of the reserved properties, maintaining all existing structures in place would ensure that impacts would be negligible. Cumulative impacts would be moderate to major, long-term, and adverse. Alternative A would contribute a negligible increment to this cumulative impact.

Effects of Alternative B

Analysis: Under alternative B, non-historic structures would be removed from five former reserved properties. (The five properties are: The Grange (non-historic outbuildings only), Stafford Beach House (non-historic additions only), Schwartz-Jenkins (all structures), Nancy's Fancy (all structures), and Toonahowie (all structures).) Impacts to archeological resources, assuming they exist, would be correspondingly greater than under Alternative A. The NPS would consult with the Georgia SHPO prior to removal of any structures. Any necessary mitigation or avoidance measures would be adopted in consultation with the SHPO. Impacts after mitigation would be confined to a small area with little, if any, loss of important information potential. Impacts would thus be negligible to minor, direct, long-term, and adverse.

Cumulative Impacts: Same as Alternative A.

Conclusion: If archeological resources exist at one or more of the reserved properties, removal of non-historic structures could result in injury or destruction to these resources. Impacts would be greater than under Alternative A because no structures would be removed under Alternative A. Mitigation actions would ensure that any impacts to archeological resources under Alternative B would be negligible to minor, direct, long term, and adverse. Cumulative impacts would be moderate to major, long-term, and adverse. Alternative B would contribute a negligible to minor increment to this cumulative impact.

Section 106 Summary: After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, *Assessment of Adverse Effects*), the National Park Service concludes that implementation of Alternative B (preferred alternative) would have no adverse effect on archeological resources at the Seashore. The NPS will consult with the Georgia SHPO prior to any removal activities in accordance with Section 106 of the National Historic Preservation Act. Archeological surveys may be performed at that time, and appropriate work practices and mitigation measures will be established in coordination with the SHPO.

4.7.2 Historic Structures

Effects of Alternative A

Analysis: Under this alternative, The Grange, Beach Creek Dock House, and the Stafford Beach House would be maintained and preserved, but not occupied or otherwise used for any particular purpose. Periodic inspections would occur to ensure structural integrity and cyclic maintenance would be performed. Some minor deterioration associated with leaving structures unoccupied would result. However, these impacts would not affect the character-defining features of these structures. Impacts to historic structures would thus be minor to moderate, direct and indirect, long-term, and adverse.

Cumulative Impacts: The climatic conditions at Cumberland Island are very hard on historic structures. Harsh climate, funding shortfalls, and poor condition at the time of NPS acquisition have resulted over the years in the deterioration or outright loss of some historic structures. Other

historic structures on reserved properties or private inholdings have been modified or destroyed. Overall cumulative impacts to historic structures at the Seashore are minor to major, direct and indirect, long-term, and adverse. When the potential minor to moderate, direct and indirect, long-term, and adverse impacts of implementing Alternative A are added to the minor to major, adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, minor to major, adverse cumulative impacts to historic structures at the Seashore. Alternative A would contribute a minor increment to these cumulative impacts. In other words, the results of past and ongoing adverse impacts would still remain, and the management actions in Alternative A would add to them in a minor way. As a result, adverse cumulative impacts would have no “adverse effect” (within the meaning of Section 106 of the NHPA) to any historic structure under consideration in this plan.

Conclusion: Alternative A would preserve the fabric of The Grange, Beach Creek Dock House, and Stafford Beach House, but neither site would be occupied. Impacts to historic structures would be negligible to minor, indirect, long-term, and adverse. Cumulative impacts would be long-term, minor to major, and adverse. The actions in Alternative A would contribute a negligible to minor increment to these cumulative impacts.

Effects of Alternative B

Analysis: Under Alternative B, The Grange and Beach Creek Dock House would be used for visitor service/education/recreation purposes and the Stafford Beach House would be occupied by NPS employees or other persons engaged in activities on behalf of the Seashore. Both structures would benefit from being occupied and used on a daily basis. Because they would be occupied and used, both structures would be subject to more thoroughgoing repairs, maintenance, and upgrades than under Alternative A. NPS treatment and use of all three structures will be subject to Section 106 consultation with the Georgia SHPO. Impacts to historic structures would be direct and indirect, long-term, and beneficial.

Cumulative Impacts: Past and ongoing adverse cumulative impacts are generally the same as under Alternative A. These impacts would still remain under Alternative B, but they would be offset to a minor degree by the beneficial impacts of the actions in Alternative B. As a result, the cumulative impacts of Alternative B would have no “adverse effect” (within the meaning of Section 106 of the NHPA) to any historic structure under consideration in this plan.

Conclusion: Under Alternative B, The Grange, Beach Creek Dock House, and Stafford Beach House would be re-used and NPS would undertake a more active maintenance and repair program for both structures than under Alternative A. Impacts to historic structures would be direct and indirect, long-term, and beneficial. Adverse cumulative impacts would be offset to a minor degree by the beneficial impacts of the actions in Alternative B. As a result, the cumulative impacts of Alternative B would have no “adverse effect” (within the meaning of Section 106 of the NHPA) to any historic structure under consideration in this plan.

Section 106 Summary: After applying the Advisory Council on Historic Preservation’s criteria of adverse effects (36 CFR Part 800.5, *Assessment of Adverse Effects*), the National Park Service concludes that implementation of Alternative B (preferred alternative) would have no adverse

effect on historic structures at Cumberland Island National Seashore. NPS will consult with the Georgia SHPO on its treatment and use of The Grange, Beach Creek Dock House, or the Stafford Beach House.

4.7.3 Cultural landscapes

Effects of Alternative A

Analysis: Under Alternative A, all non-historic structures on seven former reserved properties would remain in place. Of these tracts, only one – The Grange – lies within a recognized cultural landscape. The retention of non-historic structures at The Grange would perpetuate adverse impacts to the cultural landscape in the Dungeness Historic District. The impact would continue the existing alteration of a character-defining feature or features of the cultural landscape but would not diminish the integrity of the landscape to the extent that its national register eligibility would be jeopardized. Accordingly, impacts to the cultural landscape would be direct, long-term, moderate, and adverse.

Cumulative Impacts: Establishment of the Seashore resulted in the creation of 20 reserved agreements, and with them the construction of a number of modern residential structures and outbuildings in the Seashore's cultural landscapes. The impacts of these structures on cultural landscapes have been compounded by the deterioration and loss of some historic structures. Overall cumulative impacts to cultural landscapes at the Seashore are minor to moderate, direct and indirect, long-term, and adverse. When the direct, long-term, moderate, and adverse effects of implementing Alternative A are added to the minor to moderate, direct and indirect, long-term, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, minor to moderate adverse cumulative impacts to cultural landscapes at the Seashore. Alternative A would contribute to these cumulative impacts to a minor degree.

Conclusion: Retention of non-historic structures at The Grange would result in direct, long-term, moderate, and adverse impacts to the cultural landscape. Overall cumulative impacts would be long-term, minor to moderate and adverse. Alternative A would contribute to these cumulative impacts to a minor degree.

Effects of Alternative B

Analysis: Alternative B calls for the removal of specified non-historic structures from five former reserved properties at the Seashore, including The Grange. The removal of non-historic structures at The Grange would enhance the cultural landscape in the Dungeness Historic District by restoring conditions more like those that existed in the Carnegie era, i.e., prior to establishment of the Seashore and the execution of RPAs. In addition, moving park housing out of historic structures in the Dungeness Historic District would enhance the cultural landscape by removing intruding modern elements such as vehicles, grills, and recreational equipment. Alternative B would also allow existing park housing to be moved from a non-historic structure in the Dungeness Historic District. Moving housing out of this non-historic structure would make it possible to remove the structure, with corresponding beneficial impacts to the cultural

landscape. The impacts to the cultural landscape under Alternative B would thus be direct and indirect, long-term, and beneficial.

Cumulative Impacts: As noted under Alternative A, overall impacts to cultural landscapes at the Seashore are minor to moderate, direct and indirect, long-term, and adverse. When the direct, long-term, and beneficial effects of implementing Alternative B are added to the minor to moderate, direct and indirect, long-term, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, minor to moderate adverse cumulative impacts to cultural landscapes at the Seashore. Alternative B would offset these cumulative impacts to a minor degree.

Conclusion: Removal of non-historic structures at The Grange and elsewhere in the Dungeness Historic District would result in long-term, direct and beneficial impacts to the cultural landscape. Overall cumulative impacts would be long-term, minor to moderate and adverse. Alternative B would offset these cumulative impacts to a minor degree.

