

Public Notice

U.S. Army Corps
Of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Date of Notice: July 6, 2017

Comment Period Closes: August 6, 2017

SECTION 14 SHORELINE EROSION PROTECTION Enders Island Stonington, Connecticut

Interested parties are hereby notified that the U.S. Army Corps of Engineers, New England District, is proposing a shoreline erosion protection project on Enders Island, Stonington, Connecticut (Figure 1). Section 14 of the 1946 Flood Control Act (as amended) provides authority for the U.S. Army Corps of Engineers (USACE) to participate in the planning and construction of shoreline erosion protection projects in situations where public facilities (and facilities owned by non-profit organizations that are used to provide public services that are open to all on equal terms) are in imminent threat of damage or failure by natural erosion processes on shorelines, and are essential enough to merit Federal participation in their protection. This public notice provides information about this shoreline erosion protection project and documents compliance with all applicable laws and regulations.

Purpose and Need for Work: The Catholic Church's Archdiocese of Connecticut owns and operates the Enders Island facility (St. Edmund's Retreat) and associated property. It is used by many church and non-church related groups as a retreat center and is open to the public on an equal basis regardless of religion. In addition, many community groups host events at Enders Island. Over 17,000 visitors come to the island from as far away as Florida, Louisiana and Illinois. The property is accessible via a causeway connected to Mason Island and free public parking is available on the island. The grounds are open to the public free of charge and are used by walkers, bicyclists, swimmers, picnickers, and anglers. A masonry seawall protects the property and facilities from storms, but the wall is currently in poor condition especially on the southeast side.

The purpose of the project is to stabilize the existing seawall and prevent further erosion of the island behind the seawall. Waves have damaged the existing seawall during storm events and have, on occasion, overtopped the wall, causing erosion on the landward side. The erosion threatens the stability of the wall and function of the septic system serving St. Edmund's Retreat. Without permanent protection of the seawall, the landward property will continue to erode, the septic system will cease to function properly and the wall will collapse. Once the wall collapses, the entire island will be exposed to eroding wave energy and will cease to function as a retreat and public passive recreation area.

<u>Project Description</u>: Enders Island is located on the Southwestern portion of Stonington, CT in Fishers Island Sound. It is connected to Mason Island, CT by a causeway. The majority of the island is surrounded by a masonry seawall originally built for protection against eroding waves. The first seawall was built in 1922 and was composed of loosely laid native stone. The stones were replaced and

cemented in place to form the existing seawall after it sustained severe damage during the 1938 hurricane.

The plan selected for the shore protection for Enders Island is a stone revetment approximately $30\pm$ feet wide (including toe), $8\pm$ feet tall and extending approximately $700\pm$ linear feet along the east and southern portion of the seawall (Figure 2). The revetment along the toe of the existing wall will consist of two benches, a $12\pm$ foot wide bench (including sloped section) with a height of approximately 2.3 feet mean low water (MLW) with a 6 foot wide crest, and a $17\pm$ foot wide upper bench forming the top of the revetment at approximately 8 feet MLW with a 10 foot wide crest. This tiered revetment will require approximately 260 cubic yards (cy) of crushed stone and 4,400 cy of 2,000-3,000 pound (lb) armor stone. Armor stone will be graded riprap and will not be a smooth uniform stone. The revetment will follow the course of the existing wall beginning on the northern end at the Chapel and terminating around the southeasterly bend.

The lower bench of the revetment is designed with a dual purpose: 1) to provide support of the taller portion of the 8 foot revetment adjacent to the existing wall; much of the site is ledge and the revetment toe cannot be buried below existing grade, and 2) to function as a work platform and construction road during construction. The crest (or top) of the upper bench is approximately 10 foot wide at elevation 8.0± feet above MLW or 5.4 feet above MHW. The lower bench will have a 1 Vertical (V) to 1 Horizontal (H) slope; the upper bench will have a 1V:1.5H slope. The final footprint width of the revetment ranges from 30± feet to approximately 32± depending on ground elevation.

The construction sequence involves hauling and stockpiling crushed stone and armor stone to the site. The construction crew will utilize heavy equipment such as excavators, loaders and dump trucks to place armor stone along the base of the seawall beginning at the northern end by the Chapel and working south toward the southwesterly bend in the wall. The perimeter of the island at the toe of the existing wall consists of bedrock and boulders. The revetment will incorporate the existing stone base where possible to limit the amount of new material brought onsite. Given the rocky substrate of the area, excavation of sand and other materials are not anticipated. After the lower bench of the revetment is complete, the crew will work in a similar fashion to place armor stone forming the upper bench and revetment crest.

