

# Fort Frederica National Monument

St. Simons Island, Georgia

National Park Service  
U.S. Department of the Interior



## Boundary Study and Environmental Assessment

August 2014

No boundary adjustment outlined in this study may be accomplished without authorization by the United States Congress. The implementation of actions related to a boundary adjustment will depend on future funding and National Park Service-wide priorities. The approval of a boundary adjustment does not guarantee that funding needed to implement the proposed actions will be forthcoming. Full implementation could be many years into the future.

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## How to Comment on This Plan

Comments may be submitted by hand, mail, or electronically.

Mail or hand-deliver written comments to:

Fort Frederica National Monument  
Attn: Mary Beth Wester, Superintendent  
6515 Frederica Road  
St. Simons Island, GA 31522

Comments may be submitted electronically via the NPS Planning, Environment, and Public Comment website <http://parkplanning.nps.gov/fofr>.

Please note that names and addresses of people who comment become part of the public record.

**If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment.** Fort Frederica National Monument will make all submissions from organizations, from businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety. This environmental assessment will be on public review for 30 days.

For further information about this document, write the above address or call (912) 638-3639.

## **Part One: Background Introduction**

This study considers expanding the boundary of Fort Frederica National Monument to include two additional areas totaling approximately 173.1 acres within its boundaries.

The first area (approximately 26 acres) is located adjacent to Fort Frederica National Monument's northern boundary. It is comprised of three properties. Another, larger area (approximately 147 acres) is situated to the south, nearly 300 feet from the boundary. It is comprised of one property. This southern area borders on the Frederica River. Both the Northern and Southern areas are generally undeveloped and consist of wetlands and forests.

### **Fort Frederica National Monument Overview**

Public Law 74-617 established Fort Frederica National Monument on St. Simons Island, Georgia, 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 Fort Frederica 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. 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 St. 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 Fort Frederica National Monument for additional protection of the historic scene. Fort Frederica National Monument acquired another 28 acres of land, including river frontage, on the south side of the town site in 1994. Subsequently, on November 30, 2004, Congress passed Public Law 108-417, authorizing the Secretary of the Interior to exchange approximately six acres of national monument land adjacent to the boundary with Christ Church of St. Simons Island for 8.7 acres of land across Frederica Road to the northeast of the entrance to Fort Frederica National Monument. The land exchange took place in 2007.

### **Description and Location**

Fort Frederica National Monument is located on St. Simons Island, Glynn County, Georgia (Map 1). St. Simons Island has experienced rapid land use change over the past 25 years. Traffic has increased significantly and the once pastoral ambience of the island is quickly changing. Much of the land near Fort Frederica National Monument is gradually becoming more and more developed. Though fairly isolated from intensive development today, the opportunity to explore the connection between Fort Frederica National Monument and its surrounding lands will quickly disappear in the near future.

Fort Frederica National Monument 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 fort and township site, the boundary includes the Bloody Marsh Battle Site, located six miles south of the Fort Frederica National Monument headquarters and visitor center, and the Oglethorpe site, located north of the main park boundary. In addition to the ruins of the fort and remains of foundations of the town's residences, development at Fort

Frederica National Monument includes a visitor center, museum, administrative, and training complex, maintenance buildings, a curatorial building, 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. The Oglethorpe site is undeveloped and contains the ruins of a residence from the Frederica time period.

The following is a summary of the primary features of the Fort Frederica National Monument and the reasons it was established:

- Fort Frederica represents one phase of our nation's early colonial history. It was one of the earliest English settlements that later become a part of the State of Georgia.
- The three sites that compose the park demonstrate the intensity of the competition between the three most powerful nations on earth at the time (Britain, France, and Spain) for domination of the new world and its resources.
- Frederica Town was a prosperous community of 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. General James 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.
- 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.
- Earthworks that formed part of the town's defenses are still in evidence though greatly reduced in size and softened in shape by time.
- Fort Frederica National Monument served as an innovative and successful example of "Parks as Classrooms".
- Fort Frederica's coastal location and historical isolation have bestowed upon it natural resources worthy of note and protection, including upland pine and mixed hardwood forest and marsh habitat types.

### **Park Purpose**

Fort Frederica National Monument was established pursuant to Public Law 74-617. The law is the foundation for the purpose of Fort Frederica National Monument, which 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.

### **Park Significance**

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

- Fort Frederica 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.

A General Management Plan/Environmental Impact Statement (GMP) for Fort Frederica National Monument was completed and approved in 2002. A General Management Plan Amendment/Environmental Assessment for the land exchange was completed in 2006. These documents provide the vision and framework for management.

The GMP guides ongoing management of Fort Frederica National Monument. The GMP outlined management strategies to ensure the protection of Fort Frederica National Monument’s significant cultural and natural resources, and provide visitor understanding of conservation stewardship. Much of the GMP has been implemented. Nevertheless, given the existing boundary, Fort Frederica National Monument has difficulty adequately protecting all the significant resources and values related to its purpose because some of those resources lie outside the boundary. This Boundary Study/Environmental Assessment (EA) focuses on incorporating the two additional areas into the Fort Frederica National Monument boundary to protect the resources of both.

## **Overview of the Study Areas**

This Boundary Study/EA will explore the potential of expanding the boundary of Fort Frederica National Monument to include two additional areas.

### **Properties Assessed for Inclusion in Fort Frederica National Monument Boundary**

There are two areas identified for inclusion in the adjusted boundary for Fort Frederica National Monument (Map 2). The first area (Northern), located adjacent to Fort Frederica National Monument’s northern boundary, is comprised of three properties totaling approximately 26 acres: North Marsh, Christ Church, and Squire. The second area (Southern), located to the south of Fort Frederica National Monument, is comprised of the Allen property (formerly referred to as the Stevens Estate) totaling approximately 147 acres. Both the Northern and Southern areas are generally undeveloped and consist of wetlands and forests.

#### *Northern Area:*

Name: North Marsh  
 Owner: St Simons Land Trust, NGO – Willing seller  
 Acreage: 20.852

Name: Squire  
 Owner: Squire – Willing seller  
 Acreage: 3.248

Name: Christ Church  
 Owner: Christ Church Episcopal – Willing seller  
 Acreage: 2.0

#### *Southern Area:*

Name: Allen (formerly referred to as the Stevens Estate)  
 Owner: Allen – Willing seller

Acreage: 147.0 by tax law

### **Significance of the Northern and Southern Areas**

Based on archival data and a reconnaissance study, there is a high potential that the remains of a colonial cannon battery, Point Battery, exists within the Southern area (Hellmann 2008). The 1796 Josiah Miller Map shows the Point Battery south of the town on land overlooking the 90-degree bend in the river (Image 2). The map has been considered valid in that the town plan also shown in the 1796 map was confirmed through archeological investigation; therefore, it is reasonable to assume that the battery location is also verifiable through investigation as it is a prime location for a battery. The location of Point Battery was ideal as the view of the river in both directions was unimpeded and sightlines to the fort batteries were clear. It would have provided an early warning of approaching enemy troops and therefore offered additional time for the troops at Frederica to prepare to engage. Currently the location of Point Battery would be the northwest corner of the Allen property. This area has dense shrubs and groundcover with no surface visibility except to note that there is a change in elevation in the area. Although shovel tests were negative, ground-penetrating radar could confirm the presence of the battery and add to the information on the fortification and defense of this section of the island.

The Northern and Southern areas being studied are within the direct viewshed of the primary resources of the park including, the fort, King's magazine, tabby ruins of soldiers' barracks, and many other trails and interpretive areas, especially along the Frederica River. The scenic resources, including viewsheds, are critical to uphold the purpose of Fort Frederica National Monument and to providing a sense of place. Being able to provide to the public a historically accurate scene is invaluable to Fort Frederica National Monument's ability to adequately interpret the colonial town and fort of Frederica. If the Northern and Southern areas were to be privately developed, they would not recover and the viewshed from Fort Frederica National Monument would be negatively and significantly altered forever.

The Northern and Southern areas that are being assessed for inclusion in the Fort Frederica National Monument were once used by the British Town of Frederica founded in 1736 by General James Edward Oglethorpe. Based on research and review of historic maps, these areas (in addition to others) were used for farming and garden plots by the families of the township during their 18<sup>th</sup> century colonial occupation. The wooded areas around the town would have been harvested for use in construction and operation of the town and fort; therefore providing opportunities for garden plots and agricultural use (Image 1). The garden plots would have been placed around the periphery of the walled town, probably beyond a 150-foot buffer cleared of vegetation for the purpose of observing approaching enemies at great distances. Much of the Northern and Southern areas would have been in this buffer zone.

In addition to the garden plots, the Northern area is believed to have been used as a campground for troops in 1743, based on a map compiled by H.H. Ballard in 1930 from archival materials.

Also believed to be located in the Northern area is the route of old Frederica Road (Military Road). Additional archival research and fieldwork is needed to search for the route of the road and other colonial paths through the Northern area, since no surface evidence of the road has been found. The road, built in 1738, is an integral part of the history of the fort and town. The lower part of the road is a state-recognized resource that is still in use. The road "may meet National Register criteria" (Ciucevich 1996), but has been modified by modern use. If located, the route through the Northern area may retain some of its original features (e.g. ditching, wood plank roadway, and bridge remains at the marsh edge).

## **Other Important Resources in the Northern and Southern Areas**

Research opportunities for the Northern and Southern areas are abundant and would be promoted to uncover information related to American Indian settlements. The North Marsh property, Allen property, and the areas within the current boundary contain a number of pre-historic sites. Of particular interest to the current Boundary Study/EA is mention of a Deptford period site (500 B.C.-A.D.700) located along the edge of the marsh, north of the town. The site was identified on the surface by a scatter of shell. According to one report, 573 “aboriginal sherds” (Deagan 1975:13) were excavated. Recent shovel tests identified two sites confirming the presence of prehistoric aboriginal occupations on the North Marsh and Allen properties. Based on archeological surveys and previous experience in the Georgia Coastal area, the North Marsh and Allen properties both have a moderate to high probability of containing unrecorded aboriginal occupations. Intensive survey of the Northern and Southern areas is likely to add to the understanding of American Indian settlement in the Fort Frederica area.

## **Purpose and Need of the Boundary Study**

The primary objective of the proposed boundary expansion is to allow for the further protection of cultural resources through the adjustment of boundaries and subsequent preservation of land containing significant resources related to the purpose of Fort Frederica National Monument. The areas to be included in the boundary expansion would be protected with the primary objective of preserving and interpreting historical, archeological, and scenic (viewshed) resources related to the purposes of Fort Frederica National Monument. Legislation is required to expand the authorized boundary and remove the 250-acre ceiling established by Congress in 1958.

The 2002 General Management Plan and Environmental Impact Statement identified the need to work to achieve protection of nearby related sites through boundary adjustments or legislatively authorized land acquisition.

## **Applicable Federal Laws and Regulations**

The National Park Service (NPS) is governed by laws, regulations, and management policies, and must adhere to these before, during, and following any management action.

### **National Environmental Policy Act, 1969, as amended**

The National Environmental Policy Act (NEPA) was passed by Congress in 1969 and took effect on January 1, 1970. This legislation established this country’s environmental policies, including the goal of achieving productive harmony between human beings and the physical environment for present and future generations. It provided the tools to implement these goals by requiring that every federal agency prepare an in-depth study of the impacts of “major federal actions having a significant effect on the environment” and alternatives to those actions. It also required that each agency make that information an integral part of its decisions. NEPA also requires that agencies make a diligent effort to involve the interested members of the public before they make decisions affecting the environment.

NEPA is implemented through regulations of the Council on Environmental Quality (CEQ) [40 CFR 1500-1508]. The NPS has in turn adopted procedures to comply with the act and the CEQ

regulations, as found in DO-12: Conservation Planning, Environmental Impact Analysis, and Decision Making (NPS 2001) and its accompanying handbook. Preparation of the Fort Frederica National Monument Boundary Study and Environmental Assessment (EA) complies with NEPA.

### **Section 106 of the National Historic Preservation Act**

Section 106 requires federal agencies to take into account the effects of their undertakings on properties listed in or eligible for listing in the National Register and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The historic preservation review process mandated by Section 106 is outlined in regulations issued by ACHP. The regulations, *Protection of Historic Properties* (36 CFR 800), were last revised in August 2004.