Section 106 Summary: After applying the Advisory Council on Historic Preservation's criteria of adverse effects (36 CFR Part 800.5, *Assessment of Adverse Effects*), the National Park Service concludes that implementation of Alternative B (preferred alternative) would have no adverse effect on the cultural landscape at Cumberland Island National Seashore. The NPS finds that removal of non-historic structures and uses would enhance the cultural landscape and improve the visitor experience.

4.7.4 Soils

Effects of Alternative A

Analysis: The retention and maintenance of historic and non-historic structures on the seven reserved properties would have beneficial impacts to soils. Compaction and other impacts to soils would diminish due to decreased use of the properties. Future use would principally be limited to periodic maintenance activities, and would take place in previously disturbed areas. Impacts to soil resources under this alternative would thus be direct and indirect, long-term, and beneficial.

Cumulative Impacts: A number of residential and related structures have been constructed on the reserved properties and private inholdings at the Seashore. Initial construction of these structures and subsequent maintenance activities have resulted in soil compaction and disturbance of soil profiles. Other maintenance and construction activities on the island have impacted soils in a similar fashion. Overall cumulative impacts to soils have been direct, long-term, minor to moderate, and adverse. Impacts to soils from maintenance and minor construction and reconstruction can be expected to continue for the next several decades. Additional impacts to soils will continue to occur as a result of road traffic on the island. The latter impacts will increase when the Seashore begins offering motorized tours to the north end of the island (expected in 2011). When the direct and indirect, long-term, and beneficial effects of implementing Alternative A are added to the direct, long-term, minor, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-

term, minor to moderate, and adverse cumulative impacts to soils at the Seashore. Alternative A would offset these cumulative impacts to a negligible degree.

Conclusion: Retention of structures and resulting diminution of human disturbance would result in direct and indirect, long-term, and beneficial impacts to soils. Cumulative impacts would be long-term, minor to moderate, and adverse. Alternative A would offset these cumulative impacts to a negligible degree.

Effects of Alternative B

Analysis: The removal of non-historic structures from five reserved properties would necessarily entail impacts to soils. Impacts would include compaction from the staging and use of heavy equipment, as well as soil disturbance associated with removing structures. Impacts to soils would be limited in extent and would occur in areas that have already experienced soil compaction and disturbance. Although removal of structures would initially cause more impacts to soils than under Alternative A, the resulting diminution of human disturbance could eventually result in revegetation and other beneficial impacts to soils. Overall impacts to soil resources under this alternative would thus be direct and indirect, long-term, and beneficial.

Cumulative Impacts: Same as Alternative A, but Alternative B would offset these cumulative impacts to a slightly greater degree than would Alternative A.

Conclusion: Removal of structures and resulting diminution of human disturbance would result in direct and indirect, long-term, and beneficial impacts to soils. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset these cumulative impacts to a negligible degree, and slightly more than Alternative A, in the long term.

4.7.5 Water Quality

Effects of Alternative A

Analysis: Alternative A would leave existing structures in place but the structures would not be actively used. The result would be slightly less soil disturbance than occurs at present. Impacts to surface water quality would likely be beneficial to a slight degree. With respect to groundwater quality, septic systems would no longer be in use at five of the reserved properties (Toonahowie, Schwartz-Jenkins, Nancy's Fancy, Goodsell, Phillips), since the structures would be maintained but not used. The result would be beneficial impacts to groundwater quality. Septic systems would be maintained at The Grange and Stafford Beach House, but would be minimally used. Overall impacts to water quality under this alternative would therefore be direct, short-term, and beneficial.

Cumulative Impacts: A number of residential and related structures have been constructed on the reserved properties and private inholdings at the Seashore. Initial construction of these structures and subsequent maintenance activities has resulted in negligible to minor impacts to water quality from increased erosion. Other maintenance and construction activities on the island have impacted water quality in a similar fashion. Impacts to groundwater at the island from poorly maintained septic systems is unknown, but is suspected to be negligible to minor

and adverse. Overall cumulative impacts to water quality have been direct, long-term, minor to moderate, and adverse. Impacts to water quality from maintenance/construction activities and the use of septic systems can be expected to continue for the next several decades. Additional impacts to water quality will continue to occur as a result of road traffic on the island and attendant erosion. The latter impacts will increase when the Seashore begins offering motorized tours to the north end of the island (expected in 2011). When the direct, short-term, and beneficial effects of implementing Alternative A are added to the direct, long-term, minor to moderate, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, minor to moderate, and adverse cumulative impacts to water quality at the Seashore. Alternative A would offset these cumulative impacts to a minor degree.

Conclusion: Retention of existing structures would result in slightly less soil disturbance than at present. This beneficial impact would be supplemented by the discontinued use of septic systems, resulting in impacts to water quality that were direct, long-term, and beneficial. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative A would offset these cumulative impacts to a minor degree.

Effects of Alternative B

Analysis: Alternative B would generate new soil disturbance over localized areas as a result of the removal of specified non-historic structures from five former reserved properties (The Grange, Stafford Beach House, Nancy's Fancy, Schwartz-Jenkins, and Toonahowie). Erosion levels could increase temporarily, but impacts would be small due to the use of best management practices and the fact that most of the reserved properties are some distance from receiving waters. In addition, the removal of the Toonahowie dock structure on Mumford Creek would create temporary impacts associated with bottom disturbance and equipment operation. Short-term impacts from the dock removal would be localized and minor, but the long-term effects would be beneficial. Regarding groundwater, after structures had been removed septic systems at three of the reserved properties would no longer be in use (Toonahowie, Schwartz-Jenkins, Nancy's Fancy), resulting in beneficial impacts to groundwater quality. However, septic systems would continue to be used at The Grange, Stafford Beach House, Goodsell, and Phillips, which would be occupied and used for park purposes. For purposes of this analysis, it is assumed that septic systems have greater impacts on water quality in the vicinity of reserved properties than do construction and maintenance activities, which for the most part take place well away from receiving waters. If this is the case, then overall impacts to water quality from Alternative B would be direct, short-term, and beneficial, but less so than under Alternative A, since septic systems at historic structures would receive greater use under this alternative than under Alternative A.

Cumulative Impacts: Same as Alternative A, but Alternative B would offset these cumulative impacts to a lesser degree than would Alternative A.

Conclusion: Adverse impacts to water quality from the removal of structures would be more than offset by discontinued use of septic systems, resulting in impacts to water quality that were direct, long-term, and beneficial. Beneficial impacts would be less than under Alternative A

because fewer septic systems would be taken out of operation under Alternative B. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset these cumulative impacts to a minor degree.

4.7.6 Vegetation and Wildlife

Effects of Alternative A

Analysis: The retention and maintenance of non-historic and historic structures at the seven reserved properties would maintain the status quo and result in negligible impacts to vegetation. Because the structures would not be occupied or used, it is possible that vegetation would recover to some small degree, although some regenerating vegetation could consist of non-native invasive species associated with human disturbance.

Impacts to wildlife would be negligible and temporary and would result primarily from the sounds generated by maintenance activities. In the long term, the discontinuation of use of the structures on the former reserved properties would result in beneficial impacts to wildlife by removing sources of human disturbance. Overall impacts to vegetation and wildlife would be direct and indirect, short- and long-term, and beneficial.

Cumulative Impacts: A number of residential and related structures have been built on reserved properties and private inholdings at the Seashore. Initial construction of these structures and subsequent maintenance activities has resulted in removal of vegetation and disturbance to wildlife. Other maintenance and construction activities on the island have impacted vegetation and wildlife in a similar fashion. Overall cumulative impacts to vegetation and wildlife from construction and occupation of structures have been direct and indirect, short- and long-term, minor, and adverse. Impacts to vegetation and wildlife from maintenance and occupation of structures can be expected to continue for the next several decades. Additional impacts to vegetation and wildlife will continue to occur as a result of road traffic on the island and attendant trimming of vegetation and potential for vehicle strikes. Impacts due to vehicular traffic will increase when the Seashore begins offering motorized tours to the north end of the island (expected in 2011). When the direct and indirect, long-term, and beneficial effects of implementing Alternative A are added to the direct and indirect, short- and long-term, minor, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be direct and indirect, short- and long-term, minor, and adverse cumulative impacts to vegetation and wildlife at the Seashore. Alternative A would offset these cumulative impacts to a negligible degree.

Conclusion: Impacts to vegetation and wildlife under this alternative would be direct and indirect, short- and long-term, and beneficial. There would be direct and indirect, short- and long-term, minor, and adverse cumulative impacts to vegetation and wildlife at the Seashore. Alternative A would offset these cumulative impacts to a negligible degree.

