



# Scoping Newsletter

## Environmental Assessment for the Bank Stabilization of the Cockspur Island Lighthouse

The National Park Service, in collaboration with US Army Corps of Engineers, is preparing an Environmental Assessment for the bank stabilization of the island where the Cockspur Island Lighthouse is located.

The island is located southeast of Fort Pulaski, situated between the north and south channels of the Savannah River. The small island is almost completely composed of common oyster shells (*Crassostrea virginica*), portions of which are live oyster reefs and other portions which are dead shell. Sparse areas of saltmeadow cordgrass (*Spartina alterniflora*) and tidal pools are also present on the island.

The Cockspur Island Lighthouse is located on the southeastern tip of the island, marking the South Channel of the Savannah River. The lighthouse is a forty-six foot tall brick structure. It is accessible to the public during low tide by small boats.

### Cockspur Island Lighthouse History

The Cockspur Island Lighthouse was originally constructed in 1849 to guide vessels to the port of Savannah. In 1854, a massive hurricane destroyed the tower as high winds and surging waters hit the island. The lighthouse was immediately rebuilt using Savannah Gray brick and the original foundation was expanded in 1855. The keeper's quarters were located nearby on the island.

At the outbreak of the American Civil War, the lighthouse was extinguished by Confederate forces to hinder the Union blockading efforts. On April 10, 1862, Union forces in eleven batteries along the northern shore of Tybee Island opened fire on Fort Pulaski. During this 30-hour long battle,



The Cockspur Island Lighthouse is located southeast of Fort Pulaski National Monument.

cannons were fired across the mouth of the Savannah River, with the lighthouse directly in the line of fire. Approximately five thousand rounds were fired between the Confederates and the Union, and the lighthouse remained unscathed. The Cockspur Island Lighthouse is significant because it served as a witness to the battle of Fort Pulaski.

After the war's end the lighthouse was re-lit and painted white for use as a day mark. In 1881, the lighthouse was hit by another hurricane. The 23-foot storm surge filled the interior of the lighthouse and destroyed the original keeper's residence. Following the hurricane, the light keepers decided to move the residence to higher ground, building a two-story frame house atop Fort Pulaski's massive walls.

On June 1, 1909, the Cockspur Island Lighthouse was officially extinguished due to the natural and

man-made changes to the Savannah River. With time, the North Channel had been dredged deeper to accommodate larger vessels and the South Channel gradually lost its importance.

Since being extinguished, the vacant Cockspur Island Lighthouse was passed through several owners, including the US Coast Guard. On August 14, 1958, the lighthouse was obtained by the National Park Service and became a part of the Fort Pulaski National Monument.



Cockspur Island Lighthouse during high tide.

## Cockspur Island Lighthouse Today

The Cockspur Island Lighthouse is one of five historic lighthouses remaining in Georgia. The lighthouse is only accessible to park visitors during low tide. The lighthouse is supported by a wooden grillage base that exists under the foundation of the structure. This base consists of support beams that were sunk seventy feet into the salt marsh clay.

There are two principle issues affecting the Cockspur Island Lighthouse: island erosion and infestation of the wooden foundation of the lighthouse by marine borers. The island is under water for approximately fifty to sixty percent of the day. During high tide, the island is completely submerged, as well as the first several steps to the lighthouse's doorway. Natural processes, including winds and tides, as well as waves caused by passing ships have eroded the island away, so now it only consists of a narrow strip of land visible during low tide. Up until 1980, the island offered a significant amount of protection for the lighthouse.

Marine borer infestation also threatens the lighthouse today. Two groups of organisms, teredo worms (shipworms) and gribbles, can damage wood submerged in salt or brackish water in the Savannah area. The Cockspur Island Lighthouse is currently being affected by shipworms. A shipworm is a mollusk that bores itself into wood, where it will stay for life (2 to 10 months). While living in its burrow, the shipworm will eat the wood and lay approximately 100 million eggs.

Portions of the lighthouse's wooden foundation are now exposed and have visual shipworm damage. The National Park Service has completed emergency repairs to the portions of exposed wood by covering the wood foundation, thus removing the oxygen that encourages shipworm infestation. The shipworm infestation can compromise and eventually destroy the wooden foundation. If the foundation fails, the historic lighthouse would fall into the water and be lost.



Damaged lighthouse steps.



The NPS has been making emergency repairs to the lighthouse's exposed wooden foundation that is being damaged by shipworms.

## Project Description

The proposed project is to stabilize the banks of the island. To do this, a portion of the island would be protected by placing riprap along the shoreline. This riprap would only be visible during extreme low tide events. The area from the riprap to the interior of the island surrounding the lighthouse would be filled with a slope approximately 3:1.

Protection of the 1860s viewshed would be particularly important to the National Park Service while planning the bank stabilization. Fill material has not been determined at this time, however materials suggested include Coast Guard riprap, dried oyster shells, or vegetated saltmeadow cordgrass. The fill material would resemble the 1860s historic viewshed.

The secondary benefit of the bank stabilization would be lighthouse protection. By raising the bank to the level of high tide, the damage from wind, wave, and tides would be minimized. Further deterioration of the lighthouse foundation and erosion of the oyster reef island would halt.