By the terms of the 2008 Nationwide Programmatic Agreement for Section 106 Compliance between NPS, ACHP, and the National Conference of State Historic Preservation Officers: “The Streamlined Review Process may be used for the acquisition of land for park purposes, including additions to existing parks.” The second criterion for use of the Streamlined Review Process (identification and evaluation of all types of historic properties within the project area of potential effect (APE); see Section III.A.2) does not apply to this activity, provided the acquisition does not include any further treatment or alteration of properties, since access to land for inventory and evaluation prior to NPS acquisition may be limited. Any known or potential historic properties on the land acquired should be protected from demolition by neglect. Pursuant to 36 CFR 800.5(a)(2)(vi), demolition by neglect constitutes an adverse effect. If any undertakings are proposed in conjunction with the acquisition that have the potential to affect historic properties, the Streamlined Review Process may not be used. Streamlined review means that no State Historic Preservation Office (SHPO) consultation is required.

The alternatives in this study would authorize the NPS to acquire from willing donors or sellers all tracts within the study area that meet NPS’ expansion criteria (see Chapter 2 for discussion of the alternatives considered in this study). The alternatives do not make any treatment recommendations for any historic properties that may be located on lands within the expansion area. Any treatment recommendations for historic properties would be developed at a later date in consultation with the Georgia SHPO. Accordingly, the streamlined Section 106 review process has been used in this study.

### **NPS Organic Act of 1916**

By enacting the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of Interior and the NPS to manage units “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 USC § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 USC 1a-1). Despite these mandates, the Organic Act and its amendments afford the NPS latitude when making resource decisions that balance resource preservation and visitor recreation.

Because conservation remains predominant, the NPS seeks to avoid or to minimize adverse impacts on park resources and values. However, the NPS has discretion to allow impacts on

park resources and values when necessary and appropriate to fulfill the purposes of a park (NPS 2006 sec. 1.4.3). While some actions and activities cause impacts, the NPS cannot allow an adverse impact that would constitute impairment of the affected resources and values (NPS 2006). The Organic Act prohibits actions that permanently impair park resources unless a law directly and specifically allows for the actions (16 USC 1a-1). An action constitutes an impairment when its impacts “harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS 2006). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS 2006).

## **NPS Management Policies 2006**

The NPS *Management Policies 2006* (NPS 2006) is the basic NPS-wide policy document, adherence to which is mandatory unless specifically waived or modified by the NPS director or certain departmental officials, including the U.S. Secretary of Interior. Actions under this Boundary Study/EA are in part guided by these 41 management policies. Sections that are particularly relevant to this project are as follows:

### Sections 1.4.5, 1.4.6, and 1.4.7 – Impairment of Park Resources and Values

According to *NPS Management Policies 2006*, an action constitutes an impairment when an impact “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” (NPS 2006). 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. An impact on any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to the opportunity for enjoyment of the park; or
- identified as a goal in the park’s general management plan or other relevant NPS planning documents

Impairment may result from NPS activities in managing Fort Frederica National Monument, visitor activities, or activities undertaken by concessioners, contractors, and others operating there. A determination on impairment will be prepared for the selected alternative and will be attached to the decision document for the Boundary Study/EA. An impairment determination is made for all resource impact topics analyzed for the selected alternative. An impairment determination is not made for recreational and educational experiences and socioeconomic environment because impairment findings relate back to park resources and values, and these impact areas are not generally considered to be park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair park resources and values.

Section 3.5 – Boundary Adjustments Section 3.5 of the *NPS Management Policies 2006* requires the NPS to “identify and evaluate boundary adjustments that may be necessary or desirable for carrying out the purposes of the park unit.” Study areas are to be evaluated according to criteria set forth in the management policies. The criteria are listed later in Part 1 of this Boundary

Study/EA and are used in Part 2 to evaluate the possible inclusion of additional areas into the boundary of Fort Frederica National Monument.

## **Studies and Plans Related to the Boundary Study**

The *Fort Frederica National Monument General Management Plan/Environmental Impact Statement* was completed in 2002. It serves as the guidance document for developing and managing Fort Frederica National Monument.

The *General Management Plan Amendment/Environmental Assessment* for the land exchange between Fort Frederica National Monument and Christ Church of St. Simons Island was completed in 2006. It serves as the guidance document for developing and managing these added areas.

A *Natural Resources Overview* was completed by Wetland and Ecological Consultants, LLC for the St. Simons Land Trust. The overview pertains to the areas being studied for this Boundary Study/EA.

A *Cultural Resources Overview* was completed by Wetland and Ecological Consultants, LLC for the St. Simons Land Trust. The overview pertains to the areas being studied for this Boundary Study/EA.

A *Fire Management Plan* was completed in May 2004.

A *Collection Management Plan* was completed in 2000 by the National Park Service Southeast Regional Office, along with a collection condition and a paper condition survey.

An *Archeological Overview and Assessment* was completed in 2008 by the National Park Service Southeast Archeological Center.

## **Boundary Study Process**

This study was conducted to evaluate the potential inclusion of the new areas to Fort Frederica National Monument. As part of the process, the study team:

- Reviewed Fort Frederica National Monument's enabling legislation and consideration of its purpose and significance.
- Evaluated the current boundary's capacity to protect and preserve the cultural, natural, and scenic resources integral to Fort Frederica National Monument.
- Evaluated the new areas for their historical significance, cultural and natural resources, and potential to complement the purpose of Fort Frederica National Monument.
- Solicited and documented input from community members, interested public, local government and other state and federal agencies regarding the potential boundary expansion.
- Developed alternatives for the boundary adjustment and assess the potential impact of each alternative on cultural, natural, and socioeconomic resources.
- Assessed each alternative according to the criteria for boundary adjustments outlined in the boundary study criteria above.

## **Boundary Study Scoping**

Public scoping is a process that is initiated at the beginning of a study to solicit public and agency input relating to a proposed action.

Three public scoping sessions were held in June of 2008 to discuss the process, timeline, and national criteria to be considered when conducting a boundary study. Twenty-two residents and representatives of interested groups attended these meetings. The public response was positive and all were curious about the federal process. Newspapers across the United States carried a story from the Associated Press and Georgia Public Radio aired an interview with the Superintendent.

This Boundary Study/EA will also be available for a 30-day public comment period.

## **Boundary Study Criteria**

This Boundary Study/EA evaluates additional areas for inclusion within Fort Frederica National Monument's boundary according to the criteria published in *National Park Service Management Policies, 2006* (Section 3.5). According to the *Management Policies*, at least one of the following criteria must be met for inclusion of the Northern and Southern areas within Fort Frederica National Monument boundary:

1. Protect significant resources and values, or to enhance opportunities for public enjoyment related to Park purposes;
2. Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads; or
3. Otherwise protect Park resources that are critical to fulfilling Park purposes.

In addition, if an acquisition is to be made using appropriated funds, and would not be merely a technical boundary revision, recommendations for boundary changes would also have to meet the following criteria:

1. The added lands will be feasible to administer, considering their size, configuration, and ownership; costs; the views and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species.
2. Other alternatives for management and resource protection are not adequate.

No boundary adjustment outlined in this study may be accomplished without authorization by the United States Congress. The implementation of actions related to a boundary adjustment will depend on future funding and Servicewide priorities. The approval of a boundary adjustment does not guarantee that the funding needed to implement the proposed actions will be forthcoming. Full implementation could be many years into the future.

## **Application of Criteria for Boundary Adjustments**

*NPS Management Policies* (2006) states that "as part of the planning process, the NPS will identify and evaluate boundary adjustments that may be necessary or desirable for carrying

out the purposes of the park unit;” and that a property must meet at least one of the following criteria for inclusion within the park boundary:

**Criterion 1. Protect significant resources and values, or to enhance opportunities for public enjoyment related to park purposes.**

The purpose of Fort Frederica National Monument is, in part, to protect the historical, archeological, and scenic resources associated with colonial Frederica. The expansion of the Fort Frederica National Monument’s boundary to include the Northern and Southern areas would increase its ability to protect significant scenic and archeological resources and provide opportunities for public engagement and enjoyment related to these resources.

The addition of the Northern and Southern areas provide exceptional opportunities for Fort Frederica National Monument to expand on its interpretation of the township of colonial Frederica. The township, designed in 1736 by General James Edward Oglethorpe, used these areas for farming and garden plots by the families and soldiers who lived there. Some portions are also believed to have been used as a campground for troops in 1743. Interpretation of these significant historical and natural resources would, over the long term, enhance opportunities for public enjoyment related to park purposes.

The potential for protecting significant archeological resources and interpreting them to the public is great. Resources associated with the garden plots, troop campground, old Frederica Road (Military Road), and the colonial cannon battery, Point Battery, could provide excellent research and archeological investigation opportunities. The opportunities for public enjoyment of these resources will appreciably enhance the public experience at the site and their knowledge of the role of Fort Frederica in American history.

**Criterion 2. Address operational and management issues, such as the need for access or the need for boundaries to correspond to logical boundary delineations such as topographic or other natural features or roads.**

The addition of the Northern and Southern areas would not address operational or management issues at Fort Frederica National Monument.

**Criterion 3. Protect park resources that are critical to fulfilling park purposes.**

The inclusion of the Northern and Southern areas in the Fort Frederica National Monument boundary under Alternative B would fulfill its purpose of preserving the scenic resources associated with colonial Frederica.

The Northern and Southern areas are within the direct viewshed of the Fort Frederica National Monument boundary. The scenic resources, including viewsheds, are critical to uphold the purpose of Fort Frederica National Monument and to provide a sense of place. Being able to provide to the public a historically accurate scene is invaluable to Fort Frederica National Monument’s ability to adequately interpret the colonial town and fort of Frederica. If the Northern and Southern areas were to be privately developed, they would not recover and the viewshed from Fort Frederica National Monument would be negatively and significantly altered forever.

Coastal properties remain at a premium for development. The coast of Georgia and South Carolina have received tremendous growth in the last 30 years due to the demand for retirement

properties by the baby boom generation coupled with the build-out of the Florida coast and the hurricane frequency there in the last 10 years. The threat to the Squire property is somewhat limited since most of this property is jurisdictional wetlands. However, there are permit processes in place to gain permission to fill wetlands and the property would afford a spectacular marsh view. The threat to the Christ Church and North Marsh properties is higher since they have ample uplands to develop residences.

The threat to the Allen property is considered extremely high since this property not only affords ample uplands for development; it also has deep-water access, which imparts a tremendous premium. Development of these properties would bring increased automobile traffic on Frederica Road and boat traffic on the Frederica River.

Probably the most significant threat to Fort Frederica National Monument would be the installation of recreational docks for residences if the study properties were developed. The installation of docks for either the North Marsh or Allen property would impart a direct impediment to the viewshed from Fort Frederica National Monument. The dock permitting evaluation policy is that coastal owners have a right to access the water adjacent to their property if they have reasonable access to deep water within 1500 feet from the upland edge. It is reasonable to assume that private development of at least the North Marsh and Allen properties would likely result in an increase of docks within the viewshed of Fort Frederica National Monument.

#### **Additional Criteria**

Two additional criteria must be met if a boundary adjustment would use appropriated funds:

**Additional Criterion 1. The added lands will be feasible to administer considering their size, configuration, and ownership; costs; the views of and impacts on local communities and surrounding jurisdictions; and other factors such as the presence of hazardous substances or exotic species.**

It would be feasible for Fort Frederica National Monument to administer the Northern and Southern areas because they are either directly adjacent or very close to the current boundary. Administrative and visitor functions are already in operation and could be expanded easily into these adjacent lands. In addition to the ruins of the fort and remains of foundations of the town's residences, development at Fort Frederica National Monument includes a visitor center, museum, administrative, and training complex, maintenance buildings, a curatorial building, monuments, roads, and parking lots. Land use management would also easily be integrated into existing operations. Fort Frederica National Monument currently manages 281.79 acres. The Northern and Southern areas can be readily incorporated into many of the regular maintenance and management activities occurring at Fort Frederica National Monument without added operational or personnel costs.

The site has no identified hazardous substances or other factors that would make NPS administration of the additional areas infeasible.

Public Scoping sessions were held June 2008 to introduce the proposal for the Boundary Study/EA and request comments from the public. This outreach included discussions with adjoining landowners, and to date, there has been very strong local and regional community support for the NPS to expand the boundary and include the Northern and Southern areas, as undeveloped land is disappearing on the island at an alarming rate due to commercial and private residential developments. District 1 Congressional Representative, Jack Kingston, is also

supportive of the boundary expansion. A local non-profit, the St. Simons Land Trust (SSLT) is a leading agent supporting this study. Some of the properties in this boundary study are included in the SSLT's ten-year conservation strategy for St. Simons Island, which includes a Ft. Frederica conservation corridor. Another local company, the Sea Island Company supports the boundary expansion as well.

Currently, Fort Frederica National Monument has no development proposed for the study properties. Any development in the future will be kept to a minimum with the possibility of limited trails, waysides, and a small boardwalk with a viewing platform for the purposes of interpreting the significant viewshed and resources of the park. Fencing along the newly acquired properties would be installed and Fort Frederica National Monument will seek project or grant funding for this.

