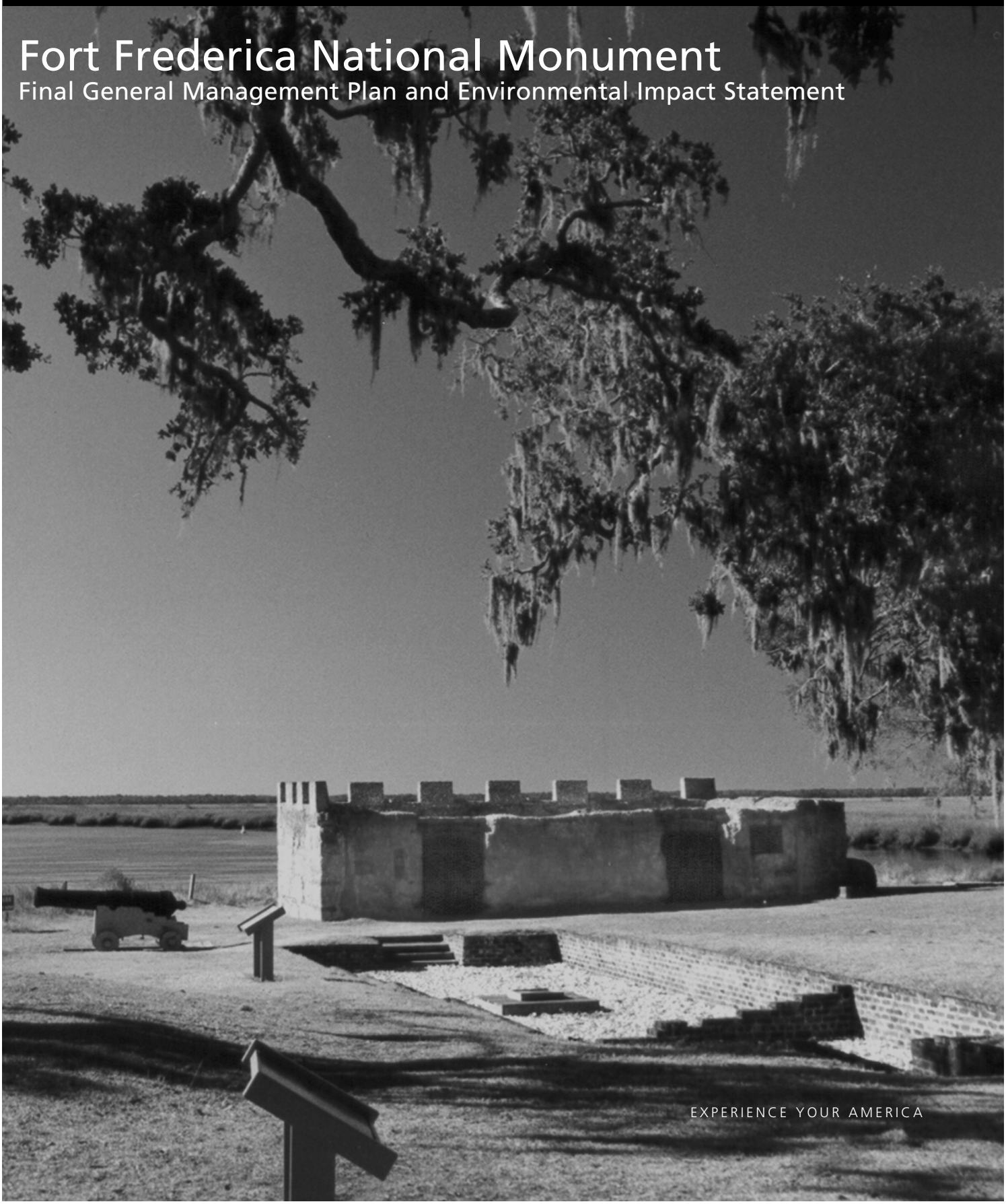
National Park Service
U.S. Department of the Interior

Fort Frederica National Monument
Saint Simons Island, Georgia

Fort Frederica National Monument

Final General Management Plan and Environmental Impact Statement



EXPERIENCE YOUR AMERICA

Fort Frederica National Monument

Final General Management Plan and Environmental Impact Statement

Fort Frederica National Monument
Saint Simons Island, Georgia

Produced by the Southeast Regional Office
National Park Service

U.S. Department of the Interior
Washington, DC

Final General Management Plan
Environmental Impact Statement

Fort Frederica National Monument, Saint Simons Island, Glynn County, Georgia

The National Park Service has prepared this Final General Management Plan/ Environmental Impact Statement for Fort Frederica National Monument to establish its management philosophy and management direction for the next 15 to 20 years. Although the legislation creating the National Monument was enacted in 1936 and the site has been open to the public for more than 50 years, this is the first General Management Plan (GMP) for the site. General Management Plans for units of the National Park System have been legislatively required since the enactment of the National Parks and Recreation Act of 1978, Public Law 95-625. Specific issues that have been addressed in this GMP include interpreting the urban environment of the colonial Frederica period while preserving the appearance of isolation and sense of antiquity associated with the site, whether or not to provide additional visitor access from the Frederica River, protection of archeological resources by leaving them undisturbed versus pursuing an active program of archeological data recovery, whether to relocate the visitor center and administrative complex to protect resources and the historic viewshed, and protection of the National Monument's resources from the effects of growth and development outside its boundaries.

The plan presents three alternative management strategies in addition to the so-called "no action" alternative, which continues present management policies into the future. The alternatives treat resource preservation and protection in a very similar manner with the exception of the (NPS) preferred alternative, Alternative B, which allocates a larger portion of the site to a more protective zoning category. The alternatives differ significantly however, in the area of visitor experiences, ranging from a heavy emphasis on interpretive archeology in Alternative A to a much broader range of historical periods interpreted under Alternative C. Alternative D is the "no action" or current conditions alternative.

The potential environmental impacts resulting from each of the alternatives are discussed in Chapter Five of the document.

The Final General Management Plan has been distributed to other agencies and interested organizations and individuals. After at least a 30-day no-action period, a "Record of Decision" on the final approved management plan will be issued by the NPS regional director. For further information, contact Superintendent, Fort Frederica National Monument, Route 9, Box 286C, Saint Simons Island, Georgia 31522. The Superintendent can be reached by telephone at 912-638-3639.

Summary

The National Park Service (NPS) has prepared this Final General Management Plan/ Environmental Impact Statement to present alternatives for the management of Fort Frederica National Monument for consideration by the agency, state and local government, and the public. The General Management Plan provides a vision and management framework for the National Monument. It does not present specific locations, footprints, or design features for facilities that the plan proposes. These items will be included in later implementation plans along with environmental assessments that more specifically and quantitatively evaluate the impacts from proposed facilities and management activities.

The three conceptual alternatives presented in this document are based on park purpose, significance, management goals, and visitor use goals, which in turn are based on the National Monument's enabling legislation and legislative history and on NPS policies. The plan provides a foundation for park management and visitor use and serves as a guide for park programs and priority setting.

Alternative A would emphasize the use of archeological methods and the tangible discoveries of archeological investigations to tell the story to visitors. Active archeological investigations would be going on regularly as part of the program. There would be opportunities for visitors to interact with archeologists on site and in labs, and with other park staff in positive and meaningful ways. Under this alternative there would be additional archeological infrastructure including a lab to wash, screen, dry, number, and store artifacts in a controlled (humidity, temperature, insects) environment. There would also be office space for a curator and an archeologist as well as classrooms, additional exhibit space and storage space for equipment.

Alternative B, which is the National Park Service's preferred alternative, would attempt to enable the visitor to experience some of the sights, sounds, smells, and other sensory impressions of daily life in the Fort Frederica colonial military settlement on Saint Simons Island, Georgia. Although archeological field investigations would be possible in this alternative to provide information on landscape elements and other features of the settlement, there would be no construction of additional labs or other facilities as in Alternative A. There would be more emphasis on re-establishing a visual impression of the colonial Frederica scene by using suitable methods such as appropriate trees, shrubs, ground covers and other fitting and historically accurate landscape elements. Also under this alternative, when the existing visitor center and administrative complex becomes functionally obsolete, the National Monument would seek authority and funding to demolish it and clear the site and build a new visitor center in a currently developed or previously disturbed area that is not visible from the historic town site. Administrative offices would be relocated to renovated park residences. The area formerly occupied by the visitor center and parking area would be replanted with native trees and shrubs and allowed to return to a more natural forested condition. Finally, Alternative B provides for the possibility of constructing a dock on the Frederica River to permit tour boats and water taxis to bring visitors to the site in the same manner that the original Frederica settlers arrived.

Alternative C would add additional interpretive themes to the story of colonial Frederica to place the monument site in the broader context of coastal sea island history. These themes would include pre-European, post-contact, plantation, and other historical periods associated with the Frederica site. Some on-site archeology would be necessary to reveal information necessary to interpret these other historical periods. The primary focus would remain the Fort Frederica settlement period, but the expanded number of stories would require an expansion of the visitor center to accommodate additional exhibits and programs.

Alternative D is the no-action alternative, which would continue current management practices and policies into the future. Current interpretive programs include an aging 25-minute visitor center film, ranger-led tours, living history demonstrations, trade and craft demonstrations, military encampments and the annual Frederica Festival held the first weekend in March. Current resource management activities include riverbank stabilization, monitoring and maintenance of historic structures and earthworks, hazardous tree management and management of the National Monument's museum collection.

Contents

Introduction 1

Chapter One: Planning Background 4
Purpose Of And Need For Action 4
The General Management Plan Process 4
Need For The General Management Plan 4
Servicewide Laws And Policies 5
Purpose Of Fort Frederica National Monument 5
Significance Of Fort Frederica 5
Park Mission And Mission Goals 5
Mission Statement 5
Mission Goals 5

Chapter Two: Scoping, Issues, and Values 6
Decision Points 6
Major Values Potentially At Stake 7

Chapter Three: Alternatives Including The Proposed Action 8
Management Zone Descriptions 8
Management Alternatives 10
Alternative A 11
Alternative B 19
Alternative C 29
Alternative D - No Action 37
Actions Common To All Alternatives 40
Estimated Costs 40
Environmentally Preferred Alternative 41

Chapter Four: Affected Environment 43

Chapter Five: Environmental Consequences 46
Impact Topics 46
Discussion of Impacts 47
Alternative A 57
Alternative B 60
Alternative C 66
Alternative D 69

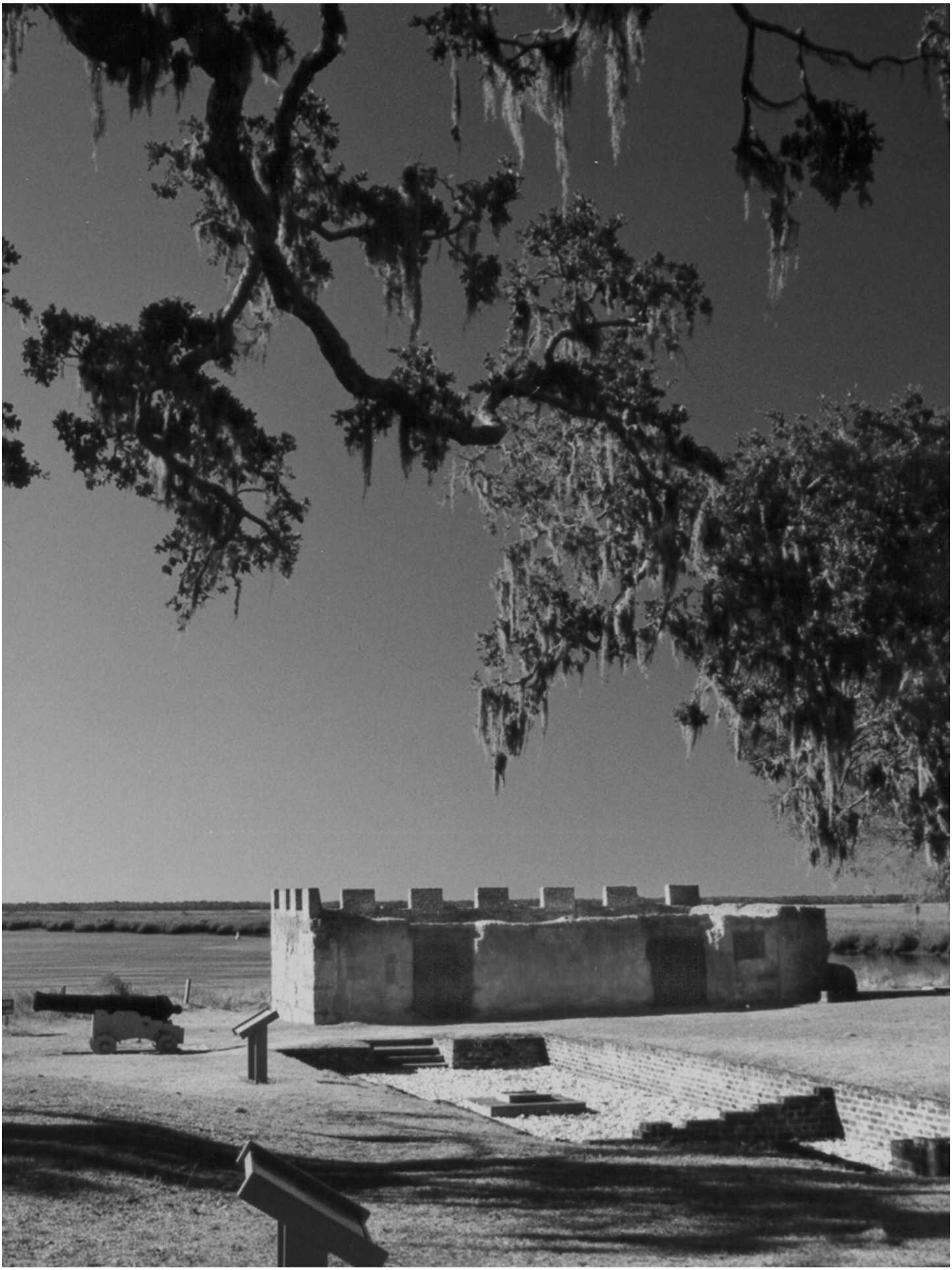
Chapter Six: Consultation and Coordination With Others 73
History of Public Involvement 73
List Of NPS Preparers 73

Appendix A - List Of Scoping Issues 75

Appendix B - Manatee Protection Conditions 78

Appendix C - References 86

Index 87



Introduction

Fort Frederica National Monument is located 12 miles northeast of Brunswick on Saint Simons Island, a Georgia barrier island. The monument's authorized boundary contains 250 acres. This includes the Bloody Marsh Battle Site, located 6 miles south of the Fort Frederica headquarters and visitor center. Fort Frederica preserves the remains of a fortified town established and laid out by Governor James Oglethorpe in 1736 to defend against invasion from the Spanish colonies in Florida. In addition to the ruins of the fort and remains of foundations of the town's residences, development at the site includes a visitor center/ museum/administrative complex, maintenance buildings, 2 employee residences, monuments, roads and parking lots. The Bloody Marsh Battle site contains a parking lot, an interpretive shelter, and a granite memorial donated by the Georgia Society of the Colonial Dames of America.

Fort Frederica represents one phase of our nation's early colonial history--the period when England and Spain competed for control of the land between St. Augustine and Charleston. It was one of the earliest English settlements of any kind in the territory that was to become the State of Georgia. It was preceded only by Fort King George (1721), located a mile east of present day Darien, Georgia, and the Cities of Savannah (1733) and Augusta (1735), also established and planned by Oglethorpe. Castillo de San Marcos and Fort Matanzas National Monuments, National Park Service historic sites in St. Augustine, commemorate the Spanish side of the struggle with the British for control of Georgia. Fort King George, a state of Georgia historic site about a 25-mile drive north from Fort Frederica, was the first British outpost in Georgia, put there to defend its claim against attacks by the French from the west and the Spanish from the south. Between Fort Frederica and Castillo de San Marcos, at the mouth of the St. Johns River in Jacksonville sits Fort Caroline National Memorial, a National Park Service site that represents the efforts of France to get a share of the riches the Spanish were gaining through trade and plunder. Together these sites demonstrate the intensity of the competition between the three most powerful nations on earth at the time (Britain, France, and Spain) for domination of new world and its resources. Adjacent to Fort Caroline and extending northward across the St. Johns River to the Nassau River is the Timucuan Ecological and Historic Preserve. Within the Preserve's boundaries are federal, state, and city park lands as well as hundreds of privately owned properties. The Preserve was inhabited by the native Timucuan people for more than 4,000 years before the arrival of the first Europeans. It is also one of the last unspoiled coastal wetlands on the Atlantic Coast, featuring salt marsh, coastal dunes, hardwood hammock, as well as salt, fresh, and brackish waters, all rich in native vegetation and animal life. The area is a further example of the competition for resources in the new world, having been administered by France, Spain, England, and the United States at various times.

Fort Frederica was a prosperous community of substantial homes whose residents were the tradesmen and farmers who supplied the garrison stationed there in much the same way that communities surrounding large military installations today provide goods and services for those installations upon which they depend for their prosperity. In 1739 Britain and Spain entered a state of war that eventually involved Fort Frederica. Oglethorpe's unsuccessful attempt to take Spanish St. Augustine in 1740 was answered in 1742 when the Spanish Governor of Florida attempted to capture and destroy Fort Frederica. Oglethorpe's troops routed the invaders in two separate skirmishes at Gully Hole Creek and Bloody Marsh. A treaty finally established peace in 1748 and the British Crown withdrew Frederica's military garrison in 1749. Following the withdrawal of the garrison, the town of Fort Frederica fell into decline and in 1758 a fire destroyed most of the existing structures in the town.

Today, the visitor to Fort Frederica National Monument can observe few visible remnants of the bustling frontier military settlement that existed from 1736 until the regiment was disbanded in 1749, precipitating the decline and partial abandonment of the community. The fate of Frederica is reminiscent of modern military towns that wither away when the installations that have supported their existence for so long, are closed.

There have been at least 40 archeological investigations at Fort Frederica since the 1940's. Many of the excavated sites have been left exposed as interpretive exhibits, with some stabilization accomplished to protect the features. The 21 brick and tabby ruins of the fortified town of Frederica consist of the remains of the burial vaults, the foundations of homes within the town wall, the King's Magazine, and the barracks. The King's Magazine is slightly less than half of its original size and half of that is reconstructed. All that remains of the barracks are its entrance tower and its foundations.

Earthworks that formed part of the town's defenses are still in evidence though greatly reduced in size and softened in shape by time

and weather. The moat is also still visible in spite of having been partially filled over the past 250 years.

Thousands of artifacts that were recovered through archeological excavations are housed in the Monument's collection and in storage at the National Park Service's Southeast Archeological Center (SEAC) in Tallahassee, Florida. In addition the Margaret Davis Cate archives collection, bequeathed to Fort Frederica National Monument in 1961, is on long-term renewable loan to the Georgia Historical Society in Savannah. Mrs. Cate was an avid historian, collector, amateur archivist, and author whose knowledge and personal efforts were instrumental in the establishment of Fort Frederica National Monument. The Cate collection includes 10,000 documents, books, manuscripts, photographs, maps, tapes, and recordings containing a vast amount of information on the events and people of the Fort Frederica settlement as well as the history of Saint Simons Island and other islands of coastal Georgia. The Cate collection is a valuable research resource for both National Park Service staff and serious researchers from the general public.

Fort Frederica is also the site of one of the most innovative and successful examples of "Parks as Classrooms" in the National Park System. The Archeology/Education program provides an opportunity for every fourth grader in the Glynn County public school system to learn about the history of Fort Frederica and the science of archeology through a curriculum of classroom instruction, archeological field investigations, and laboratory work. It also helps instill in the students a sense of the importance of protecting and preserving cultural resources. This program was made possible in part by the discovery of a trench near the National Monument's maintenance compound that contained thousands of artifacts previously uncovered by professional archeologist Joel Shiner and later reburied on the site. In addition through the efforts of Superintendent Mike Tennent and financial contributions from the Frederica Association, the National Park Foundation, and numerous other partners and sponsors, the equipment and teacher training necessary to launch this program were acquired.

Although Fort Frederica is primarily an archeological site containing cultural and historical resources, it's coastal location and historical isolation have bestowed upon it natural

resources worthy of note and protection. From the plain of the Frederica town and fort one can look west across the river and view the same "Marshes of Glynn"[1] that Oglethorpe saw 250 years ago. Approximately 99 acres of marsh on the west side of the Frederica River are part of the permanent boundary of Fort Frederica. In addition there are roughly 5 acres of marsh at the Bloody Marsh monument site. Surrounding the town site are 63 acres of upland pine and mixed hardwood forest. The forest helps protect the quiet and serenity of the Frederica town site from expanding residential developments to the east and north.

[1] "Marshes of Glynn" is the title of a poem by nineteenth century Georgia poet Sidney Lanier. "Glynn" refers to Glynn County, Georgia, the location of the City of Brunswick and Saint Simons Island.

Chapter One: Planning Background

Purpose of and Need for Action

The National Parks and Recreation Act of 1978, Public Law 95-625, requires the National Park Service to prepare a General Management Plan for every area that it administers. The purpose of this plan is to ensure that each park has a clearly defined direction for resource preservation and visitor use. General management planning is the first phase in a layered or segmented planning process. It focuses on why the park was established and what resource conditions and visitor experiences should be achieved and maintained over time. Decisions about site-specific actions will be deferred to implementation planning. The general management plan is designed to provide guidance for park managers for 15 to 20 years into the future assuming that conditions affecting management and operations remain relatively unchanged during this period.

The General Management Plan Process

This General Management Plan has been developed in consultation with National Park Service (NPS) program managers, other Federal agencies, state, local and regional agencies, interested organizations and individuals and the general public. It is based upon an analysis of existing and potential resource conditions and visitor experiences, environmental (including natural, cultural, and socioeconomic) impacts, and costs of alternative courses of action.

Need for the General Management Plan

Public Law 74-617 established the Fort Frederica National Monument on Saint Simons Island on May 26, 1936. The original Act limited the site to 80 acres and authorized the Secretary of the Interior "to accept donations of land, interests in land, buildings, structures, and other property within the boundaries of the said national monument…". It also authorized acceptance of donations of funds for the purchase of tracts of land within the National Monument. Congress, through Public Law 81-793, amended the establishing legislation on September 20, 1950 to increase the authorized boundary from 80 acres to 100 acres. Finally, on May 16, 1958 Congress approved Public Law 85-401, which increased the authorized boundary from 100 acres to 250 acres and directed the Secretary of the Interior to acquire, "by purchase, condemnation, or otherwise", the Battle of Bloody Marsh memorial site on Saint Simons Island. Furthermore, Public Law 85-401 authorized and directed the acquisition of additional marshland acreage subject to the 250-acre limitation, across the Frederica River to the west of the National Monument for additional protection of the historic scene. Fort Frederica acquired another 28 acres of land, including river frontage, on the south side of the town site in 1994. One issue this General Management Plan sought to address was how this newest addition should be managed.

In spite of these acquisitions, Fort Frederica remains vulnerable to adverse impacts to its historic scene and sense of antiquity caused by rapidly increasing development at the north end of Saint Simons Island, new causeway proposals, and traffic on Frederica Road. And because the National Monument has never had a GMP, there are no official plans or strategies for dealing with external threats. A consultant prepared a draft Master Plan in the late 1970's that noted the rezoning of the woodland surrounding Fort Frederica for planned residential developments and anticipated the potential impacts from these developments on the secluded and isolated atmosphere. This "visual serenity" has characterized the National Monument's environs since its establishment in 1936. The plan also foresaw residential properties intruding into the visual boundary of the fort and town area. Finally, the plan predicted huge demand for community open space and recreation by residents of these adjacent communities, resulting in damaging pressure on the fragile historic resources of the site. These predictions, made more than 20 years ago, are rapidly materializing. However, because the master plan and its recommended remedies were never adopted officially, the National Monument is not adequately prepared to deal with these external forces. Park management needs the GMP process and product to pre-

scribe actions and strategies to diminish and/or mitigate the impacts of these forces.

Servicewide Laws and Policies

Much of what constitutes good park management is specified in laws and policies that apply to all units of the National Park system. The National Park system encompasses all areas managed by the National Park Service including national parks, monuments, memorials, historic sites, rivers, recreation areas, battlefields, and other designations. Each of these areas (including Fort Frederica) must comply with the National Environmental Policy Act, the Threatened and Endangered Species Act, The Federal Water Pollution Control Act (Clean Water Act), the Clean Air Act, the National Historic Preservation Act, the Archeological Resources Protection Act, the Native American Grave Protection and Repatriation Act, the Historic Sites, Buildings and Antiquities Act, Executive Orders 11990 and 11988 (Wetlands Protection and Floodplain Management), and other laws and regulations ensuring the protection of resources and visitor services. For Fort Frederica the most important laws are the National Park Service Organic Act of 1916 and the 1936 Act that established the National Monument. In accordance with regulations and the delegated authority provided in Title 36, Code of Federal Regulations, Chapter 1, Parts 1-7, each National Park Service Superintendent maintains a Compendium of regulatory provisions that are established for the proper management, protection, government, and public use of the area under his/her jurisdiction.

Purpose of Fort Frederica National Monument

The purpose of Fort Frederica National Monument is to preserve and protect the historical, archeological, and scenic resources associated with colonial Frederica and to use those resources to educate, interpret, explain and illustrate the role of Fort Frederica in American history.

Significance of Fort Frederica National Monument

1. The Fort Frederica town site and the associated Battle of Bloody Marsh Monument commemorate the British victory over the Spanish on Saint Simons Island that effectively ended the Spanish claim to Georgia and the Carolinas.

2. The settlement at Fort Frederica was home at various times during the Frederica period (1736-1758) for General James Edward Oglethorpe, founder and first governor of the British colony of Georgia and John and Charles Wesley, the founders of Methodism.

3. The National Monument contains a remarkable breadth of intact archeological resources of the colonial period and the site itself is important in the development of historical archeology as a science and as an educational medium.

Park Mission and Mission Goals

This proposed General Management Plan has been developed in order to achieve Fort Frederica National Monument's mission and its associated mission goals. The mission statement integrates the preceding statements of purpose and significance for the National Monument, describing the reason the park exists and the contribution it makes to understanding an important part of our nation's history. The four mission goals are derived from the mission, and broadly identify the desired conditions in the areas of resource management, site interpretation and visitor experience, facilities and park operations, and partnership development,that park management will seek to attain.

Mission Statement

The mission of the National Monument is more than preserving the physical remnants of Frederica. It is also important to preserve its unique sense of antiquity and to use this time capsule as a tool to educate present and future generations about the nation's colonial past.

