

Appendix A

Pertinent Agency Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Long Island Field Office

340 Smith Road

Shirley, NY 11967

Phone: (631) 286-0485 Fax: (631) 286-4003

<http://www.fws.gov/northeast/nyfo>



To: Robert Smith, U.S. Army Corps of Engineers

Date: January 13, 2015

USFWS File No:

Regarding your: ☐ letter ☐ FAX ☒ E-mail dated: November 17, 2014

For project: Montauk Point Storm Damage Reduction Project

Located: Montauk Point

In Town/County: East Hampton, Suffolk County

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

- ☒ Acknowledges receipt of your "no effect" determination. No further ESA coordination or consultation is required.
- ☐ Acknowledges receipt of your determination. Please provide copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.
- ☐ Is taking no action pursuant to ESA or any other legislation at this time but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (<http://www.fws.gov/northeast/nyfo/es/section7.htm>) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project area is current. Should project plans change or additional information on listed or proposed species or critical habitat become available, this determination may be reconsidered.

Pursuant to the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*),

- ☐ Requests additional time for review. ☐ Is taking no action pursuant to FWCA due to lack of funding.
- ☐ Is providing FWCA comments (see attached). ☐ Has no objection pursuant to the FWCA.
- ☒ Will provide FWCA comments separately. ☐ Is taking no action pursuant to the FWCA at this time but would like to be kept informed of project developments.

USFWS Contact(s):

Date:

Supervisor:

Date:

SPS
8/3/15

Have

Steven S. S. S.

1/14/15



United States Department of the Interior

FISH AND WILDLIFE SERVICE

3817 Luker Road
Cortland, NY 13045



August 21, 2014

Colonel Paul E. Owen
District Engineer, New York District
U.S. Army Corps of Engineers
26 Federal Plaza, Rm. 2109
New York, NY 10278-0090

Dear Colonel Owen:

This is the U.S. Fish and Wildlife Service's (Service) Planning Aide Letter (PAL) for the U.S. Army Corps of Engineers' (Corps) Montauk Point Storm Damage Reduction Project. This PAL is intended as a supplement and update to our Fish and Wildlife Coordination Act Section 2(b) Report (FWCAR) for this project, prepared and dated July of 2003, based upon the project description provided in the Corps' 2002 Feasibility Study. The Service had concluded in our 2003 FWCAR that the proposed action, involving the reinforcement and strengthening of stone revetment to repair and protect the Montauk Lighthouse, would not have significant impacts on fish and wildlife resources in the project area. The Service's 2003 FWCAR is hereby incorporated by reference.

In August 2013, the Corps completed a post-Hurricane Sandy assessment of the existing Montauk Point revetment to review existing site conditions and determine if refinements to the feasibility level design were needed. Corps staff found that the existing stone structure was continuing to degrade and is inadequate to provide long-term protection of the bluff and Montauk Lighthouse (U.S. Army Corps of Engineers 2014). The initial revetment design was reviewed and evaluated by the Corps for potential refinements and an alternative design was selected.

Project Purpose, Scope, Authority, and Study Area

The Corps' project description document, which provides a description of the project purpose, scope, authority, and study area, is hereby incorporated by reference (U.S. Army Corps of Engineers 2014).

Fish and Wildlife Resources in Project Area

The Service identified three ecological communities within the project/study area in our 2003 FWCAR, including marine rocky intertidal, beach strand, and near-shore open water habitats. Refer to our 2003 FWCAR for a detailed description of these communities.

A site inspection was conducted on August 15, 2014. Site conditions remain relatively the same as described in our 2003 FWCAR. Dominant beach strand vegetation (primarily in upper/back dune areas) observed during the inspection include: common reed (*Phragmites australis*), seaside goldenrod (*Solidago semipervirens*), thistle (*Cirsium* spp.), black cherry (*Prunus serotina*), bayberry (*Myrica*

pensylvanica), slender fragrant goldenrod (*Solidago tenifolia*), and oriental bittersweet (*Celastrus orbiculatus*).

As stated in our 2003 FWCAR, federally-listed marine mammals do frequent the near-shore open water habitats within the project area, including gray, harbor, and hooded seals (*Halichoerus grypus*, *Phoca vitulina*, and *Cystophora cristata*, respectively). A seal haul-out area is located approximately one mile east of the project area. The National Oceanic and Atmospheric Administration (NOAA) had concluded in their Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) consultation that original project impacts to these species would be minimal. NOAA is in the process of completing the ESA consultation for the revised project design.

Proposed Action

Refer to the Corps' project description document for a description of the originally authorized and revised, currently proposed action (U.S. Army Corps of Engineers 2014).