Under Alternative B, no additional annual operational or personnel costs are needed. Any additional monetary support for maintenance would be provided by project or grant funding and personnel support provided by existing staff, volunteers, and community organizations.

**Additional Criterion 2. Other alternatives for management and resource protection are not adequate.**

No parties other than Fort Frederica National Monument have expressed an interest in managing these areas in a manner that fully addresses the preservation needs and educational potential. The likelihood is favorable that the properties would be sold to private owners for development.

If Fort Frederica National Monument does not acquire the North Marsh and Squire properties, one possibility would be that the SSLT would sell them to Glynn County. The properties may then be developed as a county park and could include playing fields and related facilities. The SSLT can also sell the property to private owners for development.

The boundary adjustment meets this criterion. In order to fully protect the archeological and scenic resources of the Northern and Southern areas and realize the added opportunity to fulfill Fort Frederica National Monument's purpose provided by NPS ownership, there do not appear to be other alternatives that would provide adequate management and resource protection for the areas.

## **Part Two: Alternatives**

The National Environmental Policy Act requires federal agencies to describe and analyze alternatives to proposed actions. For the purposes of this document, Alternative A is the “no action” alternative that analyzes the effect of not changing the current situation and Alternative B is the proposed boundary change.

No boundary adjustment outlined in this study may be accomplished without authorization by the United States Congress. The implementation of actions related to a boundary adjustment will depend on future funding and National Park Service-wide priorities. The approval of a boundary adjustment does not guarantee that funding needed to implement the proposed actions will be forthcoming. Full implementation could be many years into the future.

### **Alternative A: No Action**

Under this alternative, the Fort Frederica National Monument boundary would remain unchanged. Under this scenario, the future long-term uses of the two areas under consideration remain uncertain. One of the four properties within these areas (North Marsh) is owned by the SSLT. If the NPS were not to acquire the property, the SSLT would seek out other entities in which to sell with the intention of preserving the land, however, no guarantees would be made. One possibility for the North Marsh property is for Glynn County to purchase the land and develop it as a county park with facilities such as playing fields, picnic and playground equipment, and associated comfort facilities. The other three properties (Squire, Christ Church, and Allen) are privately owned. The owners will most likely sell their properties to private owners or developers and the likelihood that the properties would be developed for commercial or private use is high.

### **Alternative B: Adjust Fort Frederica National Monument Boundary to Include the Northern and Southern Areas**

This Alternative is the NPS-preferred Alternative. Under Alternative B, the Fort Frederica National Monument boundary would be expanded to incorporate two additional areas totaling approximately 173.1 acres, and permit the acquisition of these areas from willing sellers. The owners of these areas (comprised of four properties; the North Marsh, Christ Church, Squire, and Allen) have already identified themselves as willing sellers. The SSLT owns the North Marsh property. The Squire, Christ Church, and Allen properties are privately owned. The Squire and Allen properties were recently purchased.

Under this Alternative, Fort Frederica National Monument would continue to protect and maintain resources and offer visitor programs. Fort Frederica National Monument would acquire, manage, and interpret the Northern and Southern areas to ensure their preservation and enhance opportunities for public enjoyment by: 1) preserving areas that were once a part of the Town of Frederica for research and interpretation; 2) providing new ways to engage the public and tell the story of Fort Frederica and the township; and 3) preserving the scenic resources associated with colonial Frederica.

Currently, the NPS proposes no site development. Any development in the future will be kept to a minimum with the possibility of limited trails, waysides, and a small boardwalk with a viewing

platform for the purposes of interpreting the significant viewshed and resources of the park. Fencing along the newly acquired properties would be installed.

The Christ Church property is within the larger North Marsh property. It contains one structure, a house that was used for the Dodge Home for Boys after the original home burned (site located within the current park boundary). The Dodge Home for Boys operated from the 1890s to 1956. A wayside could possibly be used to interpret the history of the home. The current home has little architectural merit or historic value. Based on construction materials and type of windows, the current Dodge Home was built in the late 1940s to early 1950s. The Glynn County Property Record gives the date of construction as 1991, but the house is clearly older. The study makes no recommendations regarding the treatment of the structure; however, it is believed to be non-historic. It is likely that it would be removed to comply with OMB's no net gain of structures directive.

In addition to the potential uses for the Allen property previously mentioned, research and interpretive opportunities would be developed for the Point Battery. The Point Battery and the vantage point of the rest of Fort Frederica National Monument from the battery offer many possibilities for visitor use and research. In addition, the majority of the acreage (approximately 120 acres) is open marshland and habitat for migrating birds, as well as pristine habitat for other species of flora and fauna. The remaining acres (approximately 30 acres) of upland forest provide prime examples of habitat encountered by early settlers and soldiers on the island. Structures and building remnants on this property include two demolished buildings, a 1970s house, a shed, and a stable. This alternative does not make any treatment recommendations for any historic structures that may be located on lands within the expansion area. Any treatment recommendations for historic properties would be developed at a later date in consultation with the Georgia State Historic Preservation Officer.

Once the properties are acquired, Fort Frederica National Monument will identify and develop detailed visitor programs and management strategies as part of a General Management Plan Amendment or other similar planning process.

The estimated value of the three properties within Northern area and the property in the Southern area is \$3,760,000. These market values used are those of the Glynn County Property Appraisal Office. Pre-acquisitions costs are estimated to be \$132,000. This assumes full fee acquisition by the NPS. **The costs of acquisition portrayed in this study are for illustrative purposes only and simply reflect estimated current market rates for the properties. Formal appraisals must be conducted should any acquisition be pursued.**

The breakdown of market values for each property is as follows:

*North Marsh* - \$1,320,000. The St. Simons Land Trust is the current owner of the property and are willing sellers.

*Christ Church* - \$260,000. Christ Episcopal Church is the current owner of the property and are willing sellers.

*Squire* - \$330,000. The Squires are the current owner of the property and are willing sellers.

*Allen* - \$1,850,000. The Allens recently purchased the property and are willing sellers.

The study makes no recommendations regarding treatment of structures inside the expanded boundary, because no studies have yet been done to determine whether any are historic.

However, all structures are believed to be non-historic and once studies are completed to confirm this, it is likely that all or most would be removed to comply with OMB's no net gain of structures directive.

The structures include the following:

1. A brick house, shed, and block and brick foundation on the Christ Church property;
2. A concrete/brick oyster roast/barbeque pit on the North Marsh property;
3. Two razed buildings, house, shed, and stable on the Allen property;

Boundary fencing along portions of the newly acquired lands would total approximately \$5,000 and would be paid for by project funds and/or grants. Fort Frederica National Monument has the materials on hand, the equipment for the placement of fencing and NPS, Youth Conservation Corps, and community volunteer staff to set fencing. Currently, no other development is being proposed. Any development in the future will be kept to a minimum with the possibility of limited trails, waysides, and a small boardwalk with a viewing platform for the purposes of interpreting the significant viewshed and resources of the park.

It is estimated that no additional annual costs would be needed for the NPS to maintain and operate the additional properties. The Northern and Southern areas can be readily incorporated into many of the regular maintenance and management activities occurring at Fort Frederica National Monument without added operational or personnel costs. Any additional monetary support for maintaining fencing and the limited future development would be provided by project or grant funding and personnel support provided by existing staff, volunteers, and community organizations.

### **Environmentally Preferable Alternative**

The environmentally preferable alternative is determined by applying the definition provided in the Department of Interior NEPA regulations, 43 CFR 46.30, which is "the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources".

Alternative B is the environmentally preferable alternative because it offers the best protection, preservation, and enhancement of the Northern and Southern area's historic, cultural, and natural resources. This Alternative would provide long-term management and protection of the Northern and Southern areas' historic and cultural resources by the NPS; enhance the preservation and protection of the cultural and natural resources of Fort Frederica National Monument; and increase public understanding and appreciation of the resources of the fort and township, particularly as related to the historical, archeological, and scenic resources associated with colonial Frederica and the role of Fort Frederica in American history.

### **National Park Service Preferred Alternative**

Alternative B is also the NPS Preferred Alternative because the expansion of Fort Frederica National Monument's boundary to include the Northern and Southern areas would support the purpose 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. The addition of the Northern and Southern areas would

ensure the preservation of areas that were once a planned part of the Town of Frederica and provide opportunities for research and interpretation. The expanded boundary would provide new ways to engage the public and tell the story of Fort Frederica and the township. Most importantly, the additional lands would be vital to preserving the scenic resources associated with colonial Frederica. Alternative B would also provide enhanced natural resource management opportunities, particularly related to the potential habitat for threatened and endangered species and migratory birds.

## **Part Three: Affected Environment and Environmental Consequences**

### **Issues and Impact Topics**

Based on the issues and concerns identified during scoping, specific impact topics were developed to focus the environmental impact analysis. Impact topics are resources of concern that could be affected, either adversely or beneficially, by the range of alternatives presented in this Boundary Study/EA. The use of specific impact topics allows comparison of the environmental consequences of each alternative based on the most relevant topics. The impact topics are based on federal laws, regulations, and Executive Orders, *NPS Management Policies 2006*, and NPS knowledge of limited or easily impacted resources. The following is a list of the impact topics retained for analysis, as well as a list of impact topics that were dismissed from detailed analysis, with the rationale for dismissal.

### **Impact Topics Retained for Analysis**

Part 3 describes the affected environment for each impact topic analyzed and presents the potential impacts of implementing the alternatives. If NPS acquires the properties and future development of the sites occur, more detailed assessments of potential effects on natural and cultural resources would be completed as part of a future planning process for specific proposed park actions on these sites.

The impact topics selected for analysis in this Boundary Study/EA include:

#### ***Cultural Resources***

*Cultural Landscape* - These sites have not been designated as cultural landscapes; however, they may qualify as cultural landscapes and if so, would be treated as such. Since ground disturbance could occur to these sites, cultural landscape is included as an impact topic.

*Archeological Resources* - There is potential for the unearthing of archeological resources if ground disturbance occurs from development of the sites. If trail development or wayside exhibits were installed, further analysis would occur, including any necessary field surveys. Because there could be a potential for future effects, archeological resources were retained as an impact topic.

#### ***Natural Resources***

*Soils* - Soils would likely be disturbed if minor development of the site for limited trails and wayside exhibits were installed. Therefore, soils were retained as an impact topic.

*Vegetation* - There would likely be minor removal of vegetation if limited trail construction occurred; therefore, vegetation was retained as an impact topic.

*Wetlands* - Executive Order 11990 requires federal agencies to avoid impacts on wetlands where possible. Wetlands (as identified by the National Wetland Inventory) are present on three of the potential sites for acquisition; therefore, the topic of wetlands will be retained for further analysis in this Boundary Study/EA.

*Visitor Use and Experience* - There would be an opportunity for visitors to experience the newly acquired sites and their associated stories. Therefore, visitor use and experience was retained for

further analysis.

**Park Operations** – No additional staff or operating costs are expected, although there may eventually be a minor increase in the need for additional park interpretive services or maintenance in the newly acquired areas. Therefore, park operations were retained as an impact topic.

### **Impact Topics Considered, but Dismissed from Further Analysis**

**Historic Structures** - The study makes no recommendations regarding treatment of structures inside the expanded boundary and no studies have yet been done to determine whether any are historic. If acquired, all structures would be assessed for historic eligibility. However, all structures are believed to be non-historic and once studies are completed to confirm this, it is likely that all or most would be removed to comply with OMB's no net gain of structures directive. Therefore, the topic of historic structures will not be retained as an impact topic. If historic properties are identified, any changes would be coordinated with the Georgia State Historic Preservation Office.

**Air Quality** - The Clean Air Act (CAA) and NPS Management Policies, 2006 require consideration of air quality impacts from NPS projects. Glynn County is in attainment of air quality standards and only industrial developments that have emissions are required to be permitted with their agency with regard to air quality. A change in Fort Frederica National Monument's boundary will have no effect on air quality. Therefore, the topic of air quality will not be further analyzed in this document.

**Greenhouse gas emissions and climate change** - There is strong evidence linking global climate change to human activities, especially greenhouse gas emissions associated with the burning of fossil fuels (IPCC 2007). Some of the activities associated with minor construction may result in fossil fuel consumption, such as vehicular trips by park personnel or their contractor, although park staff uses electric and solar carts for transport within the park boundary. Overall greenhouse gas emissions associated with the plan would be negligible in comparison to park-related, local, and, regional greenhouse gas emissions. Therefore, the issue of the contribution of implementation activities to climate change through greenhouse gas emissions was dismissed from further analysis.