Alternatives Analysis: Six alternatives (including the No Action Alterative) were considered to protect the shoreline of Enders Island from wave erosion. Under the No Action Alternative, waves will continue to overtop the existing seawall causing the septic system to malfunction due to saltwater intrusion. The seawall itself will continue to sustain damage until it eventually collapses and protection for St. Edmund's Retreat would no longer exist. Under the second alternative, four iterations of a stone revetment were considered. The four iterations primarily vary in height and width depending on sloping. After reviewing damages caused by recent storms (Hurricanes Irene and Sandy), the preferred alternative, as described previously, was an eight foot high revetment. By reducing the slopes, the project footprint was reduced to the maximum amount practicable, which minimized potential environmental impact to eelgrass at the southern tip of the island. The third alterative involves pouring a 700 linear foot concrete kneewall along a portion of the existing seawall. This alternative was eliminated because a kneewall will not withstand the same wave force a stone revetment can handle and would require continual maintenance, increasing costs and impacts to the surrounding environment. The fourth, fifth, and sixth alternatives involve relocation of St. Edmund's Retreat, the installation of a tight tank, and connecting St. Edmund's Retreat to a municipal sanitary sewer system. These alternatives were eliminated due to unfeasibility of relocation, high costs of continual pumping and trucking of wastes for the tight tank option, and the fact that the Town of Stonington has no short-term or long-term plans to connect Enders Island to the municipal sanitary system. Furthermore, these options did not address continuing erosion of the island after the seawall collapses.

<u>Coordination</u>: The proposed work is being coordinated with the following Federal, state and local agencies:

Federal

U.S. Fish and Wildlife Service
U.S. Environmental Protection Agency
U.S. National Marine Fisheries Service
Protected Resources Division
Habitat Conservation Division

State

Connecticut Department of Energy and Environmental Protection (DEEP)

Bureau of Water Protection and Land Reuse
Eastern District
Bureau of Natural Resources
Marine Fisheries
Wildlife Division

Connecticut Historic Preservation Office

Tribal Governments

Mashantucket Pequot Museum & Research Center Mohegan Tribe Cultural Department

Local

Stonington Conservation Commission Stonington Board of Selectman St. Edmund's Retreat Bocchino Consulting

Office of Connecticut State Archaeology

Endangered Species: Enders Island is currently developed and does not provide suitable habitat for Roseate Tern nesting. Foraging in the vicinity of Enders Island is expected to be limited to occasional or transient roseate terns and therefore, the proposed Enders Island project will have no effect on foraging roseate tern or foraging habitat. In addition, no adverse impacts on any Federally-listed threatened or endangered species under the jurisdiction of the National Marine Fisheries Service (NMFS) are anticipated. Sea turtles may occur near the project area during the summer and fall; however, it would be expected that these mobile species would avoid the construction area. There are no state endangered, threatened, or special concern species in the proposed revetment area.

Essential Fish Habitat: Impacts to Essential Fish Habitat (EFH) in the project area were avoided or minimized to the maximum extent practicable through the planning and design process. The permanent impacts to intertidal habitat will not significantly affect foraging or nursery areas for EFH species. Environmentally-sound engineering and erosion control practices adequately protect those species listed under the Magnuson-Stevens Fisheries Conservation Act for EFH in the project area.

The NMFS provided general comments and Essential Fish Habitat recommendations on the Enders Island project in a letter dated 13 May 2014. The USACE New England District agreed to conduct an updated eelgrass survey in the growing season of May 15th through August 30th prior to construction to determine if eelgrass is within the proposed project footprint. The results of the survey will be provided to the NMFS for review and further recommendations.

Environmental Impacts: An Environmental Assessment (EA) was prepared for this shoreline erosion protection project. A preliminary determination was made that an Environmental Impact Statement for the proposed restoration is not required under the provisions of the National Environmental Policy Act of 1969.

<u>Cultural Resources:</u> This project was coordinated with the Connecticut State Historic Preservation Office, the Office of Connecticut State Archaeology, the Mashantucket Pequot Museum and Research Center, and the Mohegan Tribe Cultural Department. Coordination resulted in a finding of no adverse effect upon significant cultural resources as the proposed project serves to protect St. Edmund's Retreat and the island itself from further erosion by enhancing the existing stone revetment.

<u>Federal Consistency with Coastal Zone Management:</u> The project will be conducted in a manner consistent to the maximum extent practicable with the approved coastal zone management program of the State of Connecticut. The CT Department of Environmental Protection-Office of Long Island Sound Programs (CTDEEP-OLISP) provided a 'conceptual' concurrence based upon a review of the design for the proposed Enders Island Shoreline Erosion Protection Project. A Coastal Zone Consistency Determination will be submitted to the CTDEEP-OLISP for concurrence.

Other Federal Permit Requirements: A Water Quality application will be submitted to the Connecticut Department of Energy and Environmental Protection under Section 401 of the Clean Water Act of 1977 (P.L. 95-217). A Section 404(b)(1) evaluation, pursuant to the Clean Water Act, is provided as an attachment to the draft EA.

<u>Compliance</u>: This Public Notice is being issued in compliance with several environmental laws and regulations (Attachment A).

Availability of the Draft Report and Environmental Assessment: Copies of the draft Environmental Assessment and draft Finding of No Significant Impact (FONSI) are available at the following website: http://www.nae.usace.army.mil/Missions/Civil-Works/Shore-Bank-Protection/Connecticut/ Contact Ms. Judith Johnson, Planning Division at 978-318-8138 for additional information.