The Corps states in their project description that the currently proposed project design refinements result in a smaller footprint of impact than the originally authorized project. However, the currently proposed design results in a slighter greater impact at the Mean Low Water interface (U.S. Army Corps of Engineers 2014). A summary of the key parameters of the originally authorized project design (2005 Feasibility Study) and the currently proposed project (Proposed Plan for Hurricane Sandy Limited Re-evaluation Report [HSLRR]) was included in the Corps' project description document and provided in the table below (Table 1, U.S. Army Corps of Engineers 2014):

Table 1. Key Parameters Comparison

Parameter	2005 Feasibility Study, Authorized Project	Proposed Plan for HSLRR
acres (ac.); cubic yards (cy); feet (ft.); square feet (sq. ft.)		
Construction Approach	Remove Existing Revetment, Reuse Quality Stone	Build Over Existing Revetment, Remove Poor Stone
Armor Stone Size	12.6 Ton Stone, 2 Layers and 1.3 Ton Under Layer Stone (64,600 tons)	15 Ton Stone, 2 Layers (49,000 tons)
Splash Apron	4-5 Ton Stone, 3 Layers	1-2 Ton Stone
Toe	Buried Toe (12.6 Ton Stone)	Partial Buried Toe (15 Ton Stone)
Bottom of Toe	Excavate 16.5 ft. Below Grade (32,000 cy)	Excavate 2-3 ft. Below Grade (4,200 cy)
Toe "Bench"	None	10 ft. NAVD88, 12ft. Wide at Finish
Constructability	Difficult Construction. Major Toe Excavation.	Minor Toe Excavation. Bench Provides Access.
Reuse Existing Materials	Some Reuse of Existing Stone	Build Over Existing Revetment

Revetment at - 1.57 ft. NAVD88 (e.g. MLLW)	Moves Out 34 ft. From Current Revetment	Moves Out 38 ft. from Current Revetment
Inter-Tidal Area Loss (MHHW to MLLW)	28560 sq. ft. (0.655 ac.)	31920 ft ² (0.ac.)

Project Impacts

The potential revised project impacts are the same as described in our 2003 FWCAR, and are summarized as follows:

- Temporary increase in vehicle/equipment traffic during construction could exacerbate erosion, crush beach strand/dune vegetation, and crush the wrackline;
- Disturbance to state-listed breeding birds, including the least bittern (*Ixobrychus exilis*), northern harrier (*Circus cyaneus*), osprey (*Pandion haliaetus*), red-shouldered hawk (*Buteo lineatus*), and whip-poor-will (*Caprimulgus vociferus*); and
- Burial of benthic organisms.

Refer to the Service's 2003 FWCAR for a detailed description of these impacts. The Service concluded in our FWCAR that these impacts would be temporary, would result in the construction of in-kind habitat (rocky intertidal), and would result in no net loss of in-kind habitat values. The Service also concluded that the cumulative impacts of other federal/state/local projects were not expected to be significant and that this project would not significantly alter the tidal flows and wave energy and not cause significant increase in down-gradient erosion. The Corps also concluded that the original project design would not have significant impact on the existing wave refraction and down-gradient erosion around Montauk Point (U.S. Army Corps of Engineers 2005).

The revised project still involves the replacement/repair of the rock revetment, thereby having the same above-described impacts. The armor stone size is larger (15 ton stone) than the original design (12.6 ton stone) and would result in a slight increase (0.655 ac. to 0.733 ac.) in the amount of intertidal loss. However, as stated in the Corps' revised project description, the overall footprint of the revised structure results in a smaller footprint of impact, fits within five feet of the original revetment design footprint, and eliminates a large amount of excavation (from 32,000 cy to 4,200 cy) that would have been necessary for a buried toe. The revised project proposes the placement of stone over the existing revetment, instead of removing the existing revetment as originally proposed, which would decrease the amount of disturbance along the revetment and associated turbidity and erosion into the ocean. Additionally, the Corps states in their project description document that the revised project would improve the sustainability of the revetment, thereby decreasing the amount of repair and maintenance, and its associated impacts, needed in the future. Finally, due to less excavation and no longer having to remove the existing revetment, the duration of construction for the revised project would be less than the original project, thereby decreasing the amount of disturbance associated with the construction phase of the project (audio and visual disturbances, crushing of wrackline, etc.) to fish and wildlife resources.

Mitigation Recommendations

The Service recommended the following conservation/mitigation measures in our 2003 FWCAR:

- The Corps use Access Road 1 and Alternative Access Road 2 (as referred to in the 2005 Draft Environmental Impact Statement [U.S. Army Corps of Engineers 2005]) for construction access and avoid using Access Road 2 to minimize impacts associated with off-road vehicle and equipment traffic on the beach (Corps agreed to this recommendation in their Draft Environmental Impact Statement [U.S. Army Corps of Engineers 2005]); and
- Coordinate with the New York State Department of Environmental Conservation (NYSDEC) regarding survey protocols for state-listed plant and bird species and measures to avoid/minimize project impacts. Conduct surveys to identify and locate species presence and obtain NYSDEC permits (if needed).


These measures are still applicable for this revised project design and remain for this project.

Service Position

The revised project design does not significantly differ from the original design in that both involve the replacement and repair of the stone revetment along the shoreline at Montauk Point, the footprint of each are within five feet of each other, with the currently proposed design resulting in a smaller overall footprint, would result in minimal loss of habitat and no net loss of in-kind habitat value. The revised design would result in less excavation, less time to construct, and greater sustainability when compared with the original design. As such, the Service concludes that, provided the Service-recommended measures are implemented, the proposed action will not have significant impacts on fish and wildlife resources in the project area.

The Service appreciates the Corps' assistance during the completion of this document. If you have any questions or require additional information, please contact Mr. Steven Sinkevich of the Long Island Field Office at (631) 286-0485.

Sincerely,


for David A. Stilwell
Field Supervisor

cc: NYSDEC, Stony Brook, NY (R. Marsh)
USFWS, Long Island Field Office, Shirley, NY

LITERATURE CITED

U.S. Army Corps of Engineers. 2014. Montauk Point Project Description. New York District, Planning Division, New York, NY.

