

FINAL

**ENVIRONMENTAL ASSESSMENT (EA)
AND FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR THE
MORRIS ISLAND LIGHTHOUSE SECTION 103 PROJECT
AT THE
MORRIS ISLAND LIGHTHOUSE
IN
CHARLESTON COUNTY, SOUTH CAROLINA**



**U.S. Army Corps of Engineers
Charleston District
September 2004**

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1. BACKGROUND

The Morris Island Lighthouse is located along the shore of South Carolina just to the southwest of the Charleston Harbor entrance channel, as well as to the northeast of Folly Beach, in Charleston County (see Figures 1 and 2). The lighthouse is only a few miles from the City of Charleston. The lighthouse used to be on Morris Island, but a high erosion rate over the years has caused the island to retreat to the northwest and has left the lighthouse standing isolated and surrounded by the Atlantic Ocean. Continued erosion around the foundations has placed the lighthouse in jeopardy.

A light at Morris Island has served as the entrance marker to Charleston from 1673 to 1962. For nearly three hundred years, much like the Statue of Liberty has marked the entrance to New York City, the Morris Island Lighthouses marked the seaward portal to Charleston Harbor. From the first establishment of the beacon the lightkeepers of history have served seagoing travelers destined for the South Carolina coast. The lights were also an integral part of several major Civil War battles.

Construction of the present Morris Island Lighthouse was completed in 1875. In 1962 the U.S. Coast Guard decommissioned the lighthouse when a new lighthouse was constructed on the north side of Charleston Harbor on Sullivan's Island. Due to the lighthouse's historical significance, it was placed on the National Register of Historic Places in 1982. A non-profit corporation (Save the Light, Inc.) bought the lighthouse from a private landowner in 1999 with the intent of restoring the structure. Ownership of the lighthouse was transferred to the state of South Carolina on December 13, 2000.

Save the Light, Inc. requested assistance, by letter of March 12, 1999, from the U.S. Army Corps of Engineers under Section 14 of the 1946 Flood Control Act, as amended, to eliminate the threat of a structural failure of the lighthouse caused by continued erosion. Although initiated under Section 14 authority, the project authority has been changed to Section 103 of the River and Harbor Act of 1962. Coincident with the change in ownership of the lighthouse from Save the Light, Inc. to the State of South Carolina, sponsorship of the

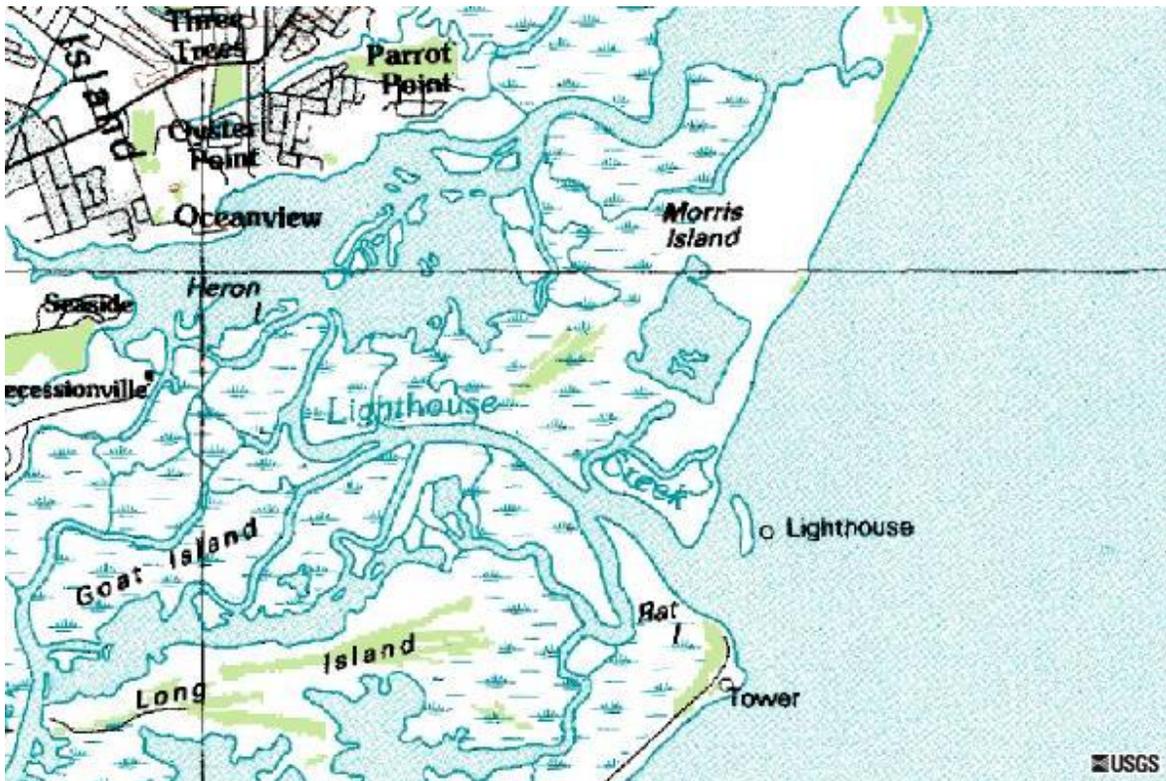
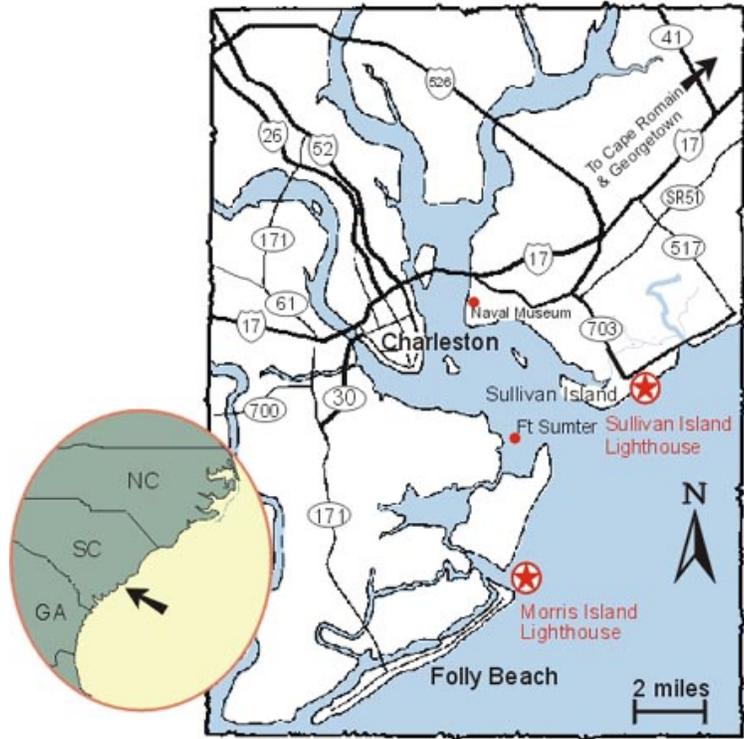


FIGURE 1 - MORRIS ISLAND AREA & LOCATION MAPS



FIGURE 2 - MORRIS ISLAND LIGHTHOUSE AERIAL VIEW AND AS SEEN FROM FOLLY BEACH (LOOKING NORTH)

project, changed to South Carolina Department of Natural Resources (SCDNR). In 2004, sponsorship of the project changed again with the State of South Carolina Budget and Control Board (SCB&CB) assuming sponsorship of the project.

2. DESCRIPTION OF THE PROPOSED PROJECT

This project calls for the placement of a new ring of sheet pile approximately 3 feet outside an existing ring of sheet pile that was placed there in 1939. Armor stone, extending approximately 70 feet outward and at least 12 feet above mean low water, is expected to be placed outside the new ring of sheet pile (see Figures 3 and 4). The placement of sheet pile, geotextile, rock, and armor stone will be used to reinforce and stabilize the lighthouse foundations. Top elevation of the armor stone will be approximately 12.5 feet MLLW while the existing pile cap on the foundations sits at sea level. The contractor may need to excavate an access channel through migrating sand bars in the vicinity of the lighthouse in order to get close enough to do the work. Any excavated sand will either be sidecast away from the access channel or used during construction of the project.

3. NONSTRUCTURAL ALTERNATIVES

- a. **Relocate the lighthouse to high ground.** It is physically possible to relocate a structure such as a lighthouse. This has been demonstrated by the relocation of the Cape Hatteras, NC and Hunting Island, SC lighthouses. Both of these lighthouses were being subjected to shoreline erosion, but were still on high ground when they were moved. This alternative would relocate Morris Island Lighthouse from its current location in the Atlantic Ocean to Morris Island. To accomplish this effort, a causeway would have to be constructed between Morris Island and the lighthouse capable of supporting a 3,200-ton structure. This alternative was ruled out due to excessive costs (the Cape Hatteras work was nearly \$12,000,000) and potential impacts to the structure during relocation.
- b. **No Action.** This alternative was ruled out because “no action” would allow the structure to continue to be susceptible to shoreline erosion and wave attack. This lack of action would eventually lead to the lighthouse collapsing into the Atlantic Ocean. The result would be the eventual destruction of the Lighthouse and the loss of this historic structure.

4. STRUCTURAL ALTERNATIVES

- a. **Multiple coffer cell ring with stone filled cells and riprap and filter cloth around outside perimeter.** A multiple cell cofferdam surrounding the lighthouse could be constructed in the coastal environment. Such construction would require the use of jack-up or spud barges. A continuous string of circular cofferdam cells constructed of steel sheet piles could be constructed around the lighthouse and subsequently filled with stone. To prevent erosion at the toe of

the sheet pile, armor stone laid on bedding stone and filter cloth would be necessary. The height of these cofferdam cells could be set at such elevation as to prevent most waves from overtopping the wall.

- b. **Geotube coffer ring.** Three 10-foot diameter geotubes placed against the existing sheet pile remains would provide protection to approximate elevation +7 MLLW. The first tube would be placed in the scour trough at the base of the existing sheet pile ring placed by the U.S. Coast Guard in 1939. The second tube would be placed in front of the first tube, and the third tube would be placed on top of the first two. All tubes would be filled with concrete. Following the proper curing period, the geotubes would be stripped off, leaving only the three concrete rings.
- c. **Deep single cell sheetpile ring around base of lighthouse with riprap and filter cloth around the outside perimeter of the cell.** A single row sheet pile cofferdam will provide for confinement of soils under the lighthouse, and act as a reinforcing member to prevent lateral spreading of foundation soils, prevent erosion, and assist the existing timber pile foundation in transferring the weight of the lighthouse to the dense sands at depth. The sheet pile cofferdam will be fronted with armor stone underlain with bedding stone and filter cloth to protect the sheet pile from wave forces and to prevent toe scour from wave action. This alternative would provide sufficient material and armoring to both protect the foundations as well as stay in place for the project life.
- d. **Shallow single cell sheet pile ring around base of lighthouse with riprap and filter cloth around the outside perimeter of the cell.** This alternative is the same as alternative c. above, except instead of the sheet pile being driven to elevation -65 feet MLLW, the sheet pile would be driven to elevation -35 feet MLLW. This is the recommended plan. "Save the Light" rejected the deep sheet pile alternative because it would interfere with their planned future jet grouting to solidify the soils underneath the lighthouse.