Mission Goals

1. All cultural resources and their relationships with the land are protected and preserved.

2. Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

3. Fort Frederica National Monument uses current management practices, systems, and technologies to accomplish its mission.

4. Fort Frederica National Monument increases its managerial capabilities through volunteerism, partnerships and grants.

Chapter Two: Scoping, Issues, and Values

Introduction

The Fort Frederica planning team conducted "scoping" or issue identification sessions beginning on January 19, 1999 in the superintendent's office. The team met informally with Federal, state, regional, and local agencies as well as with a variety of private organizations and individuals to inform them about the planning project and to solicit their advice and input. In addition the team conducted public open house meetings in Saint Simons and in Brunswick, distributed newsletters with response cards to a mailing list created for this project, and developed a GMP website for the National Monument. These efforts led to the development of a list of issues (see Appendix A) and concerns that the team used to develop alternative management concepts. The first step in that process was the preparation of a list of "decision points".

Decision Points

Decision points are the issues the plan needs to resolve or the questions the plan needs to answer. They express the tension represented by people's different visions for the future of the park. The planning team identified these decision points by studying all the issues that people expressed during the initial scoping process.

The team reviewed every statement submitted during the scoping and reached consensus on placing each issue statement into one of five categories:

1. Suggested actions that are already required by law or policy. General management plans do not address issues for which action is already required by law or policy. For example, we are already required by law to make our facilities and programs accessible and we will comply with the law. Hence there is no need to address this type of issue in the GMP.

2. Suggested actions that are prohibited by law or policy. Likewise, the GMP does not address issues or suggested actions that are prohibited by law or policy.

3. Issues more appropriately addressed in implementation plans. General management planning in the National Park Service is very conceptual in nature. It is the first phase of tiered planning and decision making and it focuses on why the park was established and what resource conditions and visitor experiences should be achieved and maintained over time. Suggested actions that deal with specific design details or locations of facilities will be reserved for implementation plans.

4. Suggestions that are not planning issues. Operational, maintenance, law enforcement, and other aspects of day-to-day park management are not GMP planning issues.

5. Issues that are properly addressed in a GMP. Anything that is not filtered out by the first four criteria is a GMP issue.

Using this filter, the team produced a list of GMP issues. The planning team then paired issues with other issues that expressed opposing viewpoints to produce the following list of major decision points, which are the questions to be answered by the plan:

1. Can managers of the National Monument portray the urban environment of the colonial Frederica period while preserving the appearance of isolation and sense of antiquity that visitors frequently cite as an important element of the Frederica experience?

2. Can managers of the National Monument provide additional visitor access facilities from the Frederica River without unacceptable negative impacts on the Monument's natural and cultural resources and the viewshed from the town site?

3. Should managers of the National Monument preserve archeological resources in place (i.e. unexcavated) or pursue an active archeology and data recovery program?

4. Should the existing visitor center/park office complex be relocated to protect resources and the view of the historic scene?

5. Can park resources be protected from tremendous growth and development outside its boundaries without boundary expansion?

Major Values Potentially at Stake The major park values potentially at stake are those things that could be changed as a result of decisions made through the planning process. They represent trade-offs between competing values and form the basis for identifying impact topics in the environmental impact statement for this plan. The values potentially at stake for Fort Frederica are:

1. Long term preservation of archeological/cultural/natural resources.

2. Preservation of the aesthetic beauty and sensory experiences of the site and sense of antiquity.

3. Visitor understanding and appreciation of the period of significance (urban design, social experiment, Oglethorpe involvement, etc.).

4. Preservation of the integrity of the approach to the National Monument from Frederica Rd. and the view toward the marsh.

5. Using archeology to educate present and future generations about the past.

6. Physical access to the site to experience the environment of the settlement.

Chapter Three: Alternatives Including the Proposed Action

Management Zone Descriptions

Management zones are tools for integrating visitor use with resource management. They specify the desired resource conditions for different areas of the park and describe the desired visitor experiences based in large part on resource management concerns but also on the goal of maintaining a diversity of experiences for park visitors.

The Fort Frederica GMP team developed a set of management zone descriptions based on input from the public involvement process. These zones are necessary to help park management determine what visitor experiences should be provided in the park, what the essential elements of those experiences should be, how much of the resource base should be allocated to various visitor experiences, and where in the park the experiences should be provided.

For each management alternative all land and water within the National Monument is divided among the following zones. It is important to note that management zones do not overlap. That is because the National Park Service cannot manage the same area in two or more ways. Also, while the descriptions of the zones are identical for each preliminary management concept, the boundaries of some zones may vary from one management concept to another. Here then are the descriptions of the management zones that you will see depicted in different configurations on the maps of each of the management alternatives that follow.

Natural Resource-Based Passive Recreation Zone

Desired resource conditions:

This zone type would consist of vegetated communities exhibiting natural succession. The desired resource condition would be predominantly natural and management activities designed to encourage and support that condition would govern in this zone type.

Desired visitor experience:

Visitors would observe and experience a fairly natural environment with minimal development. They would encounter hot, humid conditions for much of the year, insects, wet areas, and possibly snakes. Comfort stations and water fountains would be up to a 20-minute walk away. Moderate to high level of exertion may occur in these areas.

Kinds and levels of management:

The goals of this zone type are primarily to provide visual screening of the historical and archeological areas from sights and sounds originating outside the National Monument boundary and from park maintenance and administrative areas and to provide natural resource based recreational opportunities. A low to medium level of management activity would be necessary to maintain this function. Such activity could include removal of exotic species, mowing, trimming, replanting native species, and pruning at the boundaries of the zone. Management could restrict the kinds of recreational activities that occur in this area.

Kinds and levels of visitor use:

Typical visitor activities in this zone would include hiking, picnicking, and nature photography. Levels of visitor use would vary depending on the season, time of day, insect populations, and weather conditions.

Kinds and levels of development:

Primitive (natural surface) trails would be possible in these zones, but visitors would not find picnic tables or shelters, comfort stations, or other major facilities.

Visitor Service Zone

Desired resource conditions:

This zone type would consist of necessary visitor facilities placed as unobtrusively as possible in an appropriate setting. Minimizing the impacts of these facilities on cultural resources of the National Monument would be a high priority.

Desired visitor experience:

In this zone, visitors would enter the National Monument and receive their initial orientation to

its physical resources and interpretive themes. The visitor would normally encounter other visitors as well as park staff in this zone. The facilities would be easily accessible and would provide shelter and relief from extremes of weather. The visitor would acquire an appreciation of the colonial and other historical periods associated with the site as well as its geography and general layout. This would occur by means of audiovisual presentations, interpretive programs, brochures, and exhibits. The visitor would then anticipate touring the site.

Kinds and levels of management:

Management activities would include regular maintenance of both the structural and landscape elements in the zone. It would also include periodic maintenance and rotation of exhibits and artifacts as well as formal, informal, and ad hoc interpretation. Ongoing management activities to ensure visitor safety and comfort would also take place.

Kinds and levels of visitor use:

Visitor activities would include viewing exhibits and audiovisual presentations, participating in interpretive programs, and photography. Visitors could expect to be in close proximity to other visitors and park staff. Levels of visitor use would be higher in this zone than in other zones of the National Monument.

Kinds and levels of development:

A visitor center/museum and bookstore could be located in this area as well as archeological labs and support facilities, classrooms, restrooms, an amphitheater and vending machines. The visitor service zone would also include means of access into the National Monument from public roads and a parking area for personal vehicles and tour buses. Both the location and the use of landscape materials would minimize the visual impact of this zone on the historic scene.

Historic Preservation Zone

Desired resource conditions:

The structural remains, cultural landscapes, and archeological resources would be protected as much as possible from further deterioration by natural processes or human activity. The landscape would be managed to promote cultural resource protection and interpretive objectives.

Desired visitor experience:

Visitors would perceive and understand the nature of Fort Frederica as a colonial urban and military settlement. Access to the historic preservation zone(s) would typically be from the visitor service zone. Once within this zone, the visitor would be effectively insulated from obtrusive sights and sounds. Low to moderate level of exertion may occur in these areas. Visitors could expect up to a 10-minute walk to find shelter or water.

Kinds and levels of management:

A moderate to intensive level of management would be required to prevent further deterioration of cultural resources. Management activities would include mowing of the areas around the existing exposed foundations as well as the earthworks, routine and appropriate treatment of tabby walls and historic brickwork, other vegetative control activities such as pruning and edging, and monitoring of the historic structures. Wayside exhibits for orientation and education would be common in this zone. Placement of new signs and exhibits, maintenance, repair, and replacement of existing exhibits, and other interpretive activities would occur in this zone to achieve interpretive objectives. Some active archeology may occur here.

Kinds and levels of visitor use:

Typical visitor activities would include viewing the foundations and remnants of colonial Frederica, viewing wayside exhibits, photography, enjoying the natural scene, and participating in interpretive programs. Encounters with other visitors would range from infrequent to very frequent depending on time of year, time of day, and the weather.

Kinds and levels of development:

Development in the historic zone could include wayside exhibits, benches, structures or other features designed to enhance the visitor's understanding of the area, and footpaths. These items would be of such a character as to promote both resource protection and visitor experience objectives.

Park Support Services Zone

Desired resource conditions:

This zone type would consist of necessary, park support facilities in an appropriate setting. Minimizing the impacts of these facilities on cultural resources of the National Monument would be a high priority. A moderate level of native, non-invasive landscape plantings such as grass, shrubs, small trees, flowers, and ground covers could be introduced and maintained to improve the visual appeal of structures.

Desired visitor experience:

Visitors would not normally enter the park support services zone. Should they enter, either unintentionally or to obtain information or assistance, they might frequently encounter

maintenance/administrative buildings, equipment, housing, materials, machinery in operation, lots of sound, and park staff.

Kinds and levels of management:

Moderate to intensive management in this zone would be directed toward maintenance of its buildings and grounds as well as staging and preparation for maintenance and resource protection activities in other zones.

Kinds and levels of visitor use:

Visitors would not normally enter the park support services zone except unintentionally, for park business purposes, or to seek aid or information.

Kinds and levels of development:

The park support services zone could include park offices, maintenance buildings, vehicle storage, artifact storage facilities, roads, parking areas, mechanical equipment and utilities.

Natural Resource Protection Zone

Desired resource conditions:

This zone would have the appearance of an undisturbed, nearly pristine natural environment. It would be carefully protected from degradation. Generally, the natural resource protection zone would exhibit the free play of natural resources and natural ecosystem succession.

Desired visitor experience:

The visitor would perceive the area to be undisturbed and essentially natural. The visitor will appreciate the beauty of the area and gain new understanding of the forces of nature in the coastal environment.

Kinds and levels of management:

Management activity in this zone would be minimal, only as necessary to maintain natural appearance, protect areas from negative visitor impact and occasionally to remove exotic species to promote health of the natural ecology. Cooperation with other entities having jurisdiction over natural resources would be an important aspect of management in this zone.

Kinds and levels of visitor use:

Visitor use would be limited to low-impact activities such as bird watching, photography and non-consumptive nature study. Use levels would likely remain low and would be monitored to assure achievement of zone objectives. Management could restrict the kind of activities that occur in this area.

Kinds and levels of development:

There would be no buildings, comfort stations, or other structures in this zone. Some trails or interpretive markers would be possible in less environmentally sensitive areas.

Management Alternatives

Introduction

The planning team developed the following three action alternatives after gathering and analyzing information on Fort Frederica's cultural and natural resources, visitor use and visitor preferences. The team solicited information on issues from Fort Frederica's management and staff, government agencies, special interest groups, and the general public through meetings, newsletters, personal contacts, and a web site. Using this information and purpose and significance statements for Fort Frederica, the team identified the resource conditions desired and a range of appropriate visitor experiences or opportunities for different areas within the National Monument and the Bloody Marsh Battle memorial site. Then the team used all of this information to develop three management concepts besides the existing conditions ("no action") alternative. An evaluation process called "Choosing By Advantages" was used to evaluate and compare the alternatives and to develop a preliminary preferred alternative which in the following list is Alternative B.

Following the narrative portrayal of each alternative is a table that describes existing conditions in each management zone, desired conditions for that management alternative and changes needed to get from existing to desired. This table of changes needed provides the basis for analyzing environmental impacts in the Environmental Consequences (Chapter Five) portion of this General Management Plan.

Alternative A - Telling the Story with Archeology

Overall Concept: Because so much of the history of Fort Frederica has been discovered and revealed through the methods of archeology, this management alternative emphasizes the use of archeological methods and the tangible discoveries of archeological investigations to tell the story of the colonial military settlement and General Oglethorpe's urban sociological experiment to visitors. In addition, these methods would be used to interpret the role of the National Monument site in the development of historical archeology (as distinguished from prehistoric archeology) as a science. Active archeological investigations would be going on regularly as part of the program.

There would be approximately 5,000 square feet of archeological infrastructure including a lab to wash, screen, dry, number, and store artifacts in a controlled (humidity, temperature, insects) environment. There would also be office space for a curator and an archeologist as well as classrooms, additional exhibit space and storage space for equipment. The current archeological education program with the Glynn County schools would continue or possibly be expanded.

Alternative A would designate the entire town site including the earthworks, moat, burial ground, military road and woodland north to Frederica Road and the Christ Church rectory property as Historic Preservation Zone. The salt marsh on the northwest side of the town site and on the west side of the Frederica River would be designated as Natural Resource Preservation Zone. The area including the current visitor center and administrative complex, parking lot, park residences and the Archeology/ Education dig site would be designated as Visitor Service Zone. The area south of the town site between the Frederica River and Stevens Road would be designated as Natural Resource Based Passive Recreation Zone. The remaining area of the National Monument site between the maintenance area entrance road and east of the power line right-of-way would be designated as Park Support Services Zone (See Map A1). The Bloody Marsh Memorial site would be divided into three zones: the entrance drive, parking area, and cleared area with monuments and exhibits would be designated Visitor Service Zone. The few small areas of salt marsh on the eastern edge of the site would be designated Natural Resource Protection Zone and the remainder of the site would be designated as Natural Resource Based Passive Recreation Zone (See Map B2). The specific location and rationale for each of these zones as well as the desired conditions and needed or allowable changes for these zones are found in Table A1following this section.

Visitor Experience:

There would be opportunities for visitors to interact with archeologists on site and in labs, and with other park staff in positive and meaningful ways. Traditional ranger-led tours would still occur under this concept. Visitors could observe working archeologists and/or work as volunteers.

At the Bloody Marsh Monument site most visitors would continue to experience the site through the exhibits and the monument that are between the parking area and the salt marsh.

Resource Protection:

This enhanced archeological program would not bring visitors into physical contact with the exposed foundations and other ruins of the Frederica settlement. A strong educational element of the program would discourage visitors from coming into contact with the ruins. Some of the wooded areas outside the earthworks would be managed for natural resource based passive recreation. The existing structural elements of the historic town site would continue to be preserved but the areas around these structures could have active archeological investigations going on at any time. The salt marsh on the western bank of the Frederica River and west of the earthworks on the east bank would be managed for natural resource protection with natural conditions and no visitor facilities. At the Bloody Marsh Unit, the wooded areas and marsh outside the immediate environs of the parking lot and interpretive exhibits would be managed for natural resource based passive recreation.

TABLE A1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE A – TELLING THE STORY WITH ARCHEOLOGY

- **Application of archeological method and theory and the recovered relics of the past to understanding the story of Fort Frederica.**
- **Active archeological investigations going on regularly as part of the program.**
- **Infrastructure with lab and equipment.**
- **Active educational programs with schools.**
- **Visitors could observe working archeologists and/or work as volunteers with archeologists.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
NATURAL RESOURCE BASED PASSIVE RECREATION ZONE	**Fort Frederica – Approximately the southern third of the National Monument running between the Frederica River and Stevens Road from the southern boundary to the moat.** Rationale: Most of this land was acquired to protect archeological resources and to preserve the historic view from the plain of the town. The area also serves to screen park cultural resources visually and acoustically from external influences and to provide opportunities for passive recreation when weather conditions and insect populations permit. **Bloody Marsh Site – The woodland outside the entrance drive, parking area and monument and display area.** Rationale: This area is primarily	**Fort Frederica and Bloody Marsh** – Natural, mostly wooded conditions with few facilities such as primitive trails.	**Fort Frederica** – Primarily wooded with some unimproved roads used exclusively by park vehicles and utility lines. **Bloody Marsh site** – Marsh, woods adjacent to marsh, and one special use permit driveway near the northwest corner of the site.	No changes necessary.

TABLE A1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE A – TELLING THE STORY WITH ARCHEOLOGY

- **Application of archeological method and theory and the recovered relics of the past to understanding the story of Fort Frederica.**
- **Active archeological investigations going on regularly as part of the program.**
- **Infrastructure with lab and equipment.**
- **Active educational programs with schools.**
- **Visitors could observe working archeologists and/or work as volunteers with archeologists.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	dense woodland that serves to screen the site visually and acoustically from traffic noise on Demere Road and provides opportunities for passive recreation.			
VISITOR SERVICE	**Fort Frederica – Current visitor center and office complex and archeology education dig site. Includes the entrance drive, parking area, and one of the park residences.** Rationale: This area would receive the most visitor use while having minimal impact on cultural resources. **Bloody Marsh Site: Entrance drive, parking area, monument, sheltered display, and wayside display.** Rationale: This is the area where visitors enter the site and receive information about the Battle of Bloody Marsh.	**Fort Frederica** – Visitors can gain a basic understanding of the history and geography of Fort Frederica and can purchase souvenirs and books. In addition to traditional visitor services, they would have access to exhibits and labs where they could participate in archeological work. **Bloody Marsh** – Visitors can easily access the monument and interpretive displays and learn about the	**Fort Frederica** – Entrance road, visitor center/office complex, parking, one park residence, some woodland on either side of entrance road, power lines and utilities. **Bloody Marsh** – Entrance drive, parking, wayside shelter, exhibit and monument, and immediately surrounding woodland.	Construction of facilities for archeological exhibits labs and support facilities.

TABLE A1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE A – TELLING THE STORY WITH ARCHEOLOGY

- **Application of archeological method and theory and the recovered relics of the past to understanding the story of Fort Frederica.**
- **Active archeological investigations going on regularly as part of the program.**
- **Infrastructure with lab and equipment.**
- **Active educational programs with schools.**
- **Visitors could observe working archeologists and/or work as volunteers with archeologists.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
		Battle of Bloody Marsh.		
HISTORIC PRESERVATION	**Fort Frederica – Approximately the northern half of the National Monument including the town site and archeological ruins, earthworks, moat, burial ground and Old Military Road, but not including any of the salt marsh.** Rationale: This is the area of greatest archeological importance because of the location of the historic military settlement. Visitors have outstanding opportunities to learn a great deal about one of the earliest permanent settlements in Georgia in the context of the actual site.	**Fort Frederica –** Resources are preserved but active archeological investigations are going on around them. **Bloody Marsh:** n/a	**Fort Frederica -** Open grassy field with some tree canopy present and heavily wooded along the periphery. Exposed foundations and remnants of historic structures, wayside exhibits, earthworks, historic artifacts, burial ground, bridge over the moat, historic military road, ornamental garden, riprap on the riverbank, small boat dock, Abbott monument. **Bloody Marsh:** n/a	Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.

TABLE A1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE A – TELLING THE STORY WITH ARCHEOLOGY

- **Application of archeological method and theory and the recovered relics of the past to understanding the story of Fort Frederica.**
- **Active archeological investigations going on regularly as part of the program.**
- **Infrastructure with lab and equipment.**
- **Active educational programs with schools.**
- **Visitors could observe working archeologists and/or work as volunteers with archeologists.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	Bloody Marsh site: There is no historic preservation zone at Bloody Marsh in this alternative.			
PARK SUPPORT SERVICES	**Fort Frederica – A relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way.** Rationale: This area is separated from the town site and visitor service area by woodland. Sounds and activities should not impact the historic scene. **Bloody Marsh** – There is no park support service zone at Bloody Marsh in this alternative.	**Fort Frederica** - Maintenance facilities as well archival storage facilities. **Bloody Marsh:** n/a	**Fort Frederica** – Mostly wooded, misc. equipment storage area, maintenance compound, artifact storage building, one park residence, unimproved roads, power lines. **Bloody Marsh** – There is no park support services zone at Bloody Marsh in this alternative.	No changes necessary.

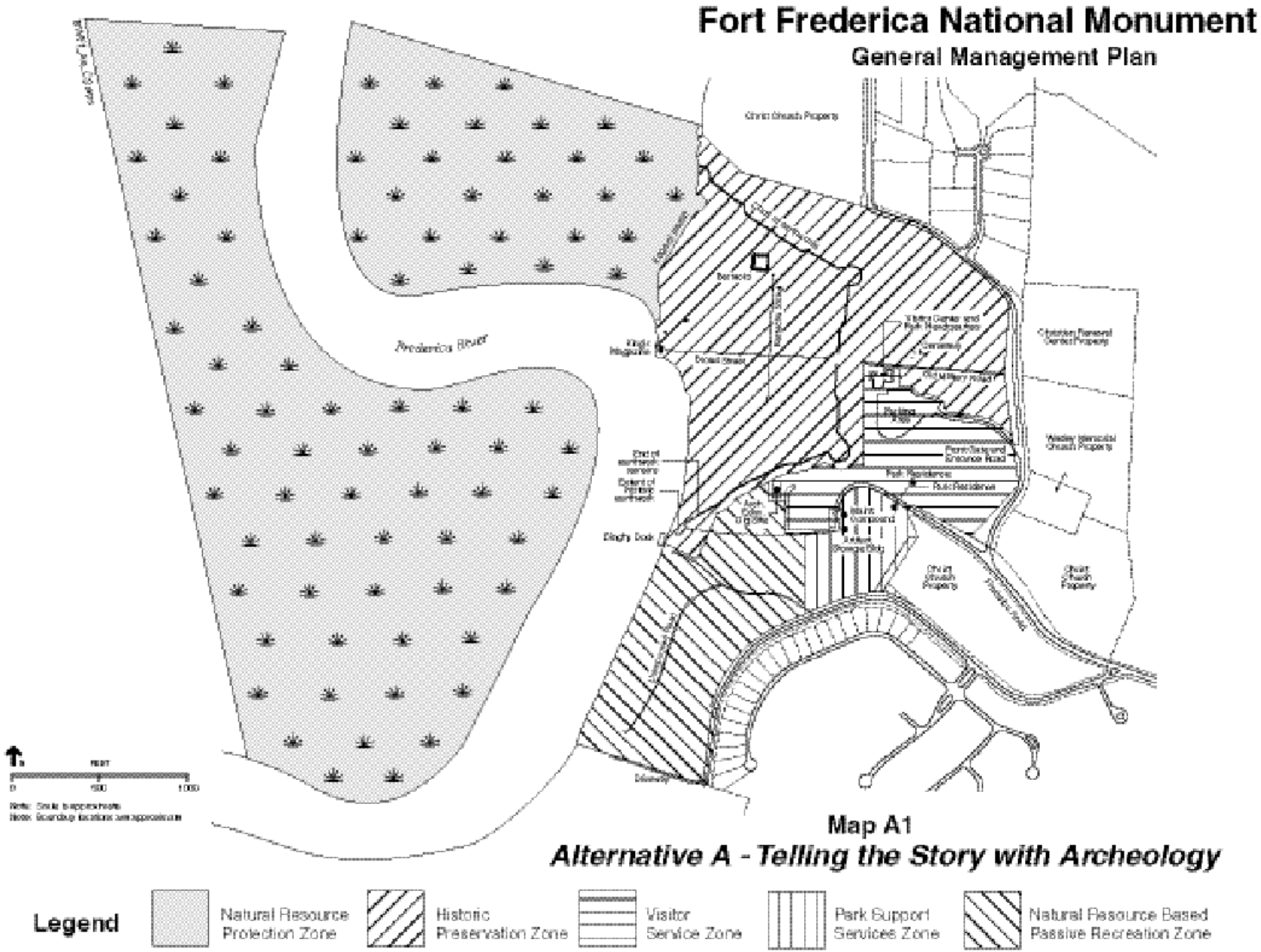
TABLE A1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE A – TELLING THE STORY WITH ARCHEOLOGY

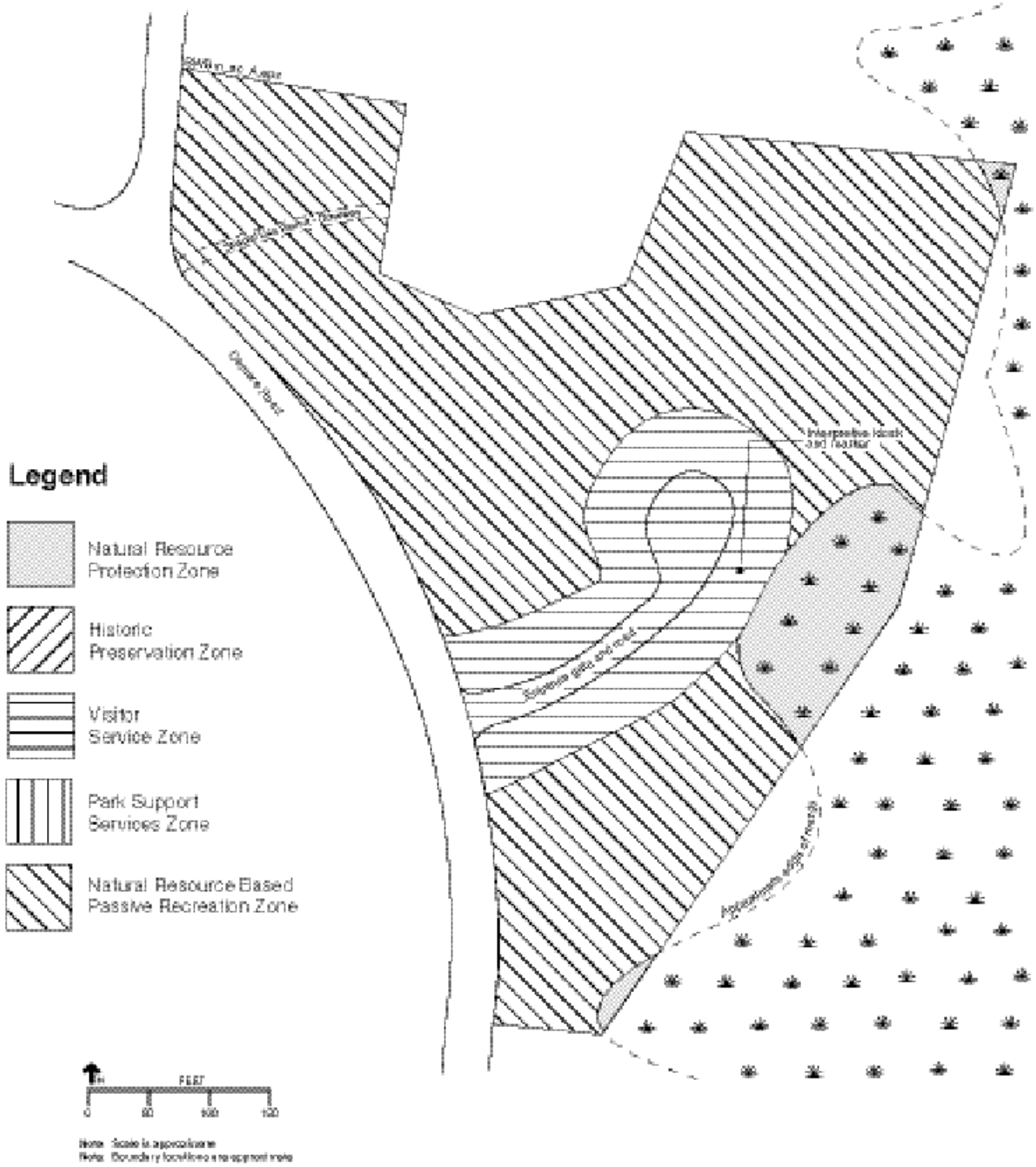
- **Application of archeological method and theory and the recovered relics of the past to understanding the story of Fort Frederica.**
- **Active archeological investigations going on regularly as part of the program.**
- **Infrastructure with lab and equipment.**
- **Active educational programs with schools.**
- **Visitors could observe working archeologists and/or work as volunteers with archeologists.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
NATURAL RESOURCE PROTECTION	**Fort Frederica - The salt marsh on the west bank of the Frederica River and northwest of the town site on the east bank.** Rationale: Natural features with significant ecological/environmental resource values. **Bloody Marsh – The marsh areas on the eastern side of the site.** Rationale: Natural features with significant ecological/environmental resource values.	**Fort Frederica** - Natural conditions. No facilities. **Bloody Marsh** - Natural conditions. No facilities.	**Fort Frederica** – Salt marsh. **Bloody Marsh** – Salt marsh.	No changes necessary.