**Water Quality** - Negligible effects on water quality are expected at the sites to be received by the park and there are no permanent streams or ponds on the site. Best management practices would be employed during any future construction of the site to control erosion. Effects on water quality would be expected to be negligible as a result. Any future construction would require additional environmental analyses. As a result of these considerations, water quality was eliminated from further analysis in the EA.

**Wildlife** - Because of the location of the properties to water sources, there is a high potential to encounter wildlife. Species or tracks observed on site include white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), and other small mammals. The river and marsh edge would be expected to support river otter (*Lontra canadensis*), and numerous birds feeding on fish and crustaceans. The larger trees at the marsh-forest ecotone are important for roosting and resting habitat for a number of shore birds, and hunting perches for the osprey (*Pandion haliaetus*) and bald eagle. Limited construction at the newly acquired sites could occur (fencing, limited trails, wayside exhibits), resulting in disturbance to wildlife. However, wildlife would be expected to be mobile and able to relocate and avoid the limited construction sites. Therefore, wildlife was dismissed as an impact topic.

**Special Status Species** - The list of federally and state-listed endangered and threatened species for Glynn and surrounding counties is extensive (Table 1). A number of the species are associated with habitat not included within the study area and are therefore discounted from consideration.

Of the species listed, the only protected species that has been observed flying over the site was the bald eagle (*Haliaeetus leucocephalus*). Although delisted under the Endangered Species Act in 2007, the bald eagle is protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Lacey Act.

Of the mammals, habitat exists for the Rafinesque big-eared bat (*Corynorhinus rafinesquii*) within the abandoned sheds near the Allen property residence and the stables on the east end of this property. The West Indian Manatee (*Trichechus manatus*) is a regular visitor to the estuaries around Brunswick and would not be surprising to encounter in the Frederica River.

Of the birds, some limited habitat occurs for the Bachman's sparrow (*Aimophila aestivalis*) in the upland woods within the study properties. The piping plover (*Charadrius melodus*), the Wilson's plover (*C. wilsonia*), the swallow-tailed kite (*Elanoides forficatus*), the American oystercatcher (*Haematopus palliatus*), the wood stork (*Mycteria americana*), and the gull-billed tern (*Sterna nilotica*) might all find suitable habitat in the high marshes within the North Marsh and Allen properties. There is potential habitat for gopher tortoise (*Gopherus polyphemus*), although they have not been observed. Of the fishes, habitat exists for the shortnose sturgeon (*Acipenser brevirostrum*) in the Frederica River since it is known to occur in the area. Habitat for plant species on the list is marginal and several species with state protection status occur on shell mounds within bluff or maritime forests.

Because habitat for protected species is marginal and the acquisition of property would serve to protect species, if present, protected species will not be analyzed further in this Boundary Study/EA. Should future plans include disturbance to habitat for protected species, a survey would take place, and precautions would be added to protect affected species. Further environmental impact analysis would occur at that time and the appropriate agency would be consulted.

**Floodplains** - Executive Order 11988 requires federal agencies to examine potential risks and impacts of placing facilities within floodplains. The entire park and the sites involved in consideration are located within the 100-year floodplain. Construction would be limited to a small area and could include limited trails and wayside exhibits. The total area affected would be a small portion of the several thousand-acre area floodplain that includes all of St. Simons Island. Any effects of construction on the sites involved in the land exchange would therefore have negligible effects on floodplain functions and values. These actions will not induce increased flooding, nor contribute to increased future flood damages. Floodplains were therefore eliminated from further analysis in the EA.

**Ethnographic Resources** - According to NPS-28, *Cultural Resource Management Guideline*, an ethnographic resource is any "site, structure, object, landscape, or natural resource feature assigned traditional legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it" (NPS, 1998, p.181). No recorded American Indian sites are located within the project area, and no other ethnographic resources were found traditionally associated with the sites. Therefore, ethnographic resources will not be further analyzed in this document.

**Indian Trust Resources** - Secretarial Order 3175 requires that any anticipated impacts to Indian trust resources from a proposed project or action by U.S. Department of Interior agencies be

explicitly addressed in environmental documents. The Federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of Federal law with respect to American Indian and Alaska Native tribes. There are no Indian Trust resources in Fort Frederica National Monument. The lands comprising the areas considered for addition to the boundary are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians. Therefore, Indian Trust Resources will receive no further analysis in this EA.

***Environmental Justice in Minority and Low-Income Populations*** - Executive Order 12898 requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects on minority and low-income populations. None of the alternatives would affect the described populations. No alternative would have disproportionately adverse health or environmental effects on minorities (including American Indian tribes) or low-income populations or communities as defined in the Environmental Protection Agency's (EPA's) Environmental Justice Guidance (1998). Therefore, this topic will not be analyzed further in this Boundary Study/EA.

***Prime or Unique Farmlands*** - An August 11, 1980, memorandum from the CEQ directed that federal agencies must assess the effects of their actions on farmland soils classified by the Natural Resource Conservation Service as prime or unique (CEQ 1980). Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oil seed crops and that is available for these uses (i.e., it cannot be areas of water, urban, or developed land). Unique farmland is land that is used for the production of high value food crops, such as fruits, vegetables, and nuts. In general, prime and unique farmlands have the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops. The sites proposed for acquisition do not meet this classification; therefore, this impact topic was dismissed from further consideration.

***Natural Lightscape (Night Sky)*** - Only limited support facilities (limited trails and wayside exhibits) would likely be constructed on the sites to be acquired by the park, and would have a negligible effect on the natural lightscape. Like the main park, these sites would be open from 9:00 AM to 5:00 PM so additional light pollution is not expected to affect visitors in the park. For these reasons, lightscape was dismissed as an impact topic.

***Ecologically Critical Areas, Wilderness, Wild and Scenic Rivers, or Other Unique Natural Resources*** - No congressionally designated natural resources, such as ecologically critical areas, Wilderness, Wild and Scenic Rivers, or other unique natural resources are located within the project site. Therefore, this impact topic was dismissed.

***Public Health and Safety*** - The project could involve limited construction and operation of fencing, limited trails, and wayside exhibits at the sites to be acquired by the park. These actions would have negligible to minor effects on public health and safety. Therefore, this impact topic was dismissed.

***Sacred Sites*** - There are no sacred sites, as defined by Executive Order 13007 on the sites, or in the immediate area of either site. Therefore, this impact topic was dismissed.

***Transportation*** - Traffic patterns associated with the acquisition of lands would not likely change; therefore, transportation was not retained as an impact topic.

***Soundscape/Noise*** - Changes in soundscape and noise levels of land potentially acquired by the

park would be negligible since limited facilities would be constructed on site. Therefore, soundscape/noise was dismissed as an impact topic.

**Socioeconomics** - Effects to socioeconomics would be in the form of temporary increases of availability of jobs for construction of limited trails if they were constructed using contractors. This effect would be limited in scope and would be very temporary; therefore, socioeconomics was dismissed from further analysis.

### **Affected Environment and Analysis of Impact Topics**

This discussion of affected environment and environmental consequences is intended to provide an analysis of the environmental consequences reasonably expected from the implementation of each alternative. This section describes the potential impacts of the proposed national monument boundary adjustment alternatives on the affected environment.

Impacts have been evaluated in this document at a level that would permit decisions about the overall management objectives of each alternative. Environmental consequences are evaluated following CEQ regulations. The CEQ implements the National Environmental Policy Act of 1969 (NEPA). Specific actions could require further site-specific compliance with NEPA, National Historic Preservation Act, and other applicable laws and policies.

The impact analysis and conclusions are based on resource evaluations, review of existing literature and relevant studies, and information provided by specialists within the NPS and other agencies.

For the purpose of the analysis, the following definitions were used to describe potential impacts:

- Intensity:
  - Negligible: Impact to the resource is barely perceptible or not measurable.
  - Minor: Impact to the resource is perceptible or measurable, but it is localized.
  - Moderate: Impact is clearly detectable and could have appreciable effect on the resource.
  - Major: Impact would have a substantial, highly noticeable influence on the resource or discipline.
- Impact Type:
  - Beneficial: A positive change in the condition or appearance of the resource or a change that moves the resource toward a desired condition.
  - Adverse: A change that moves the resource away from a desired condition or detracts from its appearance or condition
- Duration of effect:
  - Short-term: Impacts that would be less than 2 years in duration.
  - Long-term: Impacts that would be more than 2 years in duration.
- Cumulative effects: An assessment of the cumulative impacts associated with each alternative is presented. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts can be direct (caused by the action and in that specific time and place) or indirect (caused by the action but the impacts are felt at a later time or a different place), and they can be positive or negative. For

this assessment, past, present, and future activities considered include current park management and operations, such as interpretive programs, routine maintenance, and exotic plant management; development (residential development planned for areas north of the park) and other ground disturbing activities around St. Simons; and tourism in and around the area.

## **Cultural Resources**

### **Archeology and Cultural Landscapes**

#### ***Overview:***

Based on the Cultural Resources Overview prepared by R.S. Webb & Associates, each of the four properties either has the potential for cultural resources or confirmed locations of cultural resources that could add to the overall interpretive story of Fort Frederica National Monument.

No archeological or historic resources were identified within the Squire property, however it is possible that Frederica Road passed through the site. The road shown traversing the Squire property on the 1869 and 1911 maps (Images 3 and 4), also extends south into or at the edge of the Christ Church property. The 1938 map of the Fort Frederica National Monument Project indicates a road running north into the Christ Church property from what was to become the north side of the park. This appears to be the same road as recorded on the earlier maps. The straightened Frederica Road that is now east of the Squire, North Marsh, and Christ Church properties is also shown on the 1938 map. Like the Squire property, there was no surface evidence of the earlier road on the Christ Church property.

The Christ Church property shares a common boundary with Fort Frederica National Monument on the south and with the North Marsh property on the north and west. The Dodge Home was an orphanage for boys started in the 1890s by the pastor of Christ Church, Reverend Anson Dodge (Cate 1979). The original home was located within what is now the north central part of the Fort Frederica National Monument (Image 5). In 1935 the original house (located within the park boundary) burned and was replaced by a new structure located on this property in what is believed to be the late 1940's to early 1950's based on the construction materials and type of windows, although the Glynn County Property Record gives the date of construction as an apparently erroneous date of 1991. The orphanage was closed in 1956. The current home has little architectural merit or historic value and may have served as a rectory for the Christ Church. The study makes no recommendations regarding the treatment of the structure, because no studies have yet been done to determine whether it is historic. However, the structure is believed to be non-historic. It is likely that it would be removed to comply with OMB's no net gain of structures directive, although a wayside could be used to interpret the history of the home. Another concrete foundation is located in the southwest section of the property. This foundation is large enough to have been a barn. Similar construction materials indicate that it was built around the same time as the house.

Frederica Road borders the North Marsh property on the east, the salt marsh on the west, the Squire property on the north, and Fort Frederica National Monument on the south. The Christ Church property borders the southeast corner. A mid-20th century oyster roast/barbeque pit is located on the property and a berm dating to the early to middle 20th century, which may be considered a historic feature. The earthwork may have been constructed to retain water in order to keep other areas dry. In addition, both whole oyster and whelk shells are on the site along with prehistoric sherds, which include Deptford linear check-stamped sherd. Based on the 1869 and 1911 maps (Images 3 and 4) and the 1938 plat of the proposed Fort Frederica National Monument

boundary (Image 5) the Old Frederica Road also traversed north south across the center of the North Marsh property. However, like the other properties, the route or remains of the road have not been identified on site.

The Allen property contains a potentially historic dike that may have been constructed to create a fishpond or protect oyster beds. Based on previous investigations, scattered shell west of the house to the river could indicate a prehistoric occupation. The southwest corner of the house lot is the potential location of the Point Battery recorded on the 1796 map (Image 2). This area has dense shrubs and groundcover with no surface visibility (Image 6).

Neither Fort Frederica National Monument nor the areas being studied for inclusion in the monument have been assessed for cultural landscapes. Upon acquisition of the areas, an initial cultural landscape inventory will be completed to assess the potential for cultural landscapes.

***Alternative A:***

Over the short- and long-term, cultural resources that may exist at the sites would continue to be undocumented, and could be disturbed through future development by a new owner. Sites would not likely be protected and the public would not have the benefit of hearing the stories associated with those sites. Therefore, implementation of Alternative A could have moderate negative impacts on potential cultural landscapes and archeological resources.