U.S. Army Corps of Engineers. 2005. Draft Environmental Impact Statement, Montauk Point, New York Storm Damage Reduction Project. New York District, Planning Division, New York, NY.

U.S. Fish and Wildlife Service. 2003. Fish and Wildlife Coordination Act Section 2(b) Report. Montauk Point Storm Damage Reduction Project, Suffolk County, New York. Long Island Field Office, Islip, NY.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

March 14, 2014

John R. Kennelly
U.S. Army corps of Engineers, New England District
696 Virginia Road
Concord, MA 01742-2751

Dear Mr. Kennelly,

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the proposed stone revetment for the Montauk Point Storm Damage Reduction Project, Town of Easthampton, Suffolk County.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. Among the species and communities listed, the maritime beach, marine rocky intertidal community, and the two knotweed species occur on or along beach habitat to the extents of the stone revetment. The maritime shrubland and southern arrowwood occur on the uplands above the beach and revetment.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

Sincerely,

Nicholas Conrad
Information Resource Coordinator
New York Natural Heritage Program



**The following rare plants, rare animals, and significant natural communities
have been documented at your project site, or in its vicinity.**

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQRA. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The following significant natural communities are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
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Wetland/Aquatic Communities

Marine Rocky Intertidal

High Quality Occurrence of Rare Community Type

Montauk Point: The community has abundant and fairly diverse macroalgae and invertebrate assemblages. A small portion of the community is on substrate that is not indigenous (rocks placed for erosion control at the point), and the community lacks tide pools.

2787

Upland/Terrestrial Communities

Maritime Shrubland

High Quality Occurrence

East Montauk Peninsula: This is a very large community with less than 5% invasive exotics. The community is located in a moderately intact landscape.

5022

Maritime Beach

High Quality Occurrence of Uncommon Community Type

Montauk Point: This is a moderately sized beach community in fairly good condition, within a protected, approximately 3000 acre natural area.

4840

The following plants are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and so are a vulnerable natural resource of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
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Vascular Plants

Seabeach Knotweed

Polygonum glaucum

Rare

Vulnerable in NYS
and Globally Uncommon

Montauk Point, 2010-07-22: The plants are growing on a gravelly, stony, and sandy beach on the north shore of Long Island which is frequently used by fishermen and is heavily impacted by vehicular traffic. Vegetation occurs only in the undisturbed areas above the driven area.

8020

Southern Arrowwood	<i>Viburnum dentatum</i> var. <i>venosum</i>	Threatened	Imperiled in NYS	
Montauk Point, 2003-06-06: This site is dominated by a maritime shrubland and successional maritime forest (oak-hickory dominated woodlands) natural communities with small patches of maritime grassland openings scattered throughout the site. There are a series of trails through these communities. <i>Viburnum dentatum</i> var. <i>venosum</i> (along with <i>Viburnum dentatum</i> var. <i>lucidulum</i>) is one of the dominant shrubs.				6485
Small's Knotweed	<i>Polygonum aviculare</i> ssp. <i>buxiforme</i>	Endangered	Critically Imperiled in NYS	
Montauk Point, 2010-07-22: The plants are growing on a gravelly, stony, and sandy beach on the north shore of Long Island which is frequently used by fishermen and is heavily impacted by vehicular traffic. Vegetation occurs only in the undisturbed areas above the driven area.				3335

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.



**The following rare plants and rare animals have
historical records
at your project site, or in its vicinity.**

The following rare plants and animals were documented in the vicinity of the project site at one time, but have not been documented there since 1979 or earlier, and/or there is uncertainty regarding their continued presence. There is no recent information on these plants and animals in the vicinity of the project site and their current status there is unknown. In most cases the precise location of the plant or animal in this vicinity at the time it was last documented is also unknown.

If suitable habitat for these plants or animals is present in the vicinity of the project site, it is possible that they may still occur there. We recommend that any field surveys to the site include a search for these species, particularly at sites that are currently undeveloped and may still contain suitable habitat.

<i>COMMON NAME</i>	<i>SCIENTIFIC NAME</i>	<i>NYS LISTING</i>	<i>HERITAGE CONSERVATION STATUS</i>
Beetles			
Hairy-necked Tiger Beetle	<i>Cicindela hirticollis</i>	Unlisted	Critically Imperiled in NYS

1955-08-23: The habitat is maritime beach at the eastern end of Long Island.

13700

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

DEC 19 2013

John K. Kennelly
Chief of Planning Branch
Department of the Army
US Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA -1742-2751

Re: Changes to the Montauk Point Storm Damage Reduction Project

Dear Mr. Kennelly:

We have reviewed your letter received on December 9, 2013 regarding the proposed changes to the Montauk Point Storm Damage Reduction Project. This work will repair coastal damage caused by Hurricane Sandy in October 2012, as well as historical long-term erosion at the site of the Montauk Point Lighthouse located in East Hampton, Suffolk County, New York. The original 2005 Montauk Point Storm Damage Reduction Final Feasibility Report and EIS was reviewed by our office, and a determination was made on April 23, 2003 that no ESA-listed species under NMFS jurisdiction would be exposed to any direct or indirect effects of the proposed projects.

The changes to the repair plan include revisions to the design cross-section to endure stability, constructability, and cost effectiveness of the structure. We have reviewed the proposed changes to the project, including the change to the toe, which will no longer be buried, as well as changes to armor stone size, building over the existing revetment rather than removing it, and a slight increase in intertidal area loss, in the materials provided.