Fort Frederica National Monument
General Management Plan
Frederica River
Barracks
Visitor Center and Park Headquarters
Cemetery
Old Military Road
Parade Ground
Fort Parade Grounds Road
Fort Residence
Fort Residence
Fort Ruins
Visitor Parking Area
Dock
Dock
Church Church Property
Church Church Property
Church Church Property

Fort Frederica National Monument

General Management Plan – Bloody Marsh Site



Map A2

Alternative A - Telling the Story with Archaeology

Alternative B - Life at Fort Frederica
(NPS Preferred Alternative)

Overall Concept: This alternative would emphasize the daily life, lifestyles and events associated with the inhabitants of Fort Frederica, the colonial military settlement on Saint Simons Island. The goal would be to give the visitor some idea (within the context of current laws regarding sanitation, solid waste disposal, air/water pollution, etc.) of the sights, sounds, smells, and other experiences that would have been typical in this bustling British Army outpost. Since the 1940's at least 40 archeological field investigations at Fort Frederica have been conducted to reveal vital information about the people and happenings associated with this military settlement. Thousands of artifacts that were recovered through archeological investigations are housed in the Monument's museum collection and the storage facilities of the Southeast Archeological Center in Tallahassee, Florida. These artifacts, along with other information obtained through the field investigations, play an important role in telling the story of Fort Frederica to the visitor.

Archeological field investigations would continue to be an important attribute of this alternative. There would be a strong archeological research effort to provide information on landscape elements, lifestyles, important events and other features of the settlement. However, this effort would not involve the construction of additional labs or other facilities as in Alternative A.

Alternative B would designate the area presently occupied by the visitor center/administrative complex and the parking lot as part of the Historic Preservation Zone. The salt marsh on the northwest side of the town site and on the west side of the Frederica River, the Park Support Services Zone, and the Natural Resource Based Passive Recreation Zone would be configured identically to the configuration in Alternative A (See Map B1). The Bloody Marsh Memorial site would be divided into three zones: approximately the eastern third of the site would be managed as a Natural Resource Protection Zone with no visitor facilities. Most of the western portion of the site extending to Demere Road would be an expanded Visitor Service Zone, allowing for more interpretation, programs, exhibits and visitor services. The northwestern corner would be designated as Natural Resource Based Passive Recreation Zone. (See Map B2) The specific location and rationale for each of these zones as well as the desired conditions and needed or allowable changes for these zones are found in Table B1following this section.

Visitor Experience: The visitor would experience the site primarily through sights, sounds, and other senses rather than through activity such as hiking, climbing, biking, or other strenuous activities. The desired visitor experience would be a sampling of some of the sights, sounds, and smells of daily life in colonial Frederica through living history demonstrations, costumed interpretation, trade/ craft demonstrations, and other interpretive techniques. Visitor participation would be possible. Existing signs and wayside exhibits would be replaced with signs and exhibits that would be more visually harmonious with the historic scene. These techniques would be implemented with the goal of balancing the peacefulness and serenity of the site that visitors so often comment upon very favorably with the equally important goal of conveying the hustle and bustle aspects of the community of 500 people that was Frederica to the visitor.

There would be more emphasis on re-establishing a visual impression of the colonial Frederica scene by using suitable methods such as appropriate trees, shrubs, ground covers and other fitting and historically accurate landscape elements. A sampling of ghost structures could be added to the site. These landscape elements and structures would be added only after research, archeological excavation, and NEPA/ Section 106 compliance had been completed.

Also, under this alternative, when the current visitor center/ administrative complex becomes functionally obsolete, the National Monument would seek authority and funding to demolish the facility and build a new visitor center in a currently developed or previously disturbed area that is not visible from the historic town site (See Visitor Service Zone on Map B1). This alternative envisions a new visitor center of approximately 6,000 square feet plus parking. The area formerly occupied by the visitor center, entrance drive, and parking would be cleared and reforested. Existing park residences would be converted to office and administrative space.

Entrance and access to the site would then more accurately mirror colonial conditions and experience. Although the relocated visitor center might be as much as 200-300 yards more distant from the town site than the present one, the enhanced visitor experience would more than counterbalance the slightly greater distance. This alternative envisions a visitor walking down a wooded path from the visitor center to the town site, gradually leaving the sights and sounds of the modern visitor center and parking lot and entering a different place and time where views of the surrounding environment would be similar to those experienced by the original British colonists. ADA (Americans with Disabilities Act) concerns could be addressed by developing a new and improved visitor center film or video, new exhibits and displays, active interpretive efforts by park staff and volunteer costumed interpreters. Although not an essential element of the concept, Alternative B designates a small Visitor Service Zone on the Frederica River to permit the possible construction of a dock for tour boats and water taxis to bring visitors to the National Monument in the same manner as the original Frederica settlers. The objective of this element would be to enhance the visual perception of Colonial Frederica as the original settlers saw it.

Resource Protection: At the National Monument there would be a need for an affirmative interpretive effort to explain the archeological projects to visitors, to discourage visitors from coming into contact with the ruins and to tell the stories that the fruits of the archeological investigations reveal. **At the Bloody Marsh site, aside from exhibits and signs, there would be no other construction such as visitor centers, restrooms, or additional parking. In all other respects resource protection efforts would be identical to Alternatives A and C.**

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
NATURAL RESOURCE BASED PASSIVE RECREATION ZONE	**Fort Frederica – Approximately the southern third of the National Monument running between the Frederica River and Stevens Road from the southern boundary to the moat.** Rationale: Most of this land was acquired to protect archeological resources and to preserve the historic view from the plain of the town. The area also serves to screen park cultural resources visually and acoustically from external influences and to provide opportunities for passive recreation when weather conditions and insect populations permit. **Bloody Marsh Site – Approximately the northwest quarter of the site consisting of woodland nearly bisected by a special use permit driveway.**	**Fort Frederica** - Natural conditions with few facilities such as primitive trails. **Bloody Marsh** - Natural conditions with few facilities such as primitive trails.	**Fort Frederica** – Primarily wooded with some unimproved roads used exclusively by park vehicles and utility lines. **Bloody Marsh** – Woods and one special use permit driveway.	**Fort Frederica** Existing unimproved roads could be used for primitive trails. **Bloody Marsh** – No changes necessary.

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	(Because there are no natural or man-made features that would serve as southern or eastern boundaries for this zone, the area would have to be surveyed and marked when it became necessary for park management to distinguish between the adjacent zones.) Rationale: This wooded area provides a visual and acoustical screen between the various interpretive exhibits and the adjacent neighborhood and has the potential for passive recreational use.			
VISITOR SERVICE	**Fort Frederica - An irregularly shaped area in the east central portion of the National Monument defined by Frederica Road on the east, by the edge of the woodland just south of the existing parking area on the north, and the maintenance compound access road on the south. There would**	**Fort Frederica -** Developed area, accessible, with minimal physical exertion required. Visitor center, museum exhibits, parking, entrance road, souvenir sales area, vending machines, restrooms. A floating dock and facilities for providing	**Fort Frederica** – One park residence, some woodland on the south side of the existing paved park entrance road, the maintenance compound access road, and the archeology education dig site. There is currently a small dock on the Frederica	**Fort Frederica** – Convert park residence to administrative offices and construct new visitor center/museum. Possible construction of a new dock and stairs/ramps to the bluff for visitors arriving by boat.

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	also be a narrow strip on the bluff over the Frederica River near the southwest corner of the town site. Rationale: Locate visitor service facilities outside viewshed of town site on previously disturbed land. Avoid modern visual intrusions on historic scene. The purpose of the small visitor service zone on the River would be to provide for possible future access to the park by tour boats or water taxis. **Bloody Marsh site – Approximately the southern half of the site, the specific boundaries to be determined and surveyed at a later date when it becomes necessary for park management to distinguish between the adjacent zones. Includes entrance drive, monument**	visitor access from boats to the town site and the visitor center/museum. **Bloody Marsh** – Entrance drive, parking, and interpretive displays.	River near the estimated location of the town's southwest bastion. The top of the river bank is planted with grass and other indigenous ground covers. **Bloody Marsh** – Entrance drive, parking, wayside shelter, exhibit and monument, surrounding woodland.	**Bloody Marsh site** – No changes necessary.

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	and interpretive displays. Rationale: This is the area where visitors obtain information about the Battle of Bloody Marsh or just park their cars and eat lunch in a shady, tranquil setting.			
HISTORIC PRESERVATION	**Fort Frederica – Approximately the northern half of the National Monument including the town site and archeological ruins, earthworks, moat, bridge over the moat, burial ground and Old Military Road, the existing visitor center/administrative complex, parking area and entrance drive, but not including any of the salt marsh.** Rationale: Areas with extant cultural resources including Frederica town site and its historic environs, burial ground and Military Road corridor.	**Fort Frederica** - Landscape elements, interpretive devices, programs and activities combined to convey a sense of a colonial town site. Some active archeological investigations would be necessary to reveal information about cultural landscape and more details about daily lives of the settlers. **Bloody Marsh:** n/a	**Fort Frederica** - Open grassy field with some tree canopy present and heavily wooded along the periphery. Exposed foundations and remnants of historic structures, wayside exhibits, earthworks, historic artifacts, burial ground, historic military road, ornamental garden, riprap on the riverbank, small boat dock, Abbott monument, entrance road, visitor center/office complex,	Removal and relocation of existing visitor center/office complex, parking, and entrance road. Active archeological investigations around the existing exposed foundations.

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	Preserve visual integrity of historic scene. **Bloody Marsh** – There is no historic preservation zone at Bloody Marsh in this alternative.		parking area, some woodland on either side of entrance road, and utilities. **Bloody Marsh**: n/a	
PARK SUPPORT SERVICES	**Fort Frederica - A relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way.** Rationale: An area with no known cultural resources that is separated from the town site and visitor service area by woodland. Sounds and activities should not impact the historic scene. **Bloody Marsh** – There is no Park Support Services Zone at Bloody	**Fort Frederica** - Intensely developed setting that is sensitive to historic context of the site. Maintenance, administrative and curatorial storage facilities. **Bloody Marsh**: n/a	**Fort Frederica** - Mostly wooded, misc. equipment storage area, maintenance compound, artifact storage building, unimproved roads, power lines, and utilities. **Bloody Marsh**: n/a	No changes necessary.

TABLE B1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

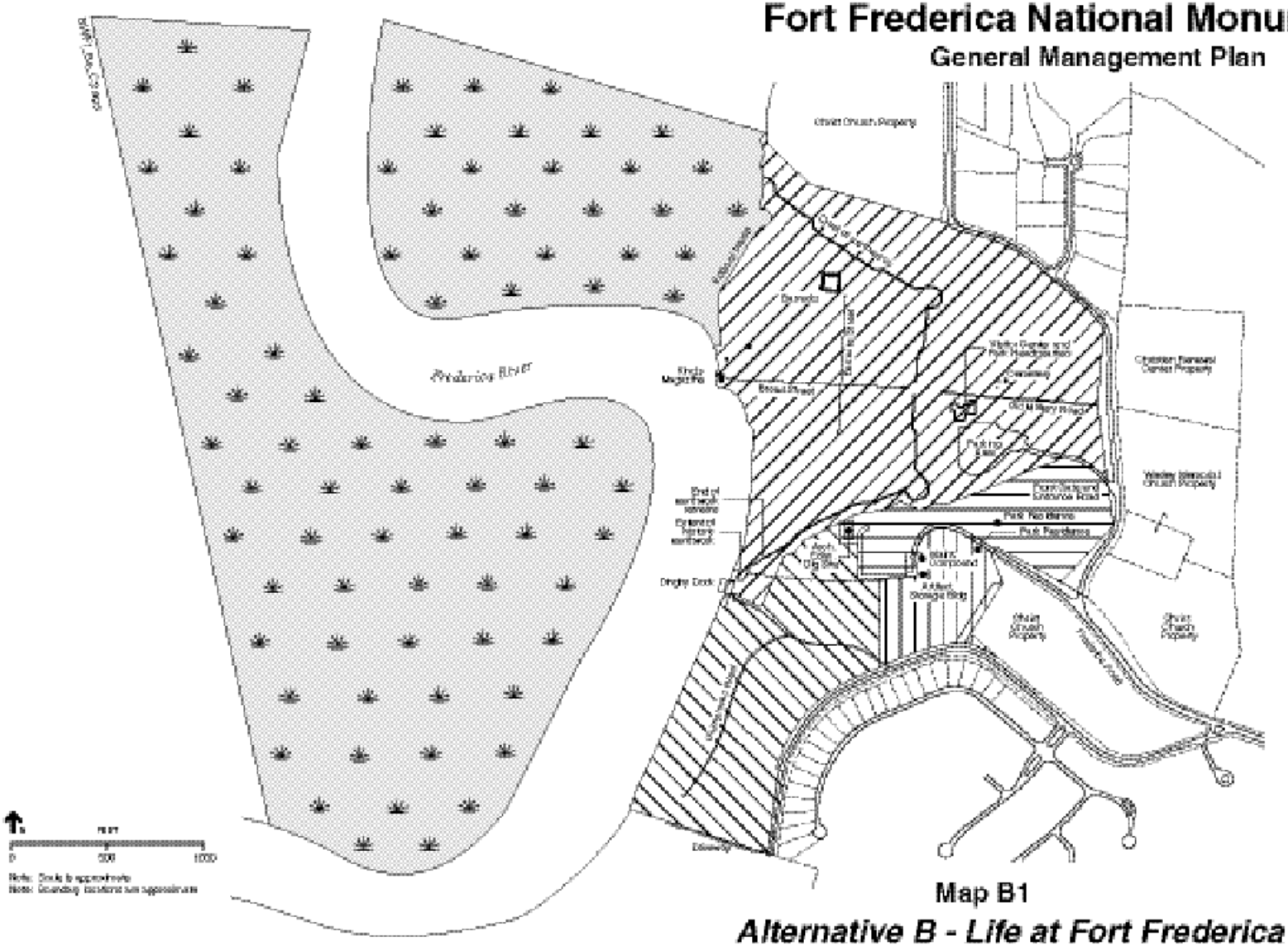
ALTERNATIVE B – LIFE AT FORT FREDERICA

- **Interpretive emphasis would be on people and events. Traditional visitor services such as ranger-led tours and demonstrations would be the primary means of interpretation.**
- **The visitor experience would be more sensory than active, stepping back into history and experiencing the sights, sounds, and smells of Colonial Frederica through living history demonstrations and other techniques. Visitor participation would be possible.**
- **More emphasis on re-establishing the urban scene using a sampling of ghost structures and historic landscape patterns.**
- **Entrance and access to the site would more accurately mirror colonial conditions and experience. Possible increased water access.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	Marsh in this alternative.			
NATURAL RESOURCE PROTECTION	**Fort Frederica – The salt marsh on both sides of the Frederica River.** Rationale: Natural features with significant ecological/environmental resource values. **Bloody Marsh site – The marsh areas on the eastern side of the site and the wooded area in the northeast quadrant of the site.** Natural features with significant ecological/environmental resource values.	**Fort Frederica** - Natural conditions. No facilities. **Bloody Marsh** - Natural conditions. No facilities.	**Fort Frederica** – Salt marsh **Bloody Marsh** – Marsh and woods adjacent to marsh.	No changes necessary.

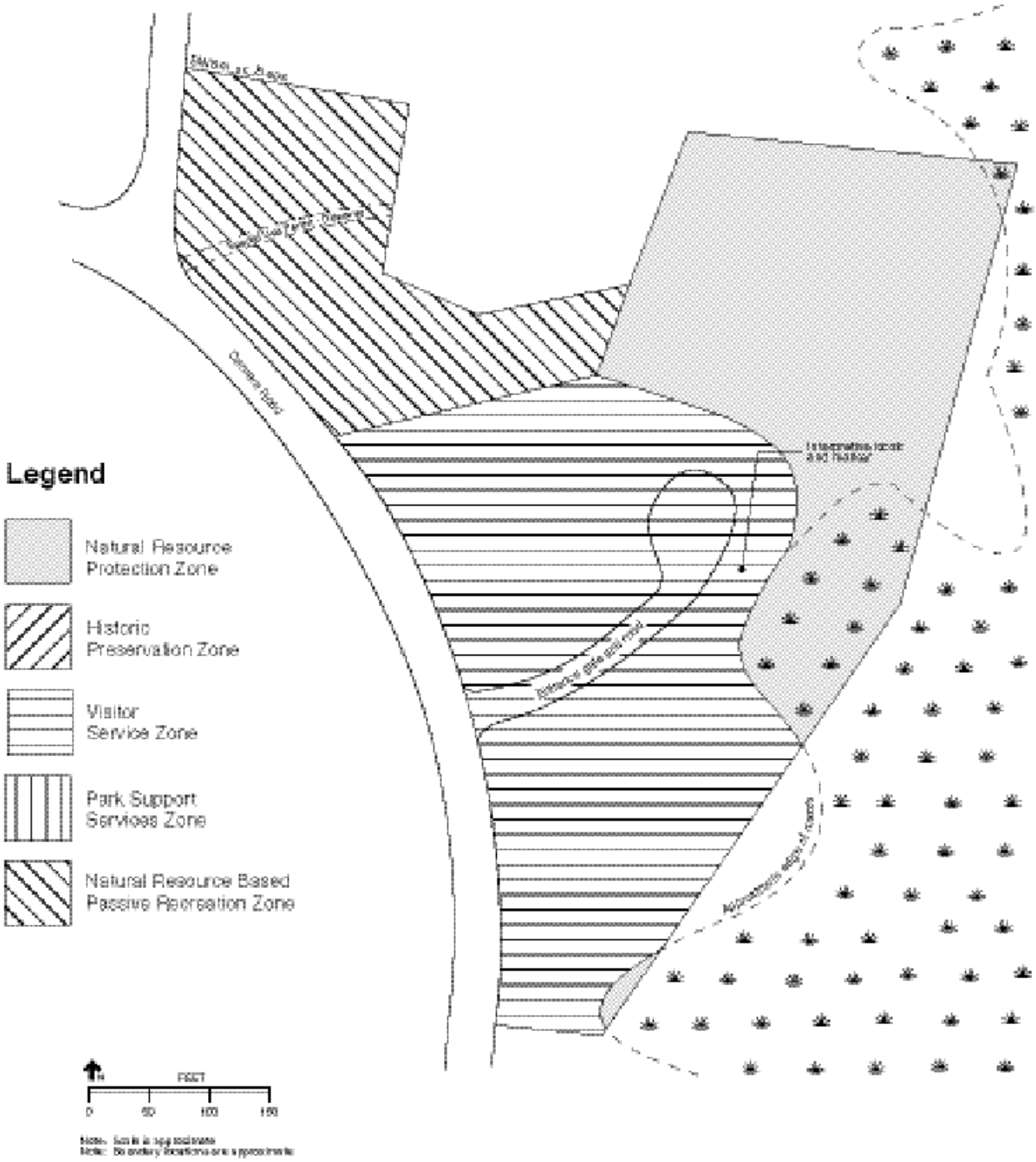
Fort Frederica National Monument

General Management Plan


Frederica River
Dingle Dock
Parking
Park Residence
Park Maintenance
Visitor Center and Park Headquarters Main
Cemetery
Old Military Magazine
Chapman Bamaard Center Property
Wesley Methodist Church Property
Christ Church Property
Christ Church Property
Christ Church Property
Boat Dock
Dock
Bridge
Bridge
Bridge

Fort Frederica National Monument

General Management Plan – Bloody Marsh Site



Map B2

Alternative B - Life at Fort Frederica

Alternative C - The Whole Story

Overall Concept: This alternative would place the National Monument in the broader context of other southeast coastal history and would place more emphasis on interpreting the role of the Fort Frederica site in the history of the region. The present scene would not be altered in any way. Rather, other historical periods would be added to the interpretation of the site. While the primary focus of interpretation at Fort Frederica would still be on the colonial period, the interpretation of pre-European, post-contact, and plantation period themes would be expanded. This broader range of stories, although related to the site of Fort Frederica, would have a more regional perspective and therefore more regional partnerships would be established to facilitate this broader interpretive program.

Under this alternative the visitor service zone would have to accommodate an expanded interpretive story. Therefore expansion of the visitor center would be considered. Alternatively, the National Monument's administrative offices could be relocated (possibly to converted park residences) to permit expansion of the interpretive mission within the existing facility. This expanded interpretive mission would provide an additional opportunity to discourage visitors from coming into contact with ruins. Dispersal of visitor services throughout the visitor services zone or an offsite location of a visitor center would also be possible in this concept. Archeology, both active excavation and the use of existing archeologically derived data, would be an important tool used to reveal information about other historical periods. Advisory groups of indigenous peoples and other groups with historic ties to the area would be consulted.

The configuration of management zones for the National Monument site in Alternative C would be identical to the configuration in Alternative A. The southern two-thirds of the Bloody Marsh

Monument site would be managed for visitor services to permit a greater range of stories to be told with exhibits, programs, etc. The northern third would be managed for natural resource based passive recreation with few facilities such as primitive trails. The small, scattered areas of salt marsh on the eastern edge of the site would be designated as Natural Resource Protection Zone.

Visitor Experience: Under this alternative the entrance, approach, and scene would be identical to current conditions. There would be the possibility of new signs, wayside exhibits and interpretive programs to present stories about historical periods outside the colonial period on the Frederica site. The visitor would have the opportunity to spend more time in the visitor center/museum due to the presence of more displays, exhibits and media dealing with the expanded range of historical periods being interpreted. Partnerships with other historical sites in the region would also be possible allowing visitors to visit several sites in a coordinated, planned manner to get the maximum benefit from the expansion of stories being told.

Resource Protection: There would be an expanded effort to educate visitors about the potential damage to cultural resources from contacting them. Protection of marshes and upland forest would be the same as in Alternatives A and B.

TABLE C1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE C – THE WHOLE STORY

- **Information derived from archeological excavations, as well as existing archeological data would be used to tell the story.**
- **Places the site in a broader regional context.**
- **Maintains emphasis on colonial period while expanding interpretation of pre-European, post-contact, and plantation periods. Utilize advisory groups of indigenous peoples and Americans of African descent as well as partnerships.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
NATURAL RESOURCE BASED PASSIVE RECREATION ZONE	**Fort Frederica – Approximately the southern third of the National Monument running between the Frederica River and Stevens Road from the southern boundary to the moat.** Rationale: Most of this land was acquired to protect archeological resources and to preserve the historic view from the plain of the town. The area also serves to screen park cultural resources visually and acoustically from external influences and to provide opportunities for passive recreation when weather conditions and insect populations permit. **Bloody Marsh site – Approximately the northern one fourth to one third of the site, the specific boundaries to be determined and surveyed at a later date when it becomes necessary for park management to**	**Fort Frederica** - Natural conditions with few facilities such as primitive trails. **Bloody Marsh** - Natural conditions with few facilities such as primitive trails.	**Fort Frederica** -Primarily wooded with some unimproved roads used exclusively by park vehicles. **Bloody Marsh** – dense woods and one special use permit driveway.	No changes necessary.

TABLE C1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE C – THE WHOLE STORY

- **Information derived from archeological excavations, as well as existing archeological data would be used to tell the story.**
- **Places the site in a broader regional context.**
- **Maintains emphasis on colonial period while expanding interpretation of pre-European, post-contact, and plantation periods. Utilize advisory groups of indigenous peoples and Americans of African descent as well as partnerships.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	distinguish between the adjacent zones. Provides an appropriate setting for primitive trails and passive recreation.			
VISITOR SERVICE	**Fort Frederica - Current visitor center and office complex and archeology education dig site. Includes the entrance drive, parking area, and one of the park residences.** Rationale: This area would receive the most visitor use while having minimal impact on cultural resources. **Bloody Marsh site – The southern 2/3 of the entire site except the small area of salt marsh.** Rationale: A relatively large area with existing infrastructure (road, parking, displays) that is appropriate for accommodating greater numbers	**Fort Frederica** - Intensely developed setting. To accommodate greater range of stories being told, either an expanded visitor center, dispersal of visitor services across this zone, or location of a visitor center off site could be considered. Facilities would include museum exhibits, parking, entrance road, and restrooms. **Bloody Marsh** – More space for programs, interpretive signs, and	**Fort Frederica** – Entrance road, visitor center/office complex, parking, Abbott Monument, park housing, some woodland on either side of entrance road, power lines and utilities. **Bloody Marsh** – Entrance drive, parking, wayside shelter, exhibit and monument, surrounding woodland, marsh.	**Fort Frederica** – Possible expansion or relocation of existing visitor center and construction of additional visitor service and interpretive facilities. **Bloody Marsh** – New exhibits, interpretive facilities, signs, and waysides.