5. AFFECTED ENVIRONMENT

The area that would be affected is about 28,000 square feet surrounding the existing lighthouse foundations. This area used to be part of Morris Island and used to support at least 15 structures in addition to the lighthouse, but now the area is under water most of the time and is classified as marine, intertidal, unconsolidated shore. Sediments are unstable and vegetation is absent, making it a rigorous environment for macroinvertebrates. Zooplankton, benthic invertebrates, fishes, birds, mammals, and reptiles are components of the marine system. Numerous shorebirds and wading birds also utilize the area's marine habitats. There are, however, no significant environmental resources remaining within the project area.

6. ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED PROJECT

Movement of the construction equipment to the site will likely require the relocation of some of the sand deposits around the lighthouse to create a channel with sufficient water depth. Some of this material may be used to shape the area prior to placing the geotextile material on the bottom. Some benthic organisms will be negatively impacted, but the placement of rock will provide additional substrate for organisms to attach when construction is complete. The hauling and placement of material during construction would temporarily increase noise levels along the in the vicinity of the lighthouse (and on Folly Beach if the north end of Folly Beach is used for site access). No threatened or endangered species, turtle nesting, floodplains, or other significant resources would be significantly affected during the construction activity, with the possible exception of cultural resources (see discussion in paragraph 9). Construction is scheduled for the late-spring through early-summer months of 2005 (i.e., April - July) when storm conditions (i.e., “northeasters” and hurricanes) should be minimal. This schedule could change due to funding constraints, contractual issues, inclement weather, equipment failure, or other unforeseen difficulties. The proposed project will not, however, cause any significant decrease in fishery habitat value in the borrow area (see ESSENTIAL FISH HABITAT discussion in paragraph 11). Terrestrial habitat will be created in the form of armor stone. There is no known hazardous, toxic, or radiological waste (HTRW). The lighthouse has been in an open ocean environment subject to wave action, erosion, and shifting sand for over 50 years; therefore, the potential for existence of HTRW in the study area is minimal. Numerous telephone conversations with SCIAA, SHPO, and SCDNR Heritage Trust personnel discussed potential underwater cultural resources in the footprint of the proposed construction. It was determined that the remnants of the old building foundations are of minor significance compared to the historical value of the lighthouse. The proposed project is the least damaging alternative that will protect the foundations of the historic lighthouse.

7. LIST OF AGENCIES BEING CONSULTED

- a. The U.S. Fish and Wildlife Service (USFWS)
- b. National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries)
- c. The South Carolina Department of Health and Environmental Control (SCDHEC)
- d. The SCDHEC Office of Ocean and Coastal Resource Management (OCRM)
- e. The South Carolina Department of Archives and History, State Historic Preservation Officer (SHPO)
- f. The South Carolina Institute of Archaeology and Anthropology (SCIAA)
- g. The South Carolina Department of Natural Resources (SCDNR)

Correspondence and agency letters providing concurrence or comments with regard to this proposed Federal action can be found in Appendix 2. All agencies concurred with the proposed project to place sheet pile and armor stone surrounding the lighthouse in order to protect it, including material being placed in a CBRA zone. There was, however, concern expressed by the SCIAA, SHPO, and SCDNR that the construction would damage old building foundations at the base of the lighthouse that now rest under water. However, it has been determined that the remnants of the old building foundations are of minor significance compared to the historical value of the lighthouse, and protecting the lighthouse will be adequate mitigation for any damage to cultural resources that may occur in the immediate vicinity of the lighthouse.

It is the U.S. Army Corps of Engineers (USACE) intent to allow site mobilization to be at the discretion of the construction contractor (with stipulations) in order to minimize costs; therefore, the details of site mobilization will not be finalized until after a contract is awarded. SCDNR and SHPO have expressed concern that using the north end of Folly Island as a staging area or access point could be damaging to the in-situ cultural resources. USACE is continuing to coordinate with the agencies regarding the best course of action and will instruct the contractor to avoid impacts to cultural and natural resources. If it becomes necessary to use the north end of Folly Island for construction purposes, further consultation with SCDNR and SHPO will occur and every attempt will be made to mitigate damages to cultural and natural resources. Any requirements imposed by SCDNR and SHPO related to cultural resources will be incorporated into the project.

NOAA Fisheries has recommended that any dredging needed to gain access to the construction site for equipment and materials be done from November 15 to March 1 in order to avoid periods of high biological activity. Conversations via telephone with agency personnel indicate that, while the suggested time frame does offer a more desirable condition, there is no perfect window of inactivity in the indigenous fisheries populations. Due to safety concerns associated with working in the open ocean environment, construction is expected to occur in late-spring through early-summer 2005. NOAA Fisheries has agreed that this construction window, although not desirable, is acceptable.

If it is decided that access to the Morris Island Lighthouse should be gained via the north end of Folly Island, U.S. Fish and Wildlife Service has recommended the following:

- Minimize access channel dimensions and required dredging
- Do not construct any new access roads or clear vegetation on Folly Island
- Restore any required dune crossing on Folly Island
- Once construction is initiated, complete the project in a timely manner

8. PRIOR APPROVALS/CERTIFICATION

A 404(b)(1) Assessment, which evaluated the effect of the proposed project on wetlands, was prepared (see Appendix 3). Water quality certification from SCDHEC was requested on August 8, 2003, (see Appendix 4); however, due to project delays caused by change in sponsorship from SCDNR to SCB&CB the request had to be withdrawn. A new water quality certification request will be submitted to SCDHEC. Based on discussions with

SCDHEC for the original water quality certification request, no problems are anticipated. Any requirements imposed by SCDHEC related to water quality certification will be incorporated into the project.

Coordination with SCDHEC-OCRM is ongoing and it is expected that coastal consistency will be issued upon finalization of this EA.

9. ARCHAEOLOGICAL AND HISTORICAL RESOURCES

The Morris Island Lighthouse was nominated to the National Register in 1982. According to the nomination, there were as many as 15 additional structures associated with this lighthouse, all of which have been destroyed by a combination of Morris Island eroding back plus demolition and left the lighthouse standing isolated and surrounded by the Atlantic Ocean. What little that remains of the associated structures appears to be remnant foundations that are usually under water. The National Register nomination does not appear to include the associated structures in the submission; however, the entire complex constitutes an archaeological site that has not been evaluated for the National Register of Historic Places.

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their actions on historic properties. The construction of the project will likely impact cultural resources associated with the lighthouse, although this impact will be offset by the preservation of the existing lighthouse.

The current restoration effort was coordinated with the State Site File Administrator, SHPO, and the Federally recognized Tribes having an historical association with the State of South Carolina. If cultural resources are discovered during construction of this project, SHPO and the Federally recognized tribes will be notified and appropriate protective measures will be taken so that nothing of significance will be lost.

10. ENVIRONMENTAL JUSTICE

Executive Order 12898 requires Federal agencies to develop a strategy for its programs, policies, and activities to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment. The U.S. Army Corps of Engineers is committed to the principles of environmental justice. Due to the remote location of the construction site from any residential areas, there will be no impacts to the above-stated populations.

11. ESSENTIAL FISH HABITAT

The issuance of the August 8, 2003 Public Notice initiated the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA). Our current determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and NOAA-Fisheries.

EFH Assessment

- a. A description of the proposed action is located in paragraph 2 above.
- b. Analysis of individual and cumulative effects on EFH: The proposed project is located in an area identified as Essential Fish Habitat for larval, juvenile, and/or adult red drum (*Sciaenops ocellata*), summer flounder (*Paralichthys dentatus*), black sea bass (*Centropristis striata*), white shrimp (*Litopenaeus setiferus*), and brown shrimp (*Farfantepenaeus aztecus*). Categories of EFH that would be impacted by this work include marine and estuarine water column and sand/mud bottom. These fishery resources and associated EFH are discussed in detail in documents prepared by the South Atlantic Fishery Management Council (SAFMC). Species under jurisdiction of the Mid-Atlantic Fishery Management Council also occur in the project area. These species and their associated EFH include juvenile and adult summer flounder, which occur on marine and estuarine bottoms and in the water column, and juvenile and adult bluefish (*Pomatomus saltatrix*), which occur in the water column.

The project area also provides nursery and forage habitat for other commercially and recreationally important species including black drum (*Pogonias cromis*), Atlantic croaker (*Micropogonias undulatus*), spot (*Leiostomus xanthurus*), Florida pompano (*Trachinotus carolinus*), spotted seatrout (*Cynoscion nebulosus*), Gulf kingfish (*Menticirrhus littoralis*), Atlantic menhaden (*Brevoortia tyrannus*), striped mullet (*Mugil cephalus*), and blue crab (*Callinectes sapidus*). Several of these species serve as prey for other species (e.g., mackerels, snappers, and groupers) that are managed by the SAFMC and for highly migratory species (e.g., billfishes and sharks) that are managed by the NOAA Fisheries. Detailed information on Federally managed fisheries and their EFH is provided in the 1998 amendments of the Fishery Management Plans of the South and Mid-Atlantic Regions prepared by the SAFMC and the Mid-Atlantic Fishery Management Council. The amendments were prepared as required by the MSFCMA (P.L. 94-265). Macro invertebrate inhabitants of the near shore coastal zone are important food items for a number of transitory and resident fishes. Characteristic fauna of southeastern beaches may include haustoriid amphipods, polychaete worms, isopods, and ghost crab (*Ocypode quadrata*). Near shore coastal waters are also inhabited by sea turtles, and beachfront nesting by the threatened loggerhead sea turtle (*Caretta caretta*) occurs during the summer.

- c. Charleston District's views regarding effects: It appears that this project would not result in significant long-term harm to the ecologically diverse aquatic habitats, such as "live rock" and other stable bottoms. Most impacts are believed to be limited to relatively sparse benthic epifauna and infauna, which includes mollusks, crustaceans, and polychaete worms. Most of these organisms would be at least temporarily eliminated through excavation and burial as inter-tidal zones are converted to an armored island environment. Materials used for protection are unlikely to be transported onto other areas that support benthic communities.

Other potential impacts include localized turbidity elevation and possible reduction of dissolved oxygen in the surrounding water column. Elevated turbidity can reduce photosynthesis activity of pelagic and benthic algae. Suspended sediments can cause physical damage to respiratory structures of early life history stages of fishes and invertebrates.

- d. A borrow area is not needed for this project, however, sand deposits surrounding the structure may be moved somewhat to allow access of the work barges and these same deposits may be re-shaped prior to laying down the geotextile material and stone. Construction materials will all be brought in by barge.
- e. There will be no need to monitor sand borrow sites.
- f. Proposed mitigation, if applicable: Not applicable in this case.
- g. A discussion of proposed dredging activity time considerations is provided in paragraph 7 above.

12. BIOLOGICAL ASSESSMENT OF THE EFFECT ON THREATENED AND ENDANGERED SPECIES

Loggerhead sea turtles appear to be the only threatened or endangered species that could be affected by the proposed project. Loggerhead sea turtles utilize nearby beaches for nesting; however, they do not utilize the immediate area around the lighthouse for nesting. The expected construction window (i.e., late-spring through early summer) could lead to potential conflicts with sea turtles swimming in the area. In order to minimize any potential effects to Loggerhead sea turtles the following precautions will be followed during construction activities:

- a. If construction of the protective rock berm occurs during the period between May 1 and November 30, the construction crew should be alert to any sea turtle activity around the construction site. Care will be exercised to avoid impacting any turtles swimming in the area by stoppage of work until sea turtle activity ceases.
- b. For construction activities occurring during the period May 1 through November 30, all lighting associated with the project will be limited to the minimum amount necessary around active construction areas to satisfy Occupational Safety and Health Administration (OSHA) requirements.