***Alternative B:***

In the short and long-term, cultural resources would be protected through research and documentation of resources in accordance with the National Historic Preservation Act. The NPS would follow guidance set forth in Director's Order 28 for the protection of cultural resources. Prior to any development of these sites, they would undergo further investigation. If development does occur, the sites would be interpreted for their historical significance and their stories told to visitor's visiting the park. Therefore, implementation of Alternative B would have beneficial impacts on historic sites, potential cultural landscapes, and archeological resources through the protection and documentation of those sites. If disturbance to cultural resources would occur through development, all actions would be analyzed and would occur in compliance with the National Historic Preservation Act and would be documented as required by the Act.

## **Visitor Use and Experience**

***Overview:***

Fort Frederica was established in 1736 by James Oglethorpe to protect the southern boundary of his new colony of Georgia. Fort Frederica was a military outpost consisting of a fort and town. The entire 40-acre area was fortified with a palisade wall and earthen rampart. The fort itself consisted of a square structure with three diamond-shaped bastions and a projecting spur battery. The fort's location on a bend in the Frederica River allowed it to control approaches by enemy ships. The town of Frederica followed the traditional pattern of an English village. Similar in style if not in scale to Williamsburg, Virginia, it housed gardens and outbuildings. Additional acreage elsewhere on the island was available for growing crops.

Oglethorpe's foresight in establishing Frederica was rewarded in 1742 when Spanish forces from St. Augustine, Florida and Havana, Cuba landed on St. Simons Island. The battles of Gully Hole Creek and Bloody Marsh ensued, in which the British forces prevailed, confirming that the new colony of Georgia would be British. Today, the archeological remnants of Frederica are protected

by the NPS. Fort Frederica National Monument has much to offer visitors. Programs include a wide variety of self-guided activities and explorations, ranger or docent led talks and tours, film showings, a museum, and a museum shop with a variety of historical books, children's games and reproductions. A visitor center is open seven days a week on every day of the year except Christmas and New Years Day.

The view from the site of the historic town and fort is generally historic features and forest in all directions except west. To the west, the view is open over the Frederica River and marshland. To the southwest, the city of Brunswick can be seen in the far distance. Except from the river, the structures of Fort Frederica National Monument cannot be seen from off the site.

The properties proposed for acquisition are either privately owned or owned by SSLT and are not open for public use and/or visitation at this time.

***Alternative A:***

Under Alternative A, the park would continue to operate as they currently do in terms of park visitation and the properties would not be included within the park's boundary. Because the land would not be protected by the NPS, each property would be at risk for purchase and development. The threat to the Squire property is somewhat limited since most of this property is jurisdictional wetlands, leaving smaller areas for development. However, there are permit processes in place to gain permission to fill wetlands and the property would afford a spectacular marsh view. The threat to the Christ Church and North Marsh properties is higher since they have ample uplands to develop residences. The threat to the Allen property is considered extremely high since this property not only affords ample uplands for development, it also has deep-water access, which is of great value for those looking for boating access. Along with development of these properties, there would be the potential for increased automobile traffic on Frederica Road, boat traffic on the Frederica River, a short-term increase in noise during the construction effort, and reduction in night sky quality from additional street lighting, security lighting, and house lights for the early portion of the night.

An additional threat to park resources would be the installation of recreational docks for residences if the study properties were developed. While the scenic resources might be maintained into the interior of the development(s) such that the dwellings themselves might not be seen from Fort Frederica National Monument, the installation of docks for either North Marsh or Allen properties would impart a direct impact to the viewshed from Fort Frederica National Monument.

Based on the likelihood of private purchase and development of the properties if the NPS does not acquire them, the effects to the visitor use and experience at Fort Frederica National Monument with particular respect to the viewshed would be moderate and adverse.

***Alternative B:***

Under Alternative B, the park would acquire the properties and they would fall under the protection of the NPS. Once the properties were acquired, the NPS would have the opportunity to interpret the sites and their significance to the park. The sites would be afforded protection from further development other than minor trail or other development to support interpretation of the sites.

Based on the protection of cultural and natural resources on each property, the acquisition of each site by the NPS would result in long term, direct, beneficial impacts on visitor experiences. The protection of resources on the site and preserving the scenic resources that the colonial inhabitants

knew would protect the viewshed, improve interpretation of historic events, and enhance overall visitor experiences to the park.

## **Park Operations**

### ***Overview:***

The superintendent of the Fort Frederica National Monument is responsible for managing the park, its staff, concessionaires, all programs, attractions, and its relations with persons, agencies and organizations, community services, facilities management, and fee collection. The Fort Frederica Association is currently the only concession at the park. They provide soft drink and water vending machines. The park has 13 full-time equivalent employees (FTE), 8 permanent and 5-6 Youth Conservation Corp students per year, as well as two seasonal fee staff, who provide the full scope of functions and activities to accomplish management objectives and meet requirements in law enforcement, emergency services, public health and safety, science, resource protection and management, maintenance, visitor services, interpretation and education, community services, utilities, housing, and fee collection.

### ***Alternative A:***

Under Alternative A, park staff would continue to protect, maintain, and interpret existing park resources. There would be no effect to park operations if the park did not obtain the property properties.

### ***Alternative B:***

Under Alternative B, park staff would have the added responsibility of protecting, maintaining, and interpreting the new properties acquired. Development of the sites could occur in the form of limited trails and wayside exhibits, which would be provided for by project or grant funding and personnel support provided for by existing staff, volunteers, and community organizations. The additional effort required for these responsibilities would have a negligible effect on park operations. Even as the addition of these sites adds considerable property to the park, the development of the sites would be limited and would undergo further environmental and operational scrutiny to determine its feasibility with current park staff levels.

## **Natural Resources**

### **Soils/Wetlands**

#### ***Overview:***

The areas being studied for inclusion in the boundary were surveyed by Wetland and Ecological Consultants, LLC. The information obtained from this survey was used to determine the conditions of the resources at each site and is summarized below.

The Squire property consists mostly of wetland soils (Pelham sandy loam and Bohicket) with some areas of upland in the northwest corner of the site dominated by live oak.

Forest soils on the Christ Church property are mapped as Cainhoy fine sands, which are somewhat excessively drained soils, formed on sandy marine sediments. The North Marsh property consists of approximately 12 acres of salt marsh and 10 acres of uplands. This property contains an interior forested wetland situated in the southern portion of the property approximately 120 feet from the marsh edge (Images 7 and 8). This wetland is estimated to be

approximately 0.25 acre. Soils are dark gray sands heavily coated with organic matter and streaked. The center of the wetland has a somewhat more open canopy with soft rush within the center (lowest) portion. A shallow swale connects this wetland with a ditch system that extends from the southwest corner of the site near the oyster shell deposit, north and eastward to the boundary with the Goldner property. It appears this was a mechanically constructed (small bulldozer, backhoe, or fire plow), relatively modern ditch system that was installed to improve drainage to this low-lying property. It is possible that these ditches may also be considered wetlands.

Forest soils on the Allen property are mapped as Cainhoy fine sands, 0 -5 % slopes. Examination of hand auger borings confirmed these soils to be well-drained sandy loams matching the general description of Cainhoy soils. The marsh portion of this property is mapped as Bohicket soil.

***Alternative A:***

Under Alternative A, the soils would not be disturbed and wetlands would not be filled by NPS actions and the sites would remain intact until they were sold. If sold, it is likely that sites that contain upland property would be developed and wetlands would be filled to allow development. In that case, wetlands would be adversely affected. Impacts to soils and wetlands would range from negligible to major, adverse, depending on future sales and development of the properties.

***Alternative B:***

Under Alternative B, soils on each property could be disturbed by future minor development through construction of limited trails and wayside exhibits, and trampling from visitor use pending future planning and environmental analysis. Any planning and implementation of construction that would occur would undergo vigorous scrutiny and would meet NPS standards. Wetlands would be avoided and would not be filled for development, however the use of boardwalks and/or viewing platform(s) may be used to provide visitors access to the site(s). If a boardwalk were used, the NPS would prepare a wetland statement of findings as part of environmental impact analysis, if necessary (PM 77-1, Wetlands Protection). Every effort would be made to minimize impacts to soils and wetlands, to control erosion, and to limit the areas of disturbance. Impacts to soils and wetlands would range from negligible to moderate, adverse, depending on the level of future development of each site. Further environmental analysis with public involvement would be implemented to rigorously consider impacts to resources should future development occur.

**Vegetation**

***Overview:***

The areas being studied for inclusion in the boundary were surveyed by Wetland and Ecological Consultants, LLC. The information obtained from this survey was used to determine the conditions of the vegetation resources at each site and is summarized below.

Vegetation in the Squire property is dominated by loblolly pine (*Pinus taeda*), red cedar (*Juniperus virginiana* var. *silicicola*), live oak (*Quercus virginiana*), and cabbage palmetto (*Sabal palmetto*) in the canopy, with a shrub layer of wax myrtle (*Myrica cerifera*) and silverling (*Baccharis halmifolia*), and an herb layer of soft rush (*Juncus effusus*), panicum (*Panicum* sp.), and pennywort (*Hydrocotyle umbellata*).

Approximately half of the Christ Church property is currently bush hogged while the remainder supports mature trees with several dense stands of successional saplings. The canopy is dominated by live oak, laurel oak (*Q. laurifolia*), loblolly pine, and sweet gum (*Liquidambar styraciflua*), while the shrub/sapling stratum contains wax myrtle and sweet gum. The herbaceous

layer has various grasses in the mowed areas while the non-maintained areas contain dog fennel (*Eupatorium capillifolium*). The prominent woody vines are muscadine (*Vitis rotundifolia*) and summer grape (*V. aestivalis*).

The North Marsh property is best described as live oak-pine flatwoods. The canopy is dominated by live oak, loblolly pine, laurel oak, water oak (*Q. nigra*), sweet gum, and cabbage palmetto. The sapling/shrub stratum is dominated by wax myrtle, red maple (*Acer rubrum*) saplings, mulberry (*Morus rubra*) saplings, gallberry (*Ilex glabra*), yaupon holly (*I. vomitoria*), dwarf palmetto (*Sabal minor*), and highbush blueberry (*Vaccinium corymbosum*). Also noted were 20 to 30 individuals of coral ardisia (*Ardisia crenata*), an invasive exotic shrub with prominent red berries. This species is considered a Category 2 species by the Georgia Exotic Pest Plant Council, which the Council defines as “an exotic plant that is a moderate problem in Georgia natural areas through invading native plant communities and displacing native species.” In the southwest corner of this property near the ground scatter of oyster shells on the Fort Frederica National Monument boundary is a stand of mature live oaks near the marsh edge that display a growth form suggesting this area was once more open. This is evident by low lateral branches and a rounded form. Currently this area is densely vegetated with cabbage palmetto, saw palmetto (*Serenoa repens*), wild grape, and various young saplings.

The majority of the Allen property is high salt marsh while the balance is oak-pine flat woods. Canopy vegetation is dominated by loblolly pine, live oak, water oak, laurel oak, sweet-gum, and cabbage palmetto. The sapling/shrub stratum is dense in most areas and includes red maple, sweet-gum, saw palmetto, yaupon, and gallberry. The herb layer in the flatwoods is limited by the dense sapling/shrub stratum, but includes various grasses (*Panicum* spp.)

On the southern edge of the forested flatwoods of the Allen property, the high marsh extends into the forest and wraps around behind (north of) a low point of land, effectively forming a small hammock in the marsh. The hammock is dominated in the canopy by cabbage palmetto, red cedar and a few loblolly pines. There are few large trees likely due to wind pruning, storm damage, and occasional salt-water intrusion. Several dead pine snags are present; the cause of the mortality is not readily evident but may be hypothesized as a prolonged storm event with significant salt-water intrusion. The sapling/shrub stratum is dominated by wax myrtle, silverling, and some dwarf palmetto. The herb layer contains soft rush and a few clumps of black needle rush, reinforcing the suggestion of brackish hydrology. The hammock is jurisdictional wetlands definitively under USACE criteria and possibly Marshlands Protection Act criteria due to the presence of high marsh species.

The western end of the Allen property is a currently unoccupied residence, yard, and sheds. The vegetation in this area has not been maintained and around the sheds, there are extremely dense thickets of saplings and vines. The yard contains dog fennel (*Eupatorium capillifolium*) and pokeweed (*Phytolacca Americana*). The dominant forest vegetation is consistent with the remainder of the flatwoods on the property. However, the herbaceous vegetation is heavily influenced by the former equestrian practices. Regenerating oats (*Avena sativa*) are found throughout with a few other species common to defunct pastures, such as thistle (*Cordus repandus*) and pokeberry. The expansive high salt marsh on the Allen property supports a near monoculture of black needle rush with narrow fringes of salt cordgrass (*Spartina alterniflora*) along narrow tidal rivulets in the marsh mud connecting to the Frederica River.