TABLE C1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE C – THE WHOLE STORY

- **Information derived from archeological excavations, as well as existing archeological data would be used to tell the story.**
- **Places the site in a broader regional context.**
- **Maintains emphasis on colonial period while expanding interpretation of pre-European, post-contact, and plantation periods. Utilize advisory groups of indigenous peoples and Americans of African descent as well as partnerships.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	of visitors who are interested in a variety of historical themes.	exhibits.		
HISTORIC PRESERVATION	**Fort Frederica - Approximately the northern half of the National Monument including the town site and archeological ruins, earthworks, moat, burial ground and Old Military Road, but not including any of the salt marsh.** Rationale: Areas with or without extant cultural resources where pre-European, post-contact, Plantation Period, and Civil War stories can be told. This is the area of greatest archeological importance because of the location of the historic military settlement. Visitors have outstanding opportunities to learn a great deal about one of the earliest permanent	**Fort Frederica** - Landscape elements, interpretive devices, programs and activities combined to convey a sense of a colonial town site. Active archeological investigations would be conducted to reveal information about non-colonial period historical occupations of the site. **Bloody Marsh**: n/a	**Fort Frederica** - Open grassy field with some tree canopy present and heavily wooded along the periphery. Exposed foundations and remnants of historic structures, wayside exhibits, earthworks, historic artifacts, burial ground, historic military road, ornamental garden, riprap on the riverbank, small boat dock, Abbott monument. **Bloody Marsh**: n/a	**Fort Frederica:** New wayside exhibits, signs, and programs to accommodate greater range of stories being told. Permit active archeological investigations throughout the National Monument to reveal information about pre-Frederica and post-Frederica occupations of the site. **Bloody Marsh:** n/a

TABLE C1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

ALTERNATIVE C – THE WHOLE STORY

- **Information derived from archeological excavations, as well as existing archeological data would be used to tell the story.**
- **Places the site in a broader regional context.**
- **Maintains emphasis on colonial period while expanding interpretation of pre-European, post-contact, and plantation periods. Utilize advisory groups of indigenous peoples and Americans of African descent as well as partnerships.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
	settlements in Georgia in the context of the actual site. **Bloody Marsh** – There is no designated Historic Preservation Zone at this site in Alternative C.			
PARK SUPPORT SERVICES	**Fort Frederica - A relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way.** Rationale: A previously disturbed area that is visually and audibly separated from visitor use areas. This area is separated from the town site and visitor service area by woodland. Sounds and activities should not impact the historic scene. **Bloody Marsh** – There is no Park Support Services Zone at Bloody Marsh in this alternative.	**Fort Frederica** - Intensely developed setting. Maintenance, administrative and curatorial storage facilities. **Bloody Marsh**: n/a	**Fort Frederica** - Mostly wooded, misc. equipment storage area, maintenance compound, artifact storage building, one park residence, unimproved roads, power lines, misc. equipment storage area, unimproved and improved roads, power lines, utilities, concrete VIP trailer pad. **Bloody Marsh**: n/a	**Fort Frederica** – No changes necessary. **Bloody Marsh** – No changes necessary.

TABLE C1

NEEDED OR ALLOWABLE CHANGES BY ALTERNATIVE

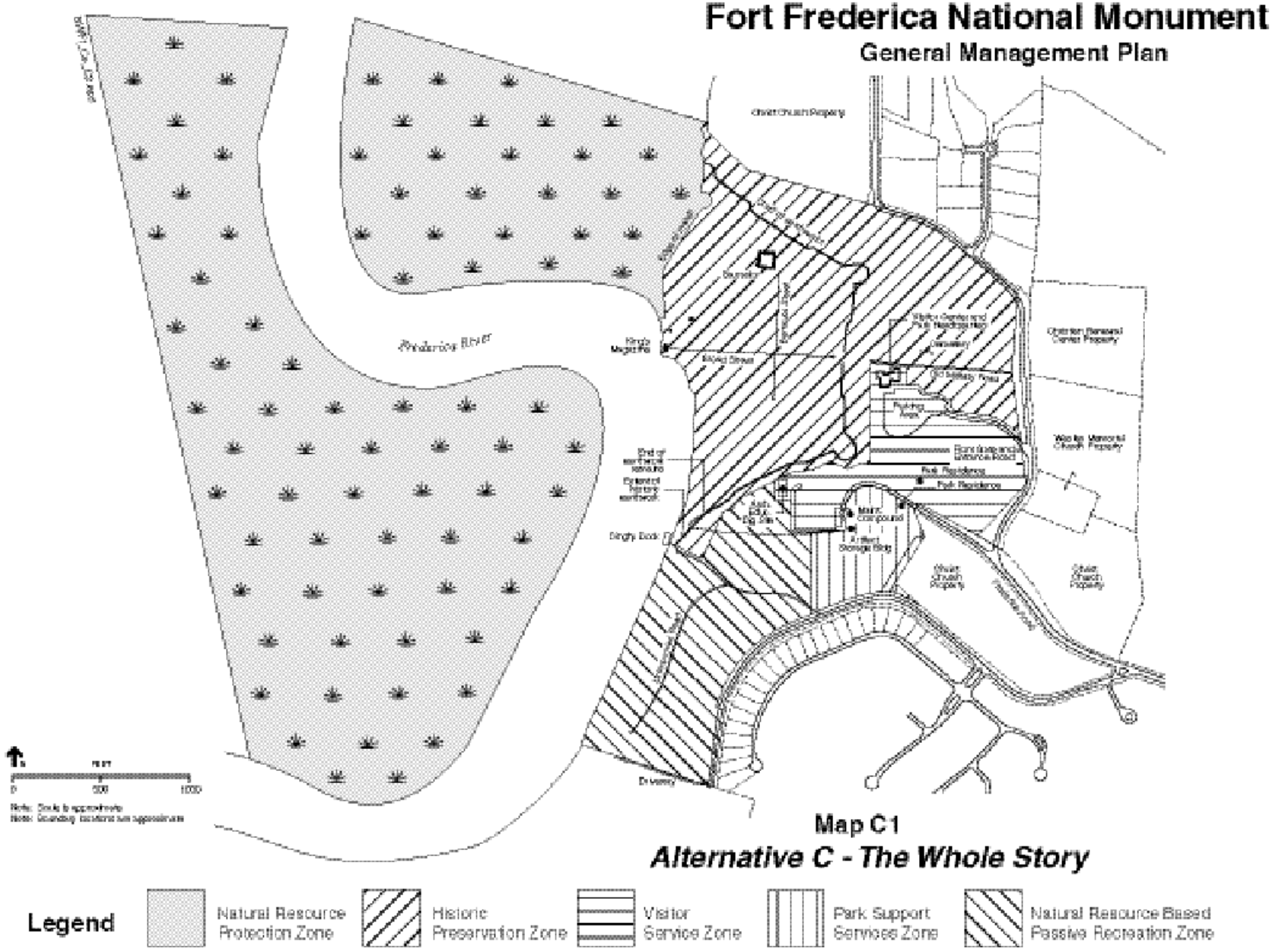
ALTERNATIVE C – THE WHOLE STORY

- **Information derived from archeological excavations, as well as existing archeological data would be used to tell the story.**
- **Places the site in a broader regional context.**
- **Maintains emphasis on colonial period while expanding interpretation of pre-European, post-contact, and plantation periods. Utilize advisory groups of indigenous peoples and Americans of African descent as well as partnerships.**

ZONE	LOCATION/ RATIONALE	DESIRED CONDITIONS AND FACILITIES	EXISTING CONDITIONS AND FACILITIES	NEEDED OR ALLOWABLE CHANGES
NATURAL RESOURCE PROTECTION	**Fort Frederica - The salt marsh on the west bank of the Frederica River and northwest of the town site on the east bank.** Rationale: Natural features with significant ecological/environmental resource values. Protect natural and environmentally sensitive resources. **Bloody Marsh – The marsh areas on the eastern side of the site.**	**Fort Frederica** - Natural conditions. No facilities. **Bloody Marsh** - Natural conditions. No facilities.	**Fort Frederica** – Salt marsh **Bloody Marsh** – Salt marsh	No changes necessary.

Fort Frederica National Monument

General Management Plan



Map C1

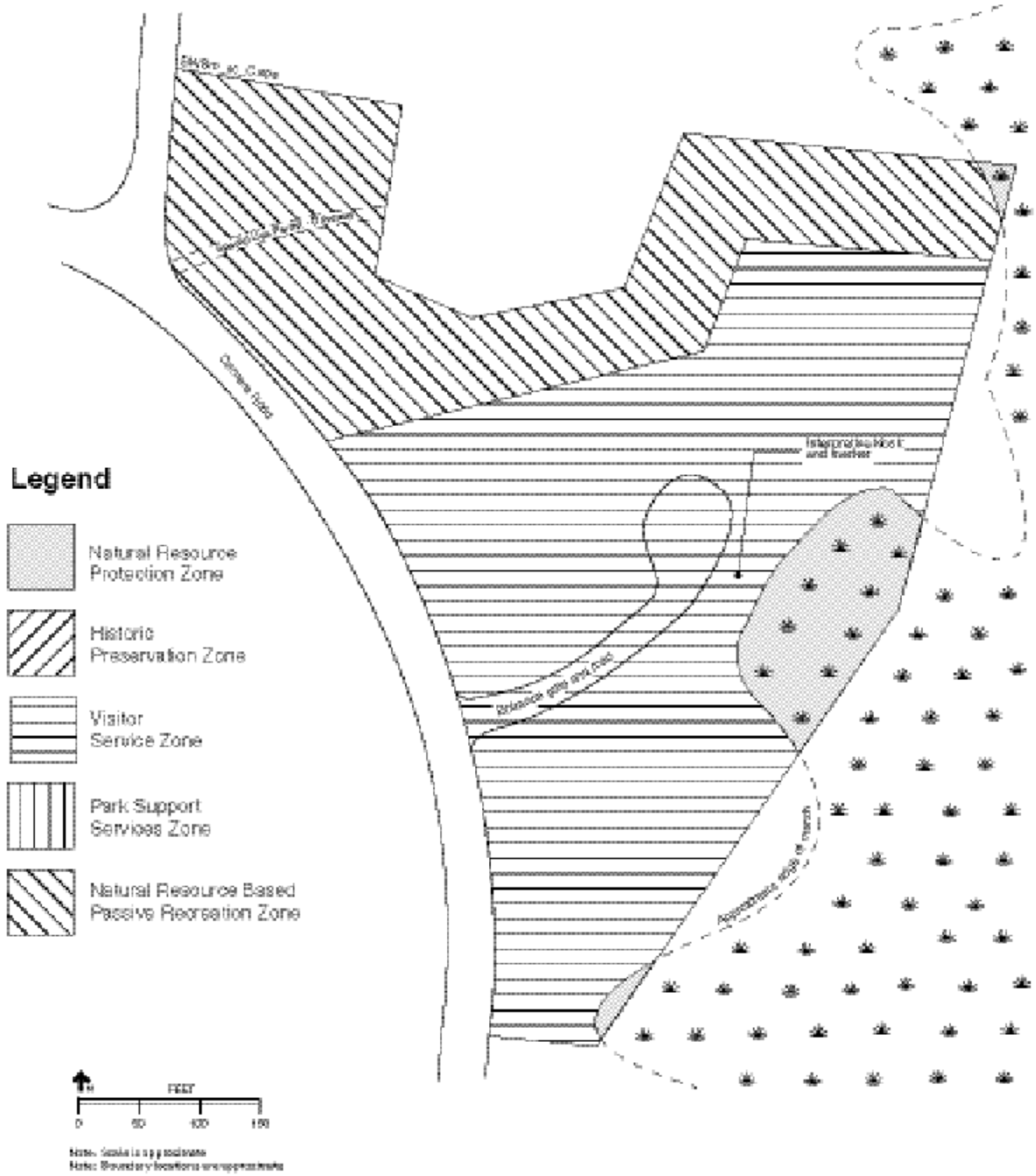
Alternative C - The Whole Story

Legend

- Natural Resource Protection Zone
- Historic Preservation Zone
- Visitor Service Zone
- Park Support Services Zone
- Natural Resource Based Passive Recreation Zone

Fort Frederica National Monument

General Management Plan – Bloody Marsh Site



Map C2

Alternative C - The Whole Story

Alternative D - No Action

The so-called "no action" alternative in the context of a General Management Plan actually means continuing present management policies and practices into the future. This GMP analyzes impacts from the continuation of current management in the same manner that it treats the impacts from the "action" alternatives.

Current Resource Conditions

The Fort Frederica resources consist of 19 brick, tabby, and earthen remains of foundations and other structures that were part of the original settlement. All of these structures are individually listed on the National Register of Historic Places. Only five of the structures are above ground level, the remainder are archeologically exposed foundations. There are also very likely additional physical remnants of the settlement, which are still buried in the areas around the foundations and in other areas of the site. Physical artifacts that have been recovered from the site are housed in a windstorm resistant museum storage facility adjacent to the maintenance compound and at the Southeast Archeological Center (SEAC) in Tallahassee, Florida.

According to the 1997 Resource Management Plan for Fort Frederica: "Overall, the town site and fort are in fair condition, owing to their exposure to the elements and visitor contact." Both the Resource Management Plan and the September 1999 Management Analysis Report for the National Monument discuss the need for preservation guidance in the form of a plan that details the appropriate techniques, tools, materials, and scheduling for preserving the National Monument's cultural resources-ruins, foundations, earthworks, and monuments.

Current Visitor Experience

From the 1997 Resource Management Plan: "Because Frederica and its fort were, like most early southern colonial settlements, oriented to the land and water, the surrounding landscape is of great historical significance-not just the 35 acres inside the town walls, but also the surrounding forest, marshes, river and viewshed." "All the elements of the area - the open town site dotted with its massive oak trees laden with Spanish moss, the ruins of the fort and barracks, the expansive marshes, all combine to give the area a unique sense of antiquity, which is a large part of the visitor experience. Although other historic sites along and near the southern U.S. coast have features that give them their own uniqueness, none duplicate the same sense of antiquity that derives from the apparent isolation of Fort Frederica, its exposed building foundations and remnants, its expansive view of marshes, live oaks and Spanish Moss, the adjacent Frederica River, the quiet and serenity of the site and the protection from encroachment by surrounding woodland and community development regulations.

The monument's 210 acres include approximately 63 acres of pine-mixed hardwood forest, most of which provides a visual buffer between the developed land adjoining both the town site and Bloody Marsh; 130 acres of marshlands, remaining very much as it was found by Frederica's settlers; and 45 acres of park-developed land. Included as part of the landscape are the Frederica River, immediately south and west of the town and fort, and the generally clear view, which across the river and marshes is mostly unimpeded by post-Frederica development."

The typical visitor enters the National Monument from Frederica Road by either tour bus or personal vehicle. A uniformed ranger characteristically greets tour bus groups, gives them a brief introduction to the site and invites them to visit the museum/ gift shop and see the film before going out on the site. Most visitors then walk along the boardwalk across the moat to Broad Street where they begin by reading some of the wayside exhibits and continue out towards the Frederica River viewing the various foundations, the King's Magazine, cannons, the river and marshes to the west and then perhaps stroll over to the barracks remains and back to the visitor center and out.

The National Monument employs several interpretive programs and techniques to educate the visitor about the Fort Frederica military settlement. A 25-minute film on the history of Frederica is shown in the visitor center every half hour seven days a week. Rangers lead tours of the town site lasting approximately 45 minutes daily in summer, weekends in winter, and on request. The National Monument offers a variety of living history programs, 15-30 minute programs on military life and equipment concluding with black powder demonstrations, crafts demonstra-

tions, and woodworking presentations daily in summer and weekends in winter. The Frederica Festival, an annual event conducted in March, includes craft demonstrations, lime burning, period music and traditional food. One of the most successful and innovative programs at Fort Frederica is the Archeological Education program through which all fourth grade students in Glynn County Georgia undergo classroom instruction, 2-hour pre-dig field trips, 2-hour archeological digs, and a day long laboratory. This program extends throughout the school year.

Current Resource Management

Protect park from external threats

Fort Frederica National Monument has an approved Land Protection Plan, which will be followed and updated as needed to keep it constantly in line with the National Monument's cultural landscape preservation objectives. Park management attends and assertively participates in local and regional zoning and planning meetings and organizations, and keeps alert for other activities affecting the scenic approach to the Monument and the cultural landscape, including the marshlands.

Stabilization of riverbank to protect archeological data.

Routine monitoring of the stabilized riverbank occurs to identify problem areas, particularly after heavy storms or in the wake of heavy usage on the river. Park staff replant the bank as necessary each year, and correct minor problems as they occur. Larger problems will be assessed for seriousness, and when necessary immediate mitigation activities will be carried out. Every three years, the bank will be fully inspected and additional stabilization materials, e.g. erosion control mat, backfill materials, mature marsh grasses, and limited riprap, added where necessary.

Preserve historic structures and archeological resources

All of the nineteen historic structures suffer from visitor impacts -- erosion due to walking on ruins and earthworks, occasional climbing on standing structures, and stepping down onto floor surfaces of exposed foundations -- and weathering. All require routine monitoring and maintenance to maintain the structures at their current level of preservation.

To combat the effects of erosion and visitor wear; the maintenance staff routinely inspects all the historic structures and corrects minor structural problems. Several larger problems require a greater allotment of time and are more effectively accomplished when corrective actions are grouped together. These larger projects are undertaken every three years. Park interpreters and law enforcement rangers also routinely monitor structures and visitor activities to observe problems and interpret preservation goals. Preservation messages will continue to be provided in all formal interpretive programs and in the National Monument's audio tour.

Assess and catalog park archival holdings.

A Collection Management Plan (CMP) has been approved for the National Monument addressing its museum collections on exhibit and in storage. The CMP documented the current management of the of the park's collection and provided specific recommendations for the improvement of the park's museum program. Museum record keeping and accountability, object storage and exhibit conditions, building environmental conditions, object condition/conservation needs, basic fire and security protection and resource management records issues were addressed. Recommendations for improving park deficiencies (enumerated in the park's Checklist for the Preservation and Protection of Museum Collections) were within a five-year time frame.

The in-park museum collection is being documented in three steps:

1) Research accessions documentation and resolve all possible ownership questions.

2) Convert existing catalog records to the Automated National Catalog System+ (ANCS+) and current standard nomenclature and revise museum reports.

3) Catalog the Margaret Davis Cate collection, currently housed on indefinite loan at the Georgia

Historical Society in Savannah. Park staff is performing step 2. Steps 1 & 3 will be contracted to museum professionals.

Manage hazardous trees.

Trees within the National Monument are thoroughly inspected annually and monitored regularly for conditions indicating the need for pruning or removal. Regular pruning is accomplished in the most used areas of the National Monument, up to the capacity of the regular maintenance staff. Larger projects and those involving trees in lesser used areas, unless there is an immediate hazard, will be removed or pruned on a cyclical basis -- once every two years -- through the use of seasonal staff or by contract. The trees will be replaced in-kind with young trees until a landscape management plan directs otherwise. When alerted by U.S. Forest Service staff or local forestry professionals of a pine beetle infestation, regular inspection of trees will be conducted to identify and quickly eliminate infested trees to limit the spread of the beetle and reduce tree loss. Additional emergency funding may be required during infestation periods. Since the pine forest is known to be non-historic, trees removed due to pine beetle infestation will not be replaced unless a landscape management plan directs it. The National Monument will also develop a hazardous tree management plan.

Establish Resource Management Specialist

Currently, there are no personnel at Fort Frederica National Monument with expertise in resource management issues, especially cultural resource management. Given the importance of protecting and preserving the remaining physical remnants of the Fort Frederica settlement, the acquisition of this expertise is critical. The National Monument will seek funding for a GS-11 Resource Management Position to overcome this deficiency in resource management activities. This position would advise the Chief, Interpretation and Resources Management and the Superintendent of important resource related issues of the National Monument.

Archaeological Overview and Assessment

The National Park Service Southeast Archeological Center in Tallahassee, Florida will begin conducting an Archeological Overview and Assessment (AOA) for the National Monument in 2001. The AOA will provide a compendium of known site summaries for the National Monument upon review of all known site files (including both state site files and the CSI-A). In preparing this document, previous investigations will be reviewed for areas already surveyed and for their levels of investigation. These will be assessed as to adequacy in light of presently required standards. Electronic base maps of the previous archeological investigations, historic plats, cultural events (battle maps, town maps, etc.) vegetation, topography, and soils will be created and reviewed for archeological information needs. Besides being a compilation of current archeological knowledge for the National Monument the document should create preliminary site location predictive models that can be tested in the field. The process will take approximately one year.

Current Development

Visitor Center/Administrative Complex

The visitor center, which is open year-round, is located approximately 1200 feet west of Frederica Road and 1400 feet east of the Frederica River outside the easternmost remaining earthwork of the fort. Visitors can obtain information about Fort Frederica, purchase books and souvenirs, view interpretive exhibits, and watch a film about the inhabitants of the Frederica settlement. It is a one-story brick building consisting of a bookstore, auditorium, offices and exhibit hall. It is connected by a covered breezeway to the National Monument's administrative offices and public restrooms. Access to the facility is by a driveway off Frederica Road and a parking lot adjacent to the visitor center and administrative complex.

Maintenance Compound

The maintenance compound consists of the maintenance shop, an equipment and vehicle storage shed, and an artifacts (museum collection) storage building.

Park Residences

There are 2 park residences currently occupied by the Superintendent and Chief Ranger.

Dinghy Dock

There is a small boat dock near the location of the southern bastion that was constructed to address a resource management problem associated with after hours access of the town site from the Frederica River. Boaters would beach their boats on the bank near the Kings Magazine, scramble up the bank and enjoy the scene after hours. Unfortunately this activity resulted in erosion on the riverbank and the possible loss of buried cultural resources. The dock, referred to as the "dinghy dock" by park staff, made it possible for this after-hours activity to continue without causing further damage to natural and cultural resources.

Bloody Marsh

This site consists of a gated entrance drive, a parking circle, a stone monument, a wayside exhibit, and a kiosk.

Actions Common to All Alternatives

The salt marsh on the west bank of the Frederica River and west of the earthworks on the east bank would be managed for natural resource protection with natural conditions and no visitor facilities.

The National Monument will work to achieve protection of nearby related sites. This may include requests for boundary adjustments or legislatively authorized land acquisition.

The National Monument will support continuation of the successful Archeology/Education program partnership with the Glynn County school system.

The National Monument will continue the resource management projects presented in Alternative D but will also seek the assistance of appropriate Regional Office personnel in the development of a plan for the preservation of the brick and tabby foundations, King's Magazine, barracks tower, monuments and other ruins and cultural resources.

The National Monument would seek funding for the preparation of a comprehensive interpretive plan.

The National Monument will manage its museum collection, including the Margaret Davis Cate archives collection currently on loan to the Georgia Historical Society in Savannah, according to the approved Collection Management Plan (CMP) following NPS museum guidance (Director's Order No. 24 and the Museum Handbook). The CMP is more completely described under the heading "Assess and catalog park archival holdings" on page 38.

Most of the 28 acres that were acquired in 1994, south of the town site and between the Frederica River and Stevens Road, would be managed for natural resource based passive recreation.

The National Monument will seek funding to conduct an analysis of the impact that the roots of trees near exposed foundations along Broad Street might be having on the integrity of the foundations and on archeological resources near these foundations. The objective would be to produce a recommended strategy to balance the aesthetic appeal of the scene with the need to protect and preserve cultural resources.

To protect the National Monument from impacts resulting from increasing development at the north end of Saint Simons Island and from the potential construction of a new causeway between Brunswick and the center of Saint Simons, park management will continue to attend and assertively participate in local and regional zoning and planning meetings and organizations, and maintain vigilance for other activities affecting the soundscape and the scenic approach to the Monument and the cultural landscape, including the marshlands. The National Monument will also follow and update as necessary its approved Land Protection Plan.

Comparative Costs

The following table lists Class "C" (conceptual) cost comparisons for this General Management Plan. The depicted costs are not detailed or precise. They are based upon reasonable assumptions and are presented primarily to compare the action alternatives to current conditions. Each alternative in the table shows current staffing costs plus the added staffing cost associated with new facilities and the total. Operating costs for each alternative are shown to be the same as for Alternative D, the "no action" alternative. Although there would be some additional operating costs associated with new facilities in eachof the action alternatives, these are assumed to be nearly equivalent and thus would not substantially change the relationship between the costs of the alternatives. Capital costs are total costs over the fifteen to twenty-year life of the plan. However, the Class "C" numbers do not include costs for hazardous material survey and abatement; archeological survey, testing, and monitoring; utility design, approval and tie into outside utility systems; design services; overhead and profit; or interpretive planning, design, production and installation. All cost figures are expressed in 2001 dollars.

Class "C" Cost Comparisons by Alternative			
Alternative	**Action**	**Capital Cost**	**Staffing Cost**
A	Archeological Program Facility – Labs, Exhibit Space, and Offices (5,000 square feet). Current operating costs.	$2,193,750	Current: $517,389 Added: $178,211 Total: $695,600 $119,011
B	Demolish and remove existing visitor center/administrative complex, parking, and entrance road. Construct new visitor center (6,000 square feet) plus driveway and parking for 100 cars and 3 buses. Construct floating dock for tour boats and water taxis Current operating costs	$97,000 $2,883,794 $273,900	None Current: $517,389 Added: $76,550 Total: $593,939 None $119,011
C	Construct addition (1,500 sq. ft.) to existing visitor center. Current operating costs	$624,000	Current: $517,389 Added: $38,275 Total: $555,664 $119,011
D (No-Action)	No capital improvements.	N/A	Operating Cost: $119,011 Staffing Cost: $517,389

Environmentally Preferred Alternative

The Council on Environmental Quality defines the Environmentally Preferred Alternative as "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." It should take into account mitigating measures and opportunities to improve the quality of visitor experience as part of the environment. For the Fort Frederica National Monument General Management Plan the National Park Service's preferred alternative, Alternative B, is also the environmentally preferred alternative.

Each action alternative contains a proposal for construction of visitor and/or administrative facilities ranging from archeological labs, exhibits, and office space in Alternative A to a new visitor center and possible dock in Alternative B to an expansion of the existing visitor center in Alternative C. Archeological field investigations, which entail ground disturbance as well as potential damage to buried cultural resources, are features to varying degrees in each of the action alternatives as well as the "no action" or current conditions alternative, Alternative D. Each of these management alternatives (including the "no action" alternative) will produce both temporary and permanent impacts, and although minor, there would be some adverse impacts to natural and cultural resources within the boundary of the National Monument.