Effects of Alternative B

Analysis: The removal of specified non-historic structures at five former reserved properties (The Grange, Stafford Beach House, Nancy's Fancy, Schwartz-Jenkins, and Toonahowie) would

initially result in minor damage and destruction to vegetation (primarily non-native lawn grasses) resulting from the use of heavy equipment. Removal activities could also potentially create favorable conditions for the spread of non-native invasive vegetation. Mitigation measures would be put in place to minimize the establishment and spread of invasives. In time, native vegetation would recolonize areas where structures had been removed. Active revegetation would occur on some sites, as appropriate.

With respect to wildlife, adverse impacts to wildlife would be negligible and temporary and would result primarily from the sounds generated by removal activities. In the long term, removal of structures would result in beneficial impacts to wildlife by removing sources of human disturbance and allowing habitat to regenerate. Impacts to vegetation and wildlife would be direct and indirect, short- and long-term, and both beneficial and adverse. The long-term impacts of revegetation and habitat restoration would be direct and indirect and beneficial.

Cumulative Impacts: Same as Alternative A, but Alternative B would offset these cumulative impacts to a greater degree than would Alternative A.

Conclusion: Impacts to vegetation and wildlife under this alternative would be direct and indirect, short- and long-term, and both beneficial and adverse. Adverse impacts would be short-term. The long-term impacts of revegetation and habitat restoration would be direct and indirect and beneficial. Cumulative impacts would be the same as Alternative A, but Alternative B would offset these cumulative impacts to a greater degree than would Alternative A.

4.7.7 Wilderness

Effects of Alternative A

Analysis: The reserved property known as Toonahowie is located in the Seashore's designated wilderness area. Under Alternative A, all structures at Toonahowie would be retained in designated wilderness. Retention of the house and dock structures would perpetuate adverse impacts to wilderness character by maintaining incompatible development within the wilderness boundary. The imprint of humans' work would remain noticeable within the wilderness area. One element of wilderness character (specifically, an undeveloped landscape) would be adversely affected in a single location for a long period of time, and thus impacts to wilderness character would be long-term, direct, moderate, and adverse.

Cumulative Impacts: Wilderness character at the Seashore is affected by both internal and external factors. External factors include noise and human activities on adjoining lands, such as on the Main Road (which splits the wilderness) and from the adjacent Plum Orchard and High Point/Half Moon Bluff historic districts. Internal factors include five reserved properties, with permanent structures, located within the wilderness boundary. (One of these, Toonahowie, is addressed in Alternative A.) Additional impacts to wilderness character will occur when the Seashore begins offering motorized tours to the north end of the island (expected in 2011). Cumulative impacts to wilderness character from these internal and external factors are direct and indirect, long-term, moderate to major, and adverse. When the long-term, direct, moderate and adverse impacts of Alternative A are added to the direct and indirect, long-term, moderate to

major, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, moderate to major, and adverse cumulative impacts to wilderness character at the Seashore. Alternative A would contribute to these cumulative impacts to a moderate degree.

Conclusion: Alternative A would result in the retention of structures at Toonahowie, thereby perpetuating existing adverse impacts to the wilderness character of the Cumberland Island Wilderness. Impacts to wilderness character would be long-term, direct, moderate, and adverse. Cumulative impacts would be long-term, moderate to major, and adverse. Alternative A would contribute to these cumulative impacts to a moderate degree.

Effects of Alternative B

Analysis: Alternative B would result in the removal of all structures at Toonahowie from designated wilderness. Removal of the house and dock structures would enhance wilderness character by reducing the level of development within the wilderness boundary. The imprint of humans' work would become correspondingly less noticeable within the wilderness area. Impacts to wilderness character would be long-term, direct, and beneficial.

Cumulative Impacts: Same as Alternative A. Alternative B would offset adverse cumulative impacts to wilderness character to a moderate degree.

Conclusion: Alternative B would result in the removal of structures at Toonahowie, thereby enhancing the wilderness character of the Cumberland Island Wilderness. Impacts to wilderness character would be long-term, direct, and beneficial. Cumulative impacts would be long-term, moderate to major, and adverse. Alternative B would offset these cumulative impacts to a moderate degree.

4.7.8 Visitor Use and Experience

Effects of Alternative A

Analysis: Under Alternative A, visitor experience would remain largely unchanged. Structures would be retained and maintained in multiple locations, but these structures would be located for the most part in areas not usually visited by the public. Impacts to visitor use and experience would be negligible, long-term, direct, and neutral.

Cumulative Impacts: The Seashore currently offers a range of interpretive and recreational opportunities for visitors. These include the ranger-guided Footsteps Tour of the Dungeness Historic District, museum-type exhibits at the Dungeness Ice House, plus various waysides for visitors exploring on their own. Cumulative impacts are long-term, direct, and beneficial. These visitor offerings are expected to continue indefinitely into the future. When the long-term, direct, and neutral impacts of Alternative A are added to the long-term, direct, and beneficial impacts of other past, present, and reasonably foreseeable actions as described above, there would be long-term, direct and beneficial cumulative impacts to visitor use and experience at the Seashore. Alternative A would contribute a negligible increment to these cumulative impacts.

Conclusion: Maintaining structures in multiple out-of-the-way locations would result in direct, long-term, and neutral impacts to visitor use and experience. Cumulative impacts would be long-term, direct, and beneficial.

Effects of Alternative B

Analysis: Under Alternative B, visitor experience would be improved by making The Grange and other structures in the Dungeness Historic District available for visitor use. Opening The Grange up to the public would substantially enhance the existing “Footsteps Tour” by allowing visitors access to the interior of a historic Carnegie-era structure. At present, the tour is confined to the Dungeness ruins and the exteriors of other historic structures. Some of the latter are not available to the public because they are currently devoted to park housing. This alternative would also allow The Grange and adjacent grounds to be used for additional visitor services, such as an environmental/cultural education or similar facility for visiting groups of students or others. Making The Grange and other historic structures available to the public would provide a more immediate, immersive experience and allow more in depth interpretation of the social and natural history of Cumberland Island. Impacts to visitor use and experience would be long-term, direct, and beneficial.

Cumulative Impacts: Existing and foreseeable impacts are as described for Alternative A. When the long-term, direct, and beneficial impacts of Alternative B are added to the long-term, direct, and beneficial impacts of other past, present, and reasonably foreseeable actions at the Seashore, there would be long-term, direct and beneficial cumulative impacts to visitor use and experience. Alternative B would contribute a moderate increment to these cumulative impacts.

Conclusion: Making various historic structures in the Dungeness Historic District available for visitation would result in direct, long-term, and beneficial impacts to visitor use and experience. Beneficial impacts would be substantially greater than under Alternative A, which lacks a public access component. Cumulative impacts would be long-term, direct, and beneficial.

4.7.9 Public Health and Safety, including Accessibility

Effects of Alternative A

Analysis: Under Alternative A, historic and non-historic structures at the seven former reserved properties would be maintained but not occupied or otherwise used for any particular purpose. Periodic inspections would occur to ensure structural integrity and cyclic maintenance would be performed. These measures would work to ensure the safety of the public and NPS staff. The structures would not be open to the public so public accessibility would not be an issue. Overall, impacts to public health and safety would be barely detectable, if at all, and hence would be negligible.

Cumulative Impacts: The Seashore maintains a good safety record for visitors and employees. Over the years, few injuries to visitors and staff have occurred at the Seashore due to conditions at historic and non-historic structures. However, accessibility for the public and staff is not what

it should be, and the Seashore is in the process of rectifying this situation, as funding allows. Overall cumulative impacts to public health and safety as a result of conditions at historic and non-historic structures at the Seashore are minor to moderate, direct, long-term, and adverse. When the potential negligible to minor, direct, long-term, and adverse effects of implementing Alternative A are added to the minor to moderate adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, minor to moderate, adverse cumulative impacts to public health and safety at the Seashore. Alternative A would add a negligible increment to this cumulative impact.

Conclusion: Alternative A would maintain non-historic and historic structures at the seven former reserved estates, but none would be occupied. Impacts to public health and safety would be negligible to minor, direct, long-term, and adverse. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative A would add a negligible increment to this cumulative impact.

Effects of Alternative B

Analysis: Under Alternative B, The Grange and Beach Creek Dock House would be used for visitor activities and the structures on three other former reserved properties (the Stafford Beach House, Phillips, and Goodsell) would be occupied by NPS employees or other persons engaged in activities on behalf of the Seashore. All of these structures would benefit from being occupied and used on a daily basis. Because they would be occupied and used, all of these structures would be subject to more thoroughgoing repairs, maintenance, and upgrades than under Alternative A, with attendant beneficial impacts on health and safety. In addition, steps would also be taken to make these structures accessible to the public and/or NPS staff (ADA upgrades). The increased accessibility of these structures would also make them safer for disabled staff and the public. Taken together, the continued use, enhanced maintenance of the structures, and improved accessibility would have direct, long-term, beneficial impacts on public health and safety, including accessibility.