Adherence to the above precautions should minimize the effects to loggerhead sea turtles and emerging loggerhead sea turtle hatchlings swimming through and feeding in the area. Some minor impacts are possible since the work is anticipated to be accomplished in the late-spring through early-summer 2005 time frame; however, we have concluded that the proposed project is not likely to adversely affect the Loggerhead sea turtle.

Other threatened or endangered species listed for Charleston County that would be expected to occur in the project area include the West Indian manatee, Kemp's ridley sea turtle, Leatherback sea turtle, Green sea turtle, and Shortnose sturgeon.

The Loggerhead sea turtle is considered to be the only sea turtle species likely to nest on the islands near the project area. Therefore, the proposed project is not likely to adversely affect the Kemp's ridley sea turtle, Leatherback sea turtle, or the Green sea turtle.

The West Indian manatee is an uncommon summer resident of the South Carolina coast. To ensure the protection of any manatees that may be present, personnel associated with the project will be instructed about the possible presence of manatees and the need to avoid them with vessels and other equipment. For these reasons, it has been determined that the proposed project is not likely to adversely affect the West Indian manatee.

Because of the shallow waters associated with the project, it is unlikely that Shortnose sturgeon occur in the immediate project area. For this reason, it has been determined that the proposed project is not likely to adversely affect the Shortnose sturgeon.

U.S. Fish and Wildlife Service (USFWS) requested that finalization of threatened and endangered species consultation be withheld until a decision is made about access of the site from the north end of Folly Beach. Once a decision is made about construction site access, consultation with USFWS will be finalized, and any requirements imposed by USFWS related to threatened and endangered species will be incorporated into the project.

13. CONCLUSIONS

The proposed action consists of placement of a ring of sheet pile, geotextile fabric, man-sized and, armor stone on approximately 28,000 square feet surrounding the foundations of the Morris Island Lighthouse. Following the installation of the sheet pile and the construction pier, a total volume of approximately 3,600 tons of bedding stone will be placed on the geotextile mat, followed by approximately 7,400 tons of armor stone on top. This volume of material is needed to avoid destruction of the lighthouse foundations and tower. The "no action" alternative would not be acceptable, since it would not eliminate the threat of the loss of this historic structure. All other options except the proposed action would be inadequate or too costly. All reasonably foreseeable impacts, which could result from the proposed action, have been considered, and no significant adverse impacts were identified. Therefore, the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment, and the preparation of an Environmental Impact Statement (EIS) provided for under Section 102(c) of the National Environmental Policy Act of 1969 is not required. A "Finding of No Significant Impact" is included in this EA.

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE
SECTION 103 SHORELINE PROTECTION PROJECT
AT THE
MORRIS ISLAND LIGHTHOUSE
IN
CHARLESTON COUNTY, SOUTH CAROLINA**

Based upon the attached Environmental Assessment and a consideration of other pertinent documents, I conclude that the environmental effects of the proposed emergency stream bank and shoreline protection project at Morris Island Lighthouse are not significant and the preparation of an Environmental Impact Statement is not warranted. Specific factors considered in making this determination include the following:

- a. Wetlands would not be affected.
- b. Cultural resources are either being preserved or properly evaluated with subsequent data collection.
- c. Endangered species would not be significantly affected.
- d. No significant land use changes would occur.
- e. Air and noise quality would not be significantly affected.
- f. Fish and wildlife would not be significantly affected.
- g. Aesthetics would not be significantly affected.
- h. Flood plain values would not be affected.
- i. Benthic invertebrate communities would not be significantly affected.
- j. Construction activities would be short term and would not affect navigation or recreational boating.

Date: 4-30-04



ALVIN B. LEE
Lieutenant Colonel, EN
Commander, U.S. Army Engineer District
Charleston

APPENDIX 1



EASTERN SHAWNEE TRIBE OF OKLAHOMA

P.O. Box 350 • Seneca, MO 64865 • (918) 666-2435 • FAX (918) 666-3325

August 18, 2003

*Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107*

Re: See Attached

To Whom It May Concern:

Thank you for notice of the referenced project(s). The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,

A handwritten signature in cursive script that reads "Charles Enyart".

*Charles Enyart, Chief
Eastern Shawnee Tribe of Oklahoma*

Cc: S.C. Department of Health & Environmental Control

Page Two

P/N #2003-1E-243

P/N #2003-1E-232-C (Lot #13)

P/N #2003-1L-240-C

P/N #2003-1G-239-C

P/N #2003-1M-237-C

P/N #2003-1L-236-C

P/N #2003-1A-216-C

P/N #2002-1W-428-C

P/N #2003-1G-215-C-W

P/N #202-1L-127-c (Revised)

P/N #2003-1R-219

P/N #2003-1E-220-C(Lot #1)

P/N #2003-1E-221-C(Lot 32)

P/N #2003-1E-222-C(Lot #3)

P/N #2003-1E-223-C (Lot #4)

P/N #2003-1E-224-C (Lot #5)

P/N #2003-1E-225-C (Lot #6)

P/N #2003-1E-226-C (Lot #7)

P/N #2003-1E-227-C (Lot #8)

P/N # 2003-1E-228-C (Lot #9)

P/N #2003-1E-229-C (Lot #10)

P/N #2003-1E-230-C (Lot #11)

P/N #2003-1E-231-C (Lot #12)



Creek Nation of Oklahoma

Cultural and Historic Preservation

June 11, 2003

Mr. Robert Chappell
Department of the Army
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107

**RE: Emergency Stream Bank and Shoreline Protection study of the
Morris Island Lighthouse in South Carolina**

Dear Mr. Chappell,

In keeping with a government-to-government relationship and in compliance with 36CFR800, the Muscogee (Creek) Nation appreciates the invitation to participate as a consulting party.

At this time we are unaware of any cultural or archaeological sites in the project area that would be eligible for inclusion in the National Register.

We do request that the Muscogee (Creek) Nation Cultural Preservation Office be kept informed if there are cultural or archeological resources materials incurred during the project development.

Sincerely,

Joyce A. Bear
Historic Preservation Officer
Muscogee (Creek) Nation



DELAWARE TRIBE OF INDIANS

220 N.W. VIRGINIA • BARTLESVILLE, OKLAHOMA 74003

TELEPHONE: (918) 336-5272 • FAX: (918) 336-5513

June 5, 2003

Mr. Joseph Jones
U.S. Army Corps of Engineers, Charleston District
ATTN: Planning Branch
69A Hagood Avenue
Charleston, South Carolina 29403-5107

Re: Emergency Stream Bank and Shoreline Protection Study of the
Morris Island Lighthouse, South Carolina

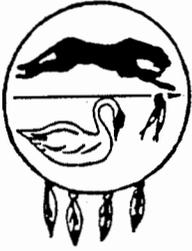
Dear Mr. Jones,

Thank you for informing us about the above referenced project. Our review indicates that this project is not located in an area once inhabited by the Delaware Tribe. As such, there is little potential for impacting unknown archaeological sites culturally affiliated with the Delaware Tribe and we have no particular objection to the proposal. However, our suggestion is that if any human remains are accidentally unearthed during the course of the project that you cease development immediately and inform the appropriate Indian Tribes of the inadvertant discovery.

If you have any questions, feel free to contact this office by phone at (918) 336-5272.

Sincerely,

Brice Obermeyer
NAGPRA Director
Delaware Tribe of Indians



EASTERN SHAWNEE TRIBE OF OKLAHOMA

P.O. Box 350 • Seneca, MO 64865 • (918) 666-2435 • FAX (918) 666-3325

October 28, 2003

*Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, South Carolina 29403-5107*

*Re: Assessment & Finding of no significant
impact for the Morris Island Lighthouse Section
103, Charleston County, South Carolina*

To Whom It May Concern:

Thank you for notice of the referenced project(s). The Eastern Shawnee Tribe of Oklahoma is currently unaware of any documentation directly linking Indian Religious Sites to the proposed construction. In the event any items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) are discovered during construction, the Eastern Shawnee Tribe request notification and further consultation.

The Eastern Shawnee Tribe has no objection to the proposed construction. However, if any human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, the construction should stop immediately, and the appropriate persons, including state and tribal NAGPRA representatives contacted.

Sincerely,

*Charles Enyart, Chief
Eastern Shawnee Tribe of Oklahoma*

THPO

Catawba Indian Nation
Tribal Historic Preservation Office
P. O. Box 750
Rock Hill, South Carolina 29731
803-328-2427 Fax 803-328-5791
ccppcrafts.com

THPO 2004-1-22



Attention: Joseph A. Jones
Department of the Army
Charleston District, Corps of Engineers
69 A Hagood Avenue
Charleston, South Carolina 29403-5107

RE: THPO Code # 2004-1-22, Environmental assessment, Morris Island Lighthouse, Charleston Co., SC

Dear Mr. Jones,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas.

However, early historic and pre-contact ceded homelands of the Siouan speaking Indians, which include the Catawba, covered much of the Piedmont region of North and South Carolina, as well as southern Virginia. **We would ask that the Catawba be notified if Native American archaeological sites are located during the construction phase of this project.** The Catawba would expect the opportunity of being consulted with regard to the anticipated impact and final deposition of these sites. In addition, we request that a copy of any final survey report be sent to our office.

If you have questions please feel free to contact our office 803-328-2427, ext. 233.

Sincerely,


Wenonah G. Haire
Tribal Historic Preservation Officer

cc: Gilbert Blue, Chief, Catawba Indian Nation
Executive Committee, Catawba Indian Nation
John E. George, Traditional Medicine, Catawba Indian Nation

Preserve, Promote, and Protect

APPENDIX 2



Office of Ocean & Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

(843) 744-5838 (843) 744-5847 (fax)

Christopher L. Brooks, Deputy Commissioner

September 24, 2003

Mr. Joseph A. Jones
Chief, Planning Branch
U.S. Army Corps of Engineers
69A Hagood Ave.
Charleston, SC 29403

RE: Morris Island Lighthouse, P/N# 2003-1R-219

Dear Mr. Jones,

Our office has received the Joint Public Notice describing the above-referenced project to protect the Morris Island Lighthouse. The Project Information section of the Joint Public Notice describes three methods that may be utilized to provide construction access to the island: dredging a channel and placing the sand in a berm around the lighthouse, dredging a channel and placing the sand into a temporary geotube, or using pontoon barges and working on certain stages of the tide. Since the third option would be the least environmentally damaging, OCRM recommends that it be utilized for construction access. However, we understand this may place limitations on the construction process that make this option less feasible.

We are requesting an indefinite time extension on our coastal zone consistency certification of this project until 30 days after the final Environmental Assessment document has been completed and distributed for review.

I look forward to the opportunity to discuss this project in further detail at our meeting on October 10th. Feel free to contact me if you need any additional information.

Sincerely,

William C. Eiser
Staff Oceanographer

South Carolina Department of Natural Resources



John E. Frampton
Director
John V. Miglarese
Deputy Director for
Marine Resources

September 8, 2003

Mr. Joseph A. Jones
Chief of Planning Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

REF: P/N 2003-1R-219

Morris Island Lighthouse
Section 103

Dear Mr. Jones:

Personnel with the South Carolina Department of Natural Resources have reviewed the above referenced project and offer the following comments.