Endangered Species Act

Several species of sea turtles listed under the Endangered Species Act as well as individual Atlantic sturgeon originating from any of the five listed Distinct Population Segments (DPSs) may be seasonally present off Montauk Point in the Atlantic Ocean. We have reviewed the proposed project and the project location (shallow, nearshore rocky intertidal/subtidal) and have determined that no species listed under our jurisdiction will be exposed to any direct or indirect effects of the proposed projects. Therefore, no further coordination with us under the ESA is necessary. Should project plans change or new information become available that changes the basis for this determination, further coordination should be pursued.

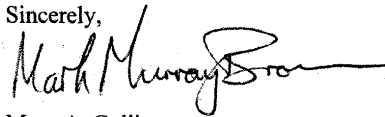


Essential Fish Habitat (EFH)

NMFS' Habitat Conservation Division (HCD) is responsible for overseeing programs related to essential fish habitat (EFH) designated under the Magnuson-Stevens Fishery Conservation and Management Act and other NOAA trust resources under the Fish and Wildlife Coordination Act. The project area provides EFH for a number of species including winter flounder, black sea bass, and bluefish. In correspondence dated April 23, 2003, HCD responded to the Corps' letter requesting concurrence that the proposed work would not adversely affect EFH. The proposed project did not proceed to the next phase at that time, and since then the plans have been slightly modified. As described in your December 6, 2013 letter, existing stabilization structures are continuing to degrade and the cross section and footprint of the proposed stabilization structures have been revised. Because of the dynamic nature of the area of the proposed revetment and the minor change in project scope, we have no further comments or conservation recommendations to provide for the proposed activity. If you have any questions regarding these comments, please contact Jenna Pirrotta at (978) 675-2176 or Jenna.Pirrotta@noaa.gov.

If you have any questions regarding ESA comments, please contact please contact Jennifer Goebel of my staff at 978-281-9373 or jennifer.goebel@noaa.gov.

Sincerely,



Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

EC: Goebel, F/NER3
Pirrotta, F/NER4

File Code: Section 7/Nonfisheries/ACOE/Technical Assistance/2013/Montauk Point Lighthouse



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

August 06, 2015

Mr. Peter Weppeler
Chief, Environmental analysis Branch
Army Corps of Engineers
26 Federal Plaza
New York, NY 10278

Re: USACE
Montauk Point Hurricane Sandy Limited Reevaluation Report and Environmental
Assessment (Former Storm Damage Reduction Project)
Montauk Point, 2000 NY27, NY
04PR04116

Dear Mr. Weppeler:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We understand that the Montauk Point Storm Damage Reduction Project has been reanalyzed resulting in a revision to the proposed stone revetment. We note that the Montauk Point Lighthouse was designated a National Historic Landmark in 2012. National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, just over 2,500 historic places bear this national distinction.

Based upon review of the information submitted, we concur that the proposed work provided with your July 6, 2015 letter will have No Adverse Effect upon historic resources. If there are substantive changes made to the project plans or if unexpected conditions necessitate project changes, consultation with our office should resume.

If you have any questions, I can be reached at (518) 268-2181.

Sincerely,

Beth A. Cumming
Senior Historic Site Restoration Coordinator
e-mail: beth.cumming@parks.ny.gov

via e-mail only

Division for Historic Preservation



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington, D.C. 20240



In Reply Refer To:
FWS/DBTS-BGMTS

SEP 30 2015

Mr. Robert J. Smith
U.S. Army Corps of Engineers

Dear Mr. Smith:

The U.S. Fish and Wildlife Service (Service) has reviewed the request dated September 8, 2015, Case # 3002, for a determination as to whether the following project is within a System unit or an otherwise protected area (OPA) of the John H. Chafee Coastal Barrier Resources System (CBRS).

Project: Repair of Stone Revetment at Montauk Point
Montauk, NY 11954

We compared the project above, as depicted on the information that was provided, to the official CBRS map for the area, numbered 117A, dated October 15, 1992. The U.S. Army Corps of Engineers project located at Montauk Point is not located within a System unit or an OPA of the CBRS. See the enclosed plot showing the location of the project in relation to CBRS Unit NY-55.

We hope this information is helpful. Additional information concerning the CBRS can be found on our website at <http://www.fws.gov/cbra>. If you have any additional questions, please contact Ms. Dana Wright, Program Specialist, at (703) 358-2171.