Alternative B has a slightly greater potential for localized impacts and site disturbance than the "no action" alternative, Alternative D. However, its potential for a substantially enhanced visitor experience and its implementation of mitigation measures proposed for archeological field investigations and construction activities will result in the least damage to the biological and physical environment and the best protection, preservation, and enhancement of historic, cultural, and natural resources.

Furthermore, routine resource protection activities, such as monitoring and inspection of the

historic ruins, monitoring and stabilization of the Frederica River bank, and management of the 1994 28-acre acquisition south of the Frederica town site, are identical under all alternatives.

Also, Alternative B more successfully addresses important management and visitor experience issues that surfaced during the scoping period for this General Management Plan. Principal among these are the following:

1. How should the National Monument manage the 28-acres of woodland south of the Frederica town site that were acquired in 1994?

2. How can managers of the National Monument portray the urban environment of the colonial Frederica period while preserving the appearance of isolation and sense of antiquity that visitors that visitors frequently cite as an important element of the Frederica experience?

3. Should the existing visitor center/administrative office complex be relocated to protect resources and the view of the historic scene?

4. The current administrative offices are inadequate in terms of office space for rangers, storage space and record keeping space.

The planning team employed the Choosing by Advantages process as an objective method for evaluating all alternatives including the "no action" alternative. This process produced the conclusion that Alternative B best addressed these and other management issues while resulting in no impairment of the values and resources for which Fort Frederica National Monument was established.

Chapter Four: Affected Environment

Fort Frederica National Monument is located near the Atlantic coast city of Brunswick, Georgia on the western side of Saint Simons Island. It is situated on a bluff overlooking the Frederica River and the vast salt marshes beyond. The Monument's authorized boundary includes approximately 99 acres of marsh west of the river. It also includes the 8-acre Bloody Marsh Battle Monument site about six miles south of the Fort Frederica Visitor Center near the Saint Simons Island Airport. Saint Simons Island is the second largest of Georgia's barrier islands (Cumberland Island is the largest) being approximately 11½ miles long and ranging from ½ mile to 2½ miles wide. It is also the most populated of all the Georgia barrier islands with about 14,000 permanent residents and approved developments for the north end of the island that will accommodate another 5,000 residents when complete in about 25 years.

The Atlantic coast of the United States from Cape Hatteras, North Carolina to Miami, Florida is somewhat bowl-shaped with Saint Simons Island at the deepest or most western part of the bowl. Due to its relatively distant position with respect to the Gulf Stream and the tendency of hurricanes generated in the Caribbean to follow the Gulf Stream, Saint Simons Island, and thus Fort Frederica, has for the most part been spared the most destructive results of these storms. Otherwise, the climate is temperate with hot, humid summers and mild winters.

Marshes. Tidal Freshwater Marshes form inland from salt marshes and mangrove swamps, but are still affected by ocean tides. Grasses and floating-leaved aquatic plants typically dominate these wetlands, which are found in bays, inlets, and along tidal rivers. The National Monument Boundary includes a total of 130 acres of marshes on the northwest edge of the town site and on the western side of the Frederica River across from the town site. In addition there are approximately 5 acres of marsh at the Bloody Marsh Memorial site.

Frederica River. The Frederica River is a tidal river that separates Saint Simons Island from the salt water marshes to the west, the MacKay River, another tidal river and ultimately the mainland at Brunswick, Georgia. At one time the River was a part of the Intracoastal Waterway and was dredged by the U.S. Army Corps of Engineers. This may have contributed to erosion of the riverbank at Fort Frederica. The Frederica River forms the western boundary of the town site but the National Monument boundary continues into the marshes on the western side of the river.

Upland forest. According to written reports of early colonial settlers such as John Wesley, the forested areas around the fort and particularly south of the town site were originally evergreen oak and mixed hardwood forests.[2] Activities during the plantation period led to the drainage of interior wetlands for agriculture and the replacement of oak forest by cotton fields and successional pine forest. Pre-Civil War agriculture and post-War logging, as well as the development of a private yacht club south of the town site had further impacts on the native forests. Currently most of the woodland property within the National Monument is dominated by loblolly pine although it is now returning to mixed oak and hardwoods similar to its pre-colonial condition. The 63 acres of woodland south of the town site is also characterized by old roadbeds, a power line right-of-way and various remains and foundations of structures associated with the yacht club. At the Bloody Marsh site approximately 3 acres are in upland forest.

[2] Bratton, Susan Power 1983. The Vegetation History of Fort Frederica, Saint Simons Island, Georgia. U.S. Department of the Interior, National Park Service, Research/Resources Management Report SER-66.

Wildlife. The 1997 Resource Management Plan for Fort Frederica reports that "no inventory has been made of faunal resources in Fort Frederica, including those inhabiting or utilizing the marsh environment and the terrestrial fauna." However, The Georgia coastal region provides habitat for an abundant variety of wildlife. In addition to the common squirrels, birds, raccoons, opossum, lizards, and reptiles frequently observed at Fort Frederica, the 1998 Georgia Coastal Regional Plan lists a number of less commonly observed species for the coastal region, some of which are on State or Federal threatened or endangered lists. These species include the striped mud turtle (Kinosternon bauril), gopher tortoise (Gopherus polyphemus), red cockaded woodpecker (Picoides borealis), bald eagle (Haliaeetus leucocephalus), West Indian manatee (Trichechus manatus), piping plover (Charadrius melodus), eastern indigo snake (Dyrmarchon corais couperi), and the peregrine falcon (Falco peregrinus anatum).

Fort Frederica town site (35 acres within the earthworks). The plain upon which Fort Frederica was established had been cleared for agricultural purposes by native peoples even before the arrival of the Spanish following the establishment of St. Augustine, Florida in 1565.

The Burial Ground and Military Road. The burial ground, with its six above-ground vaults, is one of the primary historic features of Fort Frederica National Monument. It is located a few yards from the rear of the current visitor center. The exact relationship of these vaults to the Fort Frederica settlement is not now known. General Oglethorpe built a narrow military road that connected Frederica with Fort Saint Simons, 6 miles away on the south end of the island. British troops marched down this path through the forest to battle invading Spanish troops in 1742. Part of this historic trace is visible between the burial ground and the current visitor center and parking lot.

Exposed cultural resources including 21 brick and/or tabby foundations, portions of interior and exterior walls, and other remains of structures that were part of colonial Fort Frederica.

Buried cultural resources, including artifacts in the side and rear portions of the Frederica town lots with exposed foundations as well as lots with no currently visible structural remains.

The National Monument's museum collection, including artifacts exhibited in the visitor center, thousands of artifacts stored in the on-site storage facility, thousands more archeological artifacts stored at the National Park Service's Southeast Archeological Center in Tallahassee, Florida, and the 10,000-item (books, photographs, maps, documents, recordings, and tapes) Margaret Davis Cate archives collection, currently on loan to the Georgia Historical Society in Savannah.

Bloody Marsh Battle Monument Site. The site includes a gated entrance drive, a parking circle, a kiosk, woodland, marsh, and a stone monument.

Visitor Experience. Visitors to Fort Frederica typically arrive in private automobiles or tour buses via the entrance drive on Frederica Road. The majority of visitors live within a 2 to 3 hour drive of the site with smaller percentages being of national and international origin.

Approximately 15% of visitors could be described as local residents. On average, visitors spend about one hour at the Fort Frederica site and about 15 minutes at the Bloody Marsh Unit about 6 miles to the south near the Saint Simons Island airport. Virtually all visitors take advantage of the nonpersonal information and orientation services offered (visitor center film, exhibits, displays, diorama, and bookstore) while a small percentage (approximately 7%) take advantage of formal interpretive programs. With few exceptions, recreational activities are limited to those consistent with Fort Frederica's purpose. Fishing at "the fort" is a local tradition and is permitted. There are no developed hiking, bicycle, or equestrian trails. Picnicking facilities are not available.

Due to the National Monument's coastal Georgia location, the climate and geography can

combine to degrade the visitor's enjoyment of the site. Spring and summer heat and humidity can make a leisurely stroll within the town site uncomfortable by mid-day and late afternoon. Late afternoon can also bring on sudden thunderstorms with strong rain, winds, and lightning. The warm moist environment is also ideal for producing abundant populations of mosquitoes, ticks, chiggers, sand gnats, and deer flies. These insects can be much more than a minor nuisance to visitors trying to enjoy the history and beauty of the site. The National Monument's Integrated Pest Management Program, "Insect Forecast" in the Visitor Center, and interpretive contacts all offer information about personal insect control methods and first aid measures, with specific warnings about Lyme Disease.

Chapter Five: Environmental Consequences

Terminology:
The following terms have been used to describe the environmental consequences (impacts) of the action alternatives and the "no-action" or "existing conditions" alternative. The same terms and definitions were used in the Choosing by Advantages analysis to select the preferred alternative.

Intensity of Impacts

Negligible: Not measurable and barely observable.

Low: Observable and measurable although very slight or extremely localized effect on the resource.

Medium: Observable and easily measurable with a moderate effect on the resource.

High: Immediately apparent with either extreme, localized effects on the resource or moderate but extensive effects.

Extensive: Immediately apparent and substantially affecting the entire or a major portion of the resource; Characterized by severe adverse long-term effects or exceptionally beneficial long term effects on the resource.

Impairment:
The principal mission of the National Park Service is defined in the NPS Organic Act of 1916. The key provision of that act states in part: "The National Park Service shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified… by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The impairment that is prohibited by the Organic Act and the General Authorities Act is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on 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.

Methodology: By definition the alternatives in a General Management Plan are conceptual in nature. Specific design features, building footprints, and precise locations for all potential ground disturbing activities in these alternatives would only be produced in future implementation plans. Therefore the impacts listed in the following tables and analyses are of necessity very general and unquantified. Future environmental assessments, prepared in connection with any new facility design and construction, would provide more specific and quantitative analysis of the impacts on vegetation (including plant species, tree species and sizes, and endangered species), wildlife habitat, etc. In the discussion of actions and impacts which follows, the term "National Monument" refers to the entire Fort Frederica site between the Frederica River and Frederica Road on the western side of the central portion of Saint Simons Island. The term "Bloody Marsh" refers to the site approximately six miles south of Fort Frederica on Demere Road near the Saint Simons Island Airport (Malcolm McKinnon Airport). All impacts for all alternatives were determined by multi-disciplinary planning team discussion and review. A list of the planning team members can be found in Appendix C.

Impact Topics Eliminated from Further Analysis
Prime Farmlands: The United States Department of Agriculture defines prime farmland as "land that has the best combination of physical and chemical characteristics for producing food,

feed, forage, fiber, and oilseed crops and that is available for these uses." "Prime farmland is designated independently of current land use, but it cannot be areas of water or urban or built-up land as defined for the National Resource Inventories."[3] According to the Glynn-Camden Soil Survey, there are no prime agricultural lands on Saint Simons Island or anywhere in Glynn County.

Neither the existing management policies and practices nor the action alternatives will have any discernible impact on prime and unique farmlands, unique geological resources, economically disadvantaged communities (Environmental Justice) or night skies. Therefore these topics were eliminated from further analysis and discussion.

Impact Topics

The impact topics that are presented in the following table were derived from the scoping process and the identification of major values potentially at stake. (See page 7) The development of management alternatives in this planning process has changed the values earlier defined as potentially at stake to values that are at stake. Values that are at stake help define the impact topics and thus the environmental consequences of the management alternatives. The table lists impacts organized by impact topic.

Discussion of Impacts

The discussion of environmental impacts (consequences) immediately follows the table of impact topics. Each of the three action alternatives as well as the "no action" (or current conditions) alternative lead to specific management actions or decisions that result in impacts or consequences. The impacts are presented and discussed according to that logic. Under each alternative, the actions resulting from that alternative are listed, followed by a discussion of the impacts on resources and the impacts on visitor experience that arise from that action. Each impact discussion explicitly presents the context, intensity, and duration of the impact. Following the discussion of impacts from specific actions are the topics required by the National Environmental Policy Act (NEPA):

Socioeconomic Impacts, Unavoidable Adverse Impacts, Relationship of Short-Term Uses of the Environment and the Maintenance and Enhancement Of Long-Term Productivity, Irreversible or Irretrievable Commitments of Resources, Cumulative Impacts, and Conclusion. Finally, the Conclusion section for each alternative includes a discussion of the impairment issue as required by Director's Order#12, the NPS environmental impact analysis guideline.

[3] U.S. Deparment of Agriculture, Natural Resources Conservation Service, World Wide Web Site: "Prime Farmland in Georgia", http://www.ga.nrcs.usda.gov/ga/gasoil/prime.htm

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
Long term condition, state, and integrity of buried archeological resources.	Preserve and protect buried archeological resources.	Alternative A – Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	Ground disturbance, removal of some vegetation, possible damage to buried artifacts. Mitigation: archeological survey and testing, recovery and preservation of artifacts, replanting of grasses and other ground covers.
		Alternative A – Construction of facilities for archeological exhibits and labs and support facilities.	Ground disturbance, removal of some vegetation including mature trees, possible damage to buried artifacts. Mitigation: archeological survey and testing, recovery and preservation of artifacts, replanting of grasses and other ground covers, shrubs, and trees.
		Alternative B – Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	Ground disturbance, removal of some vegetation, possible damage to buried artifacts. Mitigation: archeological survey and testing, recovery and preservation of artifacts, replanting of grasses and other ground covers.
		Alternative B – Permit the construction of a dock on the Frederica River to accommodate visitors arriving by tour boat.	Disturbance of the bottom during construction could damage or destroy submerged archeological resources. In addition, turbulence caused by tour boat propellers and maneuvering around the dock could also cause bank erosion and further damage to or destruction of buried archeological resources. Mitigation: Prior to any construction, the National

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
			Monument would arrange to have the Southeast Archeological Center and the Submerged Cultural Resources Unit of the National Park Service conduct intensive archeological surveys of the affected area to determine whether or not impairment would occur from the construction and to recover and preserve artifacts. In addition tour boats would be required to operate with no wake and at idle speed in the vicinity of the dock.
		Alternative C - Permit archeological field investigations throughout the National Monument to reveal information about occupations of the site prior to and subsequent to the colonial Frederica period.	Ground disturbance, possible damage to buried artifacts. Mitigation: archeological survey and testing, recovery and preservation of artifacts.
		Alternative D (No-Action) – Under current management, archeological field investigations could occur at any time. However, there are no current or planned archeological field investigations at the National Monument.	Buried artifacts can suffer damage or destruction as a result of archeological digs. Therefore, the absence of field investigations tends to preserve the archeological record.
		Alternative D (No-Action) – An Archeological Overview and Assessment (AOA) began for Fort Frederica in 2001. This project will produce an information base from which managers of the National Monument can take appropriate actions to preserve and protect archeological resources.	This action consists of file and literature research and will have no direct impact on resources. The expansion of the information base will enhance the visitor experience by providing the foundation for improved and expanded interpretive efforts.
Long term	Preserve and	Alternative A - A strong educational element of the	Improve the long term preservation of exposed

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
condition, state, and integrity of cultural resources.	protect the aboveground tangible remains of the Fort Frederica settlement including the earthworks and the vaults in the burial ground.	program would discourage visitors from coming into contact with the ruins.	historic ruins by reducing the detrimental effects of visitor contact with them.
		Alternative B – An affirmative interpretive effort would be made as part of this alternative to explain archeological projects to visitors and to discourage visitors from coming into contact with the ruins.	Improve the long term preservation of exposed historic ruins by reducing the detrimental effects of visitor contact with them.
		Alternative C – Although there would be an expanded interpretive mission under this alternative, the educational effort to keep visitors from coming into contact with the ruins would be the same as in Alternative D, the No-Action alternative.	No change from existing conditions.
		Alternative D – Park interpreters and law enforcement rangers routinely monitor structures and visitor activities to observe problems and convey preservation goals to visitors.	Maintain current level of preservation of historic remnants of structures.
Long term condition, state and integrity of natural resources.	Preserve and protect the salt marshes on the west side of the Frederica River.	All alternatives designate the salt marshes on the west side of the Frederica River and northwest of the town site as a natural resource protection zone.	No change from existing conditions.
	Preserve and protect the woodlands and wetlands within	Alternative A – Construction of a building for archeological exhibits and labs and support facilities.	Minor clearing of vegetation including some mature trees. Temporary noise, dust, and disruption of small animal habitat Mitigation: Noise and dust abatement measures, landscaping to replace lost vegetation.

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
	the National Monument and the Bloody Marsh Battle Memorial site. Protect the endangered West Indian Manatee in the Frederica River from the impacts of potential dock construction.	Alternative B – The construction of a dock on the Frederica River to accommodate visitors arriving by a commercial services boat would be permitted under this alternative.	The construction of the dock and the operation of the tour boat could have an adverse impact on the endangered manatee, which has been sighted in the river. Mitigation: During construction the National Park Service and its contractors would fully comply with manatee protection measures required by the U.S. Fish and Wildlife Service and the Georgia Department of Natural Resources. After construction the tour boat operator would also be required to comply with these measures. They are spelled out in Appendix B.
		Alternative B- Remove the current visitor center and administrative complex from its current location and build a new facility outside the viewshed of the historic town site.	Clearing of vegetation including some mature trees. Ground disturbance. Possible damage to archeological resources. Temporary noise, dust, and disruption of small animal habitat. Mitigation: Noise and dust abatement measures, landscaping to replace lost vegetation. Archeological survey. Current area occupied by visitor center/administrative complex and parking would be replanted with native trees and shrubs and allowed to revert to a natural forested condition.
		Alternative C – Expand the existing visitor center at its current location.	Minor clearing of vegetation. Ground disturbance. Possible damage to archeological resources. Temporary noise, dust, and disruption of small animal habitat. Mitigation: Noise and dust abatement

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
			measures, landscaping to replace lost vegetation. Archeological survey, recovery and preservation of artifacts.
		Alternative D (No-Action) – Under current management policies no development or ground disturbing activity is planned for woodlands or wetlands.	No change from existing conditions.
The aesthetic beauty, sensory experiences and sense of antiquity of the site.	Preserve and protect the aesthetic beauty and quiet serenity of the Fort Frederica town site.	Alternative A - Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	Active archeological field investigations would result in a reduced sense of aesthetic beauty and sense of serenity during the times when these investigations are occurring. Therefore, this aspect of the visitor experience would be negatively impacted.
		Alternative B - Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	Active archeological field investigations would result in a reduced sense of aesthetic beauty and sense of serenity during the times when these investigations are occurring. Therefore, this aspect of the visitor experience would be negatively impacted.
		Alternative B – There would be an increase in the frequency of living history demonstrations, costumed interpretation, trade/craft demonstrations, and other on-site interpretive techniques. A sampling of ghost structures could also be added to the site.	These interpretive techniques would result in a reduced sense of aesthetic beauty and sense of serenity during the times when they are occurring.
		Alternative C – Permit archeological field investigations throughout the National Monument to	Active archeological field investigations would result in a reduced sense of aesthetic beauty and sense of

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
		reveal information about occupations of the site prior to and subsequent to the colonial Frederica period. Alternative D (No-Action) – Under current management practices there are no ongoing or planned activities that would diminish or negatively impact these values. From time to time, various interpretive programs such as costumed interpretations, craft and trade demonstrations, and the Frederica Festival temporarily disturb the quiet and serenity of the site.	serenity during the times when these investigations are occurring. No change from existing conditions.
Visitor understanding and appreciation of the period of significance.	Expand and enhance the visitor's understanding of the nature of and day to day life in the Frederica settlement.	Alternative A – The products of archeological field investigations as well as new labs and exhibits would be used to enhance the interpretation of the Fort Frederica colonial settlement. Alternative B - There would be an increase in the frequency of living history demonstrations, costumed interpretation, trade/craft demonstrations, and other on-site interpretive techniques. A sampling of ghost structures could also be added to the site. Alternative C – Under the expanded interpretive mission envisioned by this alternative, there would be no effort to enhance the visitor's understanding of colonial Frederica beyond what they receive under current management.	The visitor experienced would be enhanced by the increase in interpretive methods and media. The visitor's understanding of the nature of daily life in the Fort Frederica settlement would be enhanced. No change from existing conditions.

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
		Alternative D (No-Action) – Under this alternative current interpretive techniques, including the Frederica Festival and various demonstrations and encampments would continue but there would be no additional effort to expand the visitor's understanding of the nature of Fort Frederica.	No change from existing conditions.
The integrity of the historic scene along the approach to Fort Frederica on Frederica Rd. as well as the view toward the marsh.	Protect and preserve the viewshed along approach to Fort Frederica from both the road and the river so that visitors see the site the same way the settlers saw it.	All alternatives designate the salt marshes as a natural resource protection zone. Under all alternatives management of the National Monument attends and assertively participates in local and regional zoning and planning meetings and organizations, and keeps alert for other activities affecting the scenic approach to the Monument and the cultural landscape, including the marshlands. This participation in community planning activity will continue. Alternative B - When the current visitor center and administrative complex become functionally obsolete, remove them from current location and build a new facility out of the viewshed of the historic town site.	No change from existing conditions. Impacts would be the same under all alternatives. The site currently occupied by the visitor center, administrative complex and parking area would be cleared of structures and allowed to revert to natural forest over time.
Use of archeology to educate present and future generations	Use archeological field investigations and the products of such	Alternative A - Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	Active archeological investigations on site will probably produce information that will have a positive impact on the visitor's understanding of Fort Frederica as both a military settlement and an urban experiment.

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
about the past.	investigations to enhance the visitor's understanding of the complete story of Fort Frederica.	Alternative A - Construction of a building for archeological exhibits and labs and support facilities.	Archeological labs and exhibits will have a positive impact on the visitor's understanding of Fort Frederica as both a military settlement and an urban experiment.
		Alternative B - Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica.	The information revealed from these investigations would enhance the visitor's understanding of colonial Frederica.
		Alternative C – Permit archeological field investigations throughout the National Monument to reveal information about pre-Frederica and post-Frederica historical periods.	The field investigations under this alternative will be designed to expand the interpretive mission rather than enhance the telling of the Fort Frederica story.
		Alternative D (No-Action) – There are no current or planned field investigations under current management policies.	No change from existing conditions.
Physical access to the site to experience the environment of the settlement.	Provide access to the site that replicates the view and impression that Frederica settlers would have experienced.	Alternative B – When the current visitor center and administrative complex become functionally obsolete, remove them from current location and build a new facility outside the viewshed of the historic town site.	Clearing of vegetation including some mature trees. Ground disturbance. Possible damage to archeological resources. Temporary noise, dust, and disruption of small animal habitat. Mitigation: Noise and dust abatement measures, landscaping to replace lost vegetation. Archeological survey. Current area occupied by visitor center/administrative complex and parking would be replanted with native trees and shrubs and allowed to revert to a natural forested

SUMMARY OF IMPACTS BY IMPACT TOPIC			
Values Potentially at Stake	**Impact Topic**	**Action**	**Impact**
		Alternative B – A dock could be built on the Frederica River to permit visitors to approach the site just as settlers did.	condition. The endangered West Indian manatee has been observed in the Frederica River. Construction activities could be harmful to manatees. Mitigation: NPS and NPS contractors would implement U.S. Fish and Wildlife Service approved manatee protection measures (see Appendix B). The National Monument would also consult with the Fish and Wildlife Service during project planning and implementation.

ALTERNATIVE A

Action A1: Designate the area encompassing the town site within the earthworks, the burial ground, the military road and the land north of the visitor center to Frederica Road and the boundary with the Christ Church rectory property (See Map A1) as a Historic Preservation Zone.

Impacts on Resources: National Monument: The zone description permits active archeological field investigations. See description of impacts under Action A6. Context: The impact of this action is site specific; i.e. it occurs entirely within the boundary designated Historic Preservation Zone. Intensity: The designation of the area as Historic Preservation Zone will by itself produce no observable or measurable changes from existing conditions. Therefore the intensity of the impact would be negligible. Duration: The duration of the impact would be the life of the General Management Plan (15-20 years) or longer unless changing conditions or unforeseen situations require an amendment to the GMP. Therefore the duration of the impact is long-term. Bloody Marsh Battle Monument Site: No Historic Preservation Zone designated at this site under Alternative A.

Impact on Visitor Experience: Because this designation would result in no change from existing conditions in this zone, this action would have no impact on the visitor experience.

Action A2: At the National Monument, designate the marshes on the west side of the Frederica River and on the northwest edge of the town site as a Natural Resource Protection Zone (Map A1). Bloody Marsh Battle Monument site designate the small marshy areas on the eastern side of the property as a Natural Resource Protection Zone (Map A2).

Impacts on Resources: National Monument: Under this alternative there would be no change from existing conditions. Bloody Marsh site: Under this alternative there would be no change from existing conditions.

Impacts on Visitor Experience: Because this designation will result in no change from existing conditions in this zone, this action will have negligible impact on the visitor experience.

Action A3: At the National Monument designate the area containing the current Visitor Center/Administrative complex, entrance drive, parking lot, and the archeological dig site as a Visitor Service Zone (Map A1). At the Bloody Marsh Battle Monument site designate the entrance drive, parking lot, the stone monument, and the interpretive display area as a Visitor Service Zone (Map A2).

Impacts on Resources: National Monument: This zone permits the construction of archeological labs, exhibit space, and support facilities that are elements of Alternative A. The impacts of the construction of those facilities are described under the analysis for Action No. A7 below. Bloody Marsh site: Under this alternative there would be no change from existing conditions.

Impacts on Visitor Experience: See discussion of impacts on visitor experience under Action No. A7 below.

Action A4: At the National Monument designate a relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way as a Park Support Services Zone (Map A1). At the Bloody Marsh site there would be no Park Support Services Zone under Alternative A (Map A2).

Impacts on Resources: National Monument: No change from existing conditions Bloody Marsh site: No change from existing conditions.

Impact on Visitor Experience: No change from existing conditions.

Action A5: At the National Monument designate approximately the southern third of the National Monument running between the Frederica River and Stevens Road from the southern boundary to the moat as a Natural Resource Based Passive Recreation Zone. (Map A1). At the Bloody Marsh Battle Monument site, designate the forested, non-marsh areas outside the entrance drive, parking area and interpretive display area as a Natural Resource Passive Recreation Zone (Map A2).

Impacts on Resources: National Monument: The designation of this area of the National Monument as a Natural Resource Based Passive Recreation Zone will result in no change from existing conditions. Therefore there will be no impacts on resources. Similarly, the designation of a portion of the Bloody Marsh site will result in no change from existing conditions. Therefore there will be no impacts on resources there. However, the designation makes possible the recreational use of existing unimproved roads at the National Monument and the development of primitive trails within the zone at Bloody Marsh. See the discussion of impacts from potential trail use and development under Action A8.