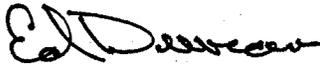
The proposed work involves the placement of sheet piling and stone around the base of an existing lighthouse. The stone will be placed to a distance of about 68' out from the sheet piling for a total footprint of approximately 200'. Three alternatives for construction access are being considered, including the dredging of a channel from Folly Island and the use of pontoon barges working on tidal cycles. The purpose of the proposed work is to stabilize the lighthouse structure and to protect it from erosive forces.

Our department recognizes the importance of protecting this significant cultural resource and is well aware of the immediate need to stabilize and protect the current structure. While we are in full support of the proposed project, we ask that special precautions be taken to protect the sensitive natural and cultural resources associated with the northern end of Folly Island. We recommend that this area not be used as an access point and/or staging area for the proposed construction activities. Less damaging alternatives such as the construction of an access channel from the Charleston Harbor side should be considered.

We appreciate the opportunity to provide these comments. Please do not hesitate to contact us if we can be of further assistance in the environmental review of this project.

Page 2

Sincerely,

A handwritten signature in black ink, appearing to read "R. E. Duncan". The signature is written in a cursive style with a large initial "R".

Robert E. Duncan
Environmental Programs Director

Cc: SCDHEC/Epps
OCRM/Joyner
USEPA/Lord
USFWS/Banks
NMFS/Rackley



United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

September 4, 2003

Mr. Joseph A. Jones
Chief, Planning Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Re: P/N 2003-1R-219, Morris Island Lighthouse Section 103

Dear Mr. Jones:

The U.S. Fish and Wildlife Service (Service) has received the above-referenced public notice dated August 8, 2003 for proposed construction for protection of Morris Island Lighthouse in Charleston County, South Carolina. This report is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and also serves as official comments to the South Carolina Department of Health and Environmental Control in relation to their 401 Water Quality Certification process and certification processes pursuant to the Coastal Zone Management Act. Comments on the project draft environmental assessment, Section 7 of the Endangered Species Act, as amended (16 U.S.C. 1531-1543), and the Coastal Barrier Resources Act (16 U.S.C. 3501-3510) will be provided under separate cover.

The project will involve placing sheet pile around the base of the lighthouse. Then stone will be placed outside of the sheet pile to a distance of about 68 feet out from the sheet pile. The entire new structure including the lighthouse will be about 200 feet in diameter. There are two alternatives under consideration. Alternative one is to dredge a small access channel from Folly Island and place the sand either in a berm or temporary geotube in front of the lighthouse. Alternative two is to access the structure using pontoon barges or working on tidal cycles.

The project area includes the following wetland types: marine subtidal unconsolidated bottom, marine intertidal unconsolidated shore, estuarine subtidal unconsolidated bottom, estuarine intertidal unconsolidated shore (intertidal flats), and estuarine intertidal emergent (salt marsh). The ocean beach (to the high water line), sand bars, and sand flats in the study area are classified as marine, intertidal, unconsolidated shore. These intertidal beaches, sandbars, and flats experience almost continuous changes as they are exposed to erosion and deposition by winds, waves, and currents. Sediments are unstable and vegetation is absent. Wave action, longshore currents, shifting sands,

tidal rise and fall, heavy predation, and extreme temperature and salinity fluctuations combine to create a rigorous environment for macroinvertebrates, the predominant fauna. Zooplankton, benthic invertebrates, fishes, birds, mammals, and reptiles are all important faunal components of the marine system. Important game fishes in inshore waters include spot, croaker, flounder, spotted seatrout, sheepshead, bluefish, southern kingfish, black drum, and red drum. Numerous shorebirds and wading birds utilize the study area's marine habitats.

Estuarine intertidal flats provide valuable habitat for benthic invertebrates which are heavily preyed on by fish, wading birds, and shorebirds. Over 50 species of fish live and feed on intertidal flats during high tide. As many as 16 species of fish are, at least in part, dependent on prey which lives or forages on the flats. These areas are also extremely important feeding areas for wading birds and shorebirds.

Uplands in the project area include the dune community. This sparsely vegetated habitat provides nesting areas for the loggerhead sea turtles and various shorebirds. The shrub thicket community is influenced by salt spray and provides habitat for songbirds and small mammals. The shrub thicket and associated maritime forest provide important habitat for neotropical migrant songbirds during their coastal migrations.

Alternative two would be the least damaging to fish and wildlife resources because no dredging or disturbance of dunes or upland vegetation would occur. Alternative one could cause some impact to marine/estuarine subtidal unconsolidated bottom and marine/estuarine intertidal unconsolidated shore because the dredging would temporarily disrupt the invertebrate community. Because of the dynamic nature of the inlet, we expect that the channel would rapidly refill and be re-colonized by the invertebrate community after project completion.

If alternative one is selected, we recommend the following measures to minimize project impacts:

- Minimize access channel dimensions and required dredging,
- Do not construct any new access roads or clear vegetation on Folly Island,
- Restore any required dune crossing on Folly Island, and
- Once construction is initiated, complete the project in a timely manner.

If these precautions are followed, we expect project construction will have only minor, temporary impacts to fish and wildlife habitat.

Once construction is complete the rip rap slopes will provide substrate for attachment of oysters, barnacles and other invertebrates. These organisms and the cover of the rocks will provide additional habitat for estuarine and marine forage and game fish. Because of the small footprint of the project no indirect impacts on adjacent shorelines due to erosion are expected.

The above views and recommendations constitute the report of the Department of the Interior on this proposed action.

Sincerely yours,

A handwritten signature in cursive script that reads "Edwin M. EuDaly". The signature is written in dark ink and is positioned above the printed name.

Edwin M. EuDaly
Acting Field Supervisor

/EME



United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

September 3, 2003

Mr. Joseph Jones
Chief, Planning Branch
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Dear Mr. Jones:

The U.S. Fish and Wildlife Service (Service) has received your August 29, 2003 letter regarding the Section 103 Shore Protection Project study to protect the National Register Morris Island Lighthouse in Charleston County, South Carolina. The project will involve placing sheet pile around the base of the lighthouse. Then stone will be placed outside of the sheet pile to a distance of about 68 feet out from the sheet pile. The entire new structure including the lighthouse will be about 200 feet in diameter. The proposed project lies within the Morris Island Complex, MO6, of the Coastal Barrier Resources System. Your letter requests concurrence that this project meets the Coastal Barrier Resources Act (CBRA) exception found in 16 USC 3505(a)(6), subparagraph (F).

The Morris Island Complex is located between Lighthouse Inlet and Charleston Harbor in Charleston County, South Carolina. The unit lies from the northeastern end of Folly Beach to the northern end of Morris Island. Habitats in the unit include intertidal sand shoals (estuarine intertidal unconsolidated shore wetlands), open water (estuarine subtidal unconsolidated bottom), marsh (estuarine intertidal emergent wetland), and uplands (dunes and maritime forest). Wetlands of the unit provide important spawning, nursery, and feeding habitat for commercially and recreationally important species of estuarine-dependent finfish and shellfish. The unit also provides feeding, and resting areas for brown pelicans, terns, gulls, shorebirds, and wading birds.

Subparagraph (6)(F) of CBRA provides an exception for the maintenance, replacement, reconstruction, or repair, but not the expansion, of publicly owned or publicly operated roads, structures and facilities. The lighthouse has been publicly owned since the year 2000 when ownership was transferred to the South Carolina Department of Natural Resources. The purpose of the project is to maintain the structural integrity of the lighthouse by protecting it from damage and potential loss due to erosion around the base.

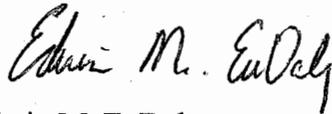
Photographs from 1876 (<http://www.savethelight.org/>) show that a housing complex with at least three houses was in place around the base of the lighthouse. In 1938 the housing complex was dismantled and the lighthouse was automated. Therefore, the proposed project is not an expansion of the original lighthouse complex.

To meet this exception the project must also be consistent with purposes of the act which are to minimize loss of human life, minimize wasteful expenditures and minimize damage to fish, wildlife and natural resources. This project will not encourage any development and will therefore not affect loss of human life. The project will protect an historically important structure and expenditure to support this goal appears to be reasonable.

The project construction will have only minor, temporary impacts to fish and wildlife habitat. Once construction is complete the rip rap slopes will provide substrate for attachment of oysters, barnacles and other invertebrates. These organisms and the cover of the rocks will provide additional habitat for estuarine and marine forage and game fish. Because of the small footprint of the project no indirect impacts on adjacent shorelines due to erosion are expected.

In summary we concur with a determination that the proposed project meets the Coastal Barrier Resources Act exception found in 16 USC 3505(a)(6), subparagraph (F). Please contact me if you have any questions regarding the proposed project.

Sincerely yours,



Edwin M. EuDaly
Acting Field Supervisor

EME/km



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

August 29, 2003

Planning Branch

Mr. Ed Eudaly
Acting Field Supervisor
US Fish and Wildlife Service
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

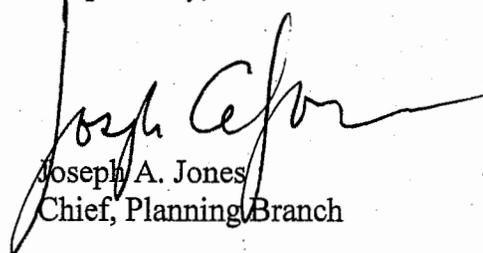
Dear Mr. Eudaly:

The U.S. Army Corps of Engineers, Charleston District is continuing to work through the feasibility phase of a Section 103 Shore Protection Project study to protect the National Register Morris Island Lighthouse in South Carolina. As we have discussed over the phone several times, the Lighthouse is located within the Coastal Barrier Resources System Morris Island Complex M06.

The purpose of the study, and future project, is to protect the foundation of the lighthouse from future erosion, through placement of a ring of sheet pile just outside the existing sheet pile (see attached Figure 1) and geotextile, man sized stone, and armor stone an additional 68 feet outside of that ring (see attached Figure 2). Placement of sheet pile and armor stone within the CBRA zone would require the use of an exemption within the law and the Charleston District is hereby requesting an exemption to perform the work to protect this structure. We understand you have indicated that 16 U.S.C. 3505 (a)(6)(F) covers the exception for the work.

We request your concurrence and provision of an exemption by September 26, 2003. If you have questions or require additional information, please call Robert Chappell, of my staff, at (843) 329-8162.

Respectfully,


Joseph A. Jones
Chief, Planning Branch

Enclosures



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Habitat Conservation Division
219 Fort Johnson Road
Charleston, South Carolina 29412-9110

July 2, 2003

Mr. Joseph A. Jones
Chief, Planning Branch
Charleston District
U.S. Army Corps of Engineers
69-A Hagood Avenue
Charleston, South Carolina 29403-5107

Dear Mr. Jones:

This responds to your May 28, 2003, letter requesting National Marine Fisheries Service (NOAA Fisheries) participation in the Morris Island Lighthouse Protection Project feasibility study. The study is being conducted under the Corps of Engineers' authority for Emergency Stream Bank and Shoreline Protection. The historic Morris Island Lighthouse is located near the Charleston Harbor entrance in Charleston County, South Carolina. Our comments are provided in partial fulfillment of NOAA Fisheries' responsibilities under the Fish and Wildlife Coordination Act and the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation Act (MSFCMA), and are intended to aid in preparation of the feasibility study documents and the environmental assessment.

According to your letter, the feasibility study will address means for protection of the lighthouse structure from further erosion. Preliminary plans call for placement of a steel sheet pile ring or bulkhead outside an existing protecting ring constructed in 1939. Armor stone would then be placed to protect the toe of the bulkhead structure. It is anticipated that limited excavation will be needed to provide an access channel through the migrating shoals at Lighthouse Inlet. Excavated sand is to be used as backfill behind the sheet pile bulkhead at the lighthouse site.