Sincerely,

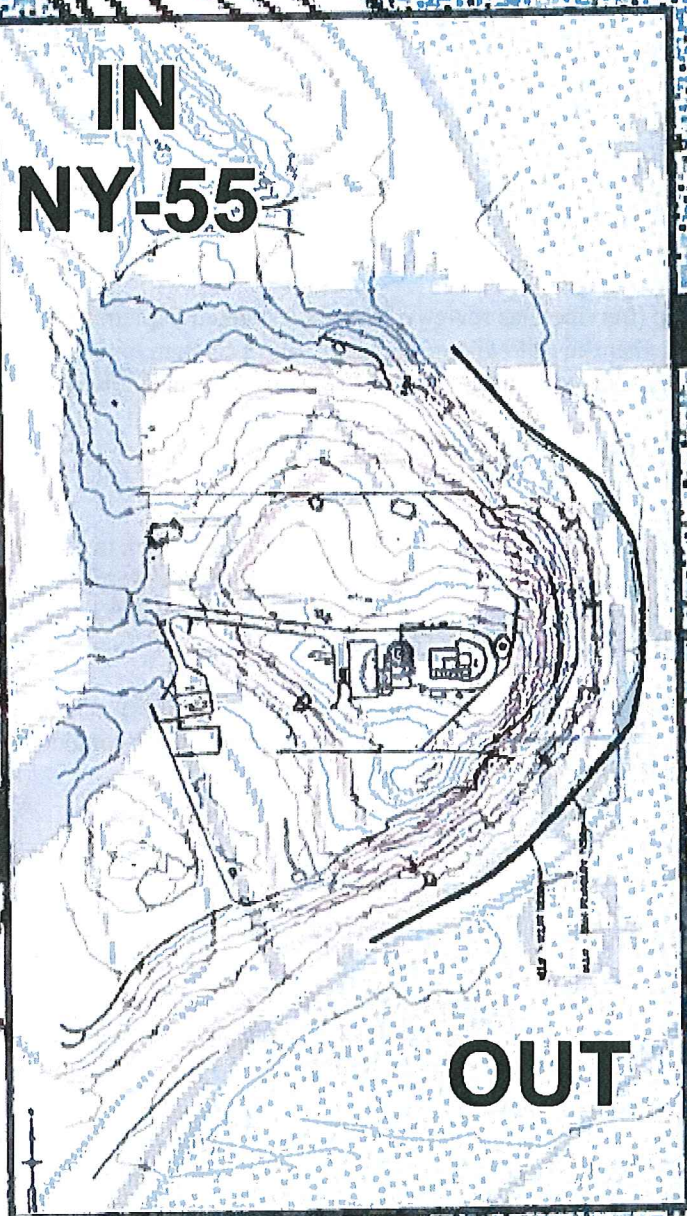
Jonathan Phinney, PhD
Chief, Branch of Geospatial Mapping and
Technical Support

cc: Steve Papa, FWS, Shirley, NY
Cynthia Bohn, FWS, Atlanta, GA

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Case 3002

Imagery: 2013 NAIP Imagery
System Map Number: 117A
System Map Date: 10/15/1992

Letter Sent out to Advisory Council on Historic Preservation



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, N.Y. 10278-0090
July 6, 2015

Reply to
Environmental Analysis Branch

Brian Lusher
Advisory Council on Historic Preservation
401 F Street, NW, Suite 308
Washington, DC 20001-2637
Waterford, New York 12188-0189

RE: CORPS
Montauk Point Storm Damage Reduction Project
Montauk Point, Suffolk County, New York

Dear Mr. Lusher:

The U.S. Army Corps of Engineers, New York District (District) has revised and updated the Montauk Point Storm Damage Reduction Project, originally initiated in 2002, before the Montauk Point Lighthouse was listed as a National Historic Landmark (Attachment 1). The project proposed at that time consisted of replacing the existing stone revetment. A Feasibility Report and Environmental Impact Statement were prepared in 2005 but the project was never constructed. As a result of damage caused by Hurricane Sandy in October 2012, the District, under the Hurricane Sandy Disaster Relief Appropriations Act (P.L. 113-12) has revisited the project and is completing a limited re-evaluation report and environmental assessment. As part of this reanalysis, the original District project, a stone revetment, was revised to take into account current conditions. A comparison of the original and current, proposed projects is attached (Attachment 2).

The Area of Potential Effect (APE) for this study includes the Montauk Point Lighthouse National Historic Landmark (NHL), which includes the lighthouse, fire control tower, keeper's houses, and landscape features, such as the bluff, as well as the access roads, lay down areas and footprint of the existing revetment (see Figure 1, Attachment 3). In addition to the bluff on which the lighthouse sits is a contributing element to the NHL. The bluff gives the lighthouse its visual prominence looking both out onto the ocean and landward and as well as from the ocean. The original revetment, built in the 1990s, is a non-contributing element to the NHL.

The proposed construction will emplace larger armor stone over the existing structure utilizing the same footprint (see Attachment 2 and Figures 2 and 3, Attachment 3). The construction will not require excavation or cutting of the bluff; however, there will be an additional row of stones added to the toe, which is underwater. There will be no change in the view to or from the bluff. The existing revetment can be seen and is an integral part of the views of the lighthouse (see Figures 2, 4, and 5, Attachment 3). The existing access roads and lay down areas that were previously used in the construction and repair of the revetment will be used in the construction of

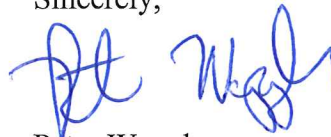
the proposed project. Based on this information, the District has determined the proposed project will have no adverse effect on the NHL.

The construction of the new revetment may require the movement or removal of the fire control bunker situated on the beach at the base of the bluff (see Figures 4 and 5, Attachment 3). In the 1950s, erosion of the bluff caused the bunker to fall from its original position on the edge of the bluff, near the fire control tower, and land on the beach below, where it has remained. If the bunker must be moved or removed from its current location, the District will offer the bunker to the Montauk Historical Society for use in its operation of the Lighthouse.

In accordance with 36 CFR 800.10, the District is providing your office with this determination. The District is also coordinating this determination with the New York State Office of Parks, Recreation and Historic Preservation and the Montauk Historical Society, who is a local partner in this project. The District is also consulting with the Shinnecock Indian Nation. In addition, the District will notify your office when the draft limited re-evaluation report and environmental assessment are available for review.

If you have any questions or need additional information, please contact Nancy J. Brighton, at (917) 790-8703 or Nancy.J.Brighton@usace.army.mil. Thank you for your assistance on this project.