Cumulative Impacts: Cumulative impacts are generally the same as under Alternative A, except that increased maintenance efforts and improved accessibility for occupied structures would partially offset cumulative long-term adverse impacts to public health and safety.

Conclusion: Under Alternative B, four of the former reserved properties would be re-used, and NPS would undertake a more active maintenance and repair program for these structures than under Alternative A. The structures would also be made accessible to the public and/or NPS staff. The resulting impacts to public health and safety, including accessibility, would be direct, long-term, and beneficial. Cumulative impacts would be direct, long-term, minor to moderate, and adverse. Alternative B would offset this cumulative impact to a minor degree.

4.7.10 Park Operations

Effects of Alternative A

Analysis: Alternative A would increase NPS management obligations with respect to existing historic and non-historic structures on the seven former reserved properties. Long-term responsibility for upkeep and repair of these structures would devolve to the NPS. Maintaining but not using any of the structures on the reserved properties would mean foregoing opportunities for increased operational efficiency. The overall effects of this alternative would result in a change in Seashore operations and management, principally in the form of increased maintenance obligations, that was readily apparent to staff. Therefore, impacts to park operations and management would be long-term, direct, minor to moderate, and adverse.

Cumulative Impacts: At Cumberland Island National Seashore, the National Park Service is directly or indirectly responsible for 18,815 acres of land, 106 structures (over 83 of them historic), and as many as 92,000 annual visitors. Management and operational responsibilities include: preservation and protection of natural and cultural resources; visitor services, education, and recreation; visitor protection; facility maintenance; law enforcement; wildland fire; financial and staff administration; concessions; and community relations. The park also has multiple private inholdings within its boundaries, which adds another set of duties. However, those requirements will change as reserved property agreements expire. The park will soon begin a north end tour program on the island, which will add to operational requirements. However, demands of the tours will be moderately offset by tour fees. Over the past decade the park has been able to address many of its operational and maintenance needs such as a mainland visitor center, museum building, headquarters building, and repair/rehab of many island historic structures including Plum Orchard and stabilization of the Dungeness Mansion ruins. Park base funding increased in two of the past three years. However, base and project funding for the foreseeable future is not expected to increase. When the long-term, direct, moderate, and adverse impacts of Alternative A are added to the direct and indirect, long-term, moderate, and adverse effects of other past, present, and reasonably foreseeable actions as described above, there would be long-term, moderate, and adverse cumulative impacts to park operations at the Seashore. Alternative A would add a moderate increment to these cumulative impacts.

Conclusion: Increased maintenance obligations and reduced options for operational efficiency would produce direct and indirect, long-term, minor to moderate and adverse impacts to park operations. Cumulative impacts would be long-term, moderate, and adverse.

Effects of Alternative B

Analysis: Under Alternative B, the NPS would experience increased maintenance, operational, and staff costs related to actively using, as opposed to simply maintaining, newly received historic structures. Long-term maintenance costs for The Grange and Stafford Beach House would be substantial. Supporting visitor activities at The Grange would increase the costs for interpretive and educational services, which could be offset by the development of partnerships, a historic lease, or other agreements with non-governmental organizations. Additional expense and staff resources would be necessary to maintain non-historic structures converted for use as

park housing. On the other hand, operational efficiencies would be experienced by moving personnel from historic buildings to more modern residential structures. Relocating housing to newly received structures would also allow the park to dispose of some of the existing, non-historic structures that are not suitable or are otherwise impractical to maintain as housing. Overall, this alternative would result in a change in Seashore operations and management that was readily apparent to staff. Impacts to park operations and management would thus be long-term, direct, moderate, and adverse.

Cumulative Impacts: Existing and foreseeable impacts are as described for Alternative A. When the long-term, direct, moderate, and adverse impacts of Alternative B are added to the long-term, direct, moderate, and adverse impacts of other past, present, and reasonably foreseeable actions at the Seashore, there would be long-term, direct, moderate and adverse cumulative impacts to park operations and management. Alternative B would contribute a greater increment to these cumulative impacts than Alternative A, but one that was still moderate.

Conclusion: Maintenance obligations for structures coming under NPS care would be greater than under Alternative A. These impacts would be partially offset by increased operational efficiencies related to revamping the park housing program. Obligations for the interpretive program would increase with the development of visitor activities at The Grange. These obligations could be offset through partnerships, a historic lease, or other agreements with non-governmental organizations. Overall impacts to park operations and management would be direct and indirect, long-term, moderate and adverse. Cumulative impacts would be long-term, moderate, and adverse.

5.0 CONSULTATION AND COORDINATION

Agencies and Organizations

Agencies and organizations that will review this environmental assessment include:

Federal Agencies

N/A

State Agencies

Georgia Department of Natural Resources, Historic Preservation Division (State Historic Preservation Office)

In accordance with 36 CFR 800, and the 2008 programmatic agreement among the National Park Service, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation, the National Park Service will consider and address comments of the SHPO pertaining to project impacts on historic properties.

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Recipients of the Environmental Assessment

This document will be posted on the NPS Planning Environment and Public Comment (PEPC) web site.

Selected References

- Center for Park Management. 2010. National Park Service, Leasing Program Assessment. Final Report: Findings and Recommendations Prepared for the Commercial Services Program, National Park Service.
- Hillestad, Hillburn O., et al. 1975. The Ecology of Cumberland Island National Seashore, Camden County, Georgia. Georgia Marine Science Center Tech. Rpt. Series 75-5, Univ. of Georgia, Skidaway Island, Georgia. 299 pp.
- National Park Service. 1994. Natural Resource Management Plan.
1984. General Management Plan.
- Office of Inspector General, United States Department of the Interior (OIG DOI). 2007. Private Use of Public Lands. National Park Service and Bureau of Land Management. Report No. W-IN-MOA-0008-2005.
- Torres, L. 1977. Historical Research Study for Cumberland Island National Seashore. Denver Service Center, Denver Colorado. 348pp.

APPENDIX A

Federal and State Listed Species Known to Occur in Camden County, Georgia

**FEDERAL AND STATE LISTED SPECIES KNOWN TO OCCUR
IN CAMDEN COUNTY, GEORGIA**

Species	Federal Status	State Status	Habitat	Threats
Mammal				
Humpback whale <i>Megaptera novaeangliae</i>	E	E	Coastal waters during migration	Entanglement in commercial fishing gear and collisions/disturbance associated with boats and barges
Right whale <i>Eubalaena glacialis</i>	E	E	Mate and calve in shallow coastal waters; critical habitat designated from the mouth of Altamaha River south to Sebastian Inlet, FL (from shoreline east 5-15 nautical miles)	Initial decreases probably due to overharvesting. Slow population growth after exploitation halted may be due to collisions/disturbance associated with boats and barges, inbreeding, inherently low reproductive rates, or a reduction in population below a critical size for successful reproduction.
Round-tailed muskrat <i>Neofiber alleni</i>	No Federal Status	T	Bogs and ponds; creates pyramid-shaped nest in vegetation	Habitat loss from human activities and natural succession. Loss of bog/floating mat vegetation-type habitat due to man's suppression of wildfires.
West Indian manatee <i>Trichechus manatus</i>	E	E	Coastal waters, estuaries, and warm water outfalls	Initial decreases probably due to overharvesting for meat, oil and leather. Current mortality due to collisions with boats and barges and from canal lock operations. Declines also related to coastal development and loss of suitable habitat, particularly destruction of seagrass beds.
Bird				
Bachman's warbler <i>Vermivora bachmanii</i>	E	E	Probably extinct; last seen in Georgia in 1976	