Based on the preliminary project plans provided with your letter and our familiarity with the Morris Island Lighthouse site, the area of project influence consists of intertidal and subtidal coastal marine and estuarine habitats associated with Lighthouse Inlet. Lighthouse inlet separates Morris Island from Folly Island, and the lighthouse structure is now located approximately 1000 feet from the rapidly eroding shoreline of Morris Island, and just north of the natural inlet channel. Lighthouse Inlet is a highly changeable area with frequently migrating channels and bars. Estuarine and coastal marine bottom and water column habitats to be affected by project work have been identified as Essential Fish Habitat (EFH). Information regarding EFH and species managed by the South Atlantic Fishery Management Council (SAFMC) is provided in the 1998 amendment of the Fishery Management Plans for the South Atlantic and was prepared in accordance with the MSFCMA. Managed species



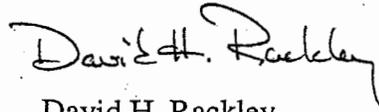
associated with estuarine and coastal marine bottoms and water column at the project site include post-larval, juvenile, and adult red drum (*Sciaenops ocellata*), white shrimp (*Litopenaeus setiferus*), and brown shrimp (*Farfantepenaeus aztecus*); species of the snapper-grouper complex such as postlarval and juvenile gray snapper (*Lutjanus griseus*); and coastal migratory pelagics such as juvenile Spanish mackerel (*Scomberomorus maculatus*), and cobia (*Rachycentron canadum*). Species under jurisdiction of the Mid Atlantic Fishery Management Council also occur in the project area. These species and their associated EFH include juvenile and adult summer flounder (*Paralichthys dentatus*) that occur on submerged estuarine bottom and in the water column, and juvenile and adult bluefish (*Pomatomus saltatrix*) which occur in the water column. The project area also provides nursery and forage habitat for other species including black drum (*Pogonias cromis*), Atlantic menhaden (*Brevoortia tyrannus*), striped mullet (*Mugil cephalus*), spot (*Leiostomus xanthurus*), southern kingfish (*Menticirrhus saxatilis*), and blue crab (*Callinectes sapidus*) that serve as prey for other species (e.g., mackerels, snappers, and groupers) managed by the Councils, and for highly migratory species (e.g., billfishes and sharks) that are managed by the NMFS.

Based on our review of the preliminary project plans provided, the following topics should be addressed in the feasibility study report and the environmental assessment:

1. The potential direct and indirect effects of dredging and lighthouse protection activities on EFH, and special project alternatives and mitigative measures that will be incorporated to preclude substantial individual or cumulative adverse impacts on EFH, or fisheries managed by the Councils and NOAA Fisheries. Mitigation measures should include identification of appropriate construction periods to reduce impacts on living marine resources and EFH. Based on existing information, NOAA Fisheries recommends restricting major access channel dredging to the period from November 15 through March 1 to avoid periods of higher biological activity.
2. The overall project area is within known distribution limits of the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*). In accordance with the Endangered Species Act of 1973, as amended, it is the responsibility of the appropriate federal regulatory agency to review its activities and programs and identify any activity or program that may affect endangered or threatened species or their habitat. If it is determined that the activities may adversely affect any species listed as endangered or threatened and under NOAA Fisheries purview, formal consultation must be initiated. Determinations involving species under NOAA Fisheries jurisdiction should be coordinated with our Protected Resources Division at 9721 Executive Center Drive, N., St. Petersburg, Florida 33702, or at (727) 570-5312.

Thank you for the opportunity to participate in the Morris Island Lighthouse Protection Project feasibility study. We look forward to working with your team as the project study proceeds. Please direct related questions or comments to the attention of Mr. Prescott Brownell, staff fishery biologist, at 219 Fort Johnson Road, Charleston, South Carolina 29412-9110, or at (843) 762-8591.

Sincerely,

A handwritten signature in black ink that reads "David H. Rackley". The signature is written in a cursive style with a prominent loop at the end of the last name.

David H. Rackley
Chief, Charleston Area Office



United States Department of the Interior

FISH AND WILDLIFE SERVICE

176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

June 23, 2003

Mr. Joseph A. Jones
Chief, Planning Branch
Charleston District, U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Dear Mr. Jones:

The Fish and Wildlife Service has reviewed your letter of May 28, 2003 requesting comments on the Section 14 study of the Morris Island Lighthouse in Charleston County, South Carolina. The purpose of the study is to protect the foundation of the lighthouse from future erosion. Current plans call for the placement of a ring of sheet pile approximately 3 feet outside an existing ring of sheet pile that was placed there in 1939. Armor stone, extending at least 40 feet outward and at least 12 feet above mean low water, is expected to be placed outside the new ring of sheet pile. Performance of this work will probably require limited excavation of an access channel through the migrating sand bars in the vicinity of the lighthouse. Any excavated sand will probably either be sidecast away from the access channel or used during construction of the project.

The project is located inside the Morris Island Complex Unit (M06) of the Coastal Barrier Resources System. Recognizing the risk of developing coastal barriers and the importance of associated fish and wildlife species, Congress adopted the Coastal Barrier Resources Act (CBRA) in 1982 and reauthorized the Act in 1990. CBRA identified undeveloped coastal barriers along the Atlantic and Gulf coasts, and included them in the Coastal Barrier Resources System. Section 5 of both Acts prohibit any new expenditures or new financial assistance under the authority of any Federal law for any purpose within the CBRS, except as provided for in Section 6 (Exceptions). Through this economic disincentive, CBRA has three objectives: to minimize the loss of human life and property, to reduce wasteful Federal expenditures, and to conserve fish, wildlife and other natural resources.

As stated above, there are some exceptions to the prohibition on Federal expenditures in the CBRS unit. Section 6 (F) contains an exception for "The maintenance, replacement, reconstruction, or repair, but not the expansion of publicly owned or publicly operated roads, structures or facilities." Projects that meet this exception must also be consistent

with purposes of the Act. As definite plans are developed you should make a determination of which exception applies to the project and consult with the Service.

A list of endangered and threatened species that occur in Charleston County has previously been provided to your office to aid you in determining the impacts your project may have on protected species.

We appreciate your efforts to coordinate this study with the Service. If you have any questions or wish to discuss the project, please contact Ed EuDaly at 843-727-4707 x 13.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Roger L. Banks".

Roger L. Banks
Field Supervisor

RLB/EME



UNIVERSITY OF SOUTH CAROLINA

SOUTH CAROLINA INSTITUTE OF ARCHAEOLOGY AND ANTHROPOLOGY

Christopher F. Amer, MA
State Underwater Archaeologist

22 May 2003

Mr. Robert Chappell
Department of the Army
Charleston District, Corps of Engineers
69A Hagood Avenue
Charleston SC 29403-5107

Re: Morris Island Lighthouse foundation improvement.

Dear Mr. Chappell,

This letter is in response to your inquiry about potential submerged cultural resources in the vicinity of Morris Island Lighthouse. A review of the State Archaeological Site Files found no recorded shipwrecks or other submerged cultural resources in the immediate vicinity of the lighthouse. Historical information, however, indicates that a blockade runner wrecked in the vicinity of Lighthouse Inlet during the Civil War. Additionally, any associated structures with the lighthouse now submerged, i.e., trash dumps, foundations, etc., might suffer adverse impact during construction. If you have any questions or comments about this matter please do not hesitate to contact me or Jim Spirek.

Sincerely,

Christopher F. Amer
State Underwater Archaeologist

CA/jds

c: Chad Long, SHPO



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office
9721 Executive Center Drive North
St. Petersburg, Florida 33702

November 20, 2003

Lt. Colonel Alvin B. Lee
District Engineer
U.S. Army Corps of Engineers
Charleston District
69-A Hagood Avenue
Charleston, South Carolina 29403-5107

ATTN: CESAC-PM-TE (Robert Chappell)

Dear Colonel Lee:

This responds to your October 23, 2003, letter requesting National Marine Fisheries Service (NOAA Fisheries) review of the Draft Environmental Impact Assessment and Finding of No Significant Impact (EA/FONSI) for the Morris Island Lighthouse Section 103 Project in Charleston County, South Carolina. Our comments are provided in partial fulfillment of NOAA Fisheries' responsibilities under the Fish and Wildlife Coordination Act and the Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation Act.

Based on our review of the EA/FONSI and the EFH Assessment contained therein, NOAA Fisheries concurs with your determination that long-term significant impacts to living marine resources are not likely. NOAA Fisheries further agrees that the project is in the overall public interest and any short-term minor impacts resulting from its implementation would be offset by habitats created by the protective stone barrier.

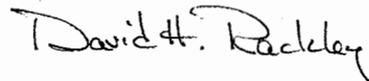
The overall project area is within known distribution limits of the threatened loggerhead sea turtle (*Caretta caretta*) and the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*). In accordance with the Endangered Species Act of 1973, as amended, it is the responsibility of the appropriate Federal regulatory agency to review its activities and programs and identify any activity or program that may affect endangered or threatened species or their habitat. If it is determined that the activities may adversely affect any species listed as endangered or threatened and under NOAA Fisheries purview, formal consultation must be initiated. Determinations



involving species under NOAA Fisheries jurisdiction should be coordinated with our Protected Resources Division at 9721 Executive Center Drive, N., St. Petersburg, Florida 33702, or at (727) 570-5312.

Thank you for the opportunity to provide these comments. Please direct related questions or comments to the attention of Mr. David Rackley at 219 Fort Johnson Road, Charleston, South Carolina 29412-9110, or at (843) 762-8574.

Sincerely,



Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division



United States Department of the Interior

FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407

November 18, 2003

Mr. Joseph Jones
Chief, Planning Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

Dear Mr. Jones:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (DEA) and Finding of No Significant Impact for the proposed construction for protection of Morris Island Lighthouse in Charleston County, South Carolina. Earlier comments were submitted in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Coastal Barrier Resources Act (16 U.S.C. 3501-3510).

The DEA is generally adequate in its description of the existing fish and wildlife resources and the evaluation of project impacts. However, the document needs to provide adequate information on the location, existing wildlife habitat and potential habitat modification at the construction staging and access area to be used.

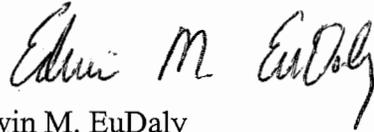
If construction staging and access on Folly Island are proposed, we recommend thorough consideration of measures to minimize project impacts. Measures considered should include but not be limited to:

- Minimize access channel dimensions and required dredging,
- Do not construct any new access roads or clear native vegetation on Folly Island,
- Minimize and restore any required dune crossing on Folly Island, and
- Once construction is initiated, complete the project in a timely manner.

Because of the uncertainty regarding construction timing, staging and access we do not believe it would be appropriate to complete Section 7 consultation under the Endangered Species Act, as

amended (16 U.S.C. 1531-1543) at this time. Please consult with the Service when sufficient information on the staging and access area is available.

Sincerely yours,

A handwritten signature in cursive script that reads "Edwin M. EuDaly". The signature is written in dark ink and is positioned above the printed name.