Sincerely,



Peter Wepler
Chief, Environmental Analysis Branch

Attachments

Attachment 1
**Project Reports and Previous Coordination with the New York State Office of Parks,
Recreation and Historic Preservation**
Montauk Point Coastal Storm Risk Reduction Project
Montauk Point, Suffolk County, New York

Project Reports:

Brighton, N. 1992. Cultural Resources Investigation, Montauk Light Station, Suffolk County, New York. US Army Corps of Engineers, New York District.

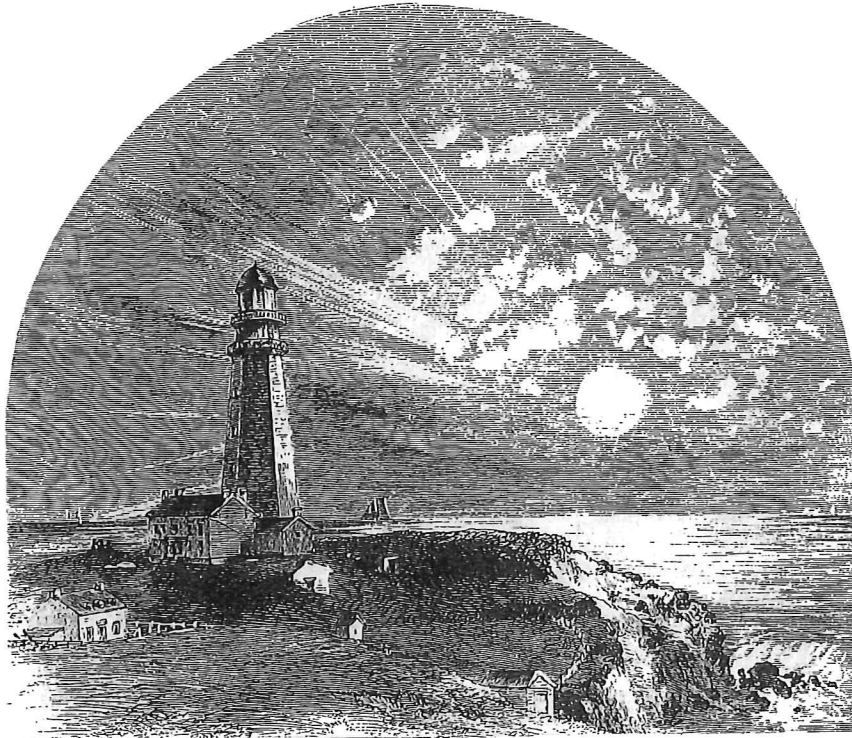
Panamerican Consultants. 2002 Archaeological Survey at the Montauk Point Light Station, Montauk Point, Suffolk County, New York.

US Army Corps of Engineers (USACE). 1993. Reconnaissance Report, Montauk Point, New York District, New York, New York.

US Army Corps of Engineers (USACE). 2005 Final Feasibility Report and Environmental Impact Statement – Montauk Point Storm Damage Reduction Project. New York District, New York, New York.

Executive Summary/Syllabus for each report follows. Coordination with NYSOPRHP also attached.

CULTURAL RESOURCES INVESTIGATION
MONTAUK POINT LIGHT STATION
SUFFOLK COUNTY, NEW YORK



by

Nancy J. Brighton
Environmental Analysis Branch

U.S. Army Corps of Engineers
New York District

November 1992

ABSTRACT

From July 13th to July 17th, 1992, a cultural resources investigation was conducted at Montauk Point Lighthouse by U.S. Army Corps of Engineers (Corps) archaeologists. This work was undertaken as part of a Corps reconnaissance study which will determine if measures to protect the bluff at Montauk Point and its vicinity from further erosion are economically and environmentally feasible. As part of its environmental responsibilities, the Corps must take into account the impact that erosion and erosion control may have on National Register eligible historic properties, including archaeological resources, within the project area. Field work revealed that remains associated with the entire history of the lighthouse, from the late 18th to the 20th century, exist beneath the ground. These tests also identified remains of the area's first inhabitants, the Montauk Indians.

Shovel tests placed in the location of the first keeper's house, built in 1797, which is no longer standing, and the second keeper's house, built adjacent to the first in 1838 and now serves as a garage, uncovered a portion of a stone flooring which may have been associated with both of these houses. Other shovel tests placed to the west of the 1838 house recovered fragments of glass, brick and a variety of ceramics. Additional shovel tests placed on the bluff around the lighthouse and lighthouse museum, located in the 1860 keeper's house, recovered the remains of the old road which led to the lighthouse and artifacts pertaining to the later occupation of the lighthouse grounds.

A walk-over survey of the base of the exposed edge of the bluff did not reveal any sites currently eroding out of the bluff. However, just off the hill to the north of the lighthouse, on New York State Park land, a concentration of oyster shell, or possible shell midden, was located on either side of a paved path leading from the Park's souvenir shop to the beach. An additional prehistoric artifact, the tip of a quartz projectile point, was found lying on the ground on the slope from the southwest corner of the 1860 keeper's house to the garage.