Bald eagle <i>Haliaeetus leucocephalus</i>	No Federal Status	E	Inland waterways and estuarine areas in Georgia. At least two active eagle nests were documented in 2008.	Major factor in initial decline was lowered reproductive success following use of DDT. Current threats include habitat destruction, disturbance at the nest, illegal shooting, electrocution, impact injuries, and lead poisoning.
Peregrine Falcon <i>Falco peregrinus</i>	No Federal Status	R	Extreme north Georgia is the southern limit of the historic nesting range. Peregrines are commonly seen along the Georgia coast during winter migration.	Major factor in initial decline was lowered reproductive success from DDT concentrations. While DDT use in South America is still a concern, expansion of human population and subsequent loss of undisturbed nesting habitat and foraging areas is a factor currently.
Gull-billed tern <i>Sterna nilotica</i>	No Federal Status	T	Nests in colonies on sandy sites; forages over salt marsh, dunes and other grassy areas for insects, spiders, and other invertebrates	Nest disturbance and loss of habitat to beach-front development are the major threats to this species.
Piping plover <i>Charadrius melodus</i>	T	T	Winter on Georgia's coast; prefer areas with expansive sand or mudflats (foraging) in close proximity to a sand beach (roosting)	Habitat alteration and destruction and human disturbance in nesting colonies. Recreational and commercial development has contributed greatly to loss of breeding habitat.
Wilson's Plover <i>Charadrius wilsonia</i>	No Federal Status	T	Atlantic Coast breeding populations range from New Jersey to northern South America. Nesting habitat includes beaches, sand flats and spits.	Loss of nesting habitat from human development; predation from wild, feral, and domestic animals; and human disturbance in the form of pedestrians and vehicles are primary threats to this species.
Least Tern <i>Sterna antillarum</i>	Not listed in GA; interior U.S. populations Endangered	R	Atlantic Coast breeding populations range from Massachusetts to Florida. Nesting colonies have been	Human disturbance of nesting colonies is the primary threat to this species' success. Predation also is a concern.

			documented in all Georgia coastal counties.	
American Oystercatcher <i>Haematopus palliates</i>	Not Listed	R	Nests on marsh islands, upland dunes, beaches, and dredge spoils. Atlantic Coast population nests from Massachusetts to southern Florida.	Human disturbance, loss of nesting habitat to development, and predation are known threats to this species' success.
Black Skimmer <i>Rynchops niger</i>	Not Listed	R	Atlantic Coast population nests on barrier island beaches and man-made dredge spoil islands primarily in the mid-Atlantic states. Winters in southern U.S. and Caribbean.	Main threats include loss of nesting habitat due to beachfront development and human disturbance at nesting colony sites.
Red Knot <i>Calidris canutus</i>	C	R	Nests in the Arctic and winters on southern tip of South America. Georgia coast serves as a stopover for winter/early spring migrants.	Reduction in population is thought to be related to lack of preferred food sources during migration and subsequent decline in body condition.
Red-cockaded woodpecker <i>Picoides borealis</i>	E	E	Nest in mature pine with low understory vegetation (<1.5m); forage in pine and pine hardwood stands > 30 years of age, preferably > 10" dbh	Reduction of older age pine stands and encroachment of hardwood midstory in older age pine stands due to fire suppression
Wood stork <i>Mycteria americana</i>	E	E	Primarily feed in fresh and brackish wetlands and nest in cypress or other wooded swamps. Active rookeries were located in Camden County 1991-2002.	Decline due primarily to loss of suitable feeding habitat, particularly in south Florida. Other factors include loss of nesting habitat, prolonged drought/flooding, raccoon predation on nests, and human disturbance of rookeries.

Reptile				
Eastern indigo snake <i>Drymarchon corais couperi</i>	T	T	During winter, den in xeric sand ridge habitat preferred by gopher tortoises; during warm months, forage in creek bottoms, upland forests, and agricultural fields	Habitat loss due to uses such as farming, construction, forestry, and pasture and to overcollecting for the pet trade
Gopher tortoise <i>Gopherus polyphemus</i>	No Federal Status	T	Well-drained, sandy soils in forest and grassy areas; associated with pine overstory, open understory with grass and forb groundcover, and sunny areas for nesting	Habitat loss and conversion to closed canopy forests. Other threats include mortality on highways and the collection of tortoises for pets.
Green sea turtle <i>Chelonia mydas</i>	T	T	Rarely nests in Georgia; migrates through Georgia's coastal waters	Exploitation for food, high levels of predation, loss of nesting habitat due to human encroachment, hatchling disorientation due to artificial lights on beaches, and drownings when trapped in fishing and shrimping nets
Hawksbill sea turtle <i>Eretmochelys imbricata</i>	E	E	Migrates through Georgia's coastal waters	Primary causes of population decline are development and modification of nesting beaches and exploitation for the shell. Secondary causes include egg consumption, use of the skin for leather, and heavy predation of eggs and hatchlings.
Kemp's ridley sea turtle <i>Lepidochelys kempii</i>	E	E	Migrates through Georgia's coastal waters	Overharvesting of eggs and adults for food and skins and drowning when caught in shrimp nets
Leatherback sea turtle <i>Dermochelys coriacea</i>	E	E	Rarely nests in Georgia; migrates through Georgia's coastal waters	Human exploitation, beach development, high predation on hatchlings, and drowning when caught in nets of commercial shrimp and fish trawls and longline and driftnet fisheries

Loggerhead sea turtle <i>Caretta caretta</i>	T	T	Nests on Georgia's barrier island beaches; forages in warm ocean waters and river mouth channels	Loss of nesting beaches due to human encroachment, high natural predation, drownings when turtles trapped in fishing and shrimping trawls, and marine pollution
Fish				
Shortnose sturgeon¹ <i>Acipenser brevirostrum</i>	E	E	Atlantic seaboard rivers	Construction of dams and pollution, habitat alterations from discharges, dredging or disposal of material into rivers, and related development activities.
Plant				
Ball-moss <i>Tillandsia recurvata</i>	No Federal Status	T	Branches of live oak in Georgia, especially near the coast	
Climbing buckthorn <i>Sageretia minutiflora</i>	No Federal Status	T	Calcareous rocky bluffs, forested shell middens on barrier islands, and evergreen hammocks along streambanks and coastal marshes	
Hartwrightia <i>Hartwrightia floridana</i>	No Federal Status	T	Peaty muck of pine flatwoods, sedge meadows, and wettest parts of poorly drained ditches/sloughs; often with water-spider orchid (<i>Habenaria repens</i>)	
Pondspice <i>Litsea aestivalis</i>	No Federal Status	T	Margins of swamps, cypress ponds, and sandhill depression ponds and in hardwood swamps	
Wagner spleenwort <i>Asplenium heteroresiliens</i>	No Federal Status	T	Marl outcrops, damp limestone ledges, and tabby masonry	

Key: E = Endangered; T = Threatened; C= Candidate for listing; SC = Species of Concern; R = Rare

Source: U.S. Fish and Wildlife Service Georgia Ecological Service Field Office

APPENDIX B

Mitigation Measures and Best Management Practices

MITIGATION MEASURES AND BEST MANAGEMENT PRACTICES

Potential Adverse Effect on:	Mitigation Measure or Best Management Practice
Cultural Resources	<p>All treatment of The Grange, Beach Creek Dock House, and Stafford Beach House will be in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties</i> (NPS 1995b)</p> <p>Historic Structure Reports will be developed for The Grange, Beach Creek Dock House, and Stafford Beach House to guide rehabilitation of the structures. Documentary evidence from period plans, maps, drawings, photographs and other sources along with investigation of the existing buildings will be used to ensure accurate repair, rehabilitation, and restoration of these structures.</p> <p>To minimize ground disturbance, all staging areas, materials stockpiling, vehicle storage, and other construction-related facilities and areas would be located in a previously disturbed area determined to be clear of archeological resources or on hardened surfaces such as existing parking areas. Mortar would be mixed at the staging areas and transported to the part of the structure under restoration, rehabilitation, or repair.</p> <p>The Cultural Landscape Report for the Dungeness Historic District will be amended to include the grounds of The Grange and will include recommendations for appropriate treatment and use.</p> <p>Areas around the exterior of Stafford Beach House disturbed by restoration or rehabilitation would be revegetated with native grass and landscape plantings and other landscape elements as appropriate.</p> <p>Potential ground-disturbing activities such as removal of existing walks or full demolition would be carefully planned because these areas may harbor presently unknown archeological resources. Construction documents would include stop-work provisions should archeological resources be uncovered and the contractor would be apprised of these protective measures during the pre-construction conference.</p> <p>Work limits would be established and clearly marked to protect resources, and all protection measures would be clearly stated in any construction/demolition specifications. Workers would be instructed to avoid conducting activities beyond the construction/demolition zone and their compliance monitored by the project Contracting</p>

