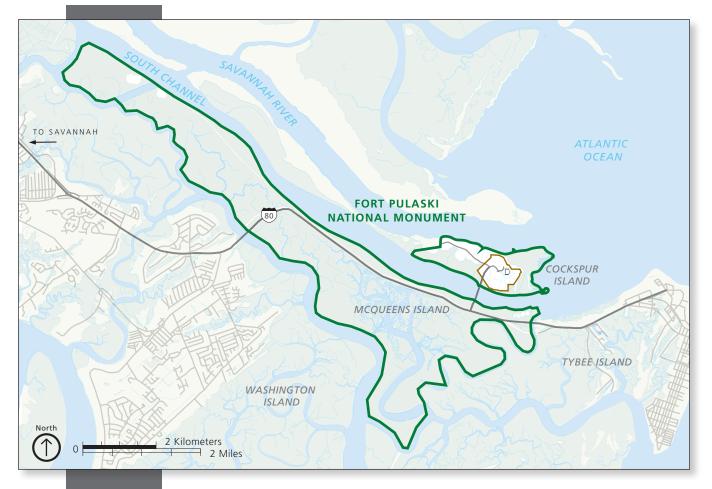
Foundation Document Fort Pulaski National Monument

Georgia

August 2016

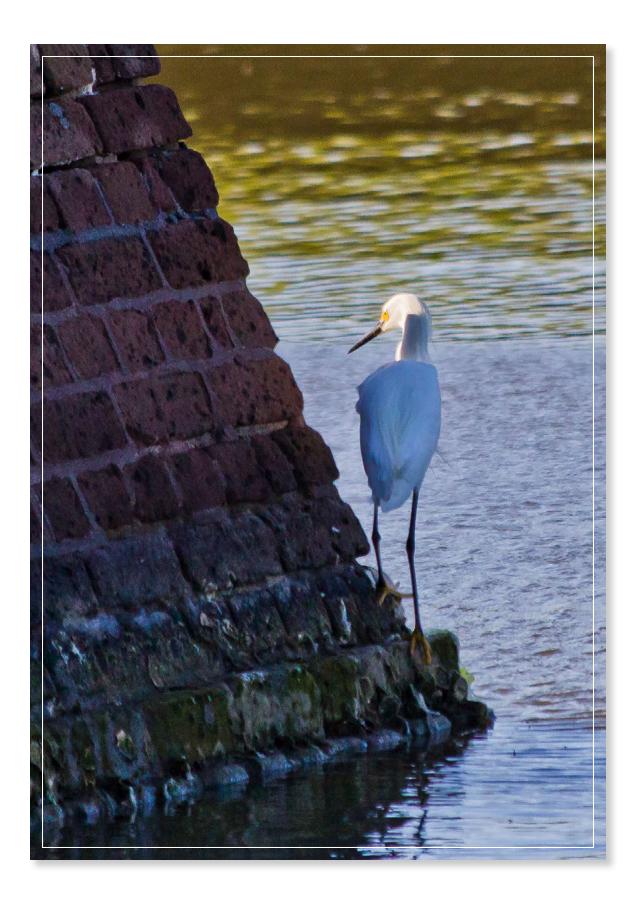






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Mission of the National Park Service

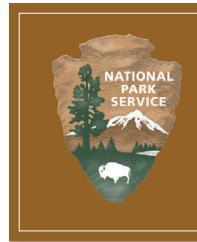
The National Park Service (NPS) preserves unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. The National Park Service cooperates with partners to extend the benefits of natural and cultural resource conservation and outdoor recreation throughout this country and the world.

The NPS core values are a framework in which the National Park Service accomplishes its mission. They express the manner in which, both individually and collectively, the National Park Service pursues its mission. The NPS core values are:

- **Shared stewardship**: We share a commitment to resource stewardship with the global preservation community.
- **Excellence**: We strive continually to learn and improve so that we may achieve the highest ideals of public service.
- Integrity: We deal honestly and fairly with the public and one another.
- Tradition: We are proud of it; we learn from it; we are not bound by it.
- **Respect**: We embrace each other's differences so that we may enrich the well-being of everyone.

The National Park Service is a bureau within the Department of the Interior. While numerous national park system units were created prior to 1916, it was not until August 25, 1916, that President Woodrow Wilson signed the National Park Service Organic Act formally establishing the National Park Service.

The national park system continues to grow and comprises more than 400 park units covering more than 84 million acres in every state, the District of Columbia, American Samoa, Guam, Puerto Rico, and the Virgin Islands. These units include, but are not limited to, national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House. The variety and diversity of park units throughout the nation require a strong commitment to resource stewardship and management to ensure both the protection and enjoyment of these resources for future generations.



The arrowhead was authorized as the official National Park Service emblem by the Secretary of the Interior on July 20, 1951. The sequoia tree and bison represent vegetation and wildlife, the mountains and water represent scenic and recreational values, and the arrowhead represents historical and archeological values.

Introduction

Every unit of the national park system will have a foundational document to provide basic guidance for planning and management decisions—a foundation for planning and management. The core components of a foundation document include a brief description of the park as well as the park's purpose, significance, fundamental resources and values, other important resources and values, and interpretive themes. The foundation document also includes special mandates and administrative commitments, an assessment of planning and data needs that identifies planning issues, planning products to be developed, and the associated studies and data required for park planning. Along with the core components, the assessment provides a focus for park planning activities and establishes a baseline from which planning documents are developed.

A primary benefit of developing a foundation document is the opportunity to integrate and coordinate all kinds and levels of planning from a single, shared understanding of what is most important about the park. The process of developing a foundation document begins with gathering and integrating information about the park. Next, this information is refined and focused to determine what the most important attributes of the park are. The process of preparing a foundation document the essential information that is necessary for park management to consider when determining future planning efforts, outlining key planning issues, and protecting resources and values that are integral to park purpose and identity.

While not included in this document, a park atlas is also part of a foundation project. The atlas is a series of maps compiled from available geographic information system (GIS) data on natural and cultural resources, visitor use patterns, facilities, and other topics. It serves as a GIS-based support tool for planning and park operations. The atlas is published as a (hard copy) paper product and as geospatial data for use in a web mapping environment. The park atlas for Fort Pulaski National Monument can be accessed online at: http://insideparkatlas.nps.gov/.



Part 1: Core Components

The core components of a foundation document include a brief description of the park, park purpose, significance statements, fundamental resources and values, other important resources and values, and interpretive themes. These components are core because they typically do not change over time. Core components are expected to be used in future planning and management efforts.

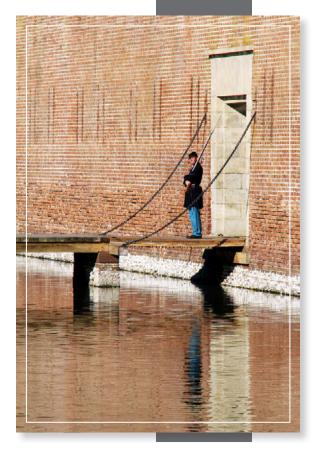
Brief Description of the Park

Fort Pulaski National Monument was established by Presidential Proclamation (Calvin Coolidge) No. 1713 (43 Stat. 1968) on October 15, 1924, and was later transferred to the Department of the Interior as part of the national park system in 1933. The national monument, located between Savannah and Tybee Island on the Georgia coast, encompasses 5,623 acres on Cockspur and McQueens Islands. Within this setting, the monument contains a broad range of significant resources that reflect both the natural and cultural history of Georgia on the Atlantic coast.

Cockspur Island, at the mouth of the Savannah River, has long been a site of defensive importance. First, in 1761 it was the location of Fort George, a small British battery on the island's south shore. Then, in 1795–96 the island was the location of Fort Greene, an American fort built following the Revolutionary War. The park's land holding on Cockspur Island centers on Fort Pulaski, a well-preserved, massive brick fortification considered invincible when it was built in the first half of the 19th century. The fort was one unit in a defensive system of forts planned and built to protect the eastern seaboard cities of the United States after the British burned the capital of Washington, D.C., during the War of 1812. Before the American Civil War, Georgia state troops took control of Fort Pulaski, later turning the fort over to the Confederacy after Georgia seceded from the Union in January 1861. On April 10, 1862, Union batteries on Tybee Island opened fire on Fort Pulaski, and within 30 hours the fort's southeastern wall was

breached and the Confederate garrison surrendered. The success of the short siege was due to the use of rifled cannons by the Union artillery. These new weapons were able to fire their elongated projectiles farther and with more accuracy than the smoothbore cannons that Fort Pulaski had been built to withstand. The Battle of Fort Pulaski transformed all the masonry forts built as part of the Third System of U.S. coastal defense from impenetrable bastions of ingenious engineering to obsolete symbols of U.S. military defense.

Within six weeks of the Confederate surrender of Fort Pulaski, Federal forces assumed control of the fort and repaired the damage, and all shipping in and out of Savannah ceased, successfully enforcing the Union's blockade of this vital southern port. As the war dragged on, the garrison of Federal soldiers fell from the 600 that moved in during the initial occupation to a reduced force of around 250 men. In October 1864, Federal troops stationed at Fort Pulaski accepted transfer of a group of imprisoned Confederate officers who later became known as the Immortal 600. During their incarceration at Fort Pulaski, 13 prisoners died, mostly of dehydration due to dysentery, and were buried on-site at Cockspur Island. In March 1865, the other prisoners were sent to Fort Delaware where conditions were somewhat better than at Fort Pulaski. After the war ended, Fort Pulaski continued as a military and political prison for a short time before it was officially closed in 1873. Although U.S. military interest in the site was renewed during the Endicott era of coastal defense during the 1890s, the site lay mostly dormant until President Calvin Coolidge established the fort as a national monument in 1924.





Other Cockspur Island historic resources within the park include the John Wesley Memorial; 1830s dikes, ditches, and tidal gates built to prepare the island for the fort's construction; the 1856 Cockspur Island Lighthouse; Civil War-era mortar batteries; Battery Horace Hambright, an Endicott-era gun emplacement; and World War II-era bunkers constructed during the U.S. Navy's occupation of Cockspur Island between 1942 and 1947. Fort Pulaski National Monument has also been designated as an official site on the National Underground Railroad Network to Freedom.

The vast majority of Fort Pulaski National Monument consists of 5,000 acres of salt marsh on both Cockspur and McQueens Islands—land that was added to the monument during a 1936 boundary expansion. These tidal marshes, which formed in conjunction with barrier island development, have delicate ecological characteristics, including essential life support systems for shrimp, oysters, juvenile fish, and shellfish. Because its appearance has changed little in the last 150 years, the marshes provide visitors with a historic scene that greatly enhances the appreciation of the fort and the significance of its location as a coastal defense. McQueens Island retains its primeval character and human development on the island is mostly unnoticeable, making the majority of its 4,500-acre salt marsh eligible for federal wilderness designation.

Visitors come to Fort Pulaski National Monument to enjoy both the recreational and historical opportunities offered by the monument. Annual recreational visitation to the monument has averaged approximately 339,000 since 1995. Most visitors participate in day-use activities such as viewing exhibits and watching the film in the Mission 66-era visitor center, taking self-guided or guided tours of the fort, participating in special events and educational programs, walking on Cockspur Island trails, fishing along the islands' shores, oyster harvesting, and boating or kayaking in the Savannah River and Oyster Creek.

Fort Pulaski National Monument

Park Purpose

The purpose statement identifies the specific reason(s) for establishment of a particular park. The purpose statement for Fort Pulaski National Monument was drafted through a careful analysis of its enabling legislation and the legislative history that influenced its development. The park was established by presidential proclamation on October 15, 1924 (see appendix A for presidential proclamation and legislative acts). The purpose statement lays the foundation for understanding what is most important about the park.

FORT PULASKI NATIONAL MONUMENT preserves and interprets the 19th century masonry fort and associated landscape that illustrate the evolution of civil engineering and military technology, a continuum of historic resources from colonial times to the present day, and approximately 5,000 acres of nearly pristine salt marsh on McQueens and Cockspur Islands in Savannah, Georgia.



Park Significance

Significance statements express why a park's resources and values are important enough to merit designation as a unit of the national park system. These statements are linked to the purpose of Fort Pulaski National Monument and are supported by data, research, and consensus. Statements of significance describe the distinctive nature of the park and why an area is important within a global, national, regional, and systemwide context. They focus on the most important resources and values that will assist in park planning and management.

The following significance statements have been identified for Fort Pulaski National Monument. (Please note that the sequence of the statements does not reflect the level of significance.)