Impact on Visitor Experience: This designation will permit hiking, nature photography bird watching and other appropriate recreational activities on primitive trails and unimproved roads in the wooded areas south of the town site. Therefore the visitor would have additional recreational opportunities beyond those that are available now. However, the climate of Saint Simons Island consists of a long, hot and humid summer season as well as frequent population explosions of biting insects such as mosquitoes and deer flies. These conditions would likely limit the number of visitors availing themselves of these opportunities.

Action A6: Permit ongoing archeological field investigations in areas around and between foundations and other structural remnants of Fort Frederica.

Impacts on Resources: Active archeological field investigations have the potential to cause damage to or destruction of buried cultural resources. Context: The impact of this action is site specific; i.e. it occurs entirely within the boundary of the Historic Preservation Zone of the National Monument. Intensity: Since the establishment of Fort Frederica National Monument in 1936 there have been at least 40 archeological investigations at the site that have recovered thousands of artifacts that are catalogued and stored at the National Park Service's Southeast Archeological Center at Tallahassee, Florida and in an artifacts storage building on site. Most of these artifacts were recovered from excavations along Broad Street and Cross Street within the walls of the houses. Therefore there is a high degree of probability that many more artifacts remain in the back and side yards of the houses along Broad Street as well as in lots away from the main streets and around the barracks tower and the bastions. Because on-site field investigations are part of the continuing interpretive program under this alternative, there is greater potential for damage to the underground cultural resources over time than would occur under current management practices. Therefore the intensity of the impact is high. Duration: Because these archeological investigations would continue indefinitely as part of the interpretive program, the impact would be long-term. Other impacts would include removal of grasses, small shrubs, and other ground covers from the immediate area of the field investigation. These impacts would be highly localized, affecting very small areas at any one time. Therefore the context would be very site specific, the intensity would be low, and the duration would be short term. Active archeological digs on the Frederica town site might draw visitors to observe the activity because most people rarely get to see an archeological field investigation up close. This could result in increased soil compaction around the dig sites, trampling of grasses and ground covers, and some erosion. Like the field investigations themselves, the impacts of increased visitor gatherings around these sites would be extremely localized, the intensity of the impacts would be low and the duration would be short term.

Mitigation: To reduce the potential adverse impact on buried cultural resources a pre-construction archeological survey would be undertaken. Recovery, preservation, display, exhibition, and interpretation of artifacts as well as restoration of disturbed ground to previous condition would also be part of the mitigation.

Mitigation: An affirmative visitor education effort at the visitor center, ranger led tours of the sites with appropriate cautionary statements and instructions to visitors to spread the impacts, and an enhanced monitoring and maintenance effort at the sites would lessen the impact of increased numbers of visitors around the field investigation sites.

Impact on Visitor Experience: The active archeological investigations that would be going on regularly as part of the interpretive program at Fort Frederica would give visitors an opportunity to view field archeology in the context of a site largely revealed through the discipline of archeology. Since few people have this opportunity during the course of their lives, this ongoing activity would enhance the visitor experience. At the same time on-site archeology could draw more visitors to the National Monument at certain times resulting in a diminution of the sense of solitude and peacefulness that they frequently comment upon positively. Also information and knowledge gained from the archeological field investigations would enable park managers to more completely interpret the stories of day-to-day life at Fort Frederica which would also enhance the visitor experience. Finally, Alternative A proposes to allow visitors to participate as volunteers in both the field and lab aspects of the archeological program, thus further providing enrichment of the overall visitor experience.

Action A7: Construct facilities for archeological exhibits, labs, and support facilities in the Visitor Service Zone.

Impacts on Resources: Minor clearing of vegetation including some mature trees. Temporary noise, dust, and disruption of small animal habi-

tat during construction. Context: These impacts would occur entirely within a small previously disturbed area of the Visitor Service Zone. Therefore the context would be local. Intensity: The impacts of this action would be easily discernible but would be highly localized. Therefore the intensity of the impacts would be low. Duration: The noise and dust associated with construction would be sporadic and very temporary. The removal of vegetation and disruption of small habitat would occur during the initial stages of clearing and grading the site. Therefore the duration of these impacts would be short term.

Mitigation: Noise and dust suppression measures would be implemented and there would be landscaping to replace lost vegetation.

Impact on Visitor Experience: The archeological labs and exhibits envisioned in this alternative would give the visitor "hands on" opportunities and interpretive experiences not available under current conditions.

Action A8: At the National Monument, management could permit walking, nature study, bird watching and other passive recreational activities on existing unimproved roads within the Natural Resource Based Passive Recreation Zone.

Impacts on Resources: Because existing unimproved roads would be made available for walking and other passive recreational activities, there would be no clearing or removal of vegetation to create these opportunities. The only impacts would be due to actual visitor use of the trails such as soil compaction and temporary disturbance of small animal habitat. Context: These impacts would occur entirely within narrow, unimproved road corridors in the Natural Resource Based Passive Recreation Zone consisting of approximately 28 acres at the south end of the National Monument site. Intensity: Because the climate and natural environment of Saint Simons Island and the wooded area of Fort Frederica are characterized by long periods of heat, humidity, and vast populations of biting insects such as ticks, mosquitoes, and deer flies, it is unlikely that these trails would get much use. Therefore the expected impacts would be barely observable and not measurable and the intensity of such impacts would be negligible.

Socioeconomic Impacts: It is possible that the presence of active archeological investigations on site could influence some visitors to spend more time at the National Monument. To the extent that people in a resort area such as Saint Simons Island spend more time at any one attraction, they are more inclined to need food services and/or lodging. Therefore visitors could spend more money in the local economy as a result of this alternative. However, the likely impact of this effect would be so small and so difficult to predict that the intensity of this impact would be negligible.

Unavoidable Adverse Impacts: These are impacts that cannot be fully mitigated or avoided. Under Alternative A some buried cultural resources might be damaged or destroyed during the ongoing archeological field investigations around the exposed foundations of colonial Frederica structures.

Relationship of Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity: Under Alternative A, there would be continuous archeological field investigations around the exposed remnants of colonial Frederica structures. The entire plain upon which Frederica was established was previously cleared for agricultural purposes by native populations and has been continuously occupied and used since that time. In addition, the proposed archeological facilities that would be constructed under this alternative would be located in areas with a history of logging, agriculture and other uses over the past two centuries. Therefore, the proposed land uses under Alternative A will not affect any natural ecosystem or have any adverse impact on long-term productivity of the environment.

Irreversible or Irretrievable Commitments of Resources: Under Alternative A, some buried cultural resources might be damaged or destroyed during the ongoing archeological field investigations around the exposed foundations of colonial Frederica structures. The loss of these resources would be irreversible and they would be irretrievable once they were damaged or destroyed. Also, some non-renewable resources such as energy and construction materials would be used for the archeological labs, exhibit spaces, and support facilities that are important elements of this alternative. These resources would be irretrievable once they were used.

Cumulative Impacts: There are two resources at Fort Frederica for which actions outside the National Monument have potential cumulative impact. The first is the viewshed from the Frederica town site looking west across the Federica River toward the vast marshes of Glynn County. Fort Frederica is located in the center of the western side of Saint Simons Island, Georgia, which is accessible only by boat or by causeway from the port of Brunswick, Georgia. Saint

Simons is also Georgia's most heavily populated barrier island with 14,000 permanent residents and approved plans for north end development that will increase the population by 5,000 or more over the next 25 years. In the event of a hurricane evacuation (the last such evacuation occurred in September of 1999) all residents must use the existing causeway on the south end of the island as an escape route. With increasing north end development and population, several proposals for constructing a second causeway to Saint Simons Island have been made. The location of at least one of these proposed causeways would be within the viewshed of the Fort Frederica town site. This would result in an interruption of a view of the river and the marshes that has been unaltered by human development of any kind since General Oglethorpe first arrived in 1736. Under Alternative A however, there are no proposed actions that would impact this resource (the viewshed from the town site). Therefore there are no cumulative impacts on this resource.

The second resource for which activities associated with Alternative A in combination with increasing residential and commercial development nearby could have a cumulative impact is the soundscape of the National Monument. Visitors often comment about the quiet serenity they experience on the plain of Frederica overlooking the river and the marshes beyond. Alternative A will disturb that quiet serenity to some degree with its continuous field investigations that are part of the program and by possible increased visitation drawn to the site by activities that average citizens rarely get to experience in person. The increasing development on the north end of Saint Simons Island could increase ambient noise from traffic in the area and thus could produce a cumulative adverse impact on the soundscape of the National Monument.

Conclusion: Under Alternative A the potential for damage or destruction to buried cultural resources due to continuous field investigations is greater than under current management or Alternatives B and C. Also the adverse impact on the National Monument's soundscape is greater than under current management or Alternative C. The 1916 legislation that established the National Park Service requires the agency to manage and preserve its entrusted natural and cultural resources in such a manner as to "leave them unimpaired for the enjoyment of future generations". The definition of impairment in this context is an adverse impact on one or more park resources or values that interferes with the integrity of the park's resources or values, or with the opportunities that otherwise would exist for the enjoyment of them by the present or a future generation. The impacts that would occur to cultural resources under this alternative would be at least partially mitigated by the recovery, preservation, display, exhibition, and interpretation of artifacts as well as restoration of disturbed ground to its previous condition. There would be no permanent adverse impacts to natural resources under this alternative. Therefore there would be no impairment of park resources under this alternative.

ALTERNATIVE B

Action B1: Designate the area encompassing the town site within the earthworks, the burial ground, the military road, the entire visitor center/ administrative complex, parking area and entrance drive and the land north of the visitor center to Frederica Road and the boundary with the Christ Church rectory property (See Map A1) as a Historic Preservation Zone. There would be a small Visitor Service Zone along the Frederica River on the western edge of the Historic Preservation Zone to accommodate a potential dock for a tour boat or water taxi.

Impacts on Resources: The zone description permits active archeological field investigations. See description of those impacts under Action B6. Bloody Marsh Battle Monument Site: No Historic Preservation Zone designated at this site under Alternative B. Context: The impact of this action is site specific; i.e. it occurs entirely within the boundary designated Historic Preservation Zone. Intensity: The designation of the area as Historic Preservation Zone will by itself produce no observable or measurable changes from existing conditions. Therefore the intensity of the impact will be negligible. Duration: The designation of the area as a Historic Preservation Zone will continue for the life of the General Management Plan which is expected to be 15-20 years. Therefore, the duration of the action is long-term.

Impact on Visitor Experience: In this alternative the existing Visitor Center/ Administrative Complex and parking area has been incorporated into the Historic Preservation Zone. This action by itself will have no impact on the visitor experience. However, this action could lead to the ultimate removal of these facilities from the current site and reforestation of the site and development of new facilities in an area outside the view of the town site and fort. See description of impact on visitor experience for Action B8 below.

Action B2: At the National Monument, designate the marshes on the west side of the Frederica River and on the northwest edge of the town site as a Natural Resource Protection Zone. At the Bloody Marsh Battle Monument site designate the small marshy areas on the eastern side of the property and the northeast quadrant of the property as a Natural Resource Protection Zone (Map B1).

Impacts on Resources: National Monument: Under this alternative there would be no change from existing conditions. Bloody Marsh site: Under this alternative there would be no change from existing conditions.

Impact on Visitor Experience: The designation of salt marshes as Natural Resource Protection Zones under this alternative would not change the current visitor experience.

Action B3: At the National Monument designate an irregularly shaped area in the east central portion of the National Monument defined by Frederica Road on the east, by the edge of the woodland just south of the existing parking area on the north, and the maintenance compound access road on the south as a Visitor Service Zone. Also designate a narrow strip of land along the Frederica River near the current "Dinghy Dock" as a Visitor Service Zone. At the Bloody Marsh site designate approximately the southern half of the site from Demere Road to the southeastern property boundary as a Visitor Service Zone.

Impacts on Resources: At the National Monument this designation will permit removal of the existing Visitor Center/ Administrative Complex and construction of a new complex in a previously disturbed area of the Visitor Service Zone. See discussion of those impacts under action B8. It will also permit the construction of a dock to provide access to Fort Frederica from the River. See discussion of impacts from the dock under Action B7. Context: The impact of this action occurs entirely within the area designated Visitor Service Zone. Therefore the context of the impact is site specific or highly localized. Intensity: The designation of an area as a Visitor Service Zone will by itself produce no observable or measurable changes from existing conditions. Therefore the intensity of the impact will be negligible. The designation of the area as a Visitor Service Zone will continue for the life of the General Management Plan which is expected to be 15-20 years. Therefore, the duration of the action is long-term. Bloody Marsh site: At the Bloody Marsh site there would be additional area devoted to visitor services for interpretive programs and exhibits. There would be no construction of permanent buildings but there would be some clearing of vegetation including some mature trees and some loss of small animal habitat. Context: These impacts would occur entirely within the Visitor Service Zone of the Bloody Marsh site. Therefore the context would be site specific or highly localized. Intensity: Although observable and measurable, loss of vegetation would be highly localized with a very slight impact on the natural resources of the site. Therefore the intensity would be low. Duration: The clearing of vegetation and installation of interpretive exhibits would take place over a short period of time, probably on the order of several months at the most. However the loss of vegetation could range from the 15-20 year life of the GMP to permanent. Therefore the impact would be long-term.

Impact on Visitor Experience: The designation of the area as a Visitor Service Zone will by itself produce no observable or measurable changes from existing conditions. Therefore the action will have no impact on visitor experience. However, the potential construction of a new visitor center would have impacts on the visitor experience and these impacts are discussed under Action B8. Also the designation of a small visitor service zone along the Frederica River makes possible the construction of a dock to permit visitors to arrive by tour boat or water taxi. The potential impacts from this action are discussed under Action B7. At the Bloody Marsh site an expanded Visitor Service Zone makes possible additional exhibits and interpretive programs. The impacts from these actions are also discussed under Action B8.

Action B4: At the National Monument designate a relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way as a Park Support Services Zone. At the Bloody Marsh site there would be no Park Support Services Zone under Alternative B.

Impacts on Resources: The designation of this area of the National Monument as a Park Support Services Zone will result in no change from existing conditions. Therefore there will be no impacts on resources.

Impact on Visitor Experience: The Park Support Services Zone designation will result in no change from existing conditions. Therefore there will be no impact on the visitor experience.

Action B5: At the National Monument designate approximately the southern third of the

National Monument running between the Frederica River and Stevens Road from the southern boundary to the moat as a Natural Resource Based Passive Recreation Zone. At the Bloody Marsh site designate the northwest corner of the site as a Natural Resource Based Passive Recreation Zone.

Impacts on Resources: The designation of this area of the National Monument as a Natural Resource Based Passive Recreation Zone will result in no change from existing conditions. Therefore there will be no impacts on resources. Similarly, the designation of a portion of the Bloody Marsh site will result in no change from existing conditions. Therefore there will be no impacts on resources there. However, the designation makes possible the development of primitive trails within the zone. See the discussion of impacts from potential trail use and development under Action B10.

Impact on Visitor Experience: This action by itself will have no impact on the visitor experience. However it makes possible the recreational use of unimproved roads at the National Monument and the development of primitive trails at the Bloody Marsh site. See the discussion of the impacts from the potential expanded recreational opportunities on the visitor experience under Action B10.

Action B6: Permit archeological field investigations in areas around and between exposed foundations and other structural remnants of Fort Frederica to reveal information about cultural landscapes and day-to-day life of Frederica settlers.

Impacts on Resources: There would be potential damage to or destruction of buried cultural resources resulting from archeological field investigations. Context: The impact of this action is site specific; i.e. it occurs entirely within the relatively small area in which the field investigation is occurring. Intensity: Because these field investigations would be temporary and not part of the ongoing interpretive program, the impact on cultural resources would be less than under Alternative A. The impact would be low. Duration: Archeological field investigations under Alternative B will only be performed as needed to ascertain information about colonial Frederica landscapes and lifestyles. This information will be used in developing the interpretive programs and in creating as historically accurate a visual scene as is possible. The field investigations will therefore be focused on obtaining specific information in a relatively short time. The duration of this impact under Alternative B will be short-term.

Mitigation: Prior to the field investigations there would be an archeological field survey with subsequent recovery and preservation of artifacts. Following completion of the field investigations the disturbed ground would be restored to its previous condition.

Impact on Visitor Experience: The archeological investigations that would be conducted as part of Alternative B would be designed to provide information necessary to create a more historically accurate scene and would therefore be short term. While these investigations were active however, the visitor would be able to view archeologists at work in the context of the site and to ask questions and receive information from both archeologists and park staff. The field investigations themselves would enhance the visitor experience for the short time they were active while the results of the investigations would provide information needed to permanently invigorate the interpretive programs at Fort Frederica.

Action B7: The construction of a dock on the Frederica River to accommodate visitors arriving by tour boat or water taxi would be possible under this alternative.

Impacts on Resources: There would be a temporary increase in noise due to construction in the area. There would also be some temporary increase in turbidity in the Frederica River and there would be some removal of riverbank vegetation. The disturbance of the river bottom during construction could damage or destroy submerged archeological resources. In addition, turbulence caused by tour boat propellers and maneuvering around the dock could also cause bank erosion and further damage to or destruction of buried archeological resources. Context: These impacts would occur in a very short segment of the Frederica River edge near the southern end of the town site. The context would be site specific and highly localized. Intensity: While these impacts would be observable and measurable, they would be limited to a very small area and therefore the intensity would be low. Duration: Construction noise would be temporary as would turbidity in the river resulting from construction of a dock. The removal of a small amount of riverbank vegetation however would be permanent. There would also be possible adverse impacts on the West Indian Manatee, an Endangered Species, which has been spotted in the river. Also the duration of turbulence caused by tour boat propellers would be long term although sporadic, i.e. occurring only at regular intervals during scheduled tour boat arrivals and departures. Context: During the construction of

the dock any adverse encounters with manatees in the Frederica River would occur in the immediate vicinity of the dock construction. Subsequently, adverse encounters with tour boats or water taxis could occur anywhere in the Frederica River between the National Monument and the southern end of Saint Simons Island. Intensity: By definition threatened and endangered species are so rare that if serious harm occurs to a small number of individuals, the impact on the species is potentially large. Correspondingly, the rarity of the species means that the probability of adverse encounters with manatees in the Frederica River is small. Therefore, the intensity of the impact would be medium. Duration: Impacts resulting from the construction of the dock would be temporary due to the relatively short period of time that would be necessary to start and finish the project. The potential impacts from tour boats and water taxis however would be long-term due to the continuing nature of the operation.

Mitigation: Prior to the beginning of any construction activities Fort Frederica National Monument would comply with all relevant provisions of the Federal Water Pollution Control Act (also known as the Clean Water Act) including the Section 404 Permit process, Executive Order 11990 (Protection of Wetlands), and NPS Director's Order Number 77, Wetland Protection. In addition, during the construction there would be noise suppression measures, scheduling strategies, and restoration of some riverbank vegetation to reduce the impacts. With regard to the manatee, during and after construction the National Park Service and its contractors would fully comply with manatee protection measures required by the U.S. Fish and Wildlife Service and the Georgia Department of Natural Resources. These measures are enumerated in detail in Appendix B. Furthermore, prior to any construction, the National Monument would arrange to have the Southeast Archeological Center and the Submerged Cultural Resources Unit of the National Park Service conduct intensive archeological surveys of the affected area to determine whether or not impairment would occur from the construction and to recover and preserve artifacts. In addition, tour boats would be required to operate with no wake and at idle speed near the dock.

Impact on Visitor Experience: The construction of a dock for tour boats and water taxis on the Frederica River would make it possible for a large number of visitors to approach the site in the same manner as the original settlers and to view essentially the same scene that they saw. This would be a significant enhancement of the current condition which has visitors driving up to the visitor center and walking a short distance across a boardwalk to the historic ruins on the town site.

Action B8: Remove the current visitor center and administrative complex from its current location and build a new one in the Visitor Service Zone where it would be out of the viewshed of the historic town site.

Impacts on Resources: The National Park Service has determined and the State Historic Preservation Officer (SHPO) for the state of Georgia has concurred that the Fort Frederica Visitor Center and Administrative complex does not meet the test of exceptional importance required for structures less than 50 years old and is not eligible for addition to the National Register of Historic Places. Therefore, there would

be no impact on historic structures. Removing the existing visitor center/administrative complex and parking lot from the current location would result in temporary noise and dust. Context: These impacts would occur in a relatively small area of the National Monument and would be site specific. Intensity: Due to the proximity of these facilities to the town site and remains of the fort, the noise and dust would be readily apparent to visitors on the site. Because the noise and dust would be localized, the intensity of these impacts would be low. Duration: The noise and dust associated with demolition and clearing of the site would be temporary, lasting a period of several months to a year at most. Therefore, the duration would be short-term.

At the new visitor center and administrative complex site there would also be temporary noise and dust as well as ground disturbance, removal of some vegetation including mature trees, and disruption of small animal habitat. Context: The impact would occur entirely within the area designated Visitor Service Zone under Alternative B. The area of impact would be small in terms of both the zone and the entire National Monument. Intensity: There would be readily

observable and measurable effects at the site of the construction but these would be localized. Therefore, the intensity of the impacts would be low. Duration: The loss of vegetation on the actual footprint of the structure would be permanent. Thus the duration would be long-term.

Impact on Visitor Experience: Ultimately, most modern structures and facilities (exceptions might include the boardwalk, the bridge over the moat and interpretive exhibits) would be removed from the view of the historic town site and fort and the visitor would be able to approach the site and see it in much the same way as the original settlers did. With additional historically accurate structural and landscape elements in place and an expanded interpretive program, the visitor's experience would be enhanced.

Mitigation: Noise and dust suppression measures would be employed at both the old and new sites of the visitor center and administrative complex. The area previously occupied by the visitor center, administrative complex and parking would be cleared of structures and planted with native trees and allowed to return to a more natural forested condition over time.

Action B9: Increase the frequency of living history demonstrations, costumed interpretations, trade and crafts demonstrations, and other on-site interpretive techniques. A sampling of ghost structures could also be added to the site.

Impacts on Resources: More frequent programs of this nature could be expected to attract more visitors and more frequent visitor contact with and possible adverse impacts to the foundations, earthworks, the King's Magazine, the barracks tower and other tangible remains of Fort Frederica. Context: The context would be local because these impacts would be confined to the immediate area of the historic ruins. Intensity: Damage to or deterioration of the foundations, earthworks and other physical remains of Fort Frederica caused by increased visitation would be observable and measurable although highly localized. Therefore, the intensity of the impacts would be low. Duration: The duration would be temporary because park management would take immediate steps to protect the ruins if it could be determined that these programs were directly responsible for damage to the resources.

Mitigation: The impacts of increased visitation on the structural elements of Fort Frederica would be mitigated by an affirmative effort by National Monument management, staff, and program participants to educate the visitors about the fragile nature of the ruins and by increased monitoring of the ruins.

Action B10: At the National Monument, management could permit walking, nature study, bird watching and other passive recreational activities on existing unimproved roads within the Natural Resource Based Passive Recreation Zone. At the Bloody Marsh site, management could develop primitive trails within the Natural Resource Based Passive Recreation Zone at the northwest corner of the site.

Impacts on Resources: Because existing unimproved roads would be made available for walking and other passive recreational activities there would be no clearing or removal of vegetation to create these opportunities. The only impacts would be due to actual visitor use of the trails such as soil compaction and temporary disturbance of small animal habitat. Context: These impacts would occur entirely within narrow, unimproved road corridors in the Natural Resource Based Passive Recreation Zone consisting of approximately 28 acres at the south end of the National Monument site. Intensity: Because the climate and natural environment of Saint Simons Island and the wooded area of Fort Frederica are characterized by long periods of heat, humidity, and substantial populations of biting insects such as ticks, mosquitoes, and deer flies, it is unlikely that these trails would get much use. Therefore the expected impacts would be barely observable and not measurable and the intensity of such impacts would be negligible. At Bloody Marsh there would be some clearing of vegetation to provide primitive trails in the Natural Resource Based Passive Recreation Zone. There would also be some disturbance and loss of small animal habitat. Context: These impacts would occur in an area consisting of a few acres at the northwest corner of the site and would be highly localized. Intensity: The removal of vegetation for trails would be observable and measurable although slight and confined to a very small area. Therefore the intensity of the impact would be low. Duration: Although very slight, these impacts would be long-term.

Impact on Visitor Experience: Although these trails would present new opportunities for recreational activities at both the National Monument and the Bloody Marsh site, the climate and environment of the area as cited above under Resource Impacts would be expected to dampen the enthusiasm for participating in such activities except during the relatively short seasons where cooler, drier, insect-free conditions prevail. Therefore the impact on the visitor experience would be negligible.

Socioeconomic Impacts: It is possible that the enhanced and expanded interpretive programs as well as the efforts to recreate an accurate visual Fort Frederica scene could influence some visitors to spend more time at the National Monument. To the extent that people in a resort area such as Saint Simons Island spend more time at any one attraction, they are more inclined to need food services and/or lodging. Therefore visitors could spend more money in the local economy as a result of this alternative. However, the likely impact of this effect would be so small and so difficult to predict that the intensity of this impact would be negligible.

Unavoidable Adverse Impacts: These are impacts that cannot be fully mitigated or avoided. Under Alternative B some buried cultural resources might be damaged or destroyed during the temporary field investigations that would be conducted around the foundations of historic structures to reveal information necessary to recreate accurate historic landscape elements and other visual features of the original settlement. These impacts would be less adverse than those occurring under Alternative A because under Alternative B the field investigations would be temporary rather than a continuing part of the interpretive program.

Relationship of Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity: Under Alternative B, there would be temporary archeological field investigations around the exposed remnants of colonial Frederica structures. There would also be the possibility of the construction of a dock on the Frederica River to accommodate tour boats and water taxis and the removal of the existing visitor center and administrative complex from its current location and building a new visitor center in the Visitor Services Zone. The entire plain upon which Frederica was established was previously cleared for agricultural purposes by native populations and has been continuously occupied and used since that time. In addition, the potential new visitor center that would be constructed under this alternative would be located in an area with a history of logging, agriculture and other uses over the past two centuries. Therefore, the proposed land uses under Alternative B will not affect any natural ecosystem or have any adverse impact on long-term productivity of the environment.

Irreversible or Irretrievable Commitments of Resources: Under Alternative B, some buried cultural resources might be damaged or destroyed during the temporary archeological field investigations around the exposed foundations of colonial Frederica structures. The loss of these resources would be irreversible and they would be irretrievable once they were damaged or destroyed. These losses would be less than would occur under the ongoing archeological program envisioned under Alternative A. Also, some non-renewable resources such as energy and construction materials would be used for the new visitor center and a possible dock on the Frederica River that are elements of this alternative. These resources would be irretrievable once they were used.