	<p>Officer's Technical Representative.</p> <p>Archeological monitoring of any ground disturbance in currently unsurveyed areas, including inaccessible paved areas or areas beneath and adjacent to existing structures (walkways, steps, flooring, etc.) will help ensure that all cultural resources are identified and documented during the construction/demolition process.</p> <p>If previously unknown archeological resources are discovered, work will be stopped in the area of any discovery, protective measures will be implemented, and procedures outlined in 36 <i>Code of Federal Regulations</i> 800 will be followed. In consultation with a qualified archeologist, resources will be evaluated for their National Register of Historic Places eligibility, and in consultation with appropriate agencies, adjustment of the project design would take place to avoid or limit any adverse effects on resources.</p> <p>To reduce unauthorized collecting, construction/demolition personnel would be educated about cultural resources in general and the need to protect any cultural resources encountered. Work crews would be instructed regarding the illegality of collecting artifacts on federal lands to avoid any potential Archeological Resources Protection Act violations. This would include instructions for notifying appropriate personnel if human remains are discovered.</p>
Construction-related effects on soils	<p>Standard best management practices to limit erosion and control sediment release would be employed during any ground-disturbing activities. Such measures include use of silt fencing, limiting the area of vegetative disturbance, use of erosion mats, and covering banked soils to protect them until they are reused.</p>
Public Health and Safety	<p>An accident prevention program would be a required submittal. This plan would include job hazard analyses associated with each major phase of the proposed project and would emphasize both worker and public safety. It would include planning for emergency situations, including fires, tornados, building collapse, explosions, power outages, and rainstorms.</p> <p>The plan would also take into consideration the nature of the construction, site conditions, including seasonal weather conditions and the degree of risk or exposure associated with the proposed activity. Regular project inspections and safety meetings would ensure the safety of the premises both to construction staff and visitors.</p> <p>A defined work area perimeter would be maintained to keep all work-related impacts within the affected area. All areas that are subject to</p>

	<p>vehicular and pedestrian traffic would be kept clean of construction debris and soils. Sweeping of these areas would be implemented as necessary.</p> <p>Visitor safety would be ensured both day and night by fencing of the construction/demolition limits of the proposed action. Areas not safe for public entry would be marked and signed for avoidance. Unsafe conditions would be inspected for and corrected as soon as practicable to minimize the potential for staff or visitor injury.</p> <p>To the degree possible, impacts would be mitigated by the use of best management practices to reduce generation of dust and by limits on the types of chemicals (e.g., ones with high VOC ratings) used in new construction and rehabilitation.</p>
Visitor Experience	<p>Specific provisions would ensure that the majority of material deliveries were made during the week, rather than on weekends or holidays.</p> <p>All construction equipment would be equipped with mufflers kept in proper operating conditions, and when possible, equipment would be shut-off rather than allowed to idle. Standard noise abatement measures would include the following elements: a schedule that minimizes impacts to adjacent noise-sensitive areas, use of the best available noise control techniques wherever feasible, use of hydraulically or electrically powered impact tools when feasible, and location of stationary noise sources as far from sensitive public use areas as possible.</p>
Sustainability and Conservation Potential	<p>Shipment of materials in full loads would be encouraged, and vehicles and equipment would be maintained to minimize pollution generation.</p> <p>Restoration and rehabilitation work would incorporate energy efficient and sustainable design to minimize energy consumption where such design considerations would not compromise the integrity of historic properties.</p>

APPENDIX C

Choosing By Advantages / Value Analysis Report

Choosing By Advantages / Value Analysis Report

Note to Reader: This choosing by advantages/value analysis (CBA/VA) report was completed prior to preparation of the public release draft of the Former Reserved Properties Management Plan and Environmental Assessment (FRPMP). Please note that as a result of subsequent deliberation and consideration of additional information that was not available during the initial CBA workshop, there exist some discrepancies between the terminology and recommendations found herein and the text of the FRPMP. Specifically, the “Exclusive Residential Lease” management option described below is called “Reuse for Residential Purposes” in the FRPMP. In addition, the CBA/VA report below recommends that certain structures on the Schwartz-Jenkins property be reused as park housing, while the FRPMP calls for all structures on the property to be removed. Please refer to pages 36-37 and page 40 of the FRPMP for a detailed explanation of the rationale for both of these changes/discrepancies.

Preparation Date: February 28, 2011
Park: Cumberland Island National Seashore
Project Title(s): Former Reserved Properties Management Plan

Background

Stakeholder input was solicited regarding possible future uses of structures associated with expiring reserved estates in a series of internal and public scoping meetings held in 2009. The National Park Service (NPS) used that input to develop five management actions potentially applicable to each estate. These management actions (alternately referred to as management options) are thought to represent the full range of feasible approaches for managing resource conditions and visitor experiences at each tract. The management options are conceptual in nature. Specific design or development decisions related to the implementation of a preferred management option will be explored and determined in subsequent planning and design processes.

During the week of August 23, 2010, a value analysis panel convened for three days at Cumberland Island National Seashore (CUIS) in St. Mary’s Georgia. The purpose of the meeting was to identify a preferred management option for the following tracts:

- The Grange
- Goodsell-Phillips
- Schwartz-Jenkins
- Nancy’s Fancy
- Stafford Beach House
- Toonahowie

Participants

Tim Bemisderfer facilitated the CBA and VA processes. An evaluation panel composed of Fred Boyles, CUIS Superintendent; Carl David, CUIS Chief of Maintenance; John Fry, CUIS Chief of Resources Management; Dennis Parsons, CUIS Chief Ranger; and Julie Meeks, CUIS Administrative Officer formed the CBA decision making body.

Management Options

The five potential management options considered for this analysis are:

- Exclusive Residential Lease
- Reuse for Park Administrative Purposes
- Reuse for Visitor Service/Education/Recreation Purposes
- Removal and Disposal
- Reuse as Employee Housing

Exclusive Residential Lease

The NPS provides for leasing of historic as well as non-historic properties in park areas. A lease may not authorize an activity that could be authorized by a concessions contract or commercial use authorization. All leases must provide for fair market value rent as determined by an appraisal. All net income is reinvested to fund historic preservation, capital improvements of the historic properties, park infrastructure, and any deferred maintenance needs.

In appropriate circumstances, the NPS may enter into a historic lease with a non-profit organization or unit of government without going through a public solicitation process. 36 CFR §18.9. To enter into such a lease, the NPS must determine that the non-profit or governmental use of the property will contribute to the purposes and programs of the park area. All other requirements of 36 CFR Part 18 are applicable to leases with non-profits or governmental units.

The NPS Director may issue a request for bids if the amount of rent is the only criterion for award of a lease. The Director must issue a request for proposals when the award of a lease is based on selection criteria other than the rental rate. A request for proposals may be preceded by issuing a request for qualification. The purpose of the qualifications solicitations is to select a "short list" of potential offerors that meet minimum management, financial and other qualifications necessary for submission of a proposal in response to a request for proposals.

The NPS recognizes the ongoing operations and maintenance costs of its facilities and the need to be able to sustain them over time. The NPS must also avoid the future operation and maintenance costs of unnecessary or ineffective facilities, regardless of how assets are funded.

Implementation of this management option presumes that the terms of a historic or non-historic lease would insure some level of benefit to the American public. As lessor, the NPS would exchange some of its risk and liability for maintaining the property for granting limited exclusive use rights to the lessee.

Negotiation of the terms and conditions of any future lease agreement is beyond the scope of this planning process.

Reuse for Park Administrative Purposes

Scoping comments indicate a need for additional NPS administrative office space, storage, etc...on the island. Facilities with high communication capability are preferred.

When management facilities must be located inside the park, they will be located away from primary resources and features of the park and sited so as to not adversely affect park resources or values or detract from the visitor experience.

Existing non-historic structures may be used for management facilities, including administrative offices, storage, and maintenance structures. Historic properties will be used to the maximum extent practicable, provided that the use will not affect their significance.

Architectural details of renovations or rehabilitations will be modified to (1) reflect regional and park design themes and harmonize with the natural surroundings; (2) preserve the natural and cultural environments; (3) provide for resource conservation; (4) provide for energy efficiency or the use of renewable energy sources; (5) limit chemical emissions; and (6) foster education about sustainable design.

Negotiation of the terms and conditions of any future lease agreement is beyond the scope of this planning process.

Reuse for Visitor Service/Education/Recreation Purposes

Scoping comments indicate a need for additional infrastructure that supports visitor service, interpretive and educational programs for visitors.

Informational and interpretive facilities are provided to assist park visitors in appreciating and enjoying the park and understanding its significance.

Such facilities must be developed without impairing the park's natural or cultural resources and will be constructed only when it has been determined that indoor media are the most effective means of communicating major elements of the park story and that a central public contact point is needed.

A visitor service facility may include information services, sales of educational materials and theme-related items, audiovisual programs, exhibits, and other staffed or self-help programs and spaces necessary for a high-quality visitor experience.