- The bombardment and subsequent breaching of the massive brick walls by Federal artillery during the Battle of Fort Pulaski in April 1862 demonstrated for the first time the tremendous battering power of rifled artillery, bringing to a close the era of impregnable masonry fortifications.
- Constructed between 1829 and 1847, Fort Pulaski is one of the best preserved examples of Third System masonry coastal fortifications built to protect U.S. harbors following the War of 1812.
- The complex network of dikes, ditches, and drainage systems that still function today made the construction of Fort Pulaski possible in 1829 and influenced the development that shaped Cockspur Island.
- Due to its strategic location where the Savannah River meets the Atlantic Ocean, Cockspur Island, its lighthouse, and its cultural landscape reflect maritime history and an evolution of coastal defense from colonial times to World War II.
- After the Battle of Fort Pulaski, the fort became a safe haven for freedom seekers from 1862 until the end of the American Civil War.
- Recognized as part of the National Oceanic and Atmospheric Administration's national system of Marine Protected Areas, and eligible for federal wilderness designation, Fort Pulaski National Monument preserves approximately 5,000 acres on Cockspur and McQueens Islands of virtually undisturbed salt marshes, a rich and diverse habitat that is critically important to the ecological health and economy of the Southeast Atlantic coastal region.



Fundamental Resources and Values

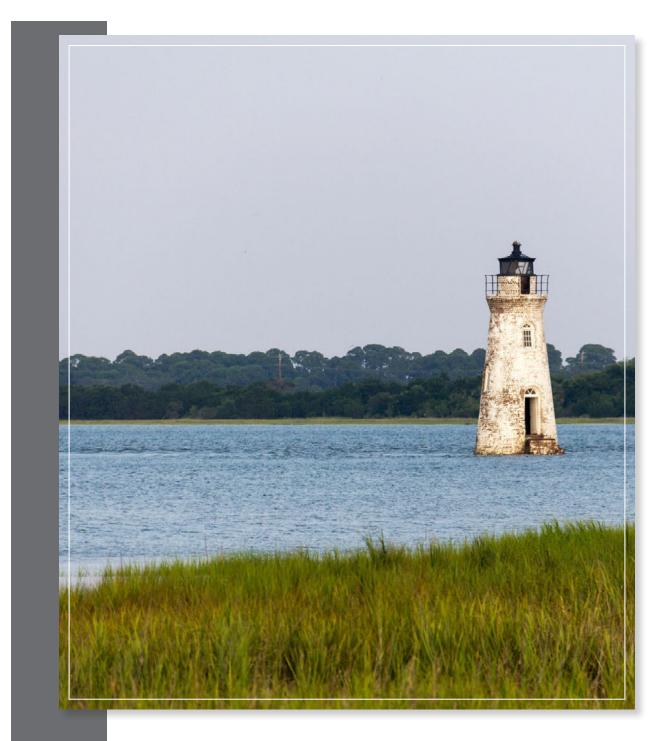
Fundamental resources and values (FRVs) are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to warrant primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance. Fundamental resources and values are closely related to a park's legislative purpose and are more specific than significance statements.

Fundamental resources and values help focus planning and management efforts on what is truly significant about the park. One of the most important responsibilities of NPS managers is to ensure the conservation and public enjoyment of those qualities that are essential (fundamental) to achieving the purpose of the park and maintaining its significance. If fundamental resources and values are allowed to deteriorate, the park purpose and/or significance could be jeopardized.

The following fundamental resources and values have been identified for Fort Pulaski National Monument:

- Fort Pulaski. Constructed between 1829 and 1847, Fort Pulaski was one of the series of massive Third System masonry coastal fortifications built to protect the Atlantic seaboard after the War of 1812. The hexagonal fort is situated on 70-foot-long pilings driven into the mud to support wood subflooring and the weight of the more than 25 million bricks used in the fort's construction. The fort's walls, an average of 7.5 feet thick, were considered impenetrable until Union rifled cannons managed to destroy the southeast wall during the 36-hour Battle of Fort Pulaski in April 1862. Following the battle, Union forces took control of the fort, mended the damaged parts of the masonry walls, and occupied Fort Pulaski until the end of the Civil War.
- Cultural Landscape of Fort Pulaski Including the Dikes, Ditches, and Drainage System. The cultural landscape of Fort Pulaski represents more than 200 years of development and military presence on Cockspur Island. The area is bordered by the twomile dike and ditch system developed in the 1830s to prepare the site for construction. Key elements of the cultural landscape of Fort Pulaski include archeological sites and resources related to the 18th century Forts George and Greene; the remains of the North Channel Pier; tide gates, channels, and dikes that comprise the historic drainage system; cisterns, foundations, and archeological resources associated with the Construction Village that was created during the building of Fort Pulaski; the burial site of the Confederate prisoners of war now called The Immortal 600; Endicott-era Battery Hambright; historic and cultural sounds associated with the island; and the views and vistas along the historic firing lines of the fort.
- Museum Collection. The Fort Pulaski National Monument museum collection contains approximately 41,600 objects including numerous archeological objects and data that have been systematically recovered from within the monument's boundaries and associated field records. The bulk of artifacts recovered from the fort are bottles and similar glass or pottery material that was collected during the Civilian Conservation Corps (CCC) survey and restoration efforts during the 1930s. Other objects include Civil War era cannon and projectiles; a Civil War flag collection; military uniforms and accessories; personal effects of soldiers; objects relating to the fort's structure (architectural elements and fragments, building materials, and construction tools); and interpretive collections of reproductions used in artillery demonstrations.





• Cockspur Island Lighthouse. The Cockspur Island Lighthouse, constructed in 1856 to replace an earlier day-mark navigational aid that was destroyed by a hurricane, is on an islet built of oyster shells and marsh grass off the southeastern tip of Cockspur Island. The small lighthouse stood guard over the South Channel of the Savannah River, and, although it was in the direct line of fire, the beacon received only minimal damage during the 30-hour bombardment of the fort during the Battle of Fort Pulaski. After surviving the Civil War and numerous hurricanes during the late 19th century, the light was extinguished in 1909 when the Port of Savannah began routing large shipping vessels to the deeper, more navigable North Channel. On August 14, 1958, by presidential proclamation, the Cockspur Island Lighthouse was transferred from the U.S. Coast Guard to the National Park Service.

• McQueens Island Salt Marsh. The 4,500 acres of McQueens Island Salt Marsh bordered by Lazaretto Creek, Tybee River, and St. Augustine Creek comprise approximately 90% of Fort Pulaski National Monument. This pristine wetland provides an invaluable ecosystem service by filtering river water and improving the water quality of the monument while also serving as a refuge for protected bird, mammal, and reptile species. The area, which is one of the largest federally owned and protected salt marshes in the country, is recognized as a federal Marine Protected Area as well as class 2 waters for the recreational harvest of shellfish. Because the salt marsh generally appears to have been primarily affected by the forces of nature with minimal evidence of human activity and offers outstanding opportunities for solitude or primitive and unconfined recreation, it has been identified by the National Park Service as proposed for wilderness designation.

Other Important Resources and Values

Fort Pulaski National Monument contains other resources and values that are not fundamental to the purpose of the park and may be unrelated to its significance, but are important to consider in planning processes. These are referred to as "other important resources and values" (OIRV). These resources and values have been selected because they are important in the operation and management of the park and warrant special consideration in park planning.

The following other important resources and values have been identified for Fort Pulaski National Monument:

• John Wesley Memorial. Erected to commemorate the 1736 arrival of John Wesley (the founder of Methodism) in Georgia, the Wesley Memorial was dedicated in 1950 by the Georgia Society of the Colonial Dames of America. The memorial is a concrete cross that sits atop an 8-foot-tall brick column that stands in the general area where Wesley is believed to have held his first service on Cockspur Island. An inscription from Wesley's journal recounting his 1736 landing in Georgia is inscribed on a limestone plaque attached to the brick shaft and states:

"... about eight in the morning I first set foot on American ground. It was a small uninhabited island...over against Tybee, called by the English Peeper Island. Mr. Oglethorpe led us through the mooring land on the shore to a rising ground,... chose an open place surrounded with myrtles, bay, and cedars, which sheltered us from the sun and wind, and called our little flock together to prayers."

- Quarantine Station Cottage. The Quarantine Station Cottage was constructed between 1899 and 1903 by the U.S. Public Health Service as part of a larger quarantine complex on Cockspur Island. The Caribbean-style raised cottage, which was likely constructed as a quarantine station attendants' quarters, is an example of a popular vernacular architecture form seen along the Georgian Atlantic coastline. The quarantine complex was established on the island in 1891 and continued to expand throughout the first decades of the 20th century. The station closed in 1937 when a new headquarters was established in Savannah, and the land and buildings transferred to the Department of the Interior. By the 1950s, most of the station buildings were dilapidated, leading to their demolition by the National Park Service. The Quarantine Station Cottage is the only remaining building from the quarantine complex.
- World War II Bunkers. Two concrete bunkers were constructed on the west end of Cockspur Island by the U.S. Navy during its World War II-era occupancy of the island. The bunkers are almost completely covered with dirt and turf. They are located to the north and south sides of the service road and are occasionally used for storage.

Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from, and should reflect, park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all park significance statements and fundamental and other important resources and values.

Interpretive themes are an organizational tool that reveal and clarify meaning, concepts, contexts, and values represented by park resources. Sound themes are accurate and reflect current scholarship and science. They encourage exploration of the context in which events or natural processes occurred and the effects of those events and processes. Interpretive themes go beyond a mere description of the event or process to foster multiple opportunities to experience and consider the park and its resources. These themes help explain why a park story is relevant to people who may otherwise be unaware of connections they have to an event, time, or place associated with the park.

The following interpretive themes have been identified for Fort Pulaski National Monument:

- Technological innovations in rifled artillery unveiled at the Battle of Fort Pulaski rendered masonry forts obsolete and initiated a shift in national defense.
- For more than two centuries, Cockspur Island has provided a strategic location at the mouth of the Savannah River to protect the economic and political influence of the city.
- The harsh imprisonment of Confederate officers within the confines of Fort Pulaski challenged the conscience of their prison guards, illustrating the complicated legacy of the prisoner of war system during the Civil War.
- The fort's construction relied on a small village and bustling wharf that employed a variety of workers—skilled and unskilled, white and black, free and enslaved, northern and southern—and created a microcosm of early 19th century America.
- A marvel of 19th-century engineering, Fort Pulaski combined old-world military principles with state of the art technology and continues to impress visitors with its powerful and sophisticated design.





- The near-pristine salt marsh of McQueen's Island represents an outstanding example of one of the most vital ecosystems on the planet, providing key biogenic (self-reproducing) habitat for diverse species, and has been utilized by humans for thousands of years.
- During the social and economic recovery of the 1930s, several New Deal agencies helped transform Fort Pulaski into a national park. These activities typified the federal government's efforts to provide employment and promote civic investment for the future.
- The harsh environmental and intricate engineering challenges during the construction of Fort Pulaski helped shape the antebellum careers of Joseph K. F. Mansfield and Robert E. Lee, who met again as enemies at the Battle of Antietam.
- For years, the Cockspur Island Lighthouse stood watch over the Savannah River, welcoming vessels of commerce and prosperity and surviving storms, shipworms, and screaming shells of battle, and remains today a threatened treasure.
- By design, Fort Pulaski protected the thriving port of Savannah, but, after its surrender, the Union advancement of the Anaconda Plan tightened their blockade of the Confederate coastline.
- After the Battle at Fort Pulaski, Union-held Cockspur Island became a bastion of hope for enslaved people on the Georgia coast who risked their lives in search of freedom and opportunity.
- Fort Pulaski National Monument uses science to inform management regarding an array of resources and enable the park to adapt to a range of threats in the face of an uncertain and complex future.

Part 2: Dynamic Components

The dynamic components of a foundation document include special mandates and administrative commitments and an assessment of planning and data needs. These components are dynamic because they will change over time. New special mandates can be established and new administrative commitments made. As conditions and trends of fundamental and other important resources and values change over time, the analysis of planning and data needs will need to be revisited and revised, along with key issues. Therefore, this part of the foundation document will be updated accordingly.