Edwin M. EuDaly
Acting Field Supervisor

/EME



November 19, 2003

Mr. Joseph Jones
Chief, Planning Branch
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403-5107

RE: Draft Environmental Assessment and Finding of No Significant Impact for the Morris Island Lighthouse Section 103 Project at the Morris Island Lighthouse in Charleston County, South Carolina

Dear Mr. Jones:

Thank you for providing us with a copy of the above-referenced environmental compliance report for the proposed stabilization project at the Morris Island Lighthouse. We reviewed the draft and have a few comments that should be addressed in the final Environmental Assessment report.

The draft report fails to mention the Folly North Site (38CH1213) and the potential for impacts to a National Register-listed site. While our office understands that it is the intent of the U.S. Army Corps of Engineers to "allow potential contractors determine how best to obtain access to the site," we feel that the scope of the Environmental Assessment should be broad enough to consider potential impacts to such a significant archaeological site. The report should also clearly state that if impacts to the Folly North Site cannot be avoided, then the U.S. Army Corps of Engineers will consult with the SHPO, SCDNR, SCIAA, and other interested parties to determine what additional studies need to be performed.

This letter was written to assist you with your responsibilities under state and federal laws. If you have any further questions, please contact me at (803) 896-6181.

Sincerely,

Chad C. Long
Staff Archaeologist
State Historic Preservation Office

cc: Chris Judge, SCDNR
Chris Amer, SCIAA
Jack Corgan, STL
Jimmy Hadden, USACE
Robert Chappell, USACE



NOV 20 2003

Office of Ocean & Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

(843) 744-5838 (843) 744-5847 (fax)

Christopher L. Brooks, Deputy Commissioner

November 17, 2003

District Engineer
U.S. Army Corps of Engineers
Charleston District
ATTN: CESAC-PM-TE (Robert Chappell)
69A Hagood Ave.
Charleston, SC 29403

RE: Draft Environmental Assessment and Finding of No Significant Impact
Morris Island Lighthouse Section 103 Project

Dear Sirs,

We have reviewed the Draft EA for the Morris Island Lighthouse project dated October 2003. The report's assessment of potential impacts to archeological and historical resources does not include any mention of impacts at the northeast end of Folly Beach. During our project meeting on October 10th the possible use of this area for construction staging, and the potential for impacts on known archeological sites there, was discussed. We understand that the Morris Island Lighthouse project itself will not directly impact this portion of Folly Beach, other than the potential for increased noise levels mentioned under Environmental Consequences Paragraph 6. However, if the Corps plans to make this area available to the contractor as a staging area for construction materials, then any impacts to known archeological resources there should be included as part of the Project EA.

We have no additional comments, and appreciate the opportunity to review the Draft EA. Please feel free to contact us if we can provide any further assistance. We plan to issue coastal zone consistency certification for this project once the EA has been finalized.

Sincerely,

William C. Eiser
Staff Oceanographer

South Carolina Department of Natural Resources



John E. Frampton
Director
John V. Miglarese
Deputy Director for
Marine Resources

November 19, 2003

Mr. Robert Chappell
U.S. Army Corps of Engineers
Charleston District
69A Hagood Avenue
Charleston, SC 29403-5107

REF: Morris Island Lighthouse Section 103 Project DEA and FONSI

Dear Mr. Chappell:

Personnel with the South Carolina Department of Natural Resources have reviewed the Draft Environmental Assessment and Finding of No Significant Impact for the above referenced project and offer the following comments.

In our previous letter of 9-8-03 regarding the proposed Section 103 project, we expressed concern with the alternative to use the northern end of Folly Island as a major staging area for construction. The DEA does not address the potential impacts to sensitive natural and cultural resources associated with this area that may occur as a result of the use of this alternative.

We would have no objections to the project provided that our previous recommendations are incorporated in the final project plans, and that the State Historic Preservation Officer determines that cultural resources are adequately protected.

Sincerely,

A handwritten signature in black ink, appearing to read "R. E. Duncan".

Robert E. Duncan
Environmental Programs Director

APPENDIX 3

404(b)(1) Evaluation

Morris Island Lighthouse Section 103 Charleston County South Carolina

I. PROJECT DESCRIPTION

a. Location and General Description. Morris Island Lighthouse (MILH) is bounded on the north by the Charleston Harbor entrance channel, to the west by Morris Island, to the south by Lighthouse Inlet and Folly Island, and to the east by the Atlantic Ocean (see Figure 1). MILH was originally constructed between the period of March 1873 and October 1876 on high ground (approximately 8 feet MLLW). Progressive erosion along the coast has resulted in the lighthouse perching precariously in 5 to 10 feet of water, approximately 1500 feet offshore. MILH is now isolated in the shallow waters of Lighthouse Inlet. Subject to ocean forces and tidal currents, shifting sand bars can be observed around the lighthouse. Access to the lighthouse is restricted to shallow draft vessels only due to the shallow conditions in the project area.

The lighthouse was originally built on a timber foundation of 264 pilings. Marine borers have damaged 74 of the pilings, which are no longer available to carry their portion of the 3200-ton lighthouse. Much of the construction and design information of the original lighthouse is not available; however, it has been concluded that the MILH is in jeopardy, over the long term, due to continued disintegration of the wood foundation.

The current plan of protection is to install a sheet pile wall around the lighthouse approximately seven feet from an existing sheet pile wall that was installed in 1939 (see Figures 2 & 3). Outside of the sheet pile, geotextile filter fabric will be laid as a foundation for bedding stone on which riprap will be laid followed by armor stone. The protection will extend out a maximum of 100 feet from the centerline of the lighthouse, creating a total diameter footprint of approximately 200 feet. In addition, a 30-foot wide construction access platform will be constructed and will remain in place after this project for future maintenance.

Access to the lighthouse presents considerable challenges. The shallow water, shifting sand bars, tidal currents and ocean forces combine to create access and safety problems. Subsequently, access may be made through a number of alternatives, including but not limited to:

- Alternative #1: Dredging a small channel to the MILH from Folly Island or from the Atlantic Ocean, where the dredged sand may be placed in a berm around the front of the lighthouse to minimize ocean forces,
- Alternative #1b: The same as Alternative #1, but with the sand being placed into a temporary geotube to provide safety protection until completion of the project, at which time it would be removed,
- Alternative #2: Access using pontoon barges or working on tidal cycles.

b. Authority and Purpose. The MILH project study was initially begun under the authority of Section 14 of the 1946 Flood Control Act (P.L. 79-526), as amended. It has been authorized under Section 103 of the 1962 Rivers and Harbors Act (P.L. 87-874)

and Sections 103(c), 103(d), 103(i), and 915(e) (P.L. 99-662) of the Water Resources Development Act of 1986. This proposed construction would provide repairs and protection for the MILH, which is a State listed historical site and is on the National Register of Historic Places.

c. General Description and Quantities of the Dredged or Fill Material. The area proposed for dredging is through the existing sand bars that have accumulated around the lighthouse. Although no sediment testing has been done to determine grain size, the inlet area is so dynamic with strong tidal cycles, that little fine-grained material would settle here. Further, during low tide, the sand bars have been observed and visually appear to be predominantly sand. The only dredging that will be done will be the minimum required to gain access to the lighthouse.

d. Description of the Proposed Discharge Site(s). The material will either be placed as a berm in the area in front of the lighthouse or into a temporary geotube(s) to provide protection from the ocean forces. This area is also very dynamic, minimizing the settling of fine-grained sediments.

e. Description of Disposal Method. The material will probably be placed with a pipeline dredge.

II. FACTUAL DETERMINATIONS.

a. Physical Substrate Determinations.

(1) Substrate Elevation and Slope. The bottom elevation around the lighthouse is generally shallow with migrating sand bars. Hence, the elevations are constantly changing. However, in the construction area, the average elevation around MILH is approximately 2.5 feet MLW.

(2) Sediment Type. As noted above, this area is highly dynamic and the predominant sediment type for this area is sand.

(3) Dredged/Fill Material Movement. The sand material will be pumped as a slurry and placed to form a temporary sand berm or placed in a temporary geotube(s) to provide protection from the ocean forces during construction. The material placed without a geotube will not be stable and will be rearranged by the tidal action. The rock protection around the lighthouse will be stable and is designed to withstand the ocean influences without moving.

(4) Physical Effects on Benthos. Benthic organisms in the vicinity of the construction, either dredging or rock placement, will be impacted by the construction. However, the construction activity is temporary, and it is expected that organisms will recolonize the areas disturbed by dredging following construction activities. Organisms beneath the rock placement will probably be smothered.

(5) Actions Taken to Minimize Impacts. The amount of dredging and the area of rock placement will only be that quantity and area necessary to accomplish the project, thereby minimizing impacts to the greatest extent possible.

b. Water Circulation, Fluctuation and Salinity Determinations.

(1) Water.

(a) Salinity. This activity will occur in the open ocean. Construction will have no impact on salinity.

(b) Water Chemistry. Temporary changes in water chemistry related to increased turbidity levels at the construction site may occur. Impacts would be temporary and minimal in nature.

(c) Clarity and Color. The water may become temporarily cloudy at the construction site during construction activity due to increased turbidity levels associated with disturbance of sediments. As noted above, this is expected to return to normal levels shortly after construction ends.

(e) Odor. Not applicable.

(f) Taste. Not applicable.

(g) Dissolved Gas Levels. There may be minor impacts to dissolved oxygen levels as a result of increased turbidity levels. These would be similar to any dredging project, and the impacts will be localized and temporary.

(h) Nutrients. No impacts to nutrient loading at the dredging site or at the rock placement site are expected to occur.

(i) Eutrophication. Not applicable.

(2) Current Patterns and Circulation.

(a) Current Patterns and Flow. Localized current patterns may be altered with the proposed construction. However, these changes will not have an extended effect on the surrounding areas.

(b) Velocity. Not applicable.

(c) Stratification. Not applicable.

(d) Hydrologic Regime. This project will not change the present hydrologic regime.

(3) Normal Water Level Fluctuations. Water level fluctuations will not change as a result of this project.

(4) Salinity Gradients. Salinity gradients will not change.

(5) Actions That Will Be Taken to Minimize Impacts. There are no actions needed since there are not measurable impacts to current patterns and circulation.

c. Suspended Particulate/Turbidity Determinations.

(1) Expected Changes in Suspended Particulates and Turbidity Levels in the Vicinity of the Disposal Site. Turbidity will increase during construction/disposal operations, but will return to normal levels when construction is complete.

(2) Effects (degree and duration) on Chemical and Physical Properties of the Water Column.

(a) Light Penetration. During construction, light penetration at the disposal site may diminish slightly due to a temporary increase in turbidity levels. Light penetration will return to normal levels following construction.

(b) Dissolved Oxygen. Dissolved oxygen (DO) levels may decrease during construction at the disposal site as a result of increased turbidity. However, this decrease will be minimal due to the dynamic characteristics of the ocean, and DO levels should return to normal conditions immediately following construction.

(c) Toxic Metals and Organics. Not applicable.

(d) Pathogens. Not applicable.

(e) Aesthetics. During construction, there would be an increase in the ambient noise levels, which will return to normal levels following construction. In addition, construction activity may obstruct the visual aesthetic of the ocean, but this too, is a temporary effect, which will also return to normal immediately following construction.

(3) Effects on Biota.

(a) Primary Production & Photosynthesis. Although there will be some turbidity at the construction site, it is not expected that measurable impacts to primary production and photosynthesis will occur since the area of impact is so small.

(b) Suspension/Filter Feeders. Temporary impacts would include increased turbidity, which may reduce oxygen levels and impact food intake to organisms at the construction site. However, water clarity and dissolved oxygen concentrations will improve following construction.