Additionally, the need for restrooms, drinking fountains, and other basic visitor requirements will be considered during the planning and design stage. The size and scope of all visitor centers will be evaluated using the Visitor Center Planning Model or similar tool before submitting any visitor center project to the Director for approval. Prescribing specific development details or construction techniques is beyond the scope of this planning process.

Implementation of this management option does not preclude, but rather encourages engaging in partnerships and lease arrangements to achieve its informational and interpretive goal in ways that lower NPS costs and reduce maintenance responsibilities. Negotiation of the terms and conditions of any future lease agreement is beyond the scope of this planning process.

Removal/Disposal

NPS management policy requires that structures that are no longer functional in their present locations or are determined to be inappropriately placed in important resource areas, will be removed subject to appropriate compliance.

Park staff and stakeholder scoping comments indicate a deep concern about the potential impacts of non-historic structures in park areas that currently express wilderness character, or areas that could be modified to express more wilderness character.

The NPS will exercise an appropriate level of sensitivity to the emotional ties previous reservers and other stakeholders may sustain for structures identified for removal. However, prescribing the methods and means of removing specific structures is beyond the scope of this planning process.

Reuse as Employee Housing

When management facilities must be located inside the park, they will be located away from primary resources and features of the park and sited so as to not adversely affect park resources or values or detract from the visitor experience. Historic properties will be used to the maximum extent practicable, provided that the use will not affect their significance. Design and development plans will be modified to (1) reflect regional and park design themes and harmonize with the natural surroundings; (2) preserve the natural and cultural environments; (3) provide for resource conservation; (4) provide for energy efficiency or the use of renewable energy sources; (5) limit chemical emissions; and (6) foster education about sustainable design.

Occupancy of NPS employee housing is permitted or may be required to provide for timely response to park protection needs, to ensure reasonable deterrence to prevent threats to resources, and to protect the health and safety of visitors and employees. Acceptable and appropriate locations for employee housing will be determined based on these prevention or response services provided for the benefit of the government in meeting the NPS mission.

Park housing can be provided for persons who are essential to the management and operation of the park. These may include not only NPS employees, but also concession employees, volunteers in the parks, Student Conservation Association volunteers, researchers, essential cooperators (for example, schoolteachers, health personnel, contractors, state or county employees), and employees of another federal agency.

Evaluation of Management Options

Methodology

A preferred management option was selected using Choosing by Advantages (CBA) - a decision making process based on calculating and compiling the advantages of different alternatives for a variety of factors and subfactors.

Factors and Subfactors

The NPS uses the term “factor” to describe five standard categories of information that should be considered in the CBA decision making process. The five standard NPS CBA factors are:

- Prevent loss, maintain and improve condition of resources
- Protect public and employee health, safety, and welfare
- Improve operational efficiency, reliability, and sustainability.
- Provide visitor services and educational and recreational opportunities
- Provide other advantages to the NPS

For project-specific CBA analysis, the standard NPS factors can be further defined by a series of “subfactors” which more closely represent the most important on-site project conditions.

Ten subfactors were identified for use in this CBA analysis.

- Reduces the visible and audible evidence of human occupation
- Enhances natural resource protection
- Enhances preservation of a historic structure or landscape
- Enhances employee, volunteer, and/or visitor safety
- Provides additional office and storage space for NPS use.
- Enhances energy conservation or reduces energy consumption.
- Provides infrastructure for visitor service, interpretation, and educational programs.
- Minimizes the NPS maintenance and operational burden.
- Provides additional indoor facilities that would allow persons to stay in the park overnight.
- Improves access for persons with disabilities.

High and Minimum Assessment Criteria

High and minimum assessment criteria were developed for each subfactor. High criteria generally describe the most favorable or desirable conditions that could be achieved under ideal circumstances. Minimum criteria generally reflect the associated minimum standards permitted by Federal Law or NPS policy. In instances where minimum criteria have not been established by law or policy, none are specified. High and minimum assessment criteria for each subfactor are described below:

Reduces the visible and audible evidence of human occupation

- High Criteria: Site exists in an untrammelled condition. Removing structures within existing designated wilderness or areas with existing high wilderness character is

preferred. The absence of sounds related to human occupation, particularly noise associated with motor traffic, is the preferred condition.

- Minimum Criteria: Changes to existing conditions would comply with applicable Federal and State laws and NPS policy. Management options that do not meet the minimum criteria are considered not feasible.

Enhances natural resource protection

- High Criteria: Natural resources are preserved in such a manner that life cycles, processes, and/or systems are virtually undisturbed from their inherent course. Preserving threatened, endangered, and rare species is a high priority along with unique and critical habitat. Activities that promote the health of natural resources are preferred. Also preferred is the removal of activities that would destroy or disturb individuals, communities, processes, or systems.
- Minimum Criteria: Changes to existing conditions that comply with the National Environmental Policy Act, Endangered Species Act, other Federal and Georgia regulations relevant to natural resources, and/or agency policies and orders. Management options that do not meet the minimum criteria are considered not feasible.

Enhances preservation of a historic structure or landscape

- High Criteria: Historic landscapes and the interiors and exteriors of historic structures are preserved in a condition that best reflect the period of their historic significance. Preserving National Register or National Register eligible properties is a high priority. Preservation of existing material is preferred over restoration. The use of non-historic structures to relocate non-compatible uses from existing historic structure is encouraged.
- Minimum Criteria: Rehabilitation of a historic structure or landscape would comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy. Management options that do not meet the minimum criteria are considered not feasible.

Enhances employee, volunteer, and/or visitor safety

- High Criteria: Minimizing risk to personnel and maintaining environmental conditions that are healthy and safe is the preferred condition. Improving the safety level to reflect the risks associated with the island's remote location and existing environmental conditions is strongly desired.
- Minimum Criteria: Alternatives will satisfy all applicable NPS health and safety standards. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy. Management options that do not meet the minimum criteria are considered not feasible.

Provides additional office and storage space for NPS use

- High Criteria: New facilities satisfy an identified need. Space provides opportunities for personnel or equipment essential to the enjoyment of the area by visitors

- Minimum Criteria: Facility is consistent with the protection of park values. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy.

Enhances energy conservation or reduces energy consumption

- High Criteria: All facilities and operations incorporate sustainable design elements and practices to ensure that water and energy efficiency, pollution prevention, and waste prevention and reduction are standard practice. Opportunities to demonstrate energy conservation leadership by NPS are preferred. Energy conservation measures that lower operating costs are preferred.
- Minimum Criteria: New facilities and operations incorporate sustainable design elements and practices to ensure that water and energy efficiency, pollution prevention, and waste prevention and reduction are standard practice. Existing facilities and operations are modified as practicable. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy.

Provides infrastructure for visitor service, interpretation, and educational programs

- High Criteria: Creating multi-use facilities that can support a variety of visitor services is preferred. Alternatives that support large and small interpretation programs are preferred. Alternatives that support opportunities for interpretation of historic and natural resources are preferred. Alternatives that provide new visitor services that are not already provided are preferred. Public use facilities that satisfy an existing or anticipated visitor operational need (visitor contact stations, comfort stations, first aid station, overnight cabins, etc) are preferred. Structures that increase personal interpretive services are preferred. Structures situated to stimulate the use of alternate transportation routes, bicycle routes, and pedestrian routes are preferred. Structures that harmonize with the area and cultural resources in proportion, color and texture are preferred. Structures that are not vulnerable to wildfire and other natural hazards are preferred.
- Minimum Criteria: New facilities must be necessary for the enjoyment of the area and consistent with the protection of park values. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy. Management options that do not meet the minimum criteria are considered not feasible.

Minimizes the NPS maintenance and operational burden

- High Criteria: Allows the NPS to efficiently maintain resources and conduct operations without the need to increase staff or purchase specialized equipment.
- Minimum Criteria: Minimum maintenance standards as specified by NPS management policy, including the Secretary of the Interior's Standards for the Treatment of Historic Properties where appropriate, and other Federal and State regulations.

Provides additional indoor facilities that would allow persons to stay in the park overnight

- High Criteria: Well built and fully functional structures are preferred. Structures with adequate and existing utility connections are preferred. Structures capable of housing a variety of group types are preferred. Structures that provide types of overnight

accommodation not currently available are preferred. Flexibility in use is preferred over non-flexibility in use. Structures with full kitchens and multiple bathrooms are preferred. Structures not located in environmentally sensitive areas are preferred. Facilities that serve the entire scope of the American or visiting public are preferred.

- Minimum Criteria: New facilities must be necessary for the enjoyment of the area and consistent with the protection of park values. Changes to existing conditions would comply with applicable Federal and State laws and NPS policy. Management options that do not meet the minimum criteria are considered not feasible.