Special Mandates and Administrative Commitments

Many management decisions for a park unit are directed or influenced by special mandates and administrative commitments with other federal agencies, state and local governments, utility companies, partnering organizations, and other entities. Special mandates are requirements specific to a park that must be fulfilled. Mandates can be expressed in enabling legislation, in separate legislation following the establishment of the park, or through a judicial process. They may expand on park purpose or introduce elements unrelated to the purpose of the park. Administrative commitments are, in general, agreements that have been reached through formal, documented processes, often through memorandums of agreement. Examples include easements, rights-of-way, arrangements for emergency service responses, etc. Special mandates and administrative commitments can support, in many cases, a network of partnerships that help fulfill the objectives of the park and facilitate working relationships with other organizations. They are an essential component of managing and planning for Fort Pulaski National Monument.

For more information about the existing administrative commitments for Fort Pulaski National Monument, please see appendix B. There are no special mandates for Fort Pulaski National Monument.

Assessment of Planning and Data Needs

Once the core components of part 1 of the foundation document have been identified, it is important to gather and evaluate existing information about the park's fundamental and other important resources and values, and develop a full assessment of the park's planning and data needs. The assessment of planning and data needs section presents planning issues, the planning projects that will address these issues, and the associated information requirements for planning, such as resource inventories and data collection, including GIS data.

There are three sections in the assessment of planning and data needs:

- 1. analysis of fundamental and other important resources and values
- 2. identification of key issues and associated planning and data needs
- 3. identification of planning and data needs (including spatial mapping activities or GIS maps)

The analysis of fundamental and other important resources and values and identification of key issues leads up to and supports the identification of planning and data collection needs.

Analysis of Fundamental Resources and Values

The fundamental resource or value analysis table includes current conditions, potential threats and opportunities, planning and data needs, and selected laws and NPS policies related to management of the identified resource or value.



Fundamental Resource or Value	Fort Pulaski
Related Significance Statements	 The complex network of dikes, ditches, and drainage systems that still function today, made the construction of Fort Pulaski possible in 1829 and influenced the development that shaped Cockspur Island. The bombardment and subsequent breaching of the massive brick walls by Federal artillery during the Battle of Fort Pulaski in April 1862 demonstrated for the first time the tremendous battering power of rifled artillery, bringing to a close the era of impregnable masonry fortifications. Constructed between 1829 and 1847, Fort Pulaski is one of the best preserved examples of Third System masonry coastal fortifications built to protect U.S. harbors following the War of 1812. Due to its strategic location where the Savannah River meets the Atlantic Ocean, Cockspur Island and its cultural landscape reflects maritime history and an evolution of coastal defense from colonial times to World War II. After the Battle of Fort Pulaski, the fort became a safe haven for freedom seekers from 1862 until the end of the American Civil War.
Current Conditions and Trends	 Conditions Fort Pulaski National Monument is listed in the National Register of Historic Places. The fort's overall condition is good; ongoing maintenance addresses small concerns and limits deterioration. Specific maintenance and condition issues need to be researched and addressed to ensure future preservation and maintenance. Wood elements in the fort, including casemate doors, exterior casemate floors, and door frame on the quarters, are deteriorating. Many current masonry issues are the direct result of failed past preservation efforts. The monument uses the Fort Pulaski historic structure report for preservation and maintenance guidance. Research also has been conducted relating to preservation techniques and mortar to evaluate previous maintenance techniques and inform future preservation efforts. Trends Ongoing maintenance is needed to ensure the fort's preservation. An increasing backlog of maintenance and preservation efforts have been focused on best practice development and stopping or slowing the fort's gradual deterioration. In recent years the monument's priorities have shifted away from maintenance and upkeep of the masonry fort structure. A major restoration effort has focused on removing Portland cement applied during Civilian Conservation Corps (CCC) restoration efforts and replacing it with a less damaging mortar. Fort visitation and related visitor use is increasing.

Fundamental Resource or Value	Fort Pulaski
	Threats
	 Invasive plant and wildlife species living in the parade ground and fort walls pose management concerns.
	 The overpopulation of pigeons can detract from visitor experience and damage masonry. Vegetation growing on the structure weakens the masonry and contributes to brick deterioration.
	 Water intrusion, leaks from the terraplein caused by weak spots in the lead sheeting, can cause efflorescence and damage mortar and bricks.
	• Standing water in the fort can ruin parade ground landscaping and eventually affect the fort's wood substructure.
	• Sea level rise, high tide events, and storm surges can lead to rising groundwater tables, loss of land, flooding, and salt water intrusion, decreasing the effectiveness of the fort's drainage system and affecting the fort's structural integrity.
	Climate change may increase the incidence of large storms that could damage the fort.Deteriorating flooring throughout the fort is a visitor and staff safety concern.
	Deferred maintenance can contribute to overall deterioration.
	• Aging plumbing and electrical infrastructure added by the Civilian Conservation Corps and National Park Service can damage the fort through leaks and other system failures.
Threats and	 Increases in fort facilities to manage visitor use and carrying capacity could affect the fort's historic design and layout.
Opportunities	• Modern use of the fort and associated infrastructure by monument staff can contribute to the fort's deterioration.
	 Inappropriate visitor use such as climbing on fort walls is a safety concern and can damage the historic fabric of the structure.
	Regular visitor use can contribute to wear and tear of the building and grounds.
	• The short railing on top of the fort poses a visitor safety concern.
	Opportunities
	 Interpretive programs could be expanded to tell more inclusive stories of the people associated with the fort and help reach new and diverse audiences.
	 Increased outreach and local partnerships with educational institutions with historic preservation programs could help the monument address maintenance backlog and train young preservationists.
	 Groundwater use could be monitored using historic photographs to track past drainage water levels.
	 Fort Pulaski National Monument could partner with other parks that have similar resources and management issues to share staff knowledge and work to develop monument and NPS preservation best practices.
	 Volunteers could be used to help the facilities division complete routine maintenance and small repair projects.
	Cultural resource condition assessment.
	Visitor use study.
Data and/or GIS Needs	Research on preservation best practices.
	Acoustic monitoring and vibration study.
	Fort grillage structure assessment.

Fundamental Resource or Value	Fort Pulaski
Planning Needs	 Preservation treatment plan. Emergency response and recovery plan. Facilities management strategic plan. Long-range interpretive plan. Accessibility implementation plan. Climate change adaptation plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Historic Sites Act of 1935 National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" "Protection of Historic Properties" (36 CFR 800) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" Director's Order 28: Cultural Resource Management Director's Order 28A: Archeology The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act





Fundamental Resource or Value	Cultural Landscape of Fort Pulaski Including the Dikes, Ditches, and Drainage System.
Related Significance Statements	 The complex network of dikes, ditches, and drainage systems that still function today, made the construction of Fort Pulaski possible in 1829 and influenced the development that shaped Cockspur Island. Constructed between 1829 and 1847, Fort Pulaski is one of the best preserved examples of Third System masonry coastal fortifications built to protect U.S. harbors following the War of 1812. Due to its strategic location where the Savannah River meets the Atlantic Ocean, Cockspur Island and its cultural landscape reflects maritime history and an evolution of coastal defense from colonial times to World War II. After the Battle of Fort Pulaski, the fort became a safe haven for freedom seekers from 1862 until the end of the American Civil War.
Current Conditions and Trends	 Conditions Fort Pulaski National Monument is listed in the National Register of Historic Places. The 1975 nomination includes the fort, cisterns, village site, North Pier, Cockspur Island Lighthouse, Battery Horace Hambright, U.S. Coast Guard cottage, and John Wesley Memorial. The historic dike and ditch system encloses approximately 50 acres of cultural landscape features. This system, initially developed in the 1840s to keep the interior of the island dry, is the primary drainage system for the island and still boasts functioning tide gates, canals, and dikes. The compromised functionality of the historic dike system is an ongoing issue. Although numerous restoration efforts have helped temporarily improve the system's efficiency during NPS management, vegetation and oysters still clog drainage paths and strong rain or high groundwater levels result in flooding.

Fundamental Resource or Value	Cultural Landscape of Fort Pulaski Including the Dikes, Ditches, and Drainage System.
	Conditions (continued)
	• The Construction Village located between the North Pier and Fort Pulaski was washed away during an 1881 hurricane. Foundations and seven cisterns are the only remaining aboveground resources associated with the village. Archeological resources and an eighth cistern are underground.
	 In 1999, the NPS Southeast Archeological Center conducted extensive archeological excavations related to the Confederate prisoners of war cemetery. Findings of this survey led to the complete delineation of cemetery boundaries and identification of 37 separate burials, 19 to 21 of which were in the general area of the documented Confederate section.
	• In 2012, the Immortal 600 Sons of Confederate Veterans Camp 2600 funded construction of a brick perimeter wall around the cemetery and a stone marker dedicated to the members of the Immortal 600 who died while imprisoned at Fort Pulaski.
	• Historic documentation indicates that the search for the 18th century forts should focus on the mud flats at the southeastern end of Cockspur Island for Fort George and on the area around North Channel Pier for Fort Greene. Shovel tests conducted in 1999 in these areas failed to yield positive proof of the previous forts' locations.
Current Conditions and Trends	 Views and vistas from the fort during the Civil War would have been open in all directions. Vegetation removal efforts by the park date to the Mission 66 program. In the past, vegetation has been removed from the Demilune, cleared to create a vista from Highway 80, to clear the "field of fire" in front of the fort, to create a line of sight between Battery Hambright and the river, and to create a northeast vista looking from the fort toward the North Channel. The viewsheds currently are impaired by the 1930s visitor parking lot, the Mission 66 visitor center, and thick forestation in the fort's line of sight toward the battery locations on Tybee and McQueens Islands.
	• The 2013 general management plan proposes moving the visitor parking lot away from the fort so it no longer impairs historic views or archeological sites related to the Construction Village. This management activity was ultimately dismissed because the CCC-constructed parking lot is now being considered a historic monument-related landscape feature.
	• Many visitors with mobility issues opt to visit the visitor center and then sit on nearby benches or steps instead of visiting the fort.
	 Visitor use and appropriate recreational activities for the monument are guided by a Superintendent's Compendium.
	 The monument conducts periodic deer surveys to ensure the island's deer population does not exceed carrying capacity and negatively affect vegetation and other wildlife.
	 Trends Vegetation between the entry kiosk off Highway 80 and the fort has become denser and now obstructs the view from the road to the monument's historic resources.
	 Extreme erosion on the island's North Shore is affecting the historic North Pier and archeological resources.
	 Inefficient drainage can contribute to the large mosquito population at the monument. Visitors have asked for entrance fee refunds after experiencing the large number of mosquitos.
	• Rising sea level, high tide events, and storm surge may overwhelm the historic drainage system and lead to loss of land and habitat, rising groundwater tables, and salt water intrusion. Climate change increases risk of large storms, flooding, extreme heat events, coastline erosion, more invasive species, and alterations of the flow regime, water chemistry, and biotic community of ecosystems, all of which exacerbate risk to the monument, its archeological resources, and the overall cultural landscape.

Fundamental Resource or Value	Cultural Landscape of Fort Pulaski Including the Dikes, Ditches, and Drainage System.
	Threats
	 The Savannah Harbor Expansion Project will dredge the Savannah River deeper (42–47 feet) to facilitate larger ships. Larger cargo ships and increased shipping traffic in the North Channel will create more wake erosion along the North Shore.
	 Invasive plant and wildlife species can disrupt cultural landscapes and replace native species.
	 Pigeon nesting and acid from their droppings damages historic fabric and affects all monument structures.
	 Erosion is a major threat to the island's landscape. Shipping traffic and tides increase erosion along the river, the dike system experiences erosion from its regular use, and earthen structures show wear from visitor use and maintenance activities.
	 Mosquitos threaten visitor health and safety. Chatham County sprays pesticides to control the mosquito population, but this action could negatively affect other monument species.
	 Flooding on the island from raised groundwater levels or a storm surge can damage historic structures, destroy landscape features, and create a mosquito breeding area.
	 Inappropriate visitor use, including vandalism and climbing on historic structures, can damage the landscape.
	Opportunities
	 Additional historic structure reports would aid the staff in interpreting, protecting, and preserving the monument's other structures.
Threats and Opportunities	• The monument is working with University of Georgia's landscape architecture program on documentation and integrated studies of the preservation of Cockspur Island from natural and cultural perspectives and examination of sustainable landscapes. Other collaborative projects could include development of monitoring programs to measure the success of restoration efforts and the restoration of important historic viewsheds.
	 Increased interpretation could highlight the importance of Construction Village as a 19th century community of skilled workers, both freed and enslaved, and its association with the fort.
	 Public archeology programs undertaken with NPS Southeast Archeological Center would increase visitor awareness of the monument's archeological resources and provide additional educational and interpretive opportunities.
	• The South Atlantic Landscape Conservation Cooperative, established by the U.S. Fish and Wildlife Service, could be a potential partner for the monument. The cooperative funds experiments on the effects of living shorelines on erosion and occasionally offers research funding. The cooperative is funding a fire manager to create fire-adaptive landscapes at Cumberland Island National Seashore, who could be consulted about the Fort Pulaski landscape.
	 The monument staff is working with the U.S. Army Corps of Engineers and the Georgia Department of Natural Resources to manage beneficial dredging along the island's North Shore.
	 A citizen science project is being developed relating to North Shore erosion. Documenting and interpreting the rapid rate of erosion and restoration efforts could help educate the public about these issues and offer potential management activities.
	 Developing apps and increasing online materials related to the broader cultural landscape and individual elements outside the fort would engage virtual visitors and offer more accessible interpretive products.
	 Enhancing the relationship with Civil War living history groups could help interpret other aspects of the cultural landscape outside the fort.
	• Work collaboratively with other regional designated National Underground Railroad Network to Freedom sites in order to raise awareness and support for this program.