(c) Sight Feeders. A minimal, temporary disruption due to construction disturbances is possible. A rapid recovery is expected since most sight feeders are transient and can relocate until construction activities are complete.

(4) Actions taken to Minimize Impacts. The above noted impacts are temporary and conditions should improve following construction. It is unlikely that further minimization in these areas is possible.

d. Contaminant Determinations. No sediment testing has been conducted. However, because of the sandy substrate and swift currents, unacceptable levels of fine-grained material and associated contaminants are not expected to be found in this area.

e. Aquatic Ecosystem and Organism Determinations.

(1) Effects on Plankton. Effects on plankton would be related to turbidity associated with the construction activity. Effects would be minor and temporary in duration.

(2) Effects on Benthos. Benthic activity at the dredging and construction site would be impacted as bottom sediments are disturbed or placed to form a berm, or rock is placed at the MILH. These disturbances will be temporary and recolonization at the dredging location will occur following construction. Benthic organisms at the MILH location will be smothered.

(3) Effects on Nekton. Not significant.

(4) Effects on Aquatic Food Web. Not significant.

(5) Effects on Special Aquatic Sites.

(a) Sanctuaries and Refuges. Not applicable.

(b) Wetlands. Not applicable.

(c) Mud Flats. Not applicable.

(d) Vegetated Shallows. Not applicable.

(e) Coral Reefs. Not applicable.

(f) Riffle and Pool Complexes. Not applicable.

(6) Threatened and Endangered Species. Although there are known threatened or endangered species within the project area, the potential impacts have been addressed in the environmental assessment and coordinated with pertinent state and federal agencies. Subsequently, unacceptable adverse impacts to threatened or endangered species are not anticipated or expected.

(7) Other Wildlife. Other wildlife utilizing the project area includes a wide variety of fish species and benthic organisms. This project will have no long-term unacceptable adverse impacts on wildlife in the project area.

(8) Actions to Minimize Impacts. Plans and specs for the project will specify requirements to ensure impacts to the environment are minimized or avoided.

f. Proposed Disposal Site Determinations.

(1) Mixing Zone Determination. Not applicable. The State of South Carolina Department of Health and Environmental Control (SCDHEC) does not recognize mixing zones.

(2) Determination of Compliance with Applicable Water Quality Standards. A joint public notice for Section 401 Water Quality Certification was published on August 8, 2003. It is not anticipated that any aspects of this project would result in denial of the water quality certification.

(3) Potential Effects on Human Use Characteristics.

(a) Municipal and Private Water Supply. Not applicable.

(b) Recreational and Commercial Fisheries. This project occurs in the surf zone around the lighthouse, where little fishing occurs. Subsequently, impacts to recreational or commercial fisheries are not expected to occur.

(c) Water Related Recreation. This area is noted for dangerous currents, therefore, swimming and boating activities are not encouraged. This project is not expected to impact water related recreation.

(d) Aesthetics. The construction activity will have a temporary, negative impact on visual and audible aesthetics. The final product will not provide a natural scene, but will be less invasive than other alternatives considered.

g. Determination of Secondary and Cumulative Effects on the Aquatic Ecosystem. Initial negative effects related to this project include those associated with turbidity, impacts to the benthic community, and aesthetics. These effects are considered temporary. Long-term, permanent effects will provide a rock system of protection for the lighthouse. The rock crevasses provide habitat for crabs, barnacles, fish and shrimp while providing long term protection for the MILH. The beneficial permanent effects outweigh the negative temporary effects associated with the construction activity.

III. FINDINGS OF COMPLIANCE OR NON-COMPLIANCE WITH THE RESTRICTIONS ON DISCHARGE.

- a. No significant adaptations of the guidelines were made relative to this evaluation.
- b. Alternatives included varying methods of protection. The proposed project was selected because it is the least invasive while providing sufficient protection.
- c. The proposed construction described in this evaluation would not cause or contribute to violations of any known applicable state water quality standards, which would result in permanent damage to the ecosystem.
- d. The proposed project will not violate the Endangered Species Act of 1973.
- e. The proposed project will not violate any specified protection measures for marine sanctuaries designated by the Marine Protection, Research, and Sanctuaries Act of 1972.
- f. The proposed project will not result in significant adverse affects on human health and welfare in regard to municipal and private water supplies, recreation and commercial fishing, plankton, fish, shellfish, wildlife, and special aquatic sites. The life states of aquatic life and other wildlife will not be adversely affected. Significant adverse affects on aquatic ecosystem diversity, productivity and stability, and recreational, aesthetic and economic values will not occur.
- g. Steps taken to minimize potential adverse impacts of the construction on aquatic ecosystems include limiting construction to the minimum alternative needed to provide the required protection. Plans and specs will provide guidance and requirements to avoid/minimize impacts to threatened and endangered species and other aquatic and terrestrial life.
- h. The State Historic Preservation Office (SHPO) has expressed concern about potential cultural resources (building foundations) being present in the proposed project area. The borrow areas will be surveyed prior to construction in order to avoid impacts to any archeological site. Any area where cultural resources are identified will be avoided, if possible, or recovered during the construction activity. Therefore, the proposed project will not cause unacceptable adverse impacts to any known, significant historic sites. Further, the SHPO has stated verbally that the protection of the lighthouse provides mitigation for impacts to other resources in the project area.

i. On the basis of the guidelines, the proposed construction is specified as complying with the requirement of these guidelines, with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects on the aquatic ecosystem.

11 Sep 03

DATE



ALVIN B. LEE
Lieutenant Colonel, EN
Commanding

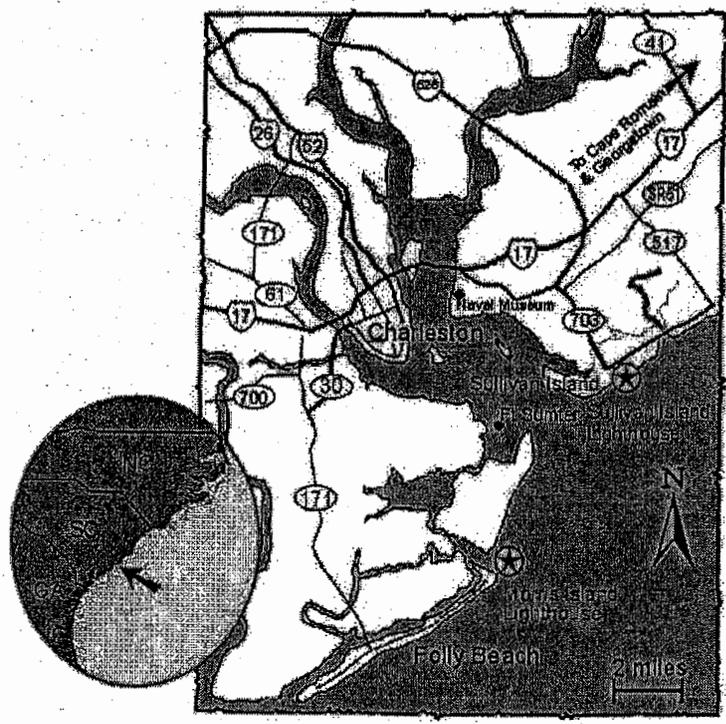
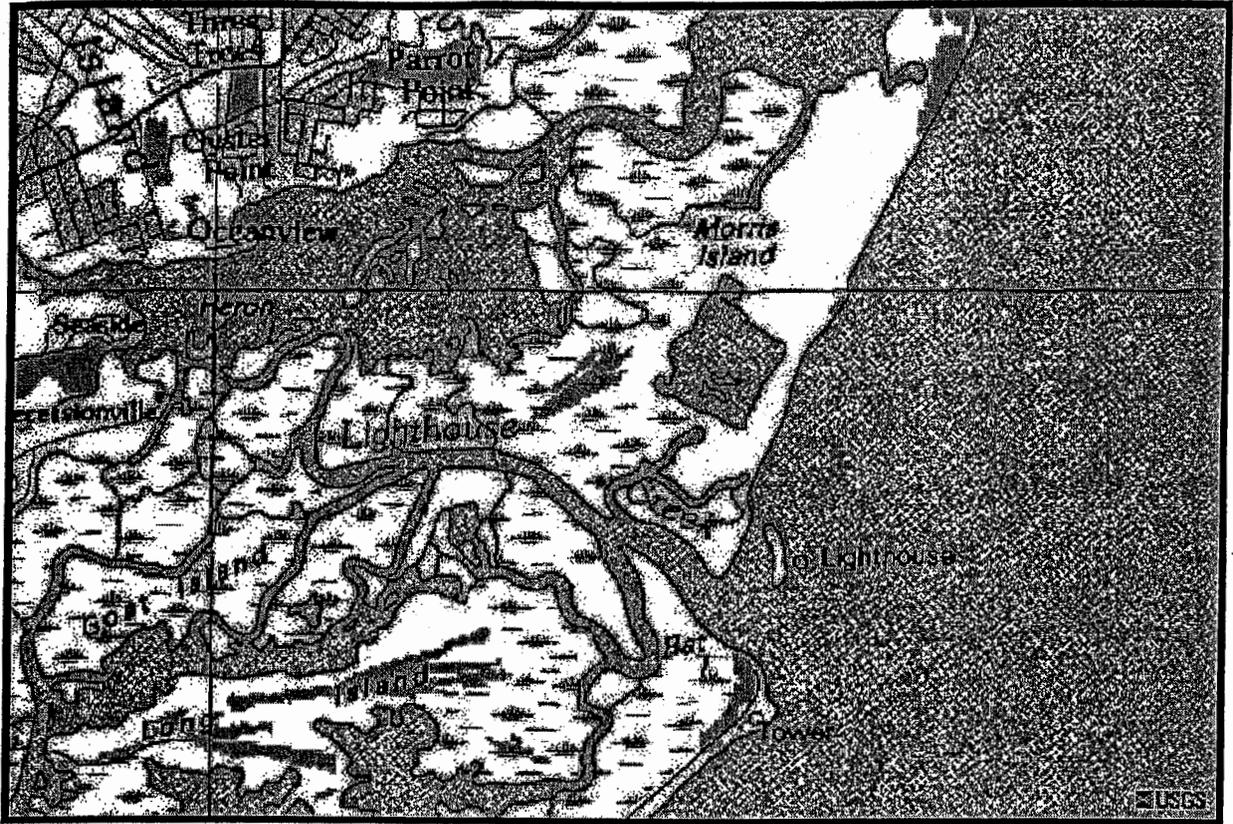


Figure 1

APPENDIX 4

PUBLIC NOTICE

(2) The U.S. Army Corps of Engineers has applied to the South Carolina Department of Health and Environmental Control (SCDHEC) for a Water Quality Certification and Construction in Navigable Waters Permit for construction of a sheet pile wall around the Morris Island Lighthouse (MLLH) with an accompanying riprap and armor stone ring outside the sheet pile wall. The purpose of the construction is to provide protection for the MLLH, which is being undermined by ocean forces and tidal currents. A construction platform will also be built and will remain in place after this project is constructed to facilitate future repairs. Comments will be received by the SCDHEC at 2600 Bull Street, Columbia, South Carolina 29201, ATTN: Quinton Epps, Division of Water Quality, until September 2, 2003.