<u>Public Comments:</u> Comments are invited from all concerned parties and should be directed to the District Engineer at 696 Virginia Road, Concord, MA 01742, ATTN: Planning Division (Ms. Judith Johnson), within 30 days of this notice. Please bring this notice to the attention of anyone you know to be interested in the project.

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Date

Christopher J. Barron

Colone, Corps of Engineers

District Engineer

Figure 1. Project Location

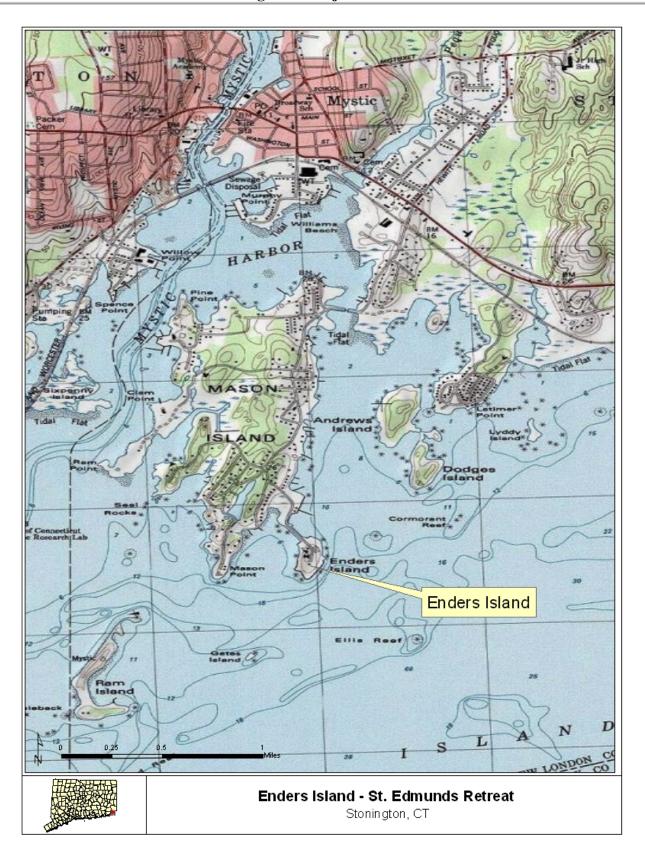
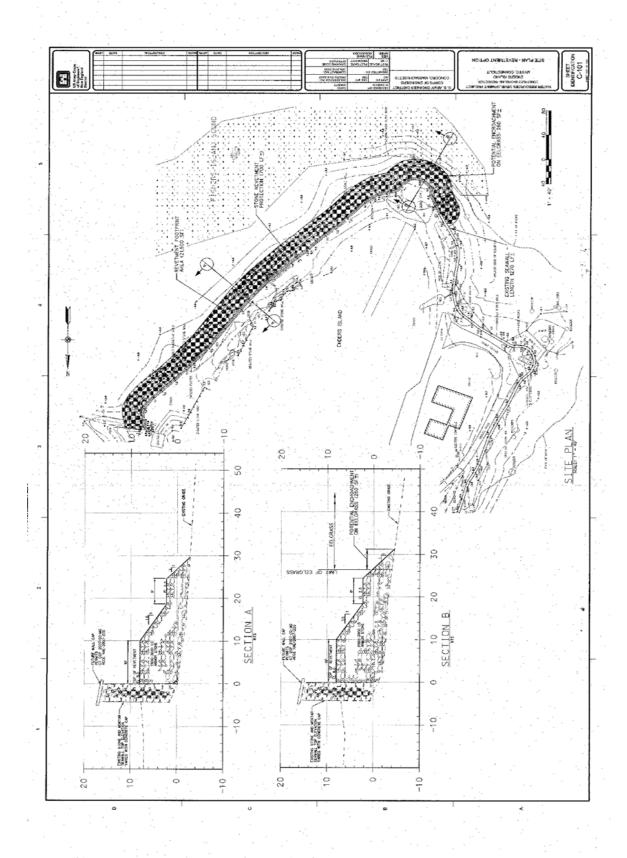


Figure 2. Revetment Site Plan



Attachment A

PERTINENT LAWS, REGULATIONS AND DIRECTIVES

Clean Air Act, as amended (42 U.S.C. 1221 et. seq.)

Clean Water Act, as amended (33 U.S.C. 1251 et. seq.)

Coastal Zone Management Act of 1972, Sections 307 (c)(1) and (2)[16 U.S.C. 760c-760g]

Endangered Species Act of 1973, as amended (16 U.S.C. 668aa-668cc)

Executive Order 11988, Floodplain Management, 24 May 1977

Executive Order 11990, Protection of Wetlands, 24 May 1977

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994.

Executive Order 13007, Accommodations of Sacred Sites, May 24, 1996.

Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, April 21, 1997.

Fish and Wildlife Coordination Act (16 U.S.C. 661-666c)

Magnuson-Stevens Fishery Conservation and Management Act and amended by the Sustainable Fisheries Act of 1996

National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347)

National Historic Preservation Act of 1966, as amended, 16 U.S.C. 470 et seq.

White House Memorandum, Government-to-Government Relations with Indian Tribes, April 29, 1994.