Fundamental Resource or Value	Cultural Landscape of Fort Pulaski Including the Dikes, Ditches, and Drainage System.
Data and/or GIS Needs	 Visitor use study. Elevation data for dike system / detailed island elevation study. Research on preservation best practices. Historic structure report for Battery Hambright. Archeological inventory. Cultural landscape inventory (update). Historic resource study (update). North Pier assessment and treatment recommendation.
Planning Needs	 North Shore emergency stabilization plan. Resource stewardship strategy. Preservation treatment plan. Fire management plan. Earthworks management plan. Climate change adaptation plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Archaeological Resource Protection Act of 1979 Clean Air Act of 1977 (42 USC 7401 et seq.) National Environmental Policy Act of 1969 (42 USC 4321) National Historic Preservation Act of 1969 (42 USC 4321) National Invasive Species Act Executive Order 11593, "Protection and Enhancement of the Cultural Environment" "Protection of Historic Properties" (36 CFR 800) Executive Order 13112, "Invasive Species" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" NPS Management Policies 2006 (4.4.1) "General Principles for Managing Biological Resources" NPS Management Policies 2006 (4.7) "Air Resource Management" NPS Management Policies 2006 (4.10) "Lightscape Management" NPS Natural Resource Management Reference Manual 77 Director's Order 28: Cultural Resource Management The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Ladd

Fundamental Resource or Value	Museum Collection
Related Significance Statements	 The bombardment and subsequent breaching of the massive brick walls by Federal artillery during the Battle of Fort Pulaski in April 1862 demonstrated for the first time the tremendous battering power of rifled artillery, bringing to a close the era of impregnable masonry fortifications. Constructed between 1829 and 1847, Fort Pulaski is one of the best preserved examples of Third System masonry coastal fortifications built to protect U.S. harbors following the War of 1812. Due to its strategic location where the Savannah River meets the Atlantic Ocean, Cockspur Island and its cultural landscape reflects maritime history and an evolution of coastal defense from colonial times to World War II. After the Battle of Fort Pulaski, the fort became a safe haven for freedom seekers from 1862 until the end of the American Civil War. Recognized as part of the National Oceanic and Atmospheric Administration's national system of Marine Protected Areas, and eligible for federal wilderness designation, Fort Pulaski National Monument preserves approximately 5,000 acres on Cockspur and McQueens Islands of virtually undisturbed salt marshes, a rich and diverse habitat that is critically important to the ecological health and economy of the Southeast Atlantic coastal region.
Current Conditions and Trends	 Conditions The collection is currently stored in a temporary Bally facility added to the fort. The storage facility meets 55% of NPS museum standards. Although it provides relatively good control over environmental factors, the building has issues relating to collection access, monitoring, and security. Cannons and sling carts within the fort are included in the collection. The museum cataloging backlog is relatively small. Most of the monument's exhibit space is in the visitor center. The monument has two archival collections: a collection assembled on-site and resource management records. During 2003 and 2004, monument staff organized and cataloged all 33,000 pieces in the monument's archives. All resource management records have been processed by the NPS Southeast Regional Archives team and finding aids have been created. The records now await scanning of critical records and then transfer to the NPS Southeast Archeological Center. Natural resource collections are housed through an agreement with Auburn University. Historic flags from the period of significance are on long-term loan to the Georgia Historical Society. The NPS Southeast Archeological Center houses the park's archeological collections which comprise the greatest number of objects. Trends Overall, the collection is deteriorating. Lack of active conservation efforts has begun to affect individual objects as well as the overall condition of the collection. Accessibility to artifacts stored in the Bally building is not acceptable. There is limited space for research in the museum and collection space.

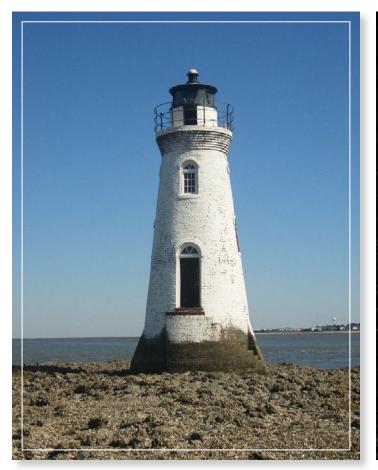
Fundamental Resource or Value	Museum Collection
Threats and Opportunities	 Threats Lack of security could lead to theft or vandalism. In its current location near the powder room, the Bally building is vulnerable to flooding and storm surges as well as fires. The threat of flooding, high tide events, and storm surge are exacerbated by climate change and sea level rise. Pests, including insects and rodents, can destroy artifacts. The lack of baseline information related to conditions in the Bally building could contribute to ineffectual museum management and building maintenance. The lack of a fire suppression system, a NPS museum standard considered essential for collection care, leaves the collection vulnerable. Salt and exposure is negatively affecting the cannons and sling carts displayed in the fort. Opportunities New interpretation and educational programs could be created around museum items. Items could be moved out of the Bally building and consolidated at an off-site storage facility at another NPS location. The monument can work with other institutions to house archives and collections in existing repositories with appropriate oversight and loan records. Specialized museum collection tours could provide the public with additional opportunities to view and learn about monument collections. A digital collection could expand monument and virtual visitor access to the artifacts.
	• An internal operational plan that provides a standard procedure for creating and maintaining collection records could contribute to efficient management and care.
Data and/or GIS Needs	None identified.
Planning Needs	Emergency response and recovery plan.Collection management plan (update).Long-range interpretive plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Archaeological Resources Protection Act of 1979 Museum Properties Management Act of 1955 (16 USC 18f through 18f-3) National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and other Natural and Cultural Resources" "Curation of Federally-Owned and Administered Archaeological Collections" (36 CFR 79) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" Director's Order 24: NPS Museum Collections Management Director's Order 28A: Archeology NPS Museum Handbook, parts I, II, and III

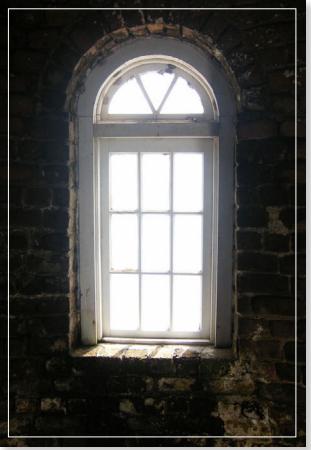


Fundamental Resource or Value	Cockspur Island Lighthouse
Related Significance Statements	 Due to its strategic location where the Savannah River meets the Atlantic Ocean, Cockspur Island and its cultural landscape reflects maritime history and an evolution of coastal defense from colonial times to World War II. Recognized as part of the National Oceanic and Atmospheric Administration's national system of Marine Protected Areas, Fort Pulaski National Monument preserves approximately 5,000 acres on Cockspur and McQueens Islands of virtually undisturbed salt marshes, a rich and diverse habitat that is critically important to the ecological health and economy of the Southeast Atlantic coastal region.
Current Conditions and Trends	 Conditions The Cockspur Island Lighthouse is one of five surviving historic lighthouses in Georgia. In 1972, the lighthouse was added to the National Register of Historic Places as part of the Fort Pulaski National Monument nomination. The lighthouse underwent extensive repairs between 1995 and 2000 led by the NPS Historic Preservation Training Center. As a result of this work, the lighthouse's condition was upgraded from "fair" to "good." Archeology funded by the American Recovery and Reinvestment Act was completed at the lighthouse's base during the early 2010s. The lighthouse's wooden foundation is threatened by shipworm infestation. In early 2015, a structural engineer examined the lighthouse and determined the foundation was stable. The monument has a cooperative agreement with the University of Georgia on living shoreline research as a possible restoration practice for the lighthouse island and Cockspur Island's North Shore. There is great visitor and local interest in the lighthouse. Many visitors know of the lighthouse currently is not accessible by foot because the island is separated from Cockspur Island by a small body of water approximately 4 –5 feet deep at low tide. Visitors often access the island by personal kayaks or boats. The upper level of the lighthouse is no longer accessible to visitors. The exterior ladder was removed by the park to reduce safety hazards. A lighthouse overlook trail constructed along the southeastern tip of Cockspur Island in 2005 allows visitors views of the lighthouse. The trail begins on the northeast side of the fort and is about 0.8 miles long. At low tide, hikers can get within approximately 200 yards of the lighthouse.

Fundamental Resource or Value	Cockspur Island Lighthouse
Current Conditions and Trends	 Trends The island the lighthouse occupies, which is constructed primarily of an oyster and mussel bed, is eroding. A revetment installed by the U.S. Army Corps of Engineers and the University of Georgia Living Shoreline Project hopefully will increase the island's stability. Sea level rise and an increase in ship traffic are being observed in the North Channel. Graffiti and vandalism have increased and include damage to the door and litter at the lighthouse. Although numerous preservation projects have been undertaken by monument staff in recent years, the location and constant wear from tides and sea air affect the lighthouse's historic building materials. Mortar from the brick part of the structure is failing and the cupola is rusting. The Lighthouse and the remnant island on which it stands were closed to the public in 2015 due to both safety concerns and environmental concerns as an ongoing preservation and ecological restoration area.
Threats and Opportunities	 Threats Sea level rise would lead to more of the lighthouse being underwater during high tide, which could affect the building's structural integrity or historic building material. Climate change may increase the incidence of large storms that may damage the structure. A shipworm infestation could destroy the wood foundation of the lighthouse. Visitor use in the form of vandalism, graffiti, or boat parking can damage the building and increase island erosion. Ship traffic and larger ships can create stronger wave surges that increase island erosion. The sea environment contributes to deterioration and increases maintenance needs related to the lighthouse's metal and masonry elements. Opportunities The monument can continue to work with Friends of Cockspur Island Lighthouse, a nonprofit dedicated to restoration of the lighthouse, for funding opportunities and preservation projects. University of Georgia Marine Extension offers outreach, education, and research opportunities and can continue its work with the monument on the living shoreline restoration and other related projects. Increased awareness, interpretation, and boat tour support may be available from Tybee Island Light Station and Museum. The monument could partner with Savannah Technical College's historic preservation program for maintenance and preservation support. The Battery Park property on Tybee Island could offer a different visitor experience than that currently offered by the monument on Cockspur Island and would offer a different vantage point of the lighthouse. Citizen science could be used to assist in environmental monitoring efforts.
Data and/or GIS Needs	 Cultural resource condition assessment. Visitor use study. Research on preservation best practices.
Planning Needs	Preservation treatment plan.Climate change adaptation plan.