Cumulative Impacts: As in the discussion of cumulative impacts for Alternative A, there are no proposed actions under Alternative B that would impact the view of the marshes across the Frederica River from the plain of the town site. Therefore there are no cumulative impacts on this resource. With regard to the soundscape of the National Monument, Alternative B will disturb the quiet serenity of the scene to some degree with its expanded interpretive programs such as costumed interpretations, craft demonstrations, military encampments and reenactments, and other such activities. These programs could result in higher visitation, which would compound the effects on the soundscape. The increasing development on the north end of Saint Simons Island could increase ambient noise from traffic in the area and thus could produce a cumulative adverse impact on the soundscape of the National Monument.

Conclusion: Under Alternative B the potential damage or destruction to buried cultural resources due to temporary field investigations is less than under Alternatives A and C but greater than under current management. The construction of a dock on the Frederica River will not occur unless archeological surveys prior to construction demonstrate that no impairment of buried or submerged cultural resources would occur. Therefore the potential damage to archeological resources due to a dock construction would also be less than under Alternatives A and C. Furthermore, because the existing visitor center and administrative complex has been determined to be ineligible for listing in the National Register of Historic Places, there would be no impact on historic structures resulting from demolition of that building. The impacts on vegetation and small animal habitat from the construction of a new visitor center would be about the same as for the construction of archeological facilities under Alternative A but greater than for the expansion of the current visitor center under Alternative C and much greater than under current management. Finally, the adverse impact on the soundscape of the National Monument

would be about the same as for Alternative A but greater than either Alternative C or current management. The intensity of the impacts resulting from most actions connected with Alternative B have been determined to be either negligible or low. These impacts are due either to archeological field investigations or construction of new facilities. The one impact that rises to the medium intensity level would be the potential impact on the West Indian Manatee, an endangered species, resulting from the construction of a dock and continuing tour boat operations in the Frederica River. In all cases the mitigation activities proposed in the preceding narrative would further reduce the intensity of these impacts so that the integrity of the National Monument's resources and values would be maintained and there would be no loss of opportunity for present or future generations to enjoy these resources and values. Therefore there would be no impairment of the National Monument's resources resulting from this alternative.

ALTERNATIVE C

Action C1: Designate the area encompassing the town site within the earthworks, the burial ground, the military road and the land north of the visitor center to Frederica Road and the boundary with the Christ Church rectory property (See Map C1) as a Historic Preservation Zone.

Impacts on Resources: National Monument: The zone description permits active archeological field investigations. See description of impacts under Action C6. Context: The impact of this action is site specific; i.e. it occurs entirely within the boundary designated Historic Preservation Zone. Intensity: The designation of the area as Historic Preservation Zone will by itself produce no observable or measurable changes from existing conditions. Therefore the intensity of the impact will be negligible. Duration: The duration of the impact will be the life of the General Management Plan (15-20 years) or longer unless changing conditions or unforeseen situations require an amendment to the GMP. Therefore the duration of the impact is long-term. Bloody Marsh Battle Monument Site: No Historic Preservation Zone designated at this site under Alternative C.

Impact on Visitor Experience: Because this designation will result in no change from existing conditions in this zone, this action will have no impact on visitor experience.

Action C2: At the National Monument, designate the marshes on the west side of the Frederica River and on the northwest edge of the town site as a Natural Resource Protection Zone (Map C1). At the Bloody Marsh Battle Monument site designate the small marshy areas on the eastern side of the property as a Natural Resource Protection Zone (Map C2).

Impacts on Resources: At the National Monument there would be no change from existing conditions under this alternative. At the Bloody Marsh site there would be no change from existing conditions under this alternative.

Action C3: At the National Monument designate the area containing the current Visitor Center/Administrative complex, entrance drive, parking lot, and the archeological dig site as a Visitor Service Zone (Map C1). At the Bloody Marsh Battle Monument site designate the southern 2/3 of the site except the salt marsh as a Visitor Service Zone (Map C2).

Impacts on Resources: This alternative permits the expansion of the existing visitor center at its current location. See discussion of impacts under Action C.7. At the Bloody Marsh site there would be an expanded Visitor Service Zone to allow for more interpretive programs, exhibits, and signs. See discussion of impacts under Action C8.

Impact on Visitor Experience: See discussion of impacts on visitor experience under Actions C7 and C8.

Action C4: At the National Monument designate a relatively small area west of the historic Christ Church property, south of the maintenance compound access road, north of Stevens Rd. and east of the power line right-of-way as a Park Support Services Zone (Map C1). At the Bloody Marsh site there would be no Park Support Services Zone under Alternative C (Map C2).

Impacts on Resources: At the National Monument this designation would result in no change from existing conditions. Therefore there would be no impacts. At Bloody Marsh there would be no Park Support Services Zone.

Impact on Visitor Experience: The Park Support Services Zone designation would result in no changes from existing management. Therefore there would be no impact on visitor experience.

Action C5: At the National Monument designate approximately the southern third of the Monument boundary, running between the Frederica River and Stevens Road from the southern boundary to the moat as a Natural Resource Based Passive Recreation Zone (Map

C1). At Bloody Marsh designate the northern third of the site as a Natural Resource Based Passive Recreation Zone (Map C2).

Impacts on Resources: National Monument: The designation of this area of the National Monument as a Natural Resource Based Passive Recreation Zone will result in no change from existing conditions. Therefore there will be no impacts on resources. Similarly, the designation of a portion of the Bloody Marsh site will result in no change from existing conditions. Therefore there will be no impacts on resources there. However, the designation makes possible the recreational use of existing unimproved roads at the National Monument and the development of primitive trails within the zone at Bloody Marsh. See the discussion of impacts from potential trail use and development under Action C9.

Impact on Visitor Experience: The designation of areas within the National Monument and the Bloody Marsh site will, in and of itself, cause no change from the existing visitor experience. However, the designation will make possible the use of existing unimproved roads at the National Monument for passive recreation and the development of trails at Bloody Marsh. The discussion of those impacts is under Action C9.

Action C6: Expand the current visitor center at its current location.

Impacts on Resources: There would be some minor clearing of vegetation, ground disturbance, temporary noise, dust, and disruption of small animal habitat. There would be possible damage to archeological resources. Context: These impacts would occur entirely within a small area around the current visitor center and would be highly localized and site specific. Intensity: Although the impacts would be observable and measurable, they would be slight and confined to a very small area. Therefore the intensity of the impacts would be low. Duration: The noise, dust, and disruption of small animal habitat would be temporary, lasting only for the period of construction. Although the possibility of damage to archeological resources is small, any damage or destruction that might occur would be permanent. The loss of vegetation would be temporary because site landscaping would replace most of what was lost.

Impact on Visitor Experience: The expanded visitor center would provide more exhibits, more space for programs, and a greater range of stories being told. Therefore, visitors would be more likely to spend more time in the National Monument and gain a greater appreciation for the colonial Frederica period as well as knowledge about other historic periods such as native American occupation of the site and the plantation period on Saint Simons Island.

Mitigation: Noise and dust abatement measures would be implemented to reduce these impacts. Prior to construction there would be an archeological survey as well as recovery and preservation of any artifacts recovered.

Action C7: Permit archeological field investigations throughout the National Monument to reveal information about occupations of the site prior to and subsequent to the colonial Frederica period.

Impacts on Resources: There would be minor clearing of vegetation, primarily grasses, ground covers, and small shrubs, as well as possible damage to and destruction of buried cultural resources. Context: These field investigations could occur anywhere within the National Monument or the Bloody Marsh site except the salt marshes. However, the impacts would still be completely within the National Park Service boundaries and extremely localized. Intensity: While the impacts would be observable and measurable, they would be slight and confined to small areas of the total site. Therefore the intensity of the impacts would be low. Duration: The clearing of vegetation and ground disturbance would be temporary, lasting only as long as necessary to reveal information about various historical occupations of the Frederica site. Any damage to buried cultural resources however, would be permanent and irreversible.

Impact on Visitor Experience: Active archeological field investigations would result in a reduced sense of aesthetic beauty and sense of serenity during the times when these investigations are occurring. On the other hand, the investigations would be expected to reveal information about historic occupations of the site that would be incorporated into interpretive programming and thus an expected enhancement of the visitor experience.

Action C8: At Bloody Marsh install exhibits and signs and clear an area for interpretive programs.

Impacts on Resources: There would be some minor clearing of vegetation including some mature trees. Context: These impacts would occur entirely within the Visitor Service Zone under Alternative C and they would be confined to a relatively small portion of that zone. Intensity: Although observable and measurable, the impacts would be slight and highly localized.

Therefore the intensity of the impacts would be low. Duration: The removal of vegetation, although very minor would be at least for the life of the General Management Plan, a period of 15-20 years. Therefore the duration would be long term.

Impact on Visitor Experience: The additional signs, exhibits, and programs at the Bloody Marsh site would be expected to enhance the visitor experience.

Action C9: At the National Monument, management could permit walking, nature study, bird watching and other passive recreational activities on existing unimproved roads within the Natural Resource Based Passive Recreation Zone. At the Bloody Marsh site, management could develop primitive trails within the Natural Resource Based Passive Recreation Zone in the northern third of the site.

Impact on Resources: Because existing unimproved roads at the National Monument would be made available for walking and other passive recreational activities there would be no clearing or removal of vegetation to create these opportunities. The only impacts would be due to actual visitor use of the trails such as soil compaction and temporary disturbance of small animal habitat. Context: These impacts would occur entirely within narrow, unimproved road corridors in the Natural Resource Based Passive Recreation Zone consisting of approximately 28 acres at the south end of the National Monument site. Intensity: Because the climate and natural environment of Saint Simons Island and the wooded area of Fort Frederica are characterized by long periods of heat, humidity, and sizeable populations of biting insects such as ticks, mosquitoes, and deer flies, it is unlikely that these trails would get much use. Therefore the expected impacts would be barely observable and not measurable and the intensity of such impacts would be negligible. At Bloody Marsh there would be some clearing of vegetation to provide primitive trails in the Natural Resource Based Passive Recreation Zone. There would also be some disturbance and loss of small animal habitat. Context: These impacts would occur in an area consisting of a few acres at the northwest corner of the site and would be highly localized. Intensity: The removal of vegetation for trails would be observable and measurable although slight and confined to a very small area. Therefore the intensity of the impact would be low. Duration: Although very slight, these impacts would be long-term.

Impact on Visitor Experience: Although these trails would present new opportunities for recreational activities at both the National Monument and the Bloody Marsh site, the climate and environment of the area as cited above under Resource Impacts would be expected to dampen the enthusiasm for participating in such activities except during the relatively short seasons where cooler, drier, insect-free conditions prevail. Therefore the impact on the visitor experience would be negligible.

Socioeconomic Impacts: It is possible that the enhanced and expanded interpretive programs could influence some visitors to spend more time at the National Monument. To the extent that people in a resort area such as Saint Simons Island spend more time at any one attraction, they are more inclined to need food services and/or lodging. Therefore visitors could spend more money in the local economy as a result of this alternative. However, the likely impact of this effect would be so small and so difficult to predict that the intensity of this impact would be negligible.

Unavoidable Adverse Impacts: These are impacts that cannot be fully mitigated or avoided. Under Alternative C some buried cultural resources might be damaged or destroyed during the temporary field investigations that would be conducted anywhere within the National Monument to reveal information about historical occupations of the site prior to and subsequent to the colonial Frederica settlement. These impacts would be less adverse than those occurring under Alternative A because under Alternative C the field investigations would be temporary rather than a continuing part of the interpretive program. They would be more adverse than under Alternative B because they would occur throughout a greater area of the National Monument boundary.

Relationship of Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity: Under Alternative C, there would temporary archeological field investigations throughout the National Monument boundary. The entire plain upon which Frederica was established was previously cleared for agricultural purposes by native populations and has been continuously occupied and used since that time. In addition, the other areas where field investigations could occur have a history of logging, agriculture and other commercial uses over the past two centuries. Therefore, the proposed land uses under Alternative C will not affect any natural ecosystem or have any adverse impact on long-term productivity of the environment.

Irreversible or Irretrievable Commitments of Resources: Under Alternative C, some buried cultural resources might be damaged or destroyed during the temporary archeological field investigations throughout the National Monument boundary. The loss of these resources would be irreversible and they would be irretrievable once they were damaged or destroyed. These losses would be less than would occur under the ongoing archeological program envisioned under Alternative A. However the losses would be greater than under Alternative B because the field investigations would occur throughout a greater area of the National Monument. Also, some non-renewable resources such as energy and construction materials would be used for the expanded visitor center that is an element of this alternative. These resources would be irretrievable once they were used.

Cumulative Impacts: As in the discussion of cumulative impacts for Alternatives A and B, there are no proposed actions under Alternative C that would impact the view of the marshes across the Frederica River from the plain of the town site. Therefore there are no cumulative impacts on this resource. With regard to the soundscape of the National Monument, Alternative C could disturb the quiet serenity of the scene to a small degree during the temporary archeological field investigations to reveal information about other historical occupations of the Frederica site. The increasing development on the north end of Saint Simons Island could increase ambient noise from traffic in the area and thus could produce a cumulative adverse impact on the soundscape of the National Monument. However, this cumulative adverse impact would be expected to be less than under either Alternatives A or B.

Conclusion: Under Alternative C the potential damage or destruction to buried cultural resources due to temporary field investigations is less than under Alternative A and under current management but greater than under Alternative B because the field investigations would occur throughout a greater range of the National Monument boundary. The impacts on vegetation and small animal habitat from the expansion of the existing visitor center would be less than for the construction of archeological facilities under Alternative A and less than for the construction of a new visitor center under Alternative B but greater than under current management. Finally, the adverse impact on the soundscape of the National Monument would be about the same as for current management but greater than either Alternatives A or B. The intensity of the impacts resulting from most actions connected with Alternative have been determined to be either negligible or low. These impacts are due either to archeological field investigations or construction of new facilities. In all cases the mitigation activities proposed in the preceding narrative would further reduce the intensity of these impacts so that the integrity of the National Monument's resources and values would be maintained and there would be no loss of opportunity for present or future generations to enjoy these resources and values. Therefore there would be no impairment of the National Monument's resources resulting from this alternative.

ALTERNATIVE D

Action D1: Under current management, archeological field investigations at the National Monument or the Bloody Marsh Battle Memorial site could occur at any time. However, there are no current or planned field investigations at the National Monument or the Bloody Marsh site.

Impacts on Resources: Active archeological field investigations have the potential to cause damage to or destruction of buried cultural resources. Context: The impact of any field investigations under current management would be site specific. The impacts would occur only at the specific location of the field investigation, wherever that might occur in the future. Intensity: Since the establishment of Fort Frederica National Monument in 1936 there have been at least 40 archeological investigations at the site that have recovered thousands of artifacts that are catalogued and stored at the National Park Service's Southeast Archeological Center at Tallahassee, Florida and in an artifacts storage building on site. Therefore there is a high degree of probability that many more artifacts remain in the back and side yards of the houses along Broad Street as well as in lots away from the main streets and around the barracks tower and the bastions. There is a lower probability of finding artifacts at the Bloody Marsh Battle memorial due to the uncertainty regarding the actual location of the battle. Also, under current management, archeological field investigations would be infrequent and targeted to very specific sites for very specific purposes. Therefore the intensity of the impacts under current management would be low. Duration: Because these field investigations would be intermittent and narrowly targeted, the duration of the impact would be short-term. Other impacts would include removal of grasses, small shrubs, and other ground covers from the immediate area of the field investigation. These impacts would be highly localized, affecting very small areas at any one time. Therefore the context would be very site specific, the intensity would be low, and the

duration would be short-term. Because these field investigations would be sporadic and not part of the interpretive program of the National Monument, they would not be expected to draw visitors frequently enough or in sufficient numbers to cause noticeable soil compaction, trampling of grasses and ground covers, erosion or other adverse impacts on the resources.

Impact on Visitor Experience: Since archeological field investigations under current management would be infrequent and highly localized, the impact on visitor experience from the investigations themselves would be negligible. However, information derived from the investigations could be expected to enhance the visitor experience by improving interpretive programs and media.

Action D2: Staff of the National Monument routinely inspect and monitor conditions at each of the nineteen historic structures on the town site.

Impacts on Resources: The continuation of these activities in addition to the correction of minor structural problems can be expected to retard the effects of weather and visitor contact. The context of these impacts will be completely local; i.e. they will exist only within the confines of the remnants of historic structures at Fort Frederica. Because the continuing inspection, monitoring and maintenance of these historic remnants will combat the effects of erosion and visitor contact, the intensity of the impacts will be medium. The duration of the impacts will be long-term because the adverse effects of erosion and visitor contact would take a long time to become readily apparent if allowed to proceed unchecked.

Impact on Visitor Experience: The objective of the inspection, monitoring, and treatment of the historic ruins at Fort Frederica is to maintain a current level of preservation. If successful, these efforts will prevent further deterioration of the resources but will not change their appearance substantially. Therefore the actions will have a negligible effect on the visitor experience.

Action D3: Staff of the National Monument regularly advise visitors to avoid direct contact with the historic ruins on the Frederica town site. Preservation messages are also contained in recorded programs, audio tours, and the park brochure.

Impacts on Resources: Since visitor contact with the exposed remains of Frederica structures is known to have adverse impacts on these resources, continuing efforts by the staff of the National Monument to prevent such contact would be expected to reduce these adverse impacts. Context: These impacts will occur entirely within the boundary of the National Monument on and around the existing exposed foundations and remains of Frederica structures. Therefore the context is site specific. Intensity: Although the impacts of these actions are positive, they are designed to maintain the current state of preservation. Thus the impacts would be barely observable and not measurable. Therefore the intensity of the impacts would be negligible. Duration: Because these actions are continuous and ongoing under current management, the duration of the impacts would be long-term.

Impact on Visitor Experience: The objective of these visitor education efforts at Fort Frederica is to maintain a current level of preservation. If successful, these efforts will prevent further deterioration of the resources but will not change their appearance substantially. Therefore the actions will have a negligible effect on the visitor experience.

Action D4: Routine monitoring, inspection, and replanting of the stabilized riverbank.

Impacts on Resources: These activities will prevent further erosion of the riverbank and will preserve archeological resources still buried near the river, particularly in the vicinity of the King's Magazine. Context: These impacts will occur entirely within a narrow strip of land within the National Monument boundary along the Frederica River and primarily within the vicinity of the King's Magazine. Intensity: From time to time heavy storms and boat traffic on the river may result in observable and measurable erosion.

The impacts of these actions however will be slight and highly localized. Therefore the intensity of the impacts will be low. Duration: Because these actions are continuous and ongoing part of the current management program, the duration of the impacts would be long-term.

Socioeconomic Impacts: There are no actions under current management that would have any foreseeable socioeconomic impacts on the local community of Saint Simons Island.

Unavoidable Adverse Impacts: These are impacts that cannot be fully mitigated or avoided. Under Alternative D some buried cultural resources might be damaged or destroyed during infrequent field investigations that could be conducted primarily within the earthworks of the Frederica town site of the National Monument. These impacts would be less adverse than those occurring under any of the action alternatives.

Relationship of Short-Term Uses of the Environment and the Maintenance and Enhancement of Long-Term Productivity: Under Alternative D, there could be occasional archeological field investigations within the earthworks of the National Monument boundary. The entire plain upon which Frederica was established was previously cleared for agricultural purposes by native populations and has been continuously occupied and used since that time. In addition, the other areas where field investigations could occur have a history of logging, agriculture and other commercial uses over the past two centuries. Therefore, the existing land uses under Alternative D will not affect any natural ecosystem or have any adverse impact on long-term productivity of the environment.

Irreversible or Irretrievable Commitments of Resources: Under Alternative D, some buried cultural resources might be damaged or destroyed during the occasional archeological field investigations within the National Monument boundary. The loss of these resources would be irreversible and they would be irretrievable once they were damaged or destroyed. These losses would be less than would occur under any of the action alternatives.

Cumulative Impacts: As in the discussion of cumulative impacts for the action alternatives, there are no current or proposed actions under current management that would impact the view of the marshes across the Frederica River from the plain of the town site. Therefore there are no cumulative impacts on this resource. With regard to the soundscape of the National Monument, Alternative D could disturb the quiet serenity of the scene to a small degree during the occasional archeological field investigations that could occur at very specific locations for very specific purposes. The increasing development on the north end of Saint Simons Island could increase ambient noise from traffic in the area and thus could produce a cumulative adverse impact on the soundscape of the National Monument. However, this cumulative adverse impact would be expected to be less than under either Alternatives A or B and about the same as under Alternative C.

Conclusion: Under Alternative D, the "no action or current management alternative", the potential damage or destruction to buried cultural resources due to temporary field investigations is less than any of the action alternatives because the field investigations would only occur intermittently for very specific, short-term purposes. Because there are no construction or other ground disturbing actions under current management, there would be no impacts on vegetation, wetlands, forested areas or mature trees. Finally, the adverse impact on the soundscape of the National Monument would be less than for Alternatives A and B but about the same as for Alternative C. The intensity of the impacts resulting from all actions connected with Alternative D have been determined to be either negligible or low. These impacts are due to intermittent archeological field investigations. The integrity of the National Monument's resources and values would continue to be maintained and there would be no loss of opportunity for present or future generations to enjoy these resources and values. Therefore there would be no impairment of the National Monument's resources resulting from this alternative.

Impacts from Actions Common to all Alternatives: The salt marsh on the west bank of the Frederica River and west of the earthworks on the east bank would be managed for natural resource protection with natural conditions and no visitor facilities.

Impacts: See description of impacts under Alternative A, Action A2.

The National Monument would seek legislation to authorize the acquisition of a Colonial period archeological site, reportedly General Oglethorpe's personal home site, near the northeastern boundary of the National Monument.

Impacts: The seeking of legislation by itself would have no impact. The acquisition of the site would protect and preserve the Colonial period site.
The National Monument would seek funding for the preparation of a comprehensive interpretive plan.

Impacts: There would be no impact on any natural or cultural resources from the preparation of an interpretive plan. There would be the expectation of positive impacts on the visitor experience from expanded and varied interpretive programs, media, and other activities.

The National Monument will seek authority and funding to conduct an analysis of the impact that the roots of trees near exposed foundations along Broad Street might be having on the integrity of the foundations and on archeological resources near these foundations. The objective would be to produce a recommended strategy to balance the aesthetic appeal of the scene with the need to protect and preserve cultural resources.

Impacts: The analysis itself would have negligible impact on natural or cultural resources in the National Monument. The objective of the analysis would be to recommend actions that

would protect and preserve cultural resources from potential damage caused by the growth of roots of nearby trees.

Actions to address external threats: causeway, north end development, and traffic on Frederica Rd. Fort Frederica National Monument has an approved Land Protection Plan, which will be followed and updated as needed to keep it consistantly in line with the National Monument's cultural landscape preservation objectives.

Park management attends and assertively participates in local and regional zoning and planning meetings and organizations, and keeps alert for other activities affecting the scenic approach to the Monument and the cultural landscape, including the marshlands. This participation in community planning activity will continue.

Chapter Six: Consultation and Coordination With Others

History of Public Involvement

The Fort Frederica General Management Plan public involvement process began the week of January 19, 1999 with internal scoping of issues of concern to the management and staff of the National Monument. During the same week the planning team met with state, local, regional, and federal agencies and private groups including the Georgia Division of State parks and Historic Sites, Georgia Coastal Resources Division, Georgia Historic Preservation Division (State Historic Preservation Officer's representative), the Southeastern Archeological Center of the National Park Service, Coastal Georgia Regional Development Center, Glynn County Community Development Office, Coastal Georgia Land Trust, Coastal Georgia Historical Society, United States Fish and Wildlife Service, the Frederica Association, and several Saint Simons Island garden clubs.

On May 5th and 6th, 1999 public open house scoping sessions were held at the Saint Simons Island Casino (not a gambling facility; this is the name given to a meeting hall owned by the local government) and at the Brunswick Public Library. The open houses were conducted between the hours of 2:00 p.m. to 4:00 p.m. and 6:00 p.m. to 8:00 p.m. at each location. Seven poster sized displays and maps gave basic information about the National Monument and the planning process and 8.5 X 11 copies of those displays were available for interested persons to take home.

Between March of 1999 and September of 2001 the planning team mailed six newsletters containing updates on the General Management Plan process and progress as well as important contact information to180 agencies, organizations and individuals. A World Wide Web site of three linked pages for this project went on line in the Spring of 1999. The site consists of general information about the planning process as well as specific information about Fort Frederica, photographs, and an announcements page that has been updated periodically. In October of 2001 the Draft GMP/EIS was made available for public review and comment for a period in excess of 60 days. The planning team received only one written comment (from the State Historic Preservation Officer of Georgia) on the Draft GMP/EIS and it is quoted below:

> "Alternative B Visitor Service Zone on the Frederica River may impact both underwater and shoreline archeological resources. These may also be affected by increased erosion caused by pedestrian traffic and propwash from docking boats. This element of Alternative B should be reconsidered, and intensive archeological surveys (including dive crews from the NPS Submerged Cultural Resources office in Santa Fe) should precede any development."

NPS Response: The National Park Service agrees that erosion caused by pedestrian traffic and propwash from docking boats may cause impacts to archeological resources near or in the Frederica River. These impacts have been added to Table B1 under the description of the Visitor Services Zone, to the Table entitled Summary of Impacts by Impact Topic on page 48, and to the the discussion of environmental impacts for Alternative B on page 63 and appropriate mitigation measures have also been added. This element of Alternative B is not essential to the concept and would only be implemented following surveys suggested by the SHPO and an evironmental assessment with specific mitigation measures and a determination of no impairment as defined previously in this document (Chapter Five, page 46).

List of NPS Preparers

David Libman, Job Captain, Park Planner, Southeast Support Office, Planning and Compliance Division, principal document writer
Tim Bemisderfer, Landscape Architect, Southeast Support Office, Planning and Compliance Division, preparation of maps and display graphics

General Management Plan Team

David Libman, Job Captain, Park Planner, Southeast Support Office, Planning and Compliance Division

Tim Bemisderfer, Landscape Architect, Southeast Support Office, Planning and Compliance Division

Michael Tennent, Superintendent, Fort Frederica National Monument

Patrick Shell, Chief Ranger, Fort Frederica National Monument

Juanita (Nita) Lee, Administrative Officer, Fort Frederica National Monument

Wally Mathis, Chief of Maintenance, Fort Frederica National Monument

Kevin Risk, formerly Historical Landscape Architect, Southeast Support Office, Cultural Resources Division

David Hasty, Historical Landscape Architect, Southeast Support Office, Cultural Resources Division

George Smith, Archeologist, Southeast Archeological Center

Guy Prentice, Archeologist, Southeast Archeological Center

Consultants

Richard Sussman, Chief, Planning and Compliance Division, Southeast Regional Office; John Fischer, Park Planner, Planning and Compliance Division, Southeast Regional Office; Anthony Paredes, Cultural Anthropologist, Cultural Resources Division, Southeast Regional Office; Linda York, Coastal Geomorphologist, Natural Resources Division, Southeast Regional Office

Appendix A: List Of Scoping Issues

The following list was developed during a series of meetings with park management and staff, other federal agency representatives, state, regional, and local agencies, private groups and individuals, and public meetings that took place between January 1999 and May 1999. Additional comments were generated in response to the Fort Frederica General Management Plan World Wide Web site pages and 5 newsletters mailed to approximately 180 interested individuals and organizations between May 1999 and July 2000.