The Montauk Point Lighthouse is one of the most popular attractions of Long Island. Its significance as an historic site is derived from a number of features which combine to form an historic district. The lighthouse still sits in its original spot on the tall, isolated, exposed bluff. The structures that are currently present on the landscape, the 1838 and 1860 keepers' houses, the lighthouse tower, outbuildings constructed between 1860 and 1900, and the World War II watch tower, which stands to the east of the lighthouse, provide a tangible connection to the lighthouse's continuous history; a link to the past experience of keeping the light at the Point as well as its more modern role in the protection of the Atlantic Coast. The archaeological record at Montauk Point, as indicated by this field work, can augment existing knowledge of light station maintenance and enhance the integrity and significance of this historic site.

FINAL REPORT

**ARCHAEOLOGICAL SURVEY AT THE MONTAUK POINT
LIGHT STATION, MONTAUK, SUFFOLK COUNTY,
NEW YORK**

Prepared for:

**BARRY A. VITTOR AND ASSOCIATES, INC.
8060 Cottage Hill Road
Mobile, Alabama 36695**

Under Contract to:

**U.S. ARMY CORPS OF ENGINEERS
NEW YORK DISTRICT
Environmental Analysis Branch
26 Federal Plaza
New York, New York 10278-0090**

Prepared by:

**Robert J. Hanley, M.A., Principal Investigator/Field Director
Michael A. Cinquino, Ph.D., Project Director
Rebecca Emans, M.A., Archaeologist**

**PANAMERICAN CONSULTANTS, INC.
Buffalo Branch Office
2390 Clinton Street
Buffalo, New York 14227-1735
(716) 821-1650**

**Contract No. DACW51-97-D-0009
Work Order No. 0069**

November 2002

Management Summary

Panamerican Consultants, Inc. (PCI) was subcontracted by Barry Vittor & Associates, Inc., under contract to the New York District, U.S. Army Corps of Engineers (USACE) to conduct a Phase II cultural resources investigation at the Montauk Point Light Station in Suffolk County, New York. USACE is proposing to construct erosion protection controls in this area. Previous investigations (Brighton 1992, McLean 1999 and 2000) identified four potential cultural features that were recommended for further investigation to determine their origin and historic significance. The features identified include: (1) a stone walkway or floor; (2) a trash pit; (3) a well; and (4) barn foundation stones. The Scope of Work (USACE 2002) also required investigation along the bluff overlooking the location of proposed seawall improvements.

The field investigations included pedestrian reconnaissance, photographic documentation, auger sampling, shovel testing, and the excavation of 1-x-1-meter units. The pedestrian survey was conducted across the entire project area to identify cultural features and soil disturbances, and to determine survey strategy. Photographs were taken to document current conditions and pertinent views (e.g., cultural features, soil stratigraphy, disturbances) within the project area. Along the bluff, shovel tests were excavated at 25-ft (7.6-m) intervals unless prevented by severe soil disturbance or steep slope. Additional shovel tests were excavated between positive shovel tests on a terrace south of the lighthouse. A 12.5-ft (3.8-m) interval grid of shovel tests covered this area. Auger probing was conducted in a 5-ft (1.5-m) interval grid across Feature 1, followed by the excavation of shovel tests and 1-x-1-meter test units. Test units were also placed at the reported locations of Features 2, 3, and 4. All excavated soils were sieved through ¼-inch hardware mesh.

Shovel tests excavated on the terrace south of the lighthouse found numerous historic artifacts. Further investigation with large aperture units is recommended at this location if impacts are proposed in the future. Investigation of Features 2 and 4 did not result in finding intact cultural resources. No further investigation is recommended at those locations. The west side of the well, Feature 3, was uncovered, but is encased in concrete. Its historic significance has not been determined due to this impediment. Feature 1 is an historic stone pavement that appears to be eligible for nomination for inclusion in the National Register of Historic Places (NRHP) under Criteria A and C. As a component of the Montauk Point Lighthouse complex, Feature 1 appears to be eligible as part of an Historic District or National Landmark along with the NRHP-listed Montauk Lighthouse and associated historic outbuildings and archaeological resources.

The results of this investigation support a previous USACE assessment that the Montauk Point Lighthouse and associated features meet Criteria 1, 3 and 4 (Brighton 1992:48). The Montauk Point Lighthouse property possesses integrity and significance with the characteristics of location, setting, feeling, association and design. In addition to historic material, the Montauk Point Lighthouse property is archaeologically sensitive

for prehistoric remains. Although no prehistoric artifacts were identified during this investigation, they have been found at Montauk Point in the past. The Montauk Point Lighthouse project area has a rich prehistory and there is potential for finding additional prehistoric cultural materials.

Copies of this report are on file at the office of the New York District, USACE. Artifacts, background and field data and other project materials are temporarily being held at Panamerican Consultants, Inc., 2390 Clinton Street, Buffalo, New York. Their ultimate curation are to be determined by USACE.

Montauk Point, New York

Reconnaissance Report

February 1993

SYLLABUS

This reconnaissance report was prepared in accordance with the authority provided by two resolutions adopted by the Committee on Environmental and Public Works of the United States Senate on May 15, 1991. The resolutions authorize a review of the report of the Chief of Engineers on Fire Island to Montauk Point, New York, published as House Document Number 86-425, 86th Congress, 2nd Session, dated June 21, 1960, and other pertinent reports.

The first of these resolutions authorizes the study of interim emergency protection works that can be carried out to serve as protection for Montauk Point, including the Montauk Point Lighthouse, until a comprehensive project can be formulated, designed, and constructed. The second resolution authorizes a study to investigate the feasibility of a comprehensive project and various alternatives. Both resolutions support protecting Montauk Point and its vicinity (including the Montauk Point Lighthouse) from erosion, environmental degradation, and coastal storm damage.