Fundamental Resource or Value	Cockspur Island Lighthouse
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Historic Sites Act of 1935 National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" "Protection of Historic Properties" (36 CFR 800) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" Director's Order 24: NPS Museum Collections Management Director's Order 28a: Archeology NPS Museum Handbook, parts I, II, and III The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act







Fundamental Resource or Value	McQueens Island Salt Marsh
Related Significance Statements	 Recognized as part of the National Oceanic and Atmospheric Administration's national system of Marine Protected Areas, Fort Pulaski National Monument preserves approximately 5,000 acres on Cockspur and McQueens Islands of virtually undisturbed salt marshes, a rich and diverse habitat that is critically important to the ecological health and economy of the Southeast Atlantic coastal region.
Current Conditions and Trends	 Conditions The monument provides important protection for salt marsh and tidal creek systems that function as critical habitat for many commercially important fish species. Although these systems are not unique to the area, they are becoming scarcer along the Eastern seaboard as a result of coastal development. They are some of the best protected wetlands in the area and overall are in very good condition. The NPS wilderness study completed in 2013 as part of the monument's general management plan determined that approximately 4,500 acres of the McQueens Island saltmarsh meet wilderness eligibility criteria and are eligible for wilderness designation. Properties of the salt marsh limit public access and development. The NPS Inventory & Monitoring program currently collects data related to water quality, elevation, and vegetation in the marshes and participates in ongoing monitoring of birds, frogs, and terrestrial vegetation. Oyster Creek is the only area in Chatham County that is open for recreational oyster harvesting. The creek meets high water quality standards necessary for this activity. Crab traps are not permitted on McQueens Island under the Superintendent's Compendium. The Lazaretto Creek pier and boat launch, and McQueens Island trail, off Highway 80 are managed by Chatham County. Invasive plants are a problem at the monument. As of 2007, staff has documented for accessing the particular for the set work.
	 68 nonnative plant species, 18 of which are considered to be disruptive to natural communities due to their ability to dominate or disturb vegetation patches. Species of greatest concern are Chinese tallow, Chinese privet, chinaberry, and oleander. A feral cat feeding station has been set up by a local animal friends group near the Lazaretto Creek pier parking area. Trends Since 2000, a number of scientific studies have been completed or are underway related to the monument's natural resources; however, there is a lack of baseline data for monitoring efforts. Recreational oyster fishing on McQueens Island is increasing. Recently, monument staff has observed hunting of water fowl and marsh hens along the river in McQueens Island.

Fundamental Resource or Value	McQueens Island Salt Marsh
	Threats
	 Negligent fishing practices could affect local species populations and damage the larger marsh ecosystem.
	 Noise and artificial light can change the natural environment of the salt marshes and the wilderness character of the area.
	 Boating on McQueens Island can result in litter, resource disturbances from boat wakes and other activities, and inappropriate visitor use.
	 Lack of law enforcement leaves remote monument resources vulnerable and can lead to widespread inappropriate visitor use.
	 Sea level rise can change the environmental makeup of the salt marshes.
	 Ocean acidification can cause disruptions in the ecosystem and dissolve juvenile oysters' shells.
	 Lack of signage related to the monument boundary, the boat ramp location and restrictions, overall rules and regulations, and the salt marsh's status as potential wilderness contributes to a lack of visitor knowledge and inappropriate use.
	 The large feral cat population is a threat to natural resources and species as well as visitor safety.
	 Traffic on Highway 80 poses a threat to the diamondback terrapin and other marsh wildlife.
	 An existing natural gas import/export facility on Elba Island just west of McQueen's Island is proposed for expansion as a liquefied natural gas facility.
	Opportunities
	• The Georgia Department of Natural Resources could partner with the monument for law enforcement assistance and providing oyster harvesting and fishing permits.
Threats and Opportunities	 The monument can continue to strengthen its relationship with Chatham County and work with the county to manage the Lazaretto Creek boat ramp and proposed wilderness area.
	 Kayak tours could provide interpretive programming in the salt marsh and increase monument staff presence on McQueens Island.
	 Increased visitor education in the form of signs, educational materials, and online sources could prevent some visitor use related issues.
	 Ranger tours of the marsh could address visitor education issues and expand interpretive opportunities.
	 Collaboration with the University of Georgia Marine Extension Program could provide opportunities for data collection and monitoring data.
	 Continued collaboration with the NPS Inventory & Monitoring program would allow the monument and program to share collected data with other NPS units, programs, and researchers.
	 Because oyster habitat is an indicator of overall ecosystem health, the salt marsh can provide a great environment for research.
	 Satellite imagery of the salt marsh can provide monument staff and researchers the opportunity to analyze changes in the marsh over time.
	 The Georgia Department of Transportation Highway 80 widening project has the potential to fund numerous beneficial projects. Increased salt marsh interpretation along the highway, a wildlife crossing, and bike trail improvements could be developed under monument guidance.
	 Work with local governments and nonprofit organizations to extend the McQueens Island bike trail in order to better connect local communities and support alternative modes of transportation.
	• The park could continue to work with the U.S. Army Corps of Engineers on mitigating impacts of deepening the Savannah River channel on the salt marsh.

Fundamental Resource or Value	McQueens Island Salt Marsh
Data and/or GIS Needs	 Natural resource condition assessment. McQueen's Island fisheries study. Law enforcement and staffing structure assessment. Ethnographic overview and assessment. Satellite imagery analysis of salt marsh over time.
Planning Needs	 Resource stewardship strategy. Fisheries management plan. Fire management plan. Wilderness management plan. Climate change adaptation plan.
Laws, Executive Orders, and Regulations That Apply to the FRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the FRV Clean Air Act of 1977 (42 USC 7401 et seq.) Clean Water Act Endangered Species Act of 1973, as amended Federal Noxious Weed Act of 1974, as amended Lacey Act, as amended National Environmental Policy Act of 1969 National Invasive Species Act Wilderness Act (1964) Executive Order 13112, "Invasive Species" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (1.6) "Cooperative Conservation Beyond Park Boundaries" NPS Management Policies 2006 (4.1.4) "Partnerships" NPS Management Policies 2006 (4.1.4) "General Principles for Managing Biological Resources" NPS Management Policies 2006 (4.7.2) "Weather and Climate" NPS Management Policies 2006 (4.7.2) "Weather and Climate" NPS Management Policies 2006 (4.1.9) "Soundscape Management" NPS Management Policies 2006 (4.1.0) "Lightscape Management" NPS Management Policies 2006 (chapter 6) "Wilderness Preservation and Management" NPS Management Policies 2006 (chapter 6) "Wilderness Preservation and Management" NPS Management Policies 2006 (chapter 6) "Wilderness Preservation and Management" NPS Reference Manual 41: Wilderness Stewardship NPS Natural Resource Management Reference Manual 77

Analysis of Other Important Resources and Values

Other Important Resource or Value	John Wesley Memorial
Current Conditions and Trends	 Conditions The John Wesley Memorial is included in the Fort Pulaski National Monument National Register nomination. The memorial is in overall good condition and its condition static. The slate part of the memorial's base was repointed in 2013. Minor issues with the brick and stone elements of the monument, such as light plant growth and efflorescence, are addressed during routine maintenance activities. There is some question about the construction of the monument and how far its base extends. The construction could be contributing to some of the minor documented condition issues. Some monument visitors report that they have come to the park specifically to see the monument and for the site's association with John Wesley, the father of Methodism. Trends Interpretation of the monument, John Wesley's first service in Georgia, and James Oglethorpe's arrival at Cockspur Island has been secondary to other monument stories and resources.
Threats and Opportunities	 Threats Increasing dampness can damage the monument's masonry and contribute to efflorescence. Graffiti can mar the brick and other accessible parts of the monument. Vegetation growing on the monument can damage the masonry and stone. Constant vigilance and appropriate distance between the monument and mower blades is required when mowing in the vicinity. Opportunities Improved access to the monument and improvements in the surrounding area such as benches could encourage visitation. Increased interpretation could help visitors understand the monument's significance and Cockspur Island's historical connections with James Oglethorpe and John Wesley. Local Methodist groups may be interested in preservation of the monument and volunteer opportunities with the monument. The site offers the opportunity to interpret the relationship between Cockspur Island and Savannah during the early period of coastal Georgia settlement.
Data and/or GIS Needs	None identified.
Planning Needs	Long-range interpretive plan.Preservation treatment plan.

Other Important Resource or Value	John Wesley Memorial
Laws, Executive Orders, and Regulations That Apply to the OIRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the OIRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Clean Air Act of 1977 (42 USC 7401 et seq.) Historic Sites Act of 1935 National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (4.7) "Air Resource Management" Director's Order 28: Cultural Resource Management The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National





Other Important Resource or Value	Quarantine Station Cottage
Current Conditions and Trends	 Conditions The Quarantine Station Cottage is included in the Fort Pulaski National Monument National Register nomination as the "residence (No. HS 6)." The building is listed in good condition. Interior and exterior finishes are in good repair and there are no readily apparent structural issues. The building was rehabilitated as superintendent/chief ranger housing and is currently used as the national monument's headquarters. The 2002–2003 rehabilitation of the exterior in preparation for moving the monument's headquarters to the cottage somewhat diminished the building's architectural integrity and left it with an appearance that is historically confusing. The present configurations of exterior stairways never existed historically nor were porch bannisters present after the U.S. Navy's remodeling introduced the French doors during World War II. In 2003, three windows in Room 107 were removed and replaced with vinyl windows. Although the cottage's exterior has been significantly altered in recent years, the building remains essentially a product of the U.S. Navy's remodeling and rehabilitation of the structure during World War II. Within the past 30 years, the monument's appreciation of the cottage and its history has
Threats and Opportunities	 grown, but alterations have also continued, with the most recent in 2003 in preparation for the monument's headquarters move. Threats A hurricane or storm surge could destroy the building or cause structural damage. Sea level rise could affect the lower level of the building.
	 Salt air can deteriorate historic building materials. Pests, including termites and raccoons, can damage the structure. Wasps nesting on the building can create a visitor and staff safety risk. Utility system failures can make administration activities difficult. Lack of a fire suppression system makes the building vulnerable to fire. Deferred maintenance can contribute to deterioration. Unsympathetic architectural modifications can impact the historic appearance and proportions and negatively affect historic integrity.
	 Opportunities Improved storm-proofing measures that take into account the building's historic fabric and design would help protect the building from natural disasters while acknowledging its historic appearance. Interpretive programs focused on cultural resources outside Fort Pulaski that represent different time periods could offer visitors the opportunity to visit the cottage. Elevation measurements of the first floor would be useful when preparing for sea level and groundwater rise as well as inform future natural disaster relief recovery efforts.
Data and/or GIS Needs	 Increased interpretation of the building and the larger quarantine station site could be provided through site bulletins, architecture interpretive programs, and electronic media materials. Quarantine Station Cottage historic structure report and treatment plan.
Planning Needs	 Emergency response and recovery plan. Long-range interpretive plan. Climate change adaptation plan.

Other Important Resource or Value	Quarantine Station Cottage
Laws, Executive Orders, and Regulations That Apply to the OIRV and NPS Policy-level Guidance	 Laws, Executive Orders, and Regulations That Apply to the OIRV Antiquities Act of 1906 Archeological and Historic Preservation Act of 1974 Historic Sites Act of 1935 National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources" "Protection of Historic Properties" (36 CFR 800) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" Director's Order 28: Cultural Resource Management The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation Programmatic Agreement among the National Park Service (U.S. Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National



Other Important Resource or Value	World War II Bunkers
	Conditions
Current Conditions and Trends	• The concrete bunkers constructed by the U.S. Navy during its time on Cockspur Island are mentioned in the 2011 Cockspur Island Cultural Landscape Report.
	 Two World War II bunkers are inside monument boundaries, and numerous other Cockspur Island bunkers are on land owned by the Georgia Department of Transportation and that land possibly could be added to the monument in the future.
	 The bunkers in the monument are in relatively good and stable condition. The bunkers on Georgia Department of Transportation land are in varying condition, and some structures are in poor condition.
	 There is no public access to the bunkers, and they are not mentioned in monument interpretive material.
	 The bunkers in the monument are occasionally used for black powder and general storage.
	Trends
	• The metal elements of the bunkers are experiencing slight corrosion from sea spray.
	 Threats Water intrusion can weaken the concrete elements of the bunker, flood the structure, and contribute to metal corrosion.
	 Pests, including rodents, spiders, and snakes, can nest in the bunkers and possibly affect staff health and safety.
	Deferred maintenance can contribute to structural deterioration.
	Saltwater corrosion affects the metal components used in bunker construction.
	Opportunities
Threats and	 The bunkers, gun emplacements, and Navy occupation of Tybee Island could be featured during interpretive and educational programs highlighting lesser known cultural resources in the monument and place the island within the larger context of coastal defense on the East Coast.
Opportunities	 Oral histories from individuals associated with U.S. Navy World War II involvement on Cockspur Island could provide more information about bunker construction and use.
	 GIS data on the structures would be useful during disaster recovery efforts and could help secure emergency funding following a major natural disaster.
	 Additional research on the military's involvement and use of technology on the island during World War II would help inform interpretation and provide much needed historic context.
	 The monument could capitalize on interest surrounding upcoming World War II commemorative events.
	• The monument and the Georgia Department of Transportation could partner to interpret additional World War II-era bunkers on the west end of Cockspur Island owned by the Department of Transportation.
	Ethnographic overview and assessment.
Data and/or GIS Needs	Historic structure report on World War II bunkers.
	Visitor use study.
Planning Needs	Integrated pest management plan (update).