#### ***Alternative A:***

Under Alternative A, the NPS would not pursue acquisition of the sites and the sites would remain as-is until sold to another buyer. Outside interest to develop the site would likely involve

clear-cutting and the filling of wetlands. Impacts to vegetation would likely be moderate, adverse, if the sites were purchased and developed.

***Alternative B:***

Under Alternative B, the NPS would acquire the sites and potentially develop portions of the sites for the purposes of interpretation and visitor use. Development could possibly include limited trails and wayside exhibits. If NPS does pursue development in the future, environmental analysis would occur to look at the impacts of implementation of such a plan. Development of the sites would involve the removal of some portions of vegetation, but only to the extent needed for the above-mentioned development. Soil and vegetation disturbance on the upland sites could open the sites to invasive exotic vegetation that may exist in the seed bank or is currently obscured beneath or within the thickets and vines. The NPS must deal with the maintenance of exotic vegetation and would treat these sites according to NPS protocols for exotic species. Regular maintenance may be required on some sites to maintain the current status of the vegetation and prevent spread of some of the non-native or cultivar species currently used in the landscaping. Development of the sites by the NPS would require the removal of some vegetation; however, it is in the interest of the NPS to maintain the character of the sites and interpret the sites according to their history rather than wide scale development and clear cutting. Impacts to vegetation could be negligible to moderate, adverse, over all sites if future plans involve fencing, limited trails, and wayside exhibits, but any future development would be analyzed in further plans and impact analysis.

## **Cumulative Impacts**

Alternative A: Under Alternative A, the No Action Alternative, there would potentially be long-term, moderate adverse cumulative effects on the cultural landscape and archeology because of the uncertainty regarding ownership and future development of the properties and no cumulative effect to visitor experience at the park from current visitation, although visitors would not experience the benefit of the additional interpretive experience from the new sites. There could be potential negative cumulative effects on visitor experience because of the uncertainty regarding ownership and development of the sites. There would be no cumulative effect to operations at the park as park operations would remain the same without the acquisition of the sites. There could be potential minor to moderate cumulative effects to soils, wetlands, and vegetation at the sites from their current condition from likely development of the sites and further loss of vegetation on the island.

Alternative B: Under Alternative B, there would be beneficial long-term, cumulative effects for cultural landscapes and archeology because existing historic resources would be interpreted and protected through the expansion of the Park boundary. The long-term cumulative effects to visitor experience would be beneficial, supporting the Park's interpretive program through educational opportunities at the newly acquired sites. The long-term cumulative effects to operations when added to current maintenance activities would be negligible to minor, as there may be some maintenance needs at the new sites to support visitation at the sites. Activities might include patrols, trail maintenance (if limited trails were constructed), and maintenance of wayside areas. Under Alternative B, when added to current impacts the long-term cumulative effects to soils, wetlands, and vegetation would be beneficial, as development of the sites would be limited to waysides and potential limited trails and the sites would be protected from large scale development from park ownership and management and the sites would become part of the park's exotic plant management program.

## **Part Four: Consultation and Coordination**

The National Park Service (NPS) places a high priority on public involvement and on giving the public an opportunity to comment on proposed actions. Fort Frederica National Monument is consulting and coordinating with a variety of federal, state, and local governments and organizations during the preparation and review of this EA.

The National Environmental Policy Act (NEPA) regulations require an “early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” To determine the scope of issues to be analyzed in depth within this boundary study/EA, meetings were conducted with NPS staff, interested stakeholders, and members of the public. Three public scoping sessions took place in June of 2008 to discuss the process, timeline, and national criteria to be considered when conducting a boundary study. Twenty-two residents and representatives of interested groups attended these meetings. The public response was positive and all were curious about the federal process. Newspapers across the United States carried a story from the Associated Press and Georgia Public Radio aired an interview with the Superintendent.

In addition, in accordance with the NEPA process, U.S. Fish & Wildlife Service has been contacted, as have other federal, state, and local agencies whose interest, authority, or jurisdiction are important to the selection of alternatives for implementation.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. In accordance with the regulations implementing Section 106, letters initiating the process were sent to the Georgia State Historic Preservation Office.

Public involvement during the NEPA process includes public scoping (as discussed above), public notice of availability and review of the EA, and responses to substantive comments submitted by the public. This EA will be available for public review for 30 days. A copy of this EA has been sent to the agencies listed below, in addition to anyone who requests a copy. Letters, and in some cases documents, were sent to those on the park’s mailing list informing them of the review period and directing them to NPS Planning, Environment, and Public Comment website. During this public review period, written comments on the EA are invited. Comments may be submitted electronically via the NPS Planning, Environment, and Public Comment website <http://parkplanning.nps.gov/fofr>.

No boundary adjustment outlined in this Study may be accomplished without authorization by the United States Congress. The implementation of actions related to a boundary adjustment will depend on future funding and Servicewide priorities. The approval of a boundary adjustment does not guarantee that funding needed to acquire land and implement the proposed actions will be forthcoming.

### **Study Team and Advisors**

#### **Fort Frederica National Monument**

Michael W. Byrne, Acting Integrated Resource Specialist

Katie Morris, Administrative Officer

Denise Spear, Former Cultural Resource Specialist

Chad A Thomas, Facility Manager  
 Mary Beth Wester, Superintendent

**National Park Service Southeast Regional Office**

Jami Hammond, Regional Environmental Coordinator  
 Rich Sussman, Former Chief, Planning and Compliance Division  
 Ben West, Chief, Planning and Compliance Division  
 Amy Wirsching, Project Manager, Community Planner

**List of Agencies and Organizations to Which Copies of the EA Were Distributed**

In addition to the consultation and coordination referenced above, the following agencies and organizations were notified of the release of the EA for public comment and/or sent a copy of the EA.

| Stakeholders   |   |
|--|---|
| <b>State and Federal Elected Officials</b>                             |   |
| Senator Saxby Chambliss, U.S. Senate                                   | Senator John Hardy Isakson, U.S. Senate                               |
| Congressman Jack Kingston, U.S. House of Representatives, 1st District |   |
| <b>Other Stakeholders</b>  |   |
| The Trust for Public Land  | Georgia Department of Natural Resources, State Parks & Historic Sites |
| U.S. Army Corp of Engineers, Savannah District                         | Glynn County Community Development                                    |
| Fort King George Historic Site   | Coastal Georgia Regional Development Center                           |
| Armstrong Atlantic University, History Department                      | Keep Brunswick-Golden Isles Beautiful                                 |
| National Parks Conservation Association, Southeast Regional Office     | Georgia Department of Economic Development                            |
| Georgia Southern University, Department of History                     | Coastal Georgia Historical Society                                    |
| Brunswick & Glynn County Development Authority                         | Wesley United Methodist Church  |
| Georgia Department of Natural Resources, Coastal Resources Division    | Cassina Garden Club   |
| Fort Frederica Association   | Council of Garden Clubs   |
| Glynn Environmental Coalition  | Neptune Garden Club, President  |
| Golden Isles Convention and Visitors Bureau                            | Frederica Presbyterian Church   |
| Brunswick-Golden Isles Chamber of Commerce                             | First African Baptist Church  |
| Oglethorpe Point Elementary School                                     | Live Oaks Garden Club   |
| U.S. Fish and Wildlife Service   | State Historic Preservation Office                                    |
| Property Owners  |   |
| Phillip and Linda Allen  | Catherine and Stephen Squire  |
| Christ Church Episcopal  | St. Simons Land Trust   |

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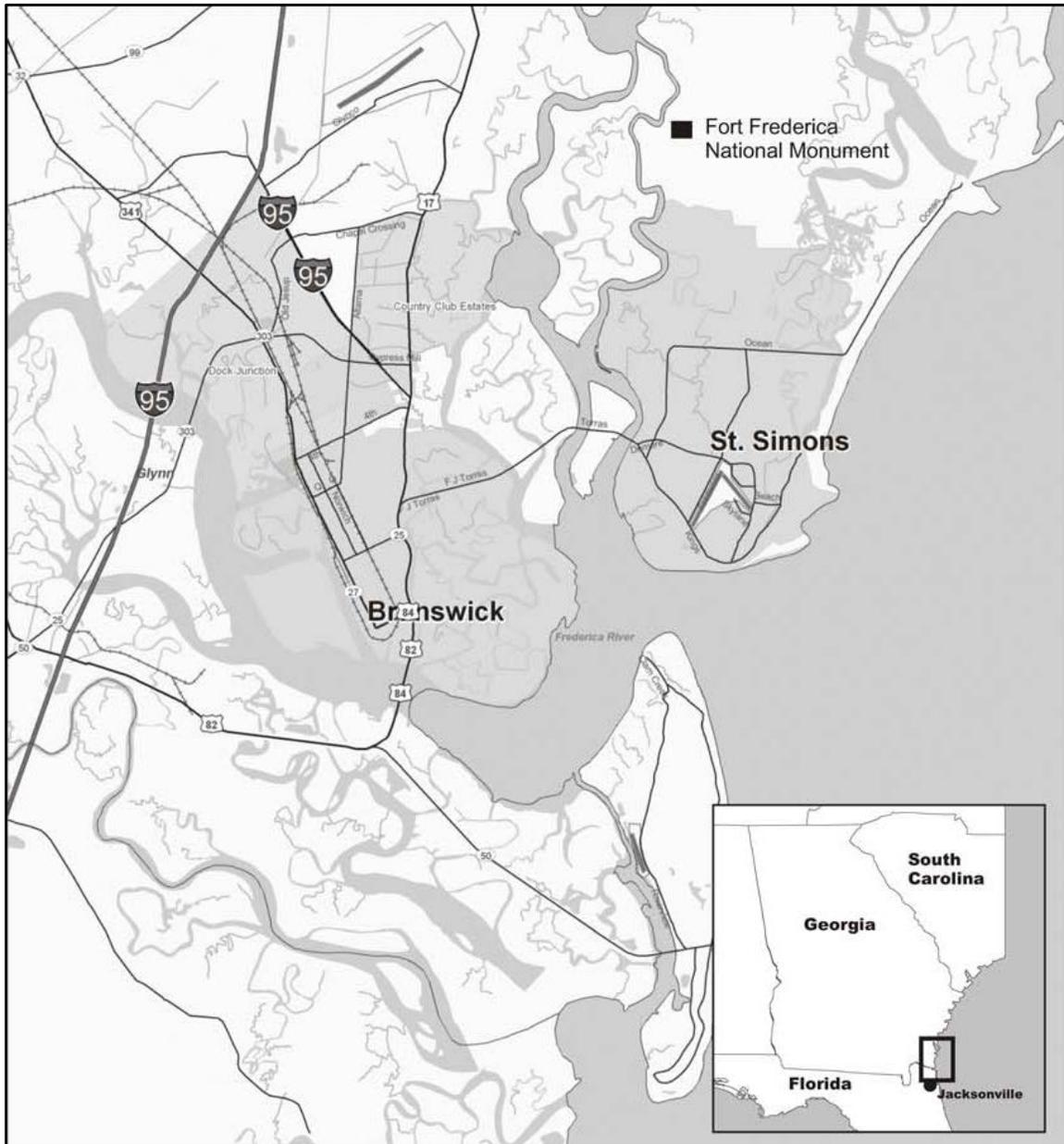
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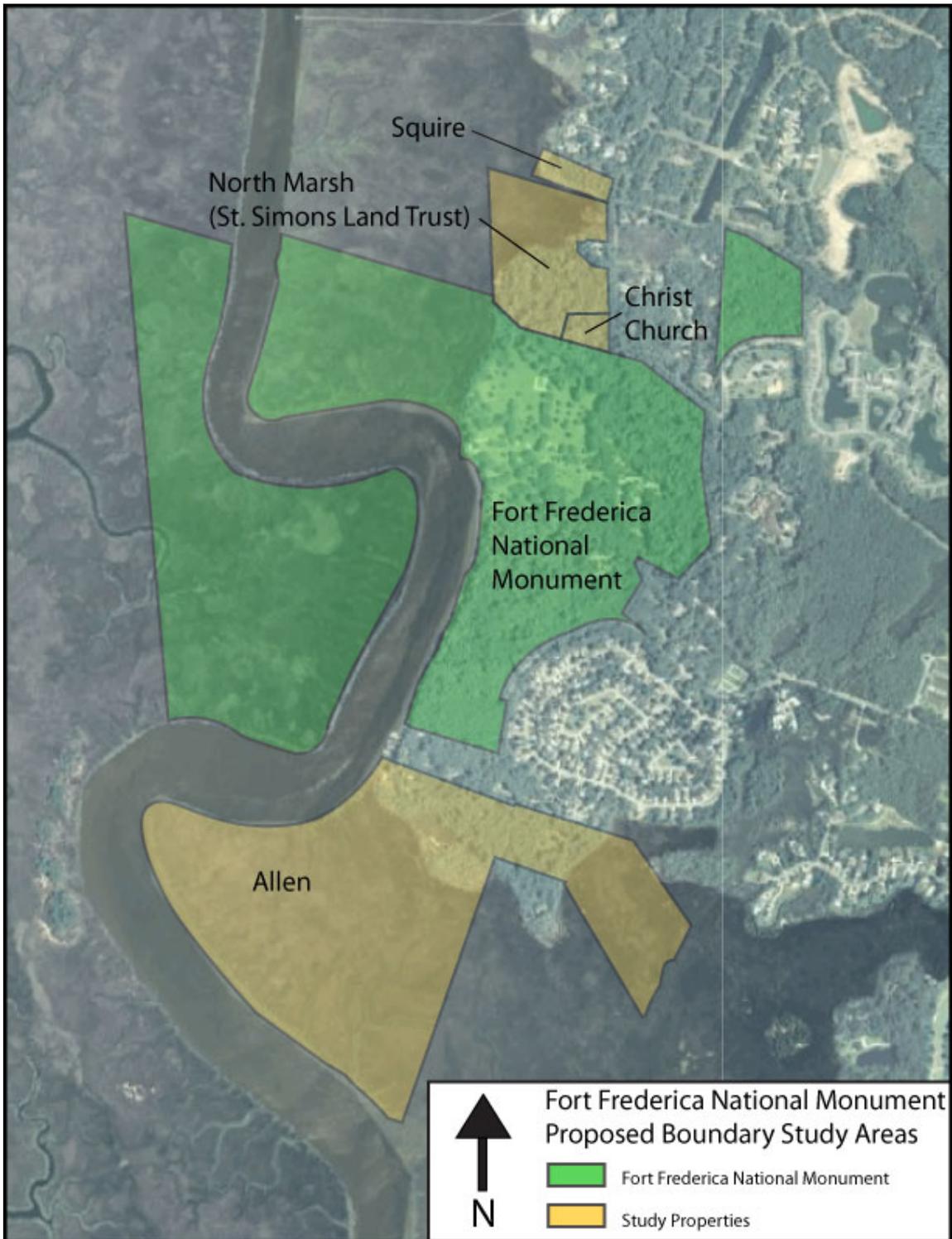
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Wetland and Ecological Consultants. 2010 *Natural Resources Overview Fort Frederica Boundary Study*. Prepared for Saint Simon Land Trust