30583

THE STATE-RECORD CO., INC.
Columbia, South Carolina
publisher of
The State

STATE OF SOUTH CAROLINA
COUNTY OF RICHLAND

Personally appeared before me, Peggy Lawrence, Advertising Sales Support Manager of THE STATE, and makes oath that the advertisement,

notice – The US Army Corps of Engineers has applied for construction of sheet pile wall around Morris Island Lighthouse

was inserted in THE STATE, a daily newspaper of general circulation published in the City of Columbia, State and County aforesaid, in the issues of

August 17, 2003

Peggy Lawrence

Subscribed and sworn to before me.

on this day August 19, 2003

Evelyn F. Harrison

Notary Public

My commission expires March 10, 2013

"Errors- the liability of the publisher on account of errors in or omissions from any advertisement will in no way exceed the amount of the charge for the space occupied by the item in error, and then only for the first incorrect insertion."

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Office of Environmental Quality Control
Water Quality Certification and Wetlands Programs Section
2600 Bull Street
Columbia, South Carolina 29201

**NOTE: THIS IS A CORPS OF ENGINEERS
CIVIL WORKS PROJECT**

CESAC-PM-TE

August 8, 2003

Refer to: P/N # 2003-1R-219

Morris Island Lighthouse Section 103
Charleston County, South Carolina

The Charleston District, Corps of Engineers, Charleston, South Carolina, proposes to perform the work described herein with due consideration and review given to the relevant provisions of the following laws and others as applicable:

1. The Clean Water Act (33 U.S.C. 1251, et. seq.).
2. The Endangered Species Act of 1973, as amended (16 U.S.C. 1531, et. seq.).
3. The National Historic Preservation Act of 1966 (U.S.C. 470, et. seq.) and the Preservation of Historical Archeological Data Act of 1974 (16 U.S.C. 469, et. seq.).
4. The National Environmental Policy Act of 1969, (42 U.S.C. 4321).
5. Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1531, et. seq.).
6. Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 U.S.C. 1801, et. seq.), Public Law 94-265.
7. Coastal Barrier Resources Act, as amended (U.S.C. 3501-3510).

The purpose of this notice is to advise all interested parties of proposed construction for protection of the Morris Island Lighthouse, which is bounded on the north by the Charleston Harbor entrance channel, to the west by Morris Island, to the south by Lighthouse Inlet and Folly Island, and to the east by the Atlantic Ocean (see Figure 1).

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received at this office until

12 O'CLOCK NOON, MONDAY, SEPTEMBER 8, 2003

from those interested in the activity and whose interests may be affected by the proposed work.

PROJECT INFORMATION

Morris Island Lighthouse (MILH) was originally constructed between the period of March 1873 and October 1876 on high ground (approximately 8 feet MLLW). Progressive erosion along the coast has resulted in the lighthouse perching precariously in 5 to 10 feet of water, approximately 1500 feet offshore. MILH is now isolated in the shallow waters of Lighthouse Inlet. Subject to ocean forces and tidal currents, shifting sand bars can be observed around the lighthouse. Access to the lighthouse is restricted to small draft vessels only.

The lighthouse was originally built on a timber foundation of 264 pilings. Marine borers have damaged 74 of the pilings, which are no longer available to carry their portion of the 3200-ton lighthouse. Much of the construction and design information of the original lighthouse is not available; however, reasonable assumptions indicate that, at present, the factor of safety is approximately 1.3. General geo-technical practice is to design for bearing capacity factors of safety in the range of two to three. Subsequently, it is concluded that the MILH is in jeopardy, over the long term, due to continued disintegration of the wood foundation.

The current plan of protection is to install a sheet pile wall around the lighthouse approximately seven feet outside of an existing sheet pile wall that was installed in 1939 (see Figures 2 & 3). Outside of the sheet pile, geotextile filter fabric will be laid as a foundation for bedding stone on which riprap will be laid followed by armor stone. The protection will extend out a maximum of 100 feet from the center line of the lighthouse, creating a total diameter footprint of approximately 200 feet. In addition, a 30-foot wide construction access platform will be constructed and will remain in place after this project so that future repairs planned for the lighthouse may be conducted. These future repairs are not part of this project and will not be performed by the Corps of Engineers.

Access to the lighthouse presents considerable challenges. The shallow water, shifting sand bars, tidal currents and ocean forces combine to create access and safety problems. Subsequently, access may be made through a number of alternatives, including but not limited to:

- Alternative #1: Dredging a small channel to the MILH from Folly Island, where the sand may be placed in a berm around the front of the lighthouse to minimize ocean forces,
- Alternative #1b: The same as Alternative #1, but with the sand being placed into a temporary geotube to provide safety protection until completion of the project, at which time it would be removed,
- Alternative #2: Access using pontoon barges or working on tidal cycles.

ADDITIONAL CONSIDERATIONS

This document serves as a public notice on behalf of the SCDHEC for water quality certification. A certification is required from DHEC stating that the proposed construction will be conducted in a manner consistent with the Clean Water Act. By this notice, the Charleston District requests DHEC to issue that certification. Persons wishing to comment on State Certification are invited to submit same in writing to SCDHEC, 2600 Bull Street, Columbia, South Carolina 29201, within 30 days of the date of this notice.

This project is consistent to the maximum extent practicable with the South Carolina Coastal Zone Management Program. By this notice, the Charleston District requests concurrence from the South Carolina Department of Health and Environmental Control (SCDHEC), Office of Ocean and Coastal Resource Management (OCRM) that the proposed activity is consistent with the State's Coastal Zone Management Program. Concurrence is conclusively presumed if no state action is received within 45 days of receipt of this notice.

The District Engineer has consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein. This worksite is included as a registered property and further coordination with the State Historic Preservation Office is on-going.

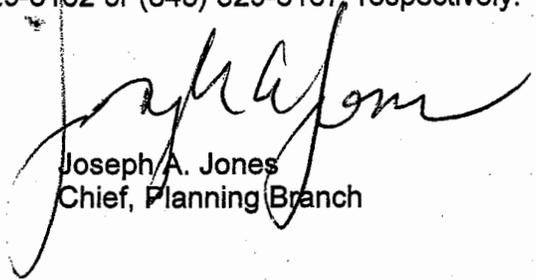
Section 7 Coordination has been initiated with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding threatened and endangered species. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the proposed activity, pursuant to Section 7 (c) of the Endangered Species Act of 1973 (as amended). Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act have been initiated. Coordination with NMFS is on-going.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this proposed project. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing. These requests should be made to DHEC at the address listed above.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to proceed with the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an

Environmental Assessment pursuant to the National Environmental Policy Act.
Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Questions or comments concerning this notice should be directed to Mr. Bob Chappell or Mrs. Robin Collier-Socha of the District's Environmental Resources Team (PM-TE) at telephone numbers (843) 329-8162 or (843) 329-8167, respectively.



Joseph A. Jones
Chief, Planning Branch

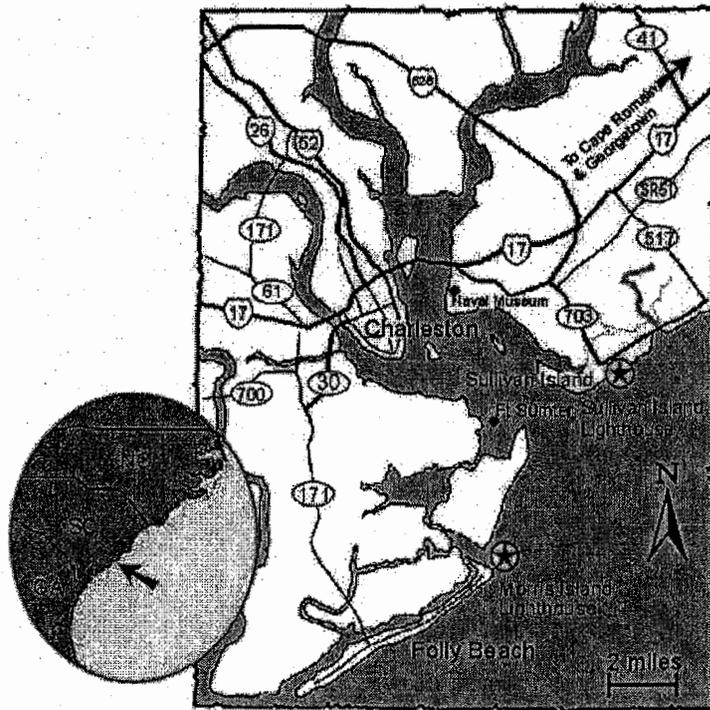
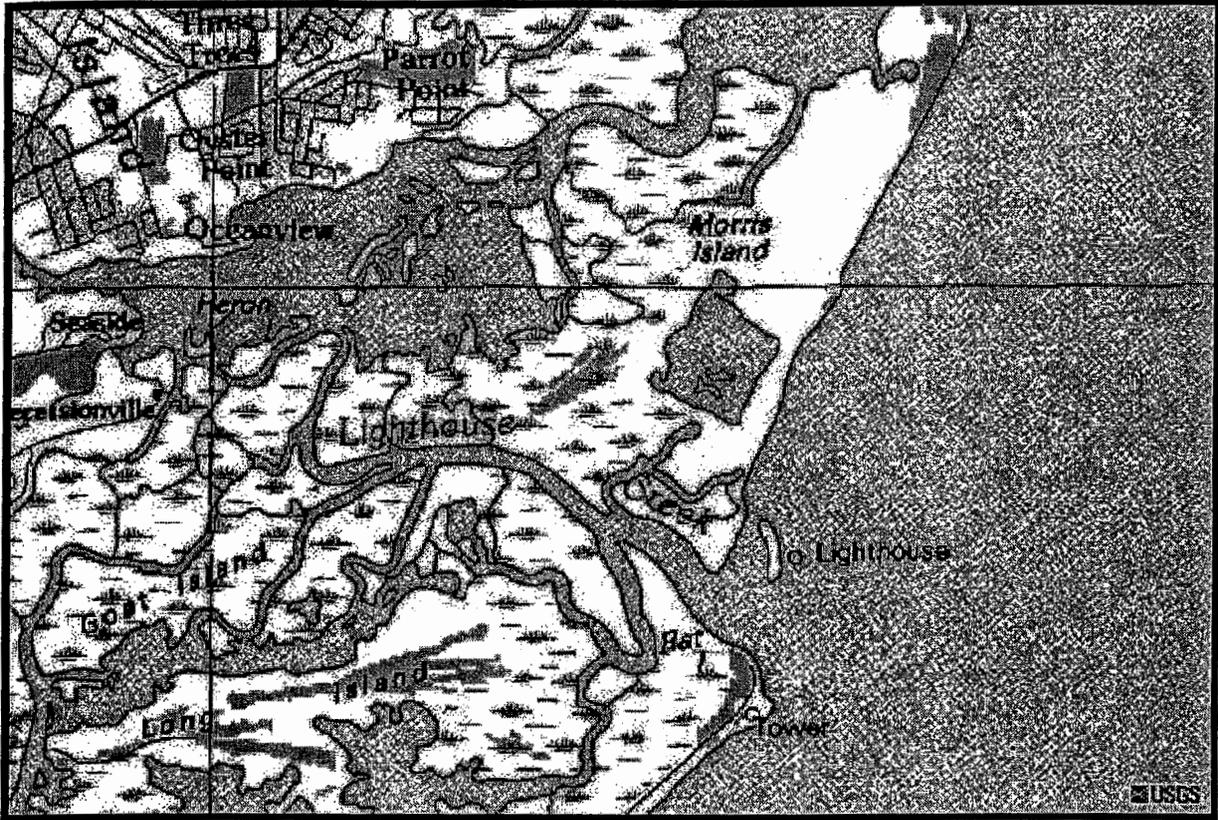


Figure 1