Other Important Resource or Value	World War II Bunkers
Laws, Executive	 Laws, Executive Orders, and Regulations That Apply to the OIRV Antiquities Act of 1906 Historic Sites Act of 1935 National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.) Executive Order 11593, "Protection and Enhancement of the Cultural Environment" Secretarial Order 3289, "Addressing the Impacts of Climate Change on America's Water,
Orders, and	Land, and Other Natural and Cultural Resources" "Protection of Historic Properties" (36 CFR 800) NPS Policy-level Guidance (NPS Management Policies 2006 and Director's Orders) NPS Management Policies 2006 (chapter 5) "Cultural Resource Management" Director's Order 28: Cultural Resource Management The Secretary of the Interior's Standards and Guidelines for Archeology and Historic
Regulations That	Preservation Programmatic Agreement among the National Park Service (U.S. Department of the
Apply to the OIRV	Interior), the Advisory Council on Historic Preservation, and the National Conference of
and NPS Policy-level	State Historic Preservation Officers for Compliance with Section 106 of the National
Guidance	Historic Preservation Act



Identification of Key Issues and Associated Planning and Data Needs

This section considers key issues to be addressed in planning and management and therefore takes a broader view over the primary focus of part 1. A key issue focuses on a question that is important for a park. Key issues often raise questions regarding park purpose and significance and fundamental and other important resources and values. For example, a key issue may pertain to the potential for a fundamental or other important resource or value in a park to be detrimentally affected by discretionary management decisions. A key issue may also address crucial questions that are not directly related to purpose and significance, but which still affect them indirectly. Usually, a key issue is one that a future planning effort or data collection needs to address and requires a decision by NPS managers.

The following are key issues for Fort Pulaski National Monument and the associated planning and data needs to address them:

- Shoreline Erosion and Sea Level Rise. The North Shore of Cockspur Island is experiencing significant erosion at an unprecedented rate that puts some of the monument's more vulnerable resources, including the North Pier and archeological sites, as well as the adjacent marsh, in immediate jeopardy. A historic aerial images study completed in 2007 confirmed shoreline loss, and monument staff report observing erosion close to the rate of 100 feet during the last 10 years. Increases both in size of the shipping channel and frequency of shipping traffic may be responsible for much of the wake-related erosion on the island, but a 2,500-foot gap between revetments compounds the problem and creates eddies and scouring along the unprotected shoreline. Sea level is projected to rise as much as 0.83 feet by 2050; this increase would lead to loss of land and critical habitat, rising groundwater tables, salt water intrusion, and loss of freshwater ecosystems. Climate change increases the risk of high intensity storm events, flooding, erosion/accretion of the coastline, invasive species, and alteration of the flow regime, water chemistry, and biotic community of ecosystems. Geomorphological activity and weather phenomena are also contributing to the alarming increase in the rate of erosion at the monument. Collecting elevation data related to the historic dike system would help to illustrate how sea level rise is affect the monument's water table and impacting drainage efficiency. The park is currently working with the U.S. Army Corps of Engineers on issues related to shoreline erosion and the dredging of the Savannah River. A North Shore stabilization and climate adaptation plan could offer short-term solutions to stop or slow down the current rate of erosion, and a climate change adaption plan could provide comprehensive alternatives and strategies to address underlying issues of sea level rise at the monument.
- Data Collection and Understanding Visitor Use. Understanding how visitors interact with and potentially impact the monument's natural and cultural resources is a key issue and an area where there is currently no existing data to inform management decisions related to visitor use. Most of the monument's information relating to visitor use is from staff observations and anecdotal evidence. Carrying capacity has not been formally studied, and the effects of large groups both on visitor experiences and on resources are not well understood. A visitor use study followed by a visitor use management plan would provide both valuable information about visitor use at the monument and recommendations for management activities to improve visitor experiences and protect natural and cultural resources.

Fishing activities in the monument and surrounding salt marsh are another form of visitor use where data are needed. Historically, monument lands on Cockspur and McQueen Islands have served as an important fishing location for many local communities and these activities continue today. An ethnographic overview and assessment related to traditional uses of the monument for fishing and a fisheries study are needed to increase awareness of the impacts of fishing activities on the salt marsh. These data collecting activities would then inform a fisheries management plan to support long-term stewardship for the diverse ecosystem of the salt marsh. As mentioned above, many nonregulated activities such as fishing and oyster harvesting on Cockspur and McQueens Islands have not been documented with quantitative data. Social trails to popular fishing locations, vehicles driving on the beach, and trash related to fishing affect natural resources and are concentrated near the Cockspur Island Bridge and the boat launch on McQueens Island. Also, it is not known how often off-leash pets and other inappropriate visitor recreational activities occur at the monument and what effects these activities have on resources. Because the monument staff includes no law enforcement officers, enforcement of regulations and monument rules is difficult and overall visitor safety and experiences at the monument may be affected. A law enforcement and staffing structure assessment is a high priority need to help address growing monumentwide concerns about visitor use.

• Planning for Aging Park Infrastructure and Museum Collections Storage.

The fort structure and the Mission 66-era visitor center currently serve most of the monument's operational needs and visitor contact facilities. Numerous renovations and upgrades of both these historic structures have resulted in a patchwork of utility systems and an overall lack of appropriate space to adequately meet the monument's operational needs. The fort, which was not constructed for general public use, is not fully accessible to individuals of different abilities. Most upgrades to the fort were installed by the Civilian Conservation Corps during the 1930s and need to be updated. The plumbing in the fort is failing and there is no fire suppression system in the fort, which is a life and safety concern. Three disconnected water systems serve the fort, but none has the capacity required for a fire hydrant. A detailed map and blueprints of known infrastructure and current utilities would guide future repairs and give monument facilities staff a better understanding of the fort's and visitor center's electrical wiring and plumbing. Oral histories to collect institutional knowledge about the fort and its development as a national monument would also be useful in gathering information regarding facility maintenance and past projects. A facilities management strategic plan would provide guidance on preservation issues and prioritize infrastructure-related maintenance projects.

The Mission 66-era visitor center, which recently passed the 50-year threshold for potential National Register of Historic Places eligibility, is aging and does not have adequate exhibit space or environmental control systems to properly display or store museum objects. A temporary Bally building was constructed near the fort's powder room to improve museum collections storage capacity but does not meet NPS standards for museum collections storage or provide enough space for the growing museum collection. The fort's officers' quarters are also used to display some historic reproductions. This display space is enclosed with Plexiglas to keep out pigeons and other wildlife, but the enclosed environment has created humidity and mold issues in the structure. Developing a historic structure report for the Mission 66 visitor center would provide valuable data and inform future planning and use of the structure. An updated collections and would also outline museum collections storage strategies that could include other potential storage facilities on-site or with other NPS partners.





Preparing for and Adapting to Climate Change. The National Park Service has taken an agencywide interest in better understanding and preparing for the effects of climate change on park resources. Coastal parks such as Fort Pulaski National Monument are already seeing many of the effects predicted as a result of climate change: sea level rise, increases in temperature, and increases in frequency and intensity of weather events. Because of Cockspur Island's physical location and historic drainage system, the monument and its resources are particularly vulnerable. Sea level rise has the potential to impair the use of gravity in these historic drainage systems that draw water away from the land on which the fort is constructed, and any increase in groundwater levels could also disrupt the island's drainage. Any shift in water levels could contribute to flooding in the fort's substructure as well as cause increases in mold, dampness, and standing water, all of which lead to rot and waterlogged vegetation. In the event of a hurricane or severe flooding, the historic 1830s fabric of the fort could be damaged or destroyed, and Highway 80, the only access point to the monument, could be submerged under water. An emergency response and recovery plan is needed that focuses on protecting monument resources during a natural disaster such as a major storm event or hurricane. A climate change adaptation plan would take a broader view and prescribe long-term management activities to prepare for climate change and its effects. In the interim, the park should continue efforts to improve park sustainability and environmental leadership.

Planning and Data Needs

To maintain connection to the core elements of the foundation and the importance of these core foundation elements, the planning and data needs listed here are directly related to protecting fundamental resources and values, park significance, and park purpose, as well as addressing key issues. To successfully undertake a planning effort, information from sources such as inventories, studies, research activities, and analyses may be required to provide adequate knowledge of park resources and visitor information. Such information sources have been identified as data needs. Geospatial mapping tasks and products are included in data needs.

Items considered of the utmost importance were identified as high priority, and other items identified, but not rising to the level of high priority, were listed as either medium- or low-priority needs. These priorities inform park management efforts to secure funding and support for planning projects.

Planning Needs – Where A Decision-Making Process Is Needed			
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV, Key Issue	North Shore stabilization and climate adaptation plan	Н	The North Shore of Cockspur Island is eroding at an unprecedented rate, and fundamental monument resources such as the North Pier ruins and archeological sites are vulnerable. Although emergency dredging efforts are planned to combat some of the erosion, a long-term, sustainable stabilization plan is crucial to protect monument resources.
FRV	Resource stewardship strategy (underway)	Н	A resource stewardship strategy would use current resource conditions from natural and cultural resource condition assessments to identify resource-specific target conditions and create comprehensive management strategies.
FVR, OIRV, Key Issue	Emergency response and recovery plan (underway)	Н	An emergency response plan would provide guidance on how to immediately respond to a threat of a major disruptive event such as a hurricane, flooding, or fire and suggest steps that could be taken to continue operations during the recovery process.
FRV, OIRV	Preservation treatment plan	Н	Using information gathered from research on similar NPS resources and preservation best practices, a treatment plan would build on recommendations in historic structure reports and should include prioritization and cyclical maintenance schedules. This plan would provide guidance on issues that span numerous structures and materials and serve as a comprehensive guide for the monument's facilities and maintenance staff.
FRV, Key Issue	Facilities management strategic plan	Н	A facilities management plan would build on historic structure report recommendations and provide guidance on how to properly implement recommendations for both historic and nonhistoric monument buildings and facilities.
Key Issue	Visitor use management plan	Н	A visitor use management plan would address carrying capacity and visitor use of the fort and associated landscape, identify public access issues, and examine staff use of the fort. In addition, it would address increases in use by dog owners, fishermen, and other recreational users and the resultant need to ensure protection of resources as well as prevent user conflicts.
FRV, Key Issue	Update collection management plan (underway)	Н	A collection management plan was completed in 2007, but an updated document should outline collection and archives operations, address conservation and storage issues, and include maintenance schedules and treatment plans for cannon, sling carts, and smaller objects displayed indoors or kept in storage.
FRV, OIRV, Key Issue	Climate change adaptation plan	Н	Climate change is an agencywide concern, especially for coastal parks that include some of the most vulnerable cultural and natural resources. An adaptation plan would examine revetment options to protect the North Shore and possible alternatives for combatting sea level rise at the Cockspur Island Lighthouse as well as general shoreline stabilization plans.

	Planning Needs	– Where A D	ecision-Making Process Is Needed
Related to an FRV, OIRV, or Key Issue?	Planning Needs	Priority (H, M, L)	Notes
FRV, OIRV	Long-range interpretive plan	Н	The monument's interpretive program is currently using an incomplete, unofficial interpretation document created in 2006 that was not approved and interpretive themes created for the general management plan. An interpretive plan should include new, inclusive interpretive themes and materials related to stories outside the Battle of Fort Pulaski and the Civil War. This need was identified in the general management plan.
FRV	Accessibility implementation plan	Μ	The monument is developing a document that will address how to adapt facilities and programs for visitors with visibility, hearing, and mobility impairments. An implementation plan would focus on prioritizing and implementing recommended changes.
FRV, Key Issue	Fisheries management plan	Μ	After information regarding the historic use and current effects of recreational fishing and boating within the monument's boundaries is gathered from the fisheries study and ethnographic overview and assessment, a comprehensive fisheries plan would help manage these activities in relation to fragile resources, proposed wilderness, and statewide coastal fish advisories.
FRV	Fire management plan	L	A fire management plan would outline prescribed burns for vegetation control and historic viewshed restoration, manual fuel removal, and a management strategy for wildfires. This plan should follow a resource stewardship strategy planning effort.
FRV	Earthworks management plan	L	This plan is needed to address the treatment of earthen cultural resources, which are not addressed by current landscape maintenance and mowing practices. This plan should follow a resource stewardship strategy planning effort.
FRV	Wilderness management plan	L	The salt marsh on McQueens Island has been named proposed wilderness by the National Park Service. Under NPS management guidelines, the area is currently being managed as wilderness, and a formal management plan would provide guidance on the stewardship of this resource.
OIRV	Integrated pest management plan (update)	L	An updated integrated pest management plan would address the effects pf pests such as insects and molds on the integrity of the park's museum collections. It would provide guidance on the monitoring of the collections and outline strategies to deal with pests if they are detected. These pests can significantly affect museum collections and create health issues if not addressed.