The Cockspur Island Lighthouse is currently open to the public, although access is limited to low tide. Visitors can paddle by kayak or canoe to the island

and climb to the top of the lighthouse. Also, visitors are able to view the lighthouse from the Lighthouse Overlook Trail located at Fort Pulaski. The current substrate of the island is composed of live oyster reef and oyster shells. This substrate is very sharp and becomes extremely slippery when wet, creating a treacherous walking surface for visitors. The fill material proposed between the shoreline and lighthouse would create a safe walking surface for visitors. In addition, the lighthouse would be accessible during high and low tides, allowing visitors to access the lighthouse for longer periods throughout the day. This would ultimately increase the visitor use of the area.



Live reefs on the island create an unsafe walking surface for visitors.



# NEPA Process and Public Scoping Period

## NEPA Process

The National Park Service must follow the National Environmental Policy Act (NEPA) of 1969 to assure consideration of important environmental issues. The bank stabilization being considered on the island will be analyzed during the NEPA process.

The environmental effects resulting from the proposed bank stabilization will be evaluated in the Environmental Assessment. The analysis will consider impacts to topics such as wildlife habitat, vegetation, wetlands, floodplains, rare/threatened/endangered species, aquatic resources, air quality, water quality, socioeconomics, cultural resources, soils, park visitor use and experience, and public health and safety.

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



Fort Pulaski National Monument is located off of Highway 80 approximately 15 miles east of Savannah. The Cockscur Island Lighthouse can be reached by canoe or kayak.



National Park Service  
U.S. Department of the Interior

The mission of Fort Pulaski National Monument is to preserve the historic fort, its associated structures and surroundings, and to interpret its roles in coastal fortifications, military technology, and the Civil War.

**Fort Pulaski National Monument**  
P.O. Box 30757  
Savannah, GA 31410

**Phone**  
912-786-5787

**Email**  
[FOPU\\_Superintendent@nps.gov](mailto:FOPU_Superintendent@nps.gov)

**Website**  
[www.nps.gov/fopu](http://www.nps.gov/fopu)

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.

## Public Scoping Period

As part of the NEPA process, the proposed project will be evaluated in an Environmental Assessment, which will analyze the potential environmental effects of the bank stabilization of the island. At this time, the Superintendent is announcing a 30-day public scoping period to solicit public comments on this project. During this period, the public is invited to identify any issues or concerns they might have with the proposed project so that the National Park Service can appropriately consider them in the Environmental Assessment. You may submit your comments electronically at the National Park Service's Planning, Environment, and Public Comment website (<http://parkplanning.nps.gov>). If you are unable to access this website, please submit written comments to :

Superintendent  
Fort Pulaski National Monument  
PO Box 30757  
Savannah, GA 31410-0757

Please submit comments by May 7, 2008. Once the Environmental Assessment is developed, it will be made available for public review for a 30-day period. If you wish to be added to the park's mailing list, please be sure to indicate that in your response.

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



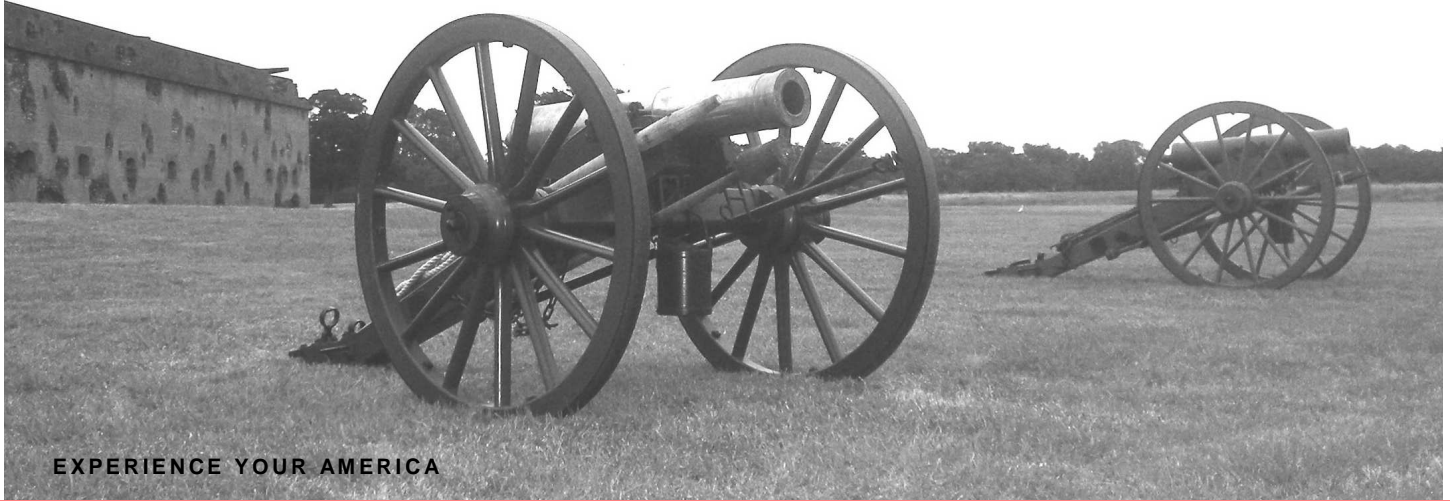
National Park Service  
U.S. Department of the Interior

Fort Pulaski National Monument  
P.O. Box 30757  
Savannah, GA 31410-0757  
912-786-5787  
[www.nps.gov/fopu](http://www.nps.gov/fopu)

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