1. Protect and preserve what is left of Fort Frederica. Don't allow trade-offs to encroach on its unique sense of antiquity.

2. Preservation of visible resources (foundations and other structural fragments and remains). Protect and preserve the historical, archeological and scenic resources associated with colonial Frederica. Some device should be installed (a pump maybe) underground to pump water away from the foundations. During heavy rains, water stands in the ruins for weeks, causing bricks of foundations to deteriorate.

3. Monitoring program for foundations.

4. Additional buffer zone around the fort. Locate and mark the original Military Road.

5. Don't allow the historic ambience to be destroyed by modern day convenience! Access to the park from the Frederica River by private boaters using the small dock provided by NPS is sufficient access. Commercial boaters should not be allowed to erode this fragile area.

6. Long range: more active research archeology program. GMP should express direction in this area. Learn more about the lives of colonial people.

7. Visitor experience - use of archeology to expand visitor understanding & experience. Parts of site have not been tested. Record is not complete. The role of Fort Frederica in the development of historical archeology. Prehistoric archeology.

8. The children's archeology program is unique and great!! It should be expanded so that more can take part in it. The trees and vines should be labeled so that people know what they are looking at.

9. Graveyard - Very little is known about it. More archeology needs to be done. Remote sensing by the National Park Service/s Southeast Archeological Center (SEAC) could be done in a couple of days at low cost.10.Archeology from the river.

11. Need cultural landscape inventory. Add land-scape elements to add to understanding of Fort Frederica as a living community. Add urban elements back in.

12. Cooperative ventures with local law enforcement for resource protection.

13. Sea Island Company proposes trading land (containing the site thought to be the Oglethorpe home site) just east of Oglethorpe Landing subdivision to Christ Church for land just across Frederica Rd. from the Christ Church property. Then Christ Church would trade the Oglethorpe property to Fort Frederica for Land just west of their property. Can NPS provide assurances that once the Church does the deal withSea Island, it will follow through with the second part of the deal?

14. Potential acquisition/protection of the Frederica period house site that is thought to be Oglethorpe's. Should the National Monument attempt to get legislation to authorize the purchase of this site? Should negotiations be conducted with the current owner to conduct archeological investigations to establish whether better evidence of Oglethorpe's ownership exists?

15. If possible, additional buffer should be obtained and left as wilderness. A trail should be developed through this buffer zone to give the visitor some idea of what the island was like when Gen. Oglethorpe arrived.

16. The visitor cannot appreciate that this site was a thriving bustling town because all they see is an open field with a few tabby and brick foundations. Identify and restore the urban landscape to help visitors understand the colonial Frederica period. Models and staff tours should be employed to convey the image of the Town of Frederica as a thriving, bustling community. Present programs could include more living history scheduled throughout the year. The public wants living history and feel our Rangers could provide quality programs that allow the public to get a better understanding of our past.

17. The park should not interpret themes outside of the colonial period. There are other sites for those purposes.

18. Protect the appearance of isolation that the site now has.

19. Protection of primary resource. Should the administrative offices be relocated to an area away from the visitor center at the end of its life cycle as a measure to protect the resources of the park?

20. Adequacy of office space for rangers. Also storage space (record keeping, etc.). Adequacy of physical plant.

21. Tremendous growth of residential development around the park with eventual increasing recreational demand and community expectations. What can the park do to prevent visual intrusions or to lessen the impact of these developments?

22. Not a problem yet but future subdivisions on the perimeter of the park could produce volunteer trails, ATV paths, vandalism, etc.

23. Protect the park and surrounding historical area from the rampant expansion and development of the island.

24. Access to the park from the river. The park has a small dock on the river for access by private boat. So far this has not been a problem. Boaters typically arrive, pay their fees and go on their way just as drivers do.

25. The property that the park paid $5 million for (28 acres). Could have trails built for visitors to wander through and a picnic area for them to enjoy their lunch while soaking up the view of the Frederica River and the town of Frederica. The 28 acres belongs to the people and should be used to benefit them and not a few as a water taxi would.

26. Use/management of the 28 acres along the Frederica River just south of the historic town site that was acquired in 1994. How should this land be used? Buffer? Trade with Church? Passive recreation to divert pressure from town site.

27. Boundary protection vis-à-vis potential land swap with Church. Christ Church would like to swap land on the north side of the park for part of the 28-acre recent acquisition. What are the ramifications, both positive and negative of this swap?

28. Striking a balance between the aesthetic appeal of the tree-lined Broad St. and the need to protect the foundations and other remains of colonial Frederica structures from potential damage caused by growing roots of these trees. Trees were planted by the park approximately 13 years ago. The Saint Simons community is very protective of trees, especially the Spanish Moss draped live oaks that line both sides of many of the main roads on the island. How can we respect this important community value and at the same time prevent permanent damage to our cultural resources. Further analysis and study is needed.

29. Security, vandalism, looting of artifacts, Archeological Resources Protection Act (ARPA) violations. These are all issues that we have authority now to deal with. The question is: are these problems a significant impact on resources and/or visitor experience? How?

30. Glynn County is consideringconstructing a second causeway to Saint Simons Island because of accidents on the existing causeway and the need to be able to evacuate the increasingly populated north end of the island in the event of hurricanes. This proposal has surfaced before and has been opposed by the Park and NPS because the connection would have been too near the park's buffer marshland on the west side of the Frederica River. The park will continue to oppose any causeway that impacts the viewshed from thepark or increases traffic on Frederica Rd. Fort Frederica is actually in the middle of the island rather than the north end and park management would prefer a causeway that actually connects the north end of the island to the mainland.

31. Bloody Marsh - At one time the marsh was visible from the road that passes the entrance to this site. Should vegetation be cleared to open up this vista once again? How to tie this site to the town site given is small size and physical separation?

32. Existing visitor center film is 30+ years old, too long, and confuses both children and adults.

33. The management should get away from their computers and pay some attention to the public and staff. Finally, the staff should be explaining the history and site and not acting as clerks selling products in a store.

Appendix B: Manatee Protection Conditions January 1997

A. The National Park Service (NPS) shall advise all NPS project personnel and contractor personnel on the project that there are civil and criminal penalties for harming, harassing or killing manatees, which are protected under the Endangered Species Act of 1973. In addition, manatees are also protected under the Marine Mammal Protection Act of 1972. The NPS and the contractor will be held responsible for any manatee harmed, harassed, or killed as a result of the project activity.

B. The NPS shall inform all NPS and contractor personnel about the appearance of the manatee.

C. All barges used in the construction activities shall be of such size and weight that dredging of the river will not be required.

D. Construction areas where soft soil conditions will not support construction equipment may be accessed by using timber mats and/or temporary granular fill.

E. All temporary construction materials shall be removed by the contractor upon completion of the work.

F. Construction debris shall not be discarded into the water.

G. The NPS shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with them. All personnel are responsible for watching for the presence of manatees during water related activities and shall implement appropriate precautions to ensure protection of manatees.

H Extreme care shall be taken in lowering equipment or materials, including, but not limited to, piles, sheet piles, casings for drilled shaft construction, spuds, pile templates, etc., below the water surface and into the stream bed taking precaution not to harm any manatee which may have entered the construction area undetected. The maximum speed at which these items can be lowered shall not exceed 10 feet per minute.

I. All vessels shall operate at "no wake/idle" speeds at all times.

J. Spotter boats and small watercraft, 21 feet in length and less, shall be equipped with Georgia Department of Natural Resources Non-game Endangered Wildlife Section Marine Mammal Coordinator approved propeller guard systems to prevent harm to manatees (as of December 1, 2000 the contact is Barb Zoodsma in Brunswick, Georgia at 912-264-7218).

K. A total of six (6) signs will be required to be placed at prominent locations within the construction area:

1. Four (4) "Caution Manatee Area" signs (two on the upstream side and two on the downstream side of the construction site) shall be placed in the construction vicinity by the contractor prior to commencement of work and be maintained throughout the duration of the project (Figure 1).

2. Two (2) "Manatee Habitat - Idle Speed in Construction Areas" (one on the upstream side and one on the downstream side of the construction site) shall be placed in the construction vicinity by the contractor prior to commencement of work and be maintained throughout the duration of the project (Figure 2).

L. Placement of all signs shall be as approved by the Georgia Department of Natural Resources Wildlife Resources Division, (912) 264-7218, in Brunswick, Georgia. These signs shall be removed by the contractor upon completion of the project.

M. A trained spotter, provided by the contractor shall be on-site for sightings of manatees during construction of the dock. Personnel designated by the contractor shall receive training by the Georgia Department of Natural Resources, Wildlife Resources Division. The GDNR contact person as of

December 1, 2000 is Barb Zoodsma, (912) 264 7218, in Brunswick, Georgia. N. Due to the reported presence of manatees in the Frederica River as well as archeological resources from the original Fort Frederica settlement, the National Park Service would not use explosives or underwater blasting to construct a dock or for any other project.

O. All construction activities and vessel movement in open water shall cease upon the sighting of a manatee within 100 yards of the project area. Construction activities shall not resume until the manatee has not been observed in the project area or within 100 yards of the project area for at least 30 minutes.

P. Any collision with a manatee shall be reported immediately to the U.S. Fish and Wildlife Service, Brunswick Field Office at (912) 265-9336 and the Georgia Department of Natural Resources at 1-800-241-4113.

Q. In the event of a fish kill, personnel on site shall be aware of and look for any manatees. Any dead manatee shall be reported immediately to the U.S. Fish and Wildlife Service, Brunswick Field Office at (912) 265-9336 and the Georgia Department of Natural Resources Non-Game Endangered Wildlife Section Marine Mammal Coordinator at 1-800-241-4113.

R. In the event of injury or mortality of a manatee, all waterborne activity shall cease pending Section 7 consultation with the USFWS and the National Park Service.

S. Dead manatees must be secured to an object to prevent the carcass from being swept away by water currents.

T. The contractor will keep a log detailing sightings, collision, or injury to manatees, which have occurred during the contract period.

U. Following project completion, report summarizing the above incidents and sightings will be submitted to the U.S. Fish and Wildlife Service, 4270 Norwich St., Brunswick, GA 31520 and to the Nongame/ Endangered Wildlife Program, Georgia Department of Natural Resources, 1 Conservation Way, Brunswick, GA 31523.

Supplier Of Manatee Signs

The attached example of "Caution Manatee Area" and "Manatee Habitat/Construction Area" signs are available through the source listed below. Additional suppliers for construction of these signs may be available through local companies. The specifications of these signs meet Florida and Georgia Department of Natural Resources requirements.

Advanced Barricades
P.O. Box 1745
Jupiter, FL 33458
(561)746-5123

Permit/lease holders, marinas, docking and launching facilities should contact the sign company directly and arrange for shipment and billing on an individual basis.

Figure 1 – Caution Manatee Area Signs

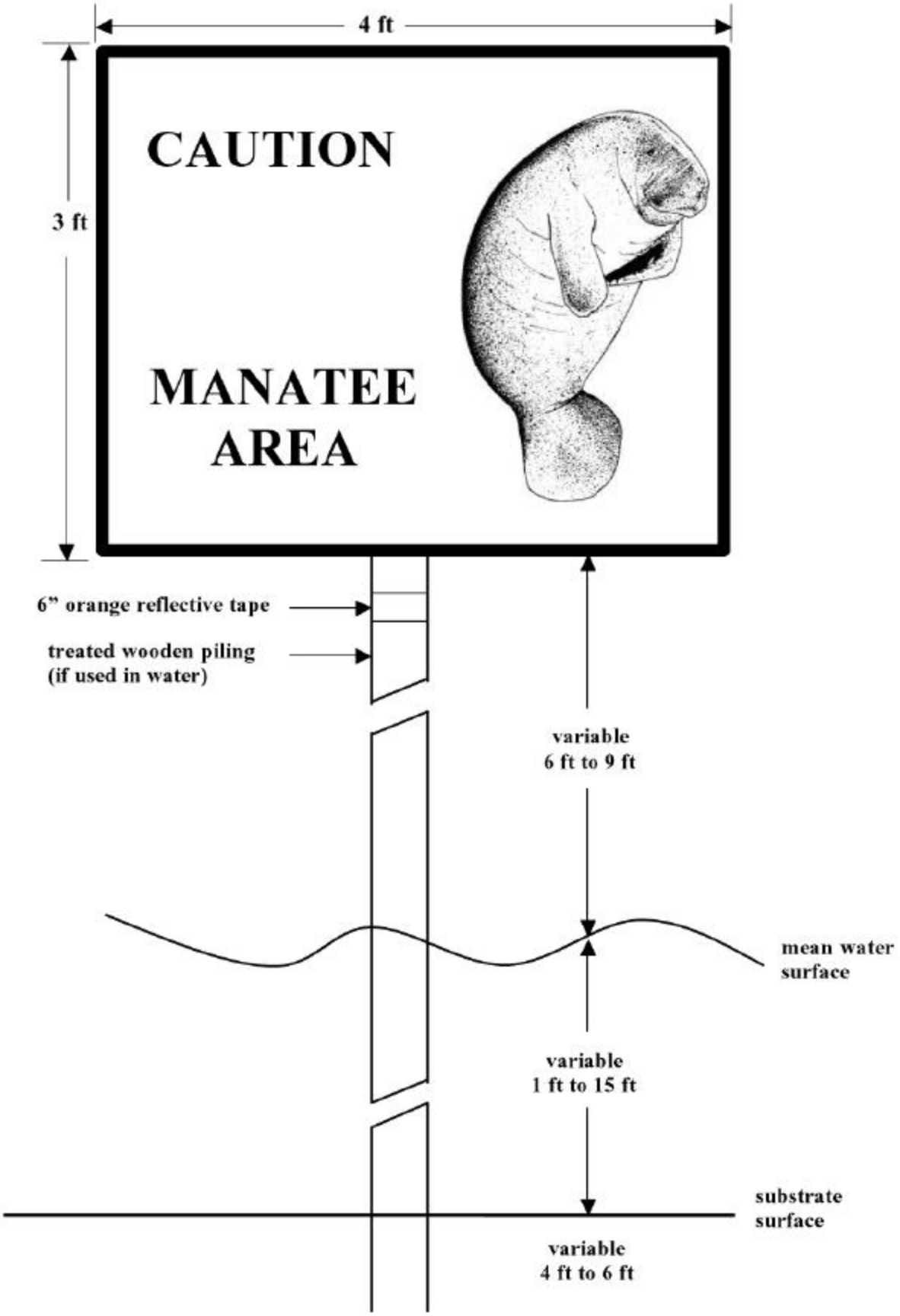
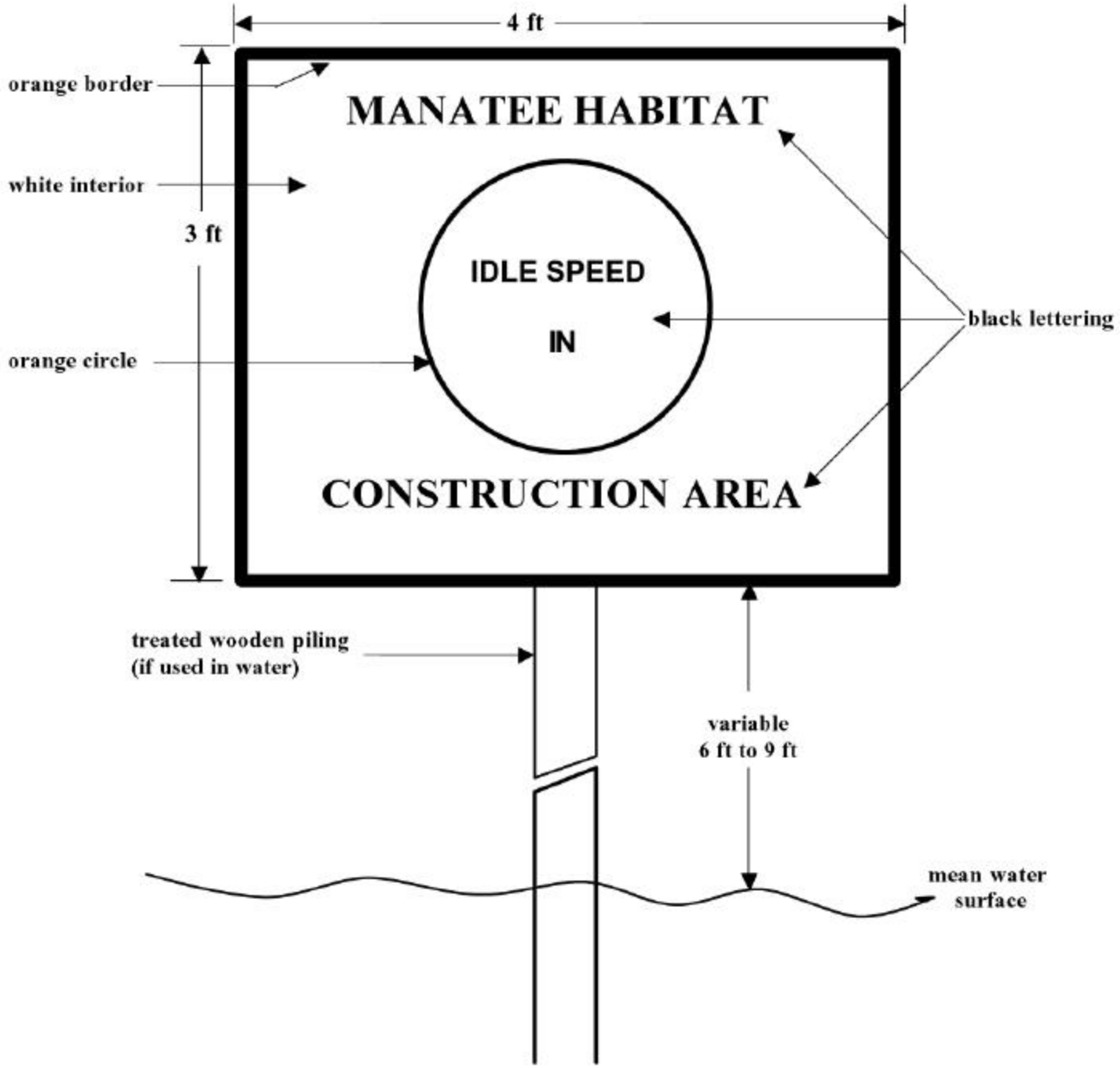


Figure 2 – Manatee Habitat Signs



Permanent Manatee Sign
Placement Procedures
Ver. 99.10.13

The educational sign, "Manatee Basics for Boaters", is intended to increase boater awareness of manatees that are present in an area and inform them of the potential threat boats pose to the animals. These signs are informative and non-regulatory in nature.

Procedure for Approval:

1. The applicant should forward a project site plan, including the proposed location for the permanent sign to: Manatee Sign Approval, Nongame-Endangered Wildlife Program, Department of Natural Resources, One Conservation Way, Brunswick, GA 31520. The applicant should also include a chart indicating the location of the facility in relation to waterways, location within a given county (specify county name), and the Permit and/or Lease number associated with the project.

2. The Nongame-Endangered Wildlife Program will review the proposed sign site plan. The applicant will be notified within 30 days if the proposed location is unacceptable and guidance on an alternate site will be provided. If the applicant has not received a response within 30 days, the proposed location should be considered approved.

3. If during a site visit, approved signs and their locations are found not to be in accordance with the instructions given in this document, failure to follow these directions may require relocation or addition of signs.

Sign Requirements by Facility Type/Size

FACILITY TYPE/SIZE	SIGN REQUIREMENT
Private, Commercial, or Public facility <10 wet or dry slips, for permanent mooring.	No Signs Required.
Private, Commercial, or Public facility with 5 or more slips for temporary mooring (in association with upland service restaurants, charters, etc.)	Manatee Informational Display
Private, Commercial, or Public facility with >10 wet, dry, temporary or permanent slips.	Manatee Informational Display
Boat Ramp or other boat launching facility (hoists, fork lifts, etc.), Private or Public	Manatee Informational Display

Manatee Informational Displays must be located in a prominent location such as near walkways, dockmaster offices, restrooms or foot traffic access points to piers/docks for maximum visibility.

If a facility has separate docks with separate access walkways, the educational sign, "Manatee Basics for Boaters", should be installed near each walkway or dock. Permanent manatee signs should not be installed on pilings in water, or be attached to navigational markers, or in any way impede navigation.

Approved Sign Suppliers:
This sign is available through the companies listed below and may also be available from other local suppliers throughout the state. Permit/lease holders, marinas, and boat docking/launching facilities should contact sign companies directly to arrange for shipping and billing.

Approved Suppliers of Manatee Basics for Boaters Signs:

Image Sign Company
785 King George Blvd., Bldg. 3
Savannah, GA 31419
Voice: 912-961-1444
Fax: 912-961-1499

Doug Bean Signs, Inc.
160 Dean Forest Road
Savannah, GA 31408
Voice: 912-964-1900
Fax: 912-964-2900

AAA Tool & Specialties
408 Community Road
Brunswick, GA 31520
Voice: 912-265-1649
or 800-800-9380

Grafix, Inc
455 Montgomery Street
P.O. Box 1028
Savannah, GA 31402
Voice: 912-232-1116
Fax: 912-232-3845

Atlas Sign & MFG. CO
609 Oglethorpe Street
P.O. Box 798
Brunswick, GA 31521
Voice: 912-265-7812
Fax: 912-265-6668

Appendix C: References

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Index

A
adverse impacts, 5, 62,64, 70
Affected Environment, 43
Alternative A, vii, 11, 19, 48, 49, 50, 52, 53, 54, 57, 58,59, 60, 62, 65,66, 68, 71
Alternative B, vii, 11, 19, 48, 49, 50, 52, 53, 54,55, 60
Alternative C, vii, 29, 48, 49, 50,52, 53, 54, 61
Alternative D, vii, 37, 48, 49, 50, 52, 53, 54
Archaeological Overview and Assessment 39
Archeological Education program, 39
archeological investigations, vii, 11, 12, 14, 20, 23, 32, 39, 54, 57, 58, 59, 69, 76
artifacts, ii, 10, 11, 14, 23, 32, 37, 39, 44, 48, 57, 58, 60, 65, 69, 76

B
barracks, 2, 37, 38, 58, 69
barrier islands, 43
Bloody Marsh, 1, 2, 3, 4, 5, 10, 11, 12, 13, 14, 15, 16, 20, 21, 25, 30, 31, 34,35, 39,43, 44, 50, 57, 60, 61, 62, 66, 69, 77
boundaries, 4, 7, 8, 9, 20
burial ground, 14, 23, 32, 44, 50, 57, 60, 66

C
causeway, 5, 40, 59, 72, 76
Choosing By Advantages, 11
Christ Church property, 15, 24, 35, 76
Collection Management Plan, 38
colonial Frederica, v, vii, 5, 7, 9, 17, 18, 48, 52, 53, 54, 59, 62, 65, 75, 76
comprehensive interpretive plan, 39, 71
Consultation, 73
cultural resources, 5, 7, 9, 12, 13, 20,23, 30, 31, 32, 37, 40, 50, 58, 59, 60, 62, 69, 71, 72, 76
Cumulative Impacts, 60, 65, 69, 71

D
Decision Points, 6
Desired resource conditions, 8, 9, 10
Desired visitor experience, 8, 9, 10
dinghy dock, 39

E
earthworks, vii, 9, 11, 14, 23, 32, 35, 38, 39, 44, 52, 57, 60, 64, 66, 71
enabling legislation, vii
environmental consequences, 46

F
Frederica River, 7, 11, 12, 16, 20, 25, 30, 34, 38, 39, 43, 50, 55, 57, 60, 61, 62, 66, 75, 76, 79
Frederica Road, 5, 38, 39, 47, 57, 60, 66

H
historic structures, vii, 9, 14, 23, 32, 38, 70

I
Impact on Visitor Experience, 57, 58, 59, 60, 61, 70
Impact Topics, 47
Impacts on Resources, 57, 58, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 71
impairment,46, 60, 66, 69
implementation planning, 4
increasing development, 5, 40, 59
interpretive programs, vii, 9, 38, 52, 61, 65, 67, 70, 80

K
King's Magazine, 2, 38, 64

L
Land Protection Plan, 38, 40, 72
landscape , vii, 9, 38, 52, 61, 65, 67, 70, 80
laws and policies, 5
living history, vii, 19, 20, 38, 52, 53, 64, 76

M
maintenance compound, 35, 39
Management Alternatives, 10
Management zones, 8
manatees, 55, 78, 79, 83
Margaret Davis Cate, 38
marsh, 7, 11, 12, 14, 16, 23, 25, 31, 32, 34, 38, 39, 43, 44, 54, 67, 71, 76
Military Road, 14, 23, 32, 44, 75
Mitigation, 48, 50, 55, 58, 59, 65, 63, 64
moat, 2, 12, 14, 20, 23, 30, 32, 38

N
National Park Service Organic Act, 5
National Register of Historic Places, 37
natural resource protection, 11,17, 39, 50, 54, 71,
natural resources, 3, 7, 10, 39, 50
Needed Or Allowable Changes, 12, 21, 30
no-action alternative, vii, 37, 69

O
Oglethorpe, 1, 3, 5, 7, 44, 71, 84

P
Park Mission, 5
Park Purpose, vii

R
riverbank, vii, 14, 23, 32, 38, 43, 62, 63

S
Scoping, 6
Secretary of the Interior, 4
Significance of Fort Frederica, 5
Socioeconomic Impacts, 59, 65,
soundscape, 40, 60, 65, 69, 71
Southeast Archeological Center, 2, 39, 58, 69, 75

V
Values Potentially at Stake, 7, 48
viewshed, 37, 54, 55, 59, 60, 63
visitor access, 7
visitor center, vii, 7, 9, 13, 18, 21, 23, 29, 31, 38, 39, 44, 54, 55, 57, 58, 60, 63, 64, 66, 67, 77
visitor experience, 5, 9, 17, 20, 35, 57, 58, 60, 61, 70, 71, 72, 77

National Park Service
U.S. Department of the Interior

Fort Frederica National Monument
Saint Simons Island, Georgia 31522