Data Needs – Where Information Is Needed Before Decisions Can Be Made			
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To
FRV	Natural resource condition assessment	Н	This assessment would use information available in the water resource and watershed conditions report conducted in 2005 and would be used in developing a resource stewardship strategy, which is a high priority planning need.
FRV	Cultural resource condition assessment	Н	This assessment would be used in developing a resource stewardship strategy, which is a high priority planning need.
FRV, Key Issue	McQueen's Island fisheries study	Н	A fisheries study would examine current recreational fishing practices and their effects on the environment. it would provide information on carrying capacity and inform a fisheries management plan.
FRV, Key Issue	Elevation data for dike system / detailed island elevation study	Н	Elevation data on the historic 1830s dike system and a groundwater study are needed to examine how sea level rise is affecting the water table and how these factors affect dike and drainage channel functionality and efficiency.
FRV	Research on preservation best practices from parks with similar resources	Η	This research should include materials analysis for the Cockspur Island Lighthouse and monitoring and standards of procedures for monumentwide and individual structure preservation and maintenance. Information collected through this effort would inform the monument preservation treatment plan, which is a high priority planning need.
FRV, Key Issue	Law enforcement and staffing structure assessment	Η	The monument does not have a law enforcement ranger on staff or anyone who can enforce state fishing regulations or patrol the monument's beaches for illegal or inappropriate visitor activity. A law enforcement needs assessment would inform management regarding the addition of law enforcement rangers, as well as explore partnering with local law enforcement on overlapping jurisdiction issues and emergency response.
FRV	Acoustic monitoring and vibration study	Н	Artillery demonstrations are a central part of the monument's interpretive programming and are conducted on weekly. Acoustic monitoring and a vibration study would examine the effects of shooting historic black powder cannons on the fort parade ground on the fort's historic building materials.

Data Needs – Where Information Is Needed Before Decisions Can Be Made				
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To	
FRV	Battery Hambright historic structure report (underway)	Μ	Battery Hambright, a Spanish-American War concrete and earthen battery, is part of the cultural landscape of Fort Pulaski and represents the continued military presence on Cockspur Island. A historic structure report would provide historic context, an architectural description, and treatment recommendations that would inform management activities and interpretation of the structure.	
FRV, OIRV, Key Issue	Ethnographic overview and assessment	Μ	A monumentwide ethnographic overview and assessment should include recreational fishing on Cockspur and McQueens Islands and would provide much needed historic context related to one of the traditional uses of the monument. It would help inform the monument's fisheries management plan. It also would analyze other ethnographic activities and resources at the monument, including its World War II history.	
FRV	Satellite imagery analysis of salt marsh over time	Μ	Sea level rise has the potential to greatly affect the salt marsh ecosystem within the monument. Satellite imagery would allow the monument to monitor changes to the salt marsh's footprint over time and track shifts in vegetation cover and shoreline shape.	
Key Issue	Monument staff oral history project	М	Much of the monument's institutional history is held by a few skilled long-time employees. Capturing their oral histories would allow the monument to track common maintenance and preservation practices as well as the rationale behind current management decisions and would provide additional information for the monument's administrative history.	
Key Issue	Mission 66 visitor center historic structure report	Μ	The monument's visitor center was constructed in 1962–63 as part of Mission 66, an NPS program known for its effect on monument development and focus on architecture and infrastructure. The building, which is modeled after Eero Saarinen's Kresge Chapel at the Massachusetts Institute of Technology, recently passed the 50-year threshold required by the National Register of Historic Places and should be documented as a historic structure.	
FRV	Fort grillage structure assessment	М	To locate the massive masonry brick fort on the marshes of Cockspur Island, the U.S. Army Corps of Engineers devised an intricate system of timber pilings to serve as the fort's substructure. Baseline data for this system are needed for monitoring and future condition assessment.	

Data Needs – Where Information Is Needed Before Decisions Can Be Made				
Related to an FRV, OIRV, or Key Issue?	Data and GIS Needs	Priority (H, M, L)	Notes, Including Which Planning Need This Data Need Relates To	
FRV	Archeological inventory	L	A comprehensive archeological survey is needed to complement the work done in the 2000s related to the Immortal 600 burials. The inventory would also include research related to the main visitor parking lot's 1930s construction and a more general ground penetrating radar survey. It could also include a remote sensing study of McQueens Island to help identify potential Archaic prehistoric sites in the marsh.	
FRV	Cultural landscape inventory (update)	L	A cultural landscape inventory was completed in 2012 and should be kept up to date to ensure that all historic features are represented. The inventory would inform the resource stewardship strategy.	
FRV	Historic resource study (update)	L	The Fort Pulaski National Monument national register nomination and historic resource study were completed in the 1970s. Historic research related to the Construction Village and the rest of the monument, as well as material developed for additional historic structure reports, would bring the historic resource study up to date and ensure the breadth of the monument's cultural resources are included in the updated study.	
OIRV	Quarantine Station Cottage historic structure report–treatment plan	L	A historic structure report was completed for the cottage in 2004. An updated treatment and maintenance plan would help with management of the building as well as include potential restoration possibilities.	
OIRV	World War II Bunker historic structure report	L	Multiple World War II bunkers constructed by the U.S. Navy are found across Cockspur Island, two of which are within the monument boundary and are important monument resources. Additional research related to the U.S. Navy's involvement on Cockspur Island during World War II would be included in the report's historic context and the narrative about the structures' construction.	
Key Issue	Map and GIS data of infrastructure and utilities	L	Most infrastructure and utility systems within the fort were installed in the 1930s by the Civilian Conservation Corps. Additional underground utilities were added as part of Mission 66 when the visitor center and comfort station were constructed. Location data regarding these systems and their upgrades are missing from monument administrative files and would be useful when pipe or wire replacements are necessary.	

Part 3: Contributors

Fort Pulaski National Monument

Laura Rich Acosta, Chief of Facilities and Resource Management Joel Cadoff, Interpretation Ranger Corey Carr, Fees and Visitor Use Assistant Matthew Hall, Volunteer Coordinator Tammy Herrell, Administrative Officer Ivan Lum, Maintenance Worker Melissa Memory, Superintendent Katherine "KD" Purcell, Exhibit Specialist Laura Waller, Museum Technician Mike Weinstein, Chief of Interpretation (Acting) Candice Wyatt, Biological Science Technician

NPS Southeast Region

Janet Cakir, Climate Change Coordinator Turkiya Lowe, Chief of Cultural Resources, Research, and Science Amy Wirsching, Planner

Denver Service Center, Planning Division

Justin Henderson, Project Manager John Paul Jones, Visual Information Specialist Wanda Gray Lafferty, Contract Editor (former) Carrie Miller, Cultural Resource Specialist Hilary Retseck, Cultural Resource Specialist Nancy Shock, Foundation Coordinator Danielle Stevens, Contract Editor (former) Judith Stoeser, Contract Editor

Appendixes

Appendix A: Presidential Proclamation and Legislative Acts for Fort Pulaski National Monument

October 15, 1924.	By the President of the United States of America
	A PROCLAMATION
National monu- ments. Preamble.	trol of the Secretary of War which comprise areas of historic and
Vol. 34, p. 225.	scientific interest; AND WHEREAS, by section 2 of the Act of Congress approved June 8, 1906 (34 Stat. 225) the President is authorized "in his dis- cretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the
Setting apart desig- nated historic forts as national monuments.	proper care and management of the objects to be protected"; NOW THEREFORE, I, Calvin Coolidge, President of the United States of America, under authority of the said Act of Congress do hereby declare and proclaim the hereinafter designated areas with the historic structures and objects thereto appertaining, and any other object or objects specifically designated, within the following military reservations to be national monuments:
Fort Wood, N. Y.	FORT WOOD, NEW YORK The site of the Statue of Liberty Enlightening the World, the foundations of which are built in the form of an eleven-pointed star
Oastle Pinckney, S.C.	The entire reservation, comprising three and one-half acres situated on Shutes Folly Island at the mouth of Cooper River opposite the southern extremity of the city of Charleston and about one mile
Fort Pulaski, Ga.	distant therefrom. FORT PULASKI, GEORGIA The entire area comprising the site of the old fortifications which are clearly defined by ditches and embankments, which inclose about
Fort Marion, Fla.	twenty acres. FORT MARION, FLORIDA The entire area comprising 18.09 acres situated in the city of Saint Augustine, Florida.
	FORT MATANZAS, FLORIDA An area of one acre comprising within it the site of the old fortifi- cation which is situated on a marsh island south of the present main channel of the Matanzas River in the southeast quarter of section 14, Township 9 South, Range 30 East, about 15 miles from the city of Saint Augustine, and about one mile from Matanzas Inlet. IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed. Done at the city of Washington this fifteenth day of October, in the year of our Lord one thousand nine hundred and [SEAL.] twenty-four, and of the Independence of the United States of America the one hundred and forty-ninth. CALVIN COOLIDGE By the President: JOSEPH C. GREW Acting Secretary of State.

PROCLAMATIONS-AUG. 6, 1958

[72 STAT.

ENLARGING THE FORT PULASKI NATIONAL MONUMENT, GEORGIA

August 14, 1958 [No. 3254]

43 Stat. 1968.

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA

A PROCLAMATION

WHEREAS the Fort Pulaski National Monument on Cockspur Island at the mouth of the Savannah River, Georgia, was established by Proclamation No. 1713 of October 15, 1924, upon the site of the old fortifications on that island, and, as enlarged by the act of June 26, 1936, 49 Stat. 1979, includes certain adjacent areas on the island formerly under the jurisdiction of the Secretary of War; and

WHEREAS the Cockspur Island Lighthouse Reservation, situated on a small island near the southeasterly shore of Cockspur Island, contains an old abandoned lighthouse which is contemporary with Fort Pulaski and should be preserved because of its historic interest; and

WHEREAS such reservation has been declared excess to the needs of the Department of the Treasury, and has been reported to the General Services Administration for disposition; and

WHEREAS the General Services Administration is agreeable to the transfer of such reservation to the Department of the Interior for inclusion in the Fort Pulaski National Monument; and

WHEREAS a small Federally owned island, known as Daymark Island, containing approximately 1.5 acres of land at high tide, situated close to the northeastern shore of Cockspur Island and gradually becoming an accretion thereto, is required for the proper care, protection, and management of the objects of historic interest situated within the area of the Fort Pulaski National Monument; and

WHEREAS it appears that it would be in the public interest to reserve the Cockspur Island Lighthouse Reservation and Daymark Island, as hereinafter described, as parts of the Fort Pulaski National Monument:

NOW, THEREFORE, I, DWIGHT D. EISENHOWER, President of the United States of America, by virtue of the authority vested in me by section 2 of the act of June 8, 1906, 34 Stat. 225 (16 U.S.C. 431), do proclaim that, subject to valid existing rights, the followingdescribed lands are hereby added to, and reserved as parts of, the Fort Pulaski National Monument, and shall be subject to all laws, rules, and regulations applicable to that monument:

(1) That certain tract of land, about 1 acre in area, known as the Cockspur Island Lighthouse Reservation, situate near the south end of Cockspur Island at Latitude 32°01' N., and Longitude 80°53' W., and

(2) That certain tract of land, about 1.5 acres in area, known as Daymark Island and depicted on U.S. Coast and Geodetic Survey Chart C.&G.S. 440, Savannah River-Wassaw Sound, Revised 12/23/57, being an undesignated island in shoal water at Latitude 32°02' N., and Longitude 80°53' W. on the right bank of the Savannah River.

This proclamation shall become effective upon the effective date of the transfer of the Cockspur Island Lighthouse Reservation, as described herein, to the Department of the Interior.

Warning is hereby expressly given to all unauthorized persons not to appropriate, injure, destroy, or remove any feature of these lands and not to locate or settle upon any part thereof.

not to locate or settle upon any part thereof. IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the United States of America to be affixed.