Improves access for persons with disabilities

- High Criteria: Universally accessible structures are preferred. Structures located near accessible transportation are preferred. Structures with water access are preferred. Structures situated to stimulate the use of alternate transportation routes, bicycle routes, and pedestrian routes are preferred. Structures that harmonize with the area and cultural resources in proportion, color and texture are preferred. Structures that are not vulnerable to wildfire and other natural hazards are preferred.
- Minimum Criteria: Visitor facilities must be necessary for the enjoyment of the area and consistent with the protection of park values. Wilderness recreation should balance the intent of access and wilderness laws and provide the highest levels of protection to the wilderness resource.

Assessment of Alternatives

The scale below was used by the CBA evaluation team to measure the extent each alternative satisfied the established criteria for each reserved property.

- Exceptional – results of implementing the alternative clearly meet and exceed the high criteria. An assessment of exceptional is the most desirable assessment and indicates that implementing the alternative would most likely result in a highly desirable, unique, or beneficial condition.
- Moderate – results of implementing the alternative generally satisfy many of the conditions described in the high criteria. An assessment of moderate is a positive assessment and indicates that implementing the alternative would result in a significantly improved and beneficial, but not perfect, condition.
- Minor – results of implementing the alternative do not satisfy conditions described in the high criteria but clearly exceed the minimum criteria and fall well short of resource impairment. An assessment of minor is a neutral assessment acknowledging that implementing the alternative would result in a less than optimum condition but that the associated negative issues can be successfully managed to minimize their impact on park efficiency, visitor experience, or resource protection goals.
- Negligible – results of implementing the alternative fall well short of the high criteria but still exceed minimum criteria for the factor and do not cause resource impairment. An assessment of negligible generally indicates that implementation of the alternative would result in a flawed condition that negatively affected park efficiency and/or was perceived by visitors as a negative distraction, inconvenience, or unfulfilled desire.

A Summary Table that highlights the subfactor assessments for each alternative is shown in Attachment 3.

Differences

Differences between alternatives were determined by comparing the subfactor assessments. The table shown in Figure 1 was used to express the advantage of one alternative over another for each subfactor.

Lowest subfactor assessment for alternatives (noted by an underline in CBA Analysis Summary Table)								
<table><tr><th>Exceptional</th><th>Moderate</th><th>Minor</th><th>Negligible</th></tr></table>					Exceptional	Moderate	Minor	Negligible
Exceptional	Moderate	Minor	Negligible					
Subfactor assessment for action alternative being compared	Exceptional	(no advantage)	small advantage	medium advantage	large advantage	Advantage Advantage = amount of difference between compared assessments		
	Moderate		(no advantage)	small advantage	medium advantage			
	Minor			(no advantage)	small advantage			
	Negligible				(no advantage)			

Note: a "no advantage" advantage is represented in the CBA Analysis Summary Table by a blank cell

Figure 1. Subfactor to Advantage Conversion Table

Total Importance Value

Once the advantages for each subfactor were determined, a compiled list of advantages was created. A most important advantage was selected from the compiled list and assigned an importance value of 100. The remaining advantages were then given importance values relative to the most important advantage and totals calculated for each action alternative.

A summary matrix of Total Importance Values for each property for all management options is shown in Attachment 1. A more detailed matrix of subfactor assessments and total importance values for each alternative is shown in Attachment 2.

Cost Estimates

A Class C cost estimate was prepared for each viable management option.

Value Analysis

A cost/importance curve was created for each alternative based on the total importance value calculated in the CBA process and a Class C cost estimate. Cost Importance Curves are shown for each alternative in Attachment 2.

Selection of Preferred Alternative Action

The preferred alternative action for each property was selected based on its superior cost/importance curve relative to the other alternative actions. Superior cost importance curves typically exhibit a higher importance value relative to cost. Cost curves that rise at a slope greater than 45 degrees were considered more desirable. Cost curves that are flat or descending were considered less desirable.

Summary of Analysis

The Grange

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on the site's potential for preserving historic resources and promoting educational programs when used for visitor services than minimizing the NPS's maintenance and operational burden when leased. Removal was not considered a feasible management option because of the structure's historic significance.

Overview of Value Analysis: Lower cost and moderate importance value was associated with leasing, lower cost and lower importance values were associated with park operations and housing, and higher cost and higher importance value was associated with visitor services.

Summary Recommendation: Reuse for Visitor Service/Education/Recreation Purposes. Incorporating the Grange into the Seashore's interpretive program for cultural and natural resources would significantly enhance visitor experience and understanding. This structure is ideally situated for inclusion in the "Footsteps Tour" presently offered to visitors. The house and grounds are well suited for use as an environmental and cultural education facility. A historic lease for exclusive, private residential use would not allow nearly the same level of public access and appreciation. Better sites exist to meet the Seashore's housing and administrative needs.

Nancy's Fancy

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on reducing the evidence of human occupation, preserving natural resources, and reducing the NPS maintenance burden when removing the structure.

Overview of Value Analysis: Lower cost and higher importance value was associated with removal. Moderately low importance value and high costs associated with the visitor service option. Lower importance values and higher costs were associated with lease, housing, and park operations options.

Summary Recommendation: Removal. Nancy's Fancy is deteriorated and cannot be brought up to NPS standards at reasonable cost. It is located in a natural area near the beach and dunes that has the potential to revert to a more primitive character. The location is not ideal for park administrative or housing purposes.

Goodsell/Phillips

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on enhancing preservation of a historic structure or landscape when the site was reused for housing or park operations because of the benefits obtained by relocating current non-compatible park functions from historic structures near the historic district to this site.

Overview of Value Analysis: Lower cost and lower importance values were associated with removal and lease options. Higher cost and higher importance values were associated with reuse for housing. Higher cost and moderately high importance were associated with reuse for park operations. Higher cost and lower importance were associated with reuse for visitor Service/education/recreation purposes.

Summary Recommendation: Reuse as Housing. Two houses on this tract are located near existing employee housing in the “Davisville” portion of the Seashore. Using this site for housing would allow NPS to move personnel out of historic structures in the Dungeness Historic District. The historic structures could then be better interpreted to the public. If further study reveals that the existing structure cannot be adapted at reasonable cost, the structure can be removed and the site used for new housing.

Schwartz-Jenkins

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on improving access for persons with disabilities when the site was not removed. Evaluators placed a higher level of importance on minimizing the NPS maintenance burden when the site’s structures were leased or removed. Evaluators placed a higher level of importance on providing storage space for the NPS when the site was reused for park operations, visitor services, and housing.

Overview of Value Analysis: Lower cost and lower importance values were associated with removal and lease options. Higher cost and higher importance values were associated with reuse for housing. Higher cost and moderately high importance were associated with reuse for park operations. Higher cost and lower importance were associated with reuse for visitor Service/education/recreation purposes.

Summary Recommendation: Reuse efficiency-type structure and guest cabin as Housing. The original house on this tract is deteriorated and cannot be brought up to NPS standards at reasonable cost and should be removed.

Stafford Beach House

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on minimizing the NPS maintenance burden when the site was leased. Evaluators placed a moderately higher level of importance on enhancing energy conservation when the site was reused for visitor services, housing, or leased. Evaluators placed a moderately high level of

importance on providing infrastructure for visitor services, interpretive, and education programs when the site was reused for visitor services. Removal was not considered a feasible management option because of the structure's historic significance. While reuse of the site as housing was included among the highest importance values in only one subfactor, it was seen as having value across a relatively broader range subfactors than the other management options and received the highest aggregate total importance value.

Overview of Value Analysis: Relatively moderate cost and lower importance values were associated with the park operations option. Higher cost and lower importance values were associated with the visitor service option. Lower cost and moderately high importance values were associated with the lease management option. Moderately high cost and high importance values were associated with reuse of the site for housing.

Summary Recommendation: Housing. This structure is well placed to house personnel, researchers, and volunteers working on scientific and other research projects.

Toonahowie

Overview of Importance Value Assessment: Evaluators placed a higher level of importance on reducing the evidence of human occupation, enhancing natural resource protection, and preservation of a historic structure or landscape when the structure was removed. Reuse of the structure for park operations, employee housing and leasing were not considered feasible management options because of the structure's location in a designated wilderness area.

Overview of Value Analysis: Relatively higher importance value and lower cost were associated with removal.

Summary Recommendation: Removal. The house and related structures at Toonahowie are located in the Seashore's designated wilderness area. Under the Wilderness Act of 1964, designated wilderness is to be an area without permanent structures. 16 U.S.C. § 1133(b), (c). Accordingly, these structures need to be removed in order to restore the area's wilderness character.