# Maps of Fort Frederica National Monument Boundary and Study Areas



Map 1: Location Map



Map 2: Proposed Boundary Study Areas

## Images of Fort Frederica National Monument and Potential Additions

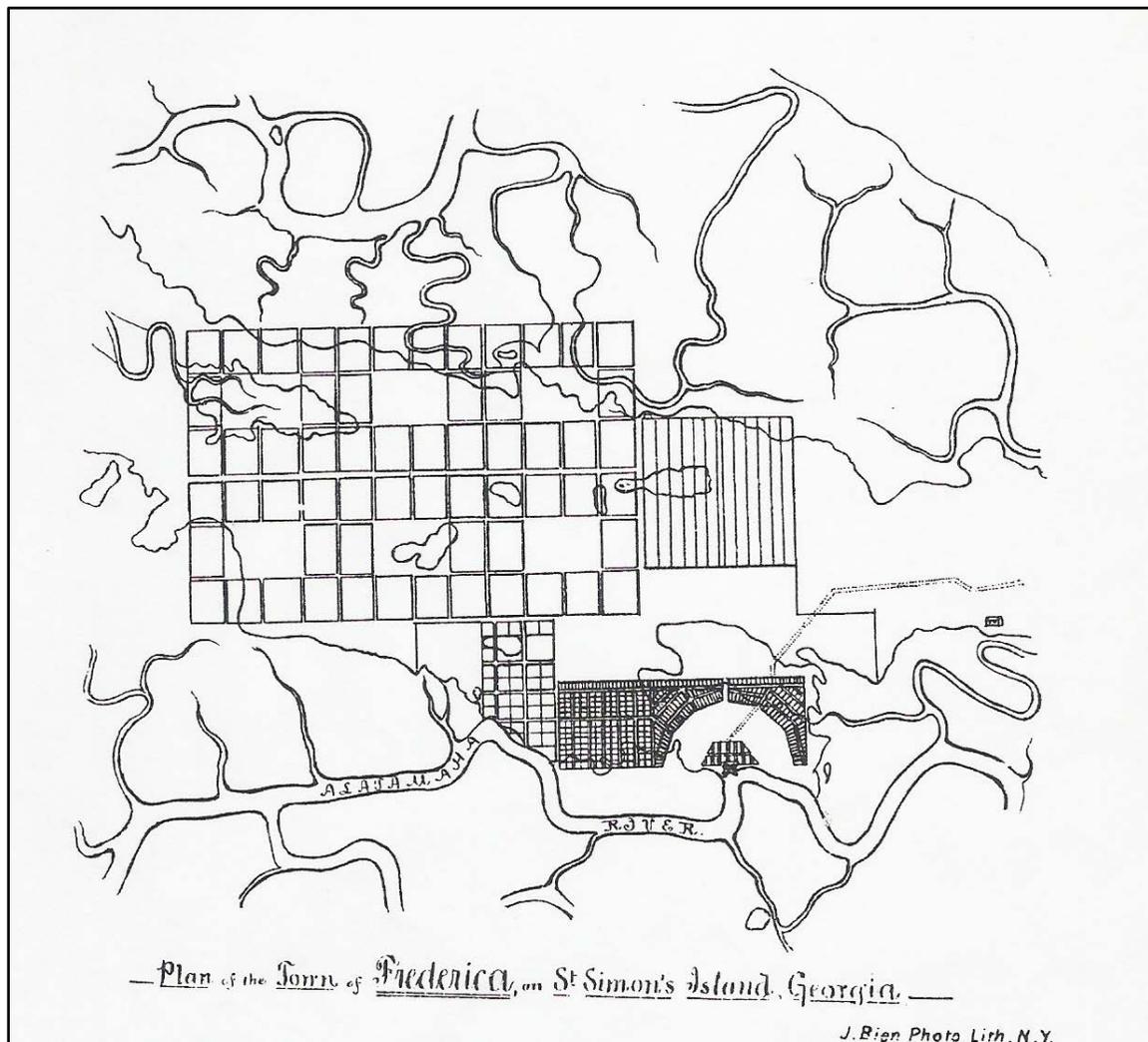


Image Reference: Plan of the Town of Frederica on St. Simons Island. British Museum; Charles Jones, *Dead Towns of Georgia*, (1834); CGHS, v. 4.

Image 1: 1736? Map Depicting the 5- Acre Lots and the 1 Acre Garden Spots

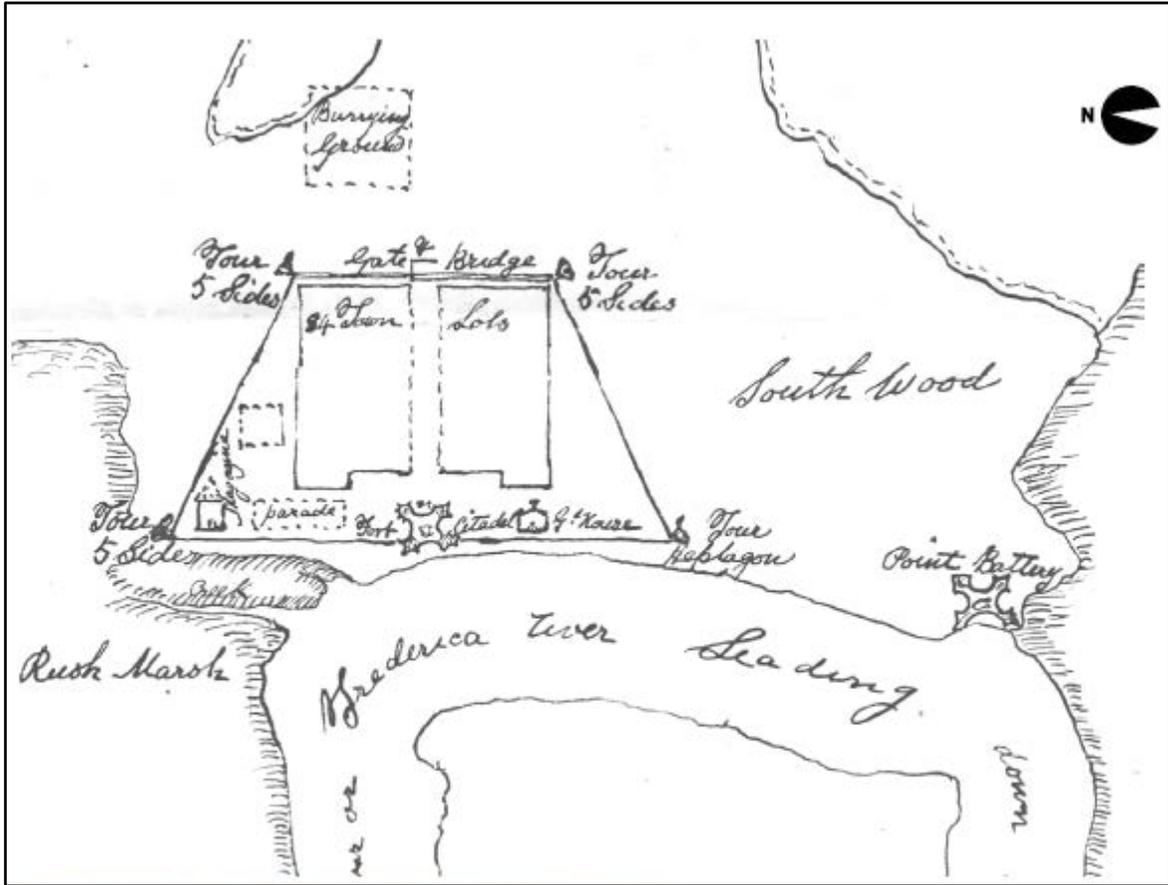


Image Reference: Map of the Town and Commons of Frederica, St. Simons Island, Georgia  
 On File at the Georgia Archives, Atlanta, Georgia

Image 2: 1796 Joshua Miller Map Showing the Point Battery South of the  
 Town and Fort of Frederica

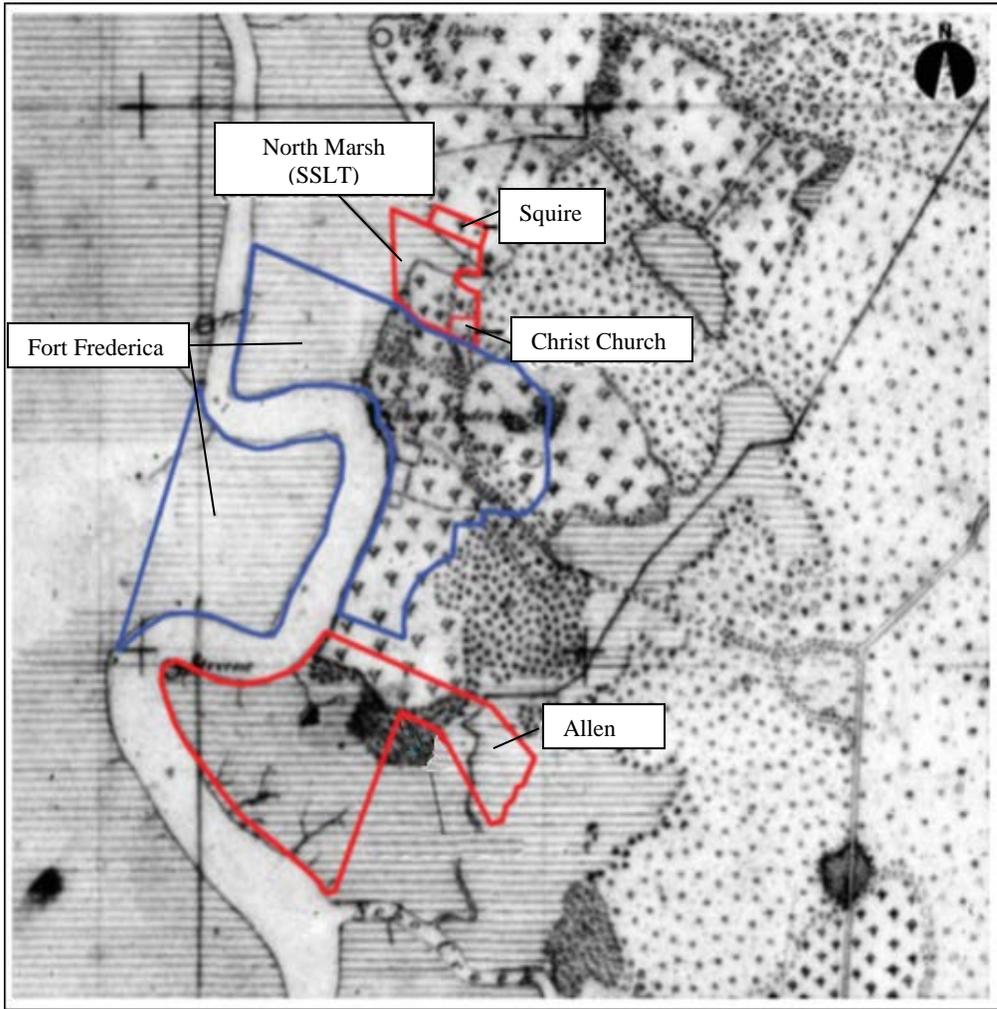


Image Reference: Topography of St. Simons Island, Long island and Port of Little St. Simons Island, Georgia, Surveyed 1869.  
<http://alabamamaps.ua.edu/historicalmaps/Coastal%20Survey%20Maps/georgia.htm>