DONE at the City of Washington this fourteenth day of August in the year of our Lord nineteen hundred and fifty-eight,

[SEAL] and of the Independence of the United States of America the one hundred and eighty-third.

DWIGHT D. EISENHOWER

By the President:

CHRISTIAN A. HERTER, Acting Secretary of State.

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Appendix B: Inventory of Administrative Commitments

Name	Agreement Type	Start Date	Stakeholders	Purpose
Coast Guard Station on Cockspur Island	Interagency agreement		U.S. Coast Guard	The monument issued a long-term special use permit to U.S. Coast Guard for a station on Cockspur Island encompassing about six acres of land with buildings, a dock, and communications equipment.
Savannah Bar Pilots Association	Lease under legislative authority		Savannah Bar Pilots Association	The monument issued to the Savannah Bar Pilots Association a lease for a dock and dormitory facility on Cockspur Island a short distance east of Coast Guard station.
Marine Protected Area	National Oceanic and Atmospheric Administration (NOAA) designation		NOAA	The monument is within a larger Marine Protected Area administered by NOAA. These areas serve as a safe haven for marine life.
Law enforcement and safety within park	Cooperative agreement		Chatham County Police Department	The monument works with and maintains a cooperative agreement with local law enforcement on Tybee Island.
Structural fire support and emergency response	Cooperative agreement		Chatham County, Fire Department	The monument has a cooperative agreement with the fire department on Tybee Island in the event of a structural fire or emergency.
Friends of the Cockspur Island Lighthouse	Friends group agreement	5/16/2014	Friends of the Cockspur Island Lighthouse	This agreement formalizes and outlines the roles and responsibilities of the lighthouse's friends group.
McQueens Island Trail/ Lazaretto Creek boat ramp	Cooperative agreement		Chatham County Department of Parks and Recreation	The department maintains the existing boat ramp and trail on McQueens Island.
Mosquito control	General agreement	2/11/2014	Chatham County	The county conducts mosquito control procedures in the monument.
Historic markers	Easement agreement	4/7/2016	Georgia Historical Society	Placement of historical markers in the park is managed by the Georgia Historical Society.
Natural resource protection and enforcement	Cooperative agreement		Georgia Department of Natural Resources	The department provides support on issues related to natural resource enforcement at the monument.
National Underground Railroad Network to Freedom	Designation		Numerous Partners	Designated as an official site on the National Underground Railroad Network to Freedom, the park collaborates with other sites within the network to connect visitors to the legacy of the Underground Railroad.

Appendix C: Wilderness Eligibility Assessment

Excerpts from the Fort Pulaski National Monument General Management Plan, Wilderness Study, and Environmental Impact Statement (2013).

Introduction

The Wilderness Act of 1964 (16 USC 1131 et seq.) states that it is national policy to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness." The purpose of the act is to preserve and protect wilderness characteristics and values over the long term, while at the same time providing opportunities for solitude and unconfined recreation.

The Wilderness Act defines wilderness as "an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation which is protected and managed so as to preserve its natural conditions..." 16 USC 1131I.

New wilderness areas can only be designated by act of Congress. Such designations typically take place after, and are based on, the completion of a formal wilderness study. The wilderness study is a detailed assessment of federally owned lands in a particular area that have been deemed "eligible" for possible wilderness designation. In that regard, the Wilderness Act, together with regulations at 43 CFR Part 19, NPS *Management Policies 2006*, and Director's Order 41: *Wilderness Preservation and Management*, require that the National Park Service review all areas within a park to identify those areas, if any, that are eligible for possible wilderness designation based on the criteria contained in the Wilderness Act and NPS policies. The criteria for eligibility are as follows.

National Park Service lands will be considered eligible for wilderness if they are at least 5,000 acres or of sufficient size to make practicable their preservation and use in an unimpaired condition, and if they possess the following characteristics (as identified in the Wilderness Act):

- The earth and its community of life are untrammeled by humans, where humans are visitors and do not remain.
- The area is undeveloped and retains its primeval character and influence without permanent improvements or human habitation.
- The area generally appears to have been affected primarily by the forces of nature, with the imprint of humans' work substantially unnoticeable.
- The area is protected and managed so as to preserve its natural conditions.
- The area offers outstanding opportunities for solitude or a primitive and unconfined type of recreation.

NPS Management Policies 2006, section 6.2.1.1, "Primary Eligibility Criteria."

Results And Rationale

The wilderness eligibility assessment for Fort Pulaski National Monument was performed by an interdisciplinary team comprising specialists from the monument and the Southeast Regional Office. The team determined that approximately 4,500 acres of salt marsh on McQueens Island meet the criteria and therefore are eligible for wilderness designation. These lands generally appear to have been affected primarily by the forces of nature with minimal evidence of human activity. These areas of Fort Pulaski National Monument offer outstanding opportunities for solitude or for primitive and unconfined recreation.

The eligible lands comprise two areas of salt marsh within NPS Tract 01-102 on McQueens Island. Specifically, the eligible areas may be described as follows:

- a. All that portion of NPS Tract 01-102 bounded west and north by a line lying 100 feet south of, and paralleling, the centerline of Old U.S. Highway 80/Tybee Road and new U.S. Highway 80 to a point east of the Fort Pulaski National Monument entrance road; on the east by a line extending south from the foregoing point to Lazaretto Creek, and from there by the mean high tide line of Lazaretto Creek; and on the south by the mean high tide lines of Lazaretto Creek, Tybee River, and Bull Creek.
- b. All that portion of NPS Tract 01-102 bounded west by the mean high tide line of the Intracoastal Waterway; south by the mean high tide lines of St. Augustine and Bull Creeks; east by a line lying 100 feet west of the centerline of U.S. Highway 80, which line parallels said centerline until extending north to a point 50 feet south of the edge of the right-of-way of the old Savannah-Tybee Island railroad grade; and north by a line 50 feet south of, and paralleling, the right-of-way of the old Savannah-Tybee Island railroad grade.
- c. All as shown on figure 2-1. The foregoing eligible areas total approximately 4,500 acres on McQueens Island. In the event of a conflict between this acreage figure and the map, the map is intended to be controlling.

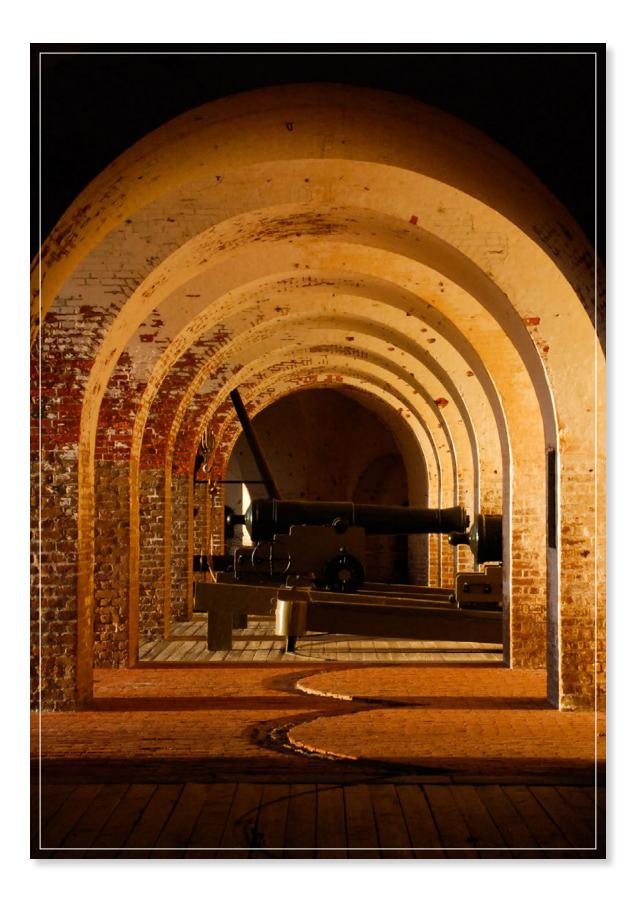
The areas described previously consist entirely of undeveloped salt marsh. As such, they meet the criteria established by law for designation as wilderness. Specifically, in both areas the natural processes of the salt marsh are essentially intact, indicating that these areas have been affected primarily by the forces of nature. Although development is visible when looking out into the surrounding uplands, inside the marsh itself there are no structures or other permanent improvements, i.e., the imprint of humans' work is substantially unnoticeable. Furthermore, the National Park Service has, and will continue to protect and manage these areas so as to preserve their natural conditions. Finally, some limited opportunities for solitude or a primitive and unconfined type of recreation exist inside these areas (opportunities are limited not by a lack of primitive conditions, but by the nature of the salt marsh itself).

For these reasons, the previously described areas on McQueens Island are eligible for designation as wilderness by Congress. Accordingly, the National Park Service will manage these areas in such a way as to preserve their wilderness character, as required by NPS *Management Policies 2006* section 6.3.1, until such time as the legislative process of wilderness designation has been completed.

Appendix D: Past and Ongoing Planning and Data Collection Efforts

Title	Date
Regional Air Quality Monitoring (updated conditions on visibility and pollutant deposition in monument)	Ongoing
Salt Marsh Elevation and Vegetation Monitoring	Ongoing
Anuran Monitoring	Ongoing
Landbird Community Monitoring	Ongoing
Estuarine Water and Sediment Quality	Ongoing
Fixed-Station Water Quality Monitoring in Lazaretto Creek	Ongoing
Cockspur Lighthouse Historic Structure Report	2015
List of Classified Structures Database	2014
Fort Pulaski Historic Structure Report	2014
Species Checklist	2014
Sea Level and Storm Surge Trends for the State of the Park Report	2014
Fixed-Station Water-Quality Monitoring Data Summary	2014
Climate Change Trends for State of the Park Report	2014
General Management Plan, Wilderness Study, and Environmental Impact Statement	2013
Fort Pulaski Bridge Environmental Assessment	2013
Summary of Weather and Climate Monitoring	2013
Vegetation Mapping	2013
Coastal Water and Sediment Quality Monitoring Program Summary	2012
Vegetation Community Monitoring	2012
Inventory & Monitoring Program Status Report	2012
Fort Pulaski National Monument Landscape Cultural Landscape Inventory	2012
Cockspur Island Historic District Cultural Landscape Report	2011
Natural Resource Condition Assessment	2009
Geological Resource Inventory	2009
Rates and Processes of Shoreline Change	2008
State of the Park	2007
Collection Management Plan	2007
Scope of Collection Statement	2007
Museum Emergency Operations Plan	2007

Title	Date
Weather and Climate Inventory	2007
Bat Inventories	2005
Assessment of Coastal Water Resources and Watershed Conditions	2005
Quarantine Station Historic Structure Report	2004
Museum Conservation Assessment (update)	2003
Administrative History	2003
Baseline Monitoring and Analysis of Health of the Salt Marsh Ecosystem	2002
Baseline Water Quality Data Inventory and Analysis	2001
Safety Plan	2000
Hazardous Materials Communication Plan	2000
Archeological Overview and Assessment	2000
Plant Inventory	1998
Archeological Testing and Remote Sensing Survey to Locate the Cemetery Containing the Graves of the Immortal Six Hundred	1997
Test Excavations at Civil War Period Battery Halleck	1995
Land Protection Plan (update)	1995
Collection Management Plan	1995
Cockspur Island Lighthouse Historic Structure Assessment Report	1994
Land Acquisition Plan	1980
Fire Management Plan	1978
Fort Pulaski National Monument National Register of Historic Places Nomination	1975
Furnishings Plan	1968
Siege of Savannah Battle Site, 1779	1965
Wild Rivers Study Material – Upper Savannah Tributary Rivers	1964
Historical Handbook	1954
The Siege and Capture of Fort Pulaski	1951
A Summary of the Work Accomplishments of the Civilian Conservation Corps at Fort Pulaski National Monument	1940
Robert E. Lee and Fort Pulaski	1940
Time Studies: Pottery and Trees in Georgia	1938



Southeast Region Foundation Document Recommendation Fort Pulaski National Monument

July 2016

This Foundation Document has been prepared as a collaborative effort between park and regional staff and is recommended for approval by the Southeast Regional Director.

RECOMMENDED Melissa Memory, Superintendent, Fort Pulaski National Monument

APPROV

Kan Austin, Regional Director, Southeast Region

7/28/2016

Date

8/4/2011

Date



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

FOPU 348/133294 August 2016

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