Image 3: 1869 Coast Guard Topographic Map

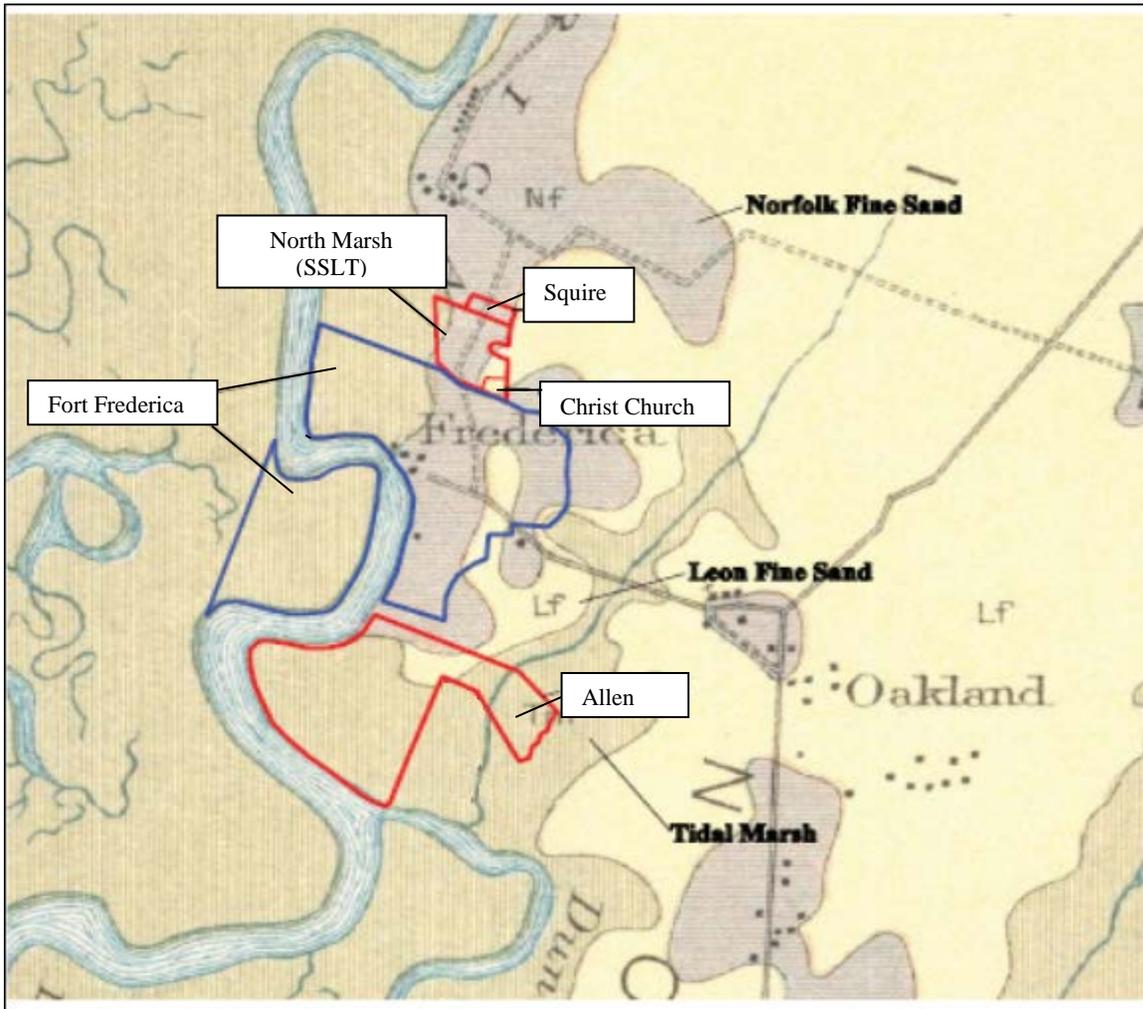


Image Reference: <http://alabamamaps.ua.edu/historicalmaps/soilsurvey/Georgia/georgia.html>

Image 4: 1911 Glynn County Soil Map

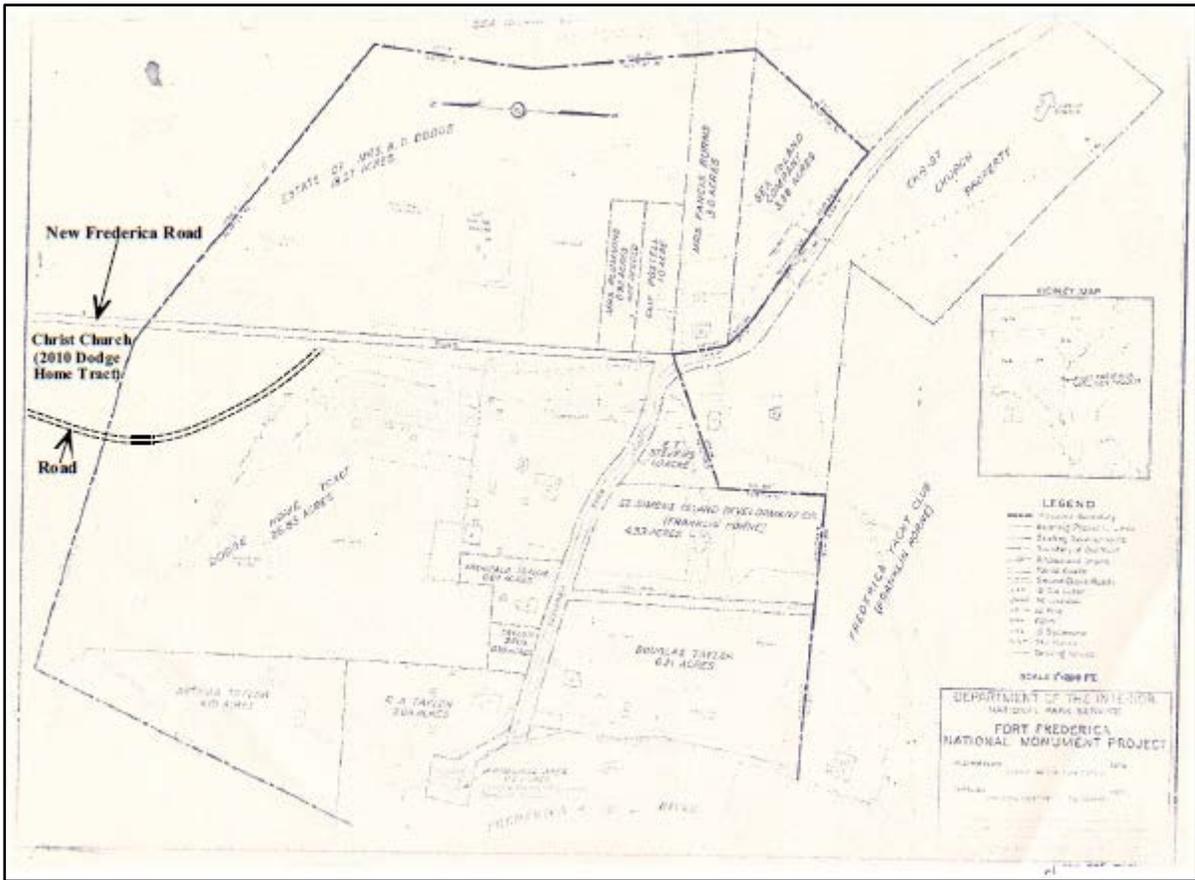


Image Reference: On file at Fort Frederica National Monument, St. Simons Island, Georgia

Image 5: 1938 Map Showing the Locations of the Original Dodge Home Property and Old and New Frederica Roads



Image 6: Possible site of Point Battery, Facing West, Allen Property



Image 7: Interior Wetland in North Marsh Property



Image 8: Interior Wetland in North Marsh Property

**Table 1: Listed Species in Glynn County**

| <b>Birds</b>  | <b>Status</b>       |
|---|---------------------|
| Piping Plover ( <i>Charadrius melodus</i> )<br>Population: except Great Lakes watershed | Threatened          |
| Red Knot ( <i>Calidris canutus rufa</i> )   | Proposed Threatened |
| Wood stork ( <i>Mycteria americana</i> )<br>Population: AL, FL, GA, SC                  | Threatened          |
| <b>Fishes</b>   |                     |
| Shortnose sturgeon ( <i>Acipenser brevirostrum</i> )<br>Population: Entire              | Endangered          |
| <b>Mammals</b>  |                     |
| North Atlantic right Whale ( <i>Eubalaena glacialis</i> )<br>Population: Entire         | Endangered          |
| West Indian Manatee ( <i>Trichechus manatus</i> )<br>Population: Entire                 | Endangered          |
| <b>Reptiles</b>   |                     |
| Eastern Indigo snake ( <i>Drymarchon corais couperi</i> )<br>Population: Entire         | Threatened          |
| Gopher tortoise ( <i>Gopherus polyphemus</i> )<br>Population: eastern                   | Candidate           |
| Green sea turtle ( <i>Chelonia mydas</i> )<br>Population: except where endangered       | Threatened          |
| Loggerhead sea turtle ( <i>Caretta caretta</i> )<br>Population: Northwest Atlantic DPS  | Threatened          |

**Table 1: Listed Species in Glynn County, Cont.**

| <b>Migratory Birds of Concern</b>                                |   |  |
|--|---|--|
| <b>Species Name</b>  | <b>Bird of Conservation Concern (BCC)</b> | <b>Seasonal Occurrence in Project Area</b> |
| American Kestrel<br>( <i>Falco sparverius ssp. paulus</i> )      | Yes                                       | Year-round                                 |
| American Oystercatcher<br>( <i>Haematopus palliatus</i> )        | Yes                                       | Year-round                                 |
| American bittern<br>( <i>Botaurus lentiginosus</i> )             | Yes                                       | Wintering                                  |
| Black Skimmer<br>( <i>Rynchops niger</i> )                       | Yes                                       | Year-round                                 |
| Black rail<br>( <i>Laterallus jamaicensis</i> )                  | Yes                                       | Breeding                                   |
| Brown-headed Nuthatch<br>( <i>Sitta pusilla</i> )                | Yes                                       | Year-round                                 |
| Common Ground-Dove<br>( <i>Columbina passerina ssp. exigua</i> ) | Yes                                       | Year-round                                 |
| Least Bittern<br>( <i>Ixobrychus exilis</i> )                    | Yes                                       | Breeding                                   |
| Lesser Yellowlegs<br>( <i>Tringa flavipes</i> )                  | Yes                                       | Wintering                                  |
| Marbled Godwit<br>( <i>Limosa fedoa</i> )                        | Yes                                       | Wintering                                  |
| Mississippi Kite<br>( <i>Ictinia mississippiensis</i> )          | Yes                                       | Breeding                                   |
| Rusty Blackbird<br>( <i>Euphagus carolinus</i> )                 | Yes                                       | Wintering                                  |
| Sedge Wren<br>( <i>Cistothorus platensis</i> )                   | Yes                                       | Wintering                                  |
| Short-billed Dowitcher<br>( <i>Limnodromus griseus</i> )         | Yes                                       | Wintering                                  |
| Swainson's Warbler<br>( <i>Limnothlypis swainsonii</i> )         | Yes                                       | Breeding                                   |
| Wood Thrush<br>( <i>Hylocichla mustelina</i> )                   | Yes                                       | Breeding                                   |
| Worm eating Warbler<br>( <i>Helmitheros vermivorum</i> )         | Yes                                       | Migrating                                  |
| Yellow Rail<br>( <i>Coturnicops noveboracensis</i> )             | Yes                                       | Wintering                                  |