Pertaining to the first resolution, it was determined that no emergency protection to the Montauk Point Lighthouse facilities was warranted based on current Corps criteria and in view of recent emergency works constructed by the U.S. Coast Guard and the Montauk Historical Society. The reconnaissance study was initiated in pursuit of long-term protective measures.

This reconnaissance report concerns a study area located in Suffolk County between the Atlantic Ocean and Block Island Sound at the easternmost end of the south fork of Long Island in the Town of East Hampton. This study area includes the historic Montauk Point Lighthouse, which sits on a high bluff of glacial till, approximately 70 feet above mean sea level (MSL). It also includes the steep slopes and shorelines surrounding the bluff. The study area encompasses Federal property (owned by the U.S. Coast Guard) and State property (Montauk Point State Park).

The report presents two structural shore protection alternatives for the long-term protection of the Montauk Point study area. These alternatives were developed within the framework of existing Federal laws and criteria to a conceptual level for preliminary construction quantity and cost estimates. The project life used for analyses and design was 50 years. Other shore protection alternatives, including additional structural measures and beach fill (though not likely to merit more than discussion), would be addressed in further feasibility phase studies. Non-structural alternatives, including relocation of the lighthouse, would also be addressed in the feasibility phase investigations (although relocating the lighthouse is not expected to be either economically optimum or socially acceptable).

The plan selected as the recommended plan of improvement consists of a 770-foot long stone revetment covering the most critically eroding area of the Montauk Point bluff east, north, and south of the lighthouse. The revetment consists of a heavily embedded toe structure rising on a 1 vertical to 2 horizontal slope with 9-ton armor stone up to a 14-foot wide horizontal crest at elevation +25 feet MLLW. A grouted underlayer of 1-ton stone extends on a 1 on 1.5 slope to elevation +30 feet MLLW for wave overwash protection.

For purposes of the economic analysis for this report, project economics and costs, for consistency, were both developed at December 1992 price levels. The estimated first cost of the selected revetment plan is \$ 6,860,600. The total investment cost is \$ 7,201,000. The average annual cost of the plan is \$ 640,000 (December 1992 price levels, 8 1/4 percent interest), which includes the annualized investment cost, interest during construction, and annual maintenance costs.

The expected annual plan benefits are estimated at \$ 1,210,000, which includes \$ 393,000 in annual high priority (storm damage reduction) benefits. The benefit-to-cost ratio is 1.9 to 1.0, with net annual benefits of \$ 570,000. Since high priority benefits comprise greater than 50 percent of the benefits needed for economic justification, this plan meets current Corps of Engineers criteria for economic feasibility. The project will preserve and protect environmental and cultural resources with no major adverse impacts.

The New York State Department of Environmental Conservation supports the plan, will act as the non-Federal sponsor, and is willing to equally share the cost of the feasibility phase study with the Federal Government.



Montauk Point, New York
Storm Damage Reduction Project

FINAL ENVIRONMENTAL IMPACT STATEMENT



OCTOBER 2005

Prepared by: U.S. Army Corps of Engineers
New York District - Planning Division
26 Federal Plaza – Room 2151
New York, New York 10278-0090

**FINAL
ENVIRONMENTAL IMPACT STATEMENT**

**Montauk Point, New York
Storm Damage Reduction Project**

Prepared by:

U.S. Army Corps of Engineers
New York District (CENAN-PL-EA)
26 Federal Plaza – Room 2151
New York, New York 10278-0090

October 2005

EXECUTIVE SUMMARY

The United States Army Corps of Engineers (USACE), New York District (District), is the lead Federal agency for the Montauk Point Storm Damage Reduction Project (Project). The Project area is located in Suffolk County, New York, between the Atlantic Ocean and Block Island Sound at the easternmost end of the south fork of Long Island. Montauk is in the Town of East Hampton and is approximately 125 miles east of the City of New York. The Project area includes the historic Montauk Point Lighthouse Complex that sits on a high bluff underlain with glacial till, approximately 70 feet above Mean Sea Level (MSL). The Montauk Point Historical Society (MHS) owns the land immediately surrounding the Lighthouse and related structures. The New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) owns portions of the project area in which the existing stone revetment is located.

The Montauk Point Lighthouse (Lighthouse), which is listed on the United States Department of the Interior's National Register of Historic Places (NRHP), was commissioned by President Washington in 1796 and completed in 1797. Since its construction, the Lighthouse has served as an important navigation aid for the first land encountered by ships headed for New York Harbor and Long Island Sound, as well as other eastern seaboard ports. Despite numerous previous protection projects implemented at Montauk Point, the existing shoreline and bluff in the Project area continue to erode. This erosion will lead to the continued loss of the Turtle Hill plateau, the eventual loss of the Lighthouse and its adjacent structures, as well as other historically important resources (*e.g.*, archaeological features and artifacts).

As a result of the need for protection of the Turtle Hill plateau and the historic Lighthouse, the USACE was authorized by two resolutions of the United States Senate Committee on Environment and Public Works, adopted May 15, 1991, to provide long term storm damage protection at Montauk Point, New York. The first of these resolutions authorizes the study of interim emergency protection works. In the Reconnaissance Report (USACE 1993) it was determined that in view of the limited protection afforded by the recently constructed emergency erosion control project by the U.S. Coast Guard and the MHS in 1990, 1992 and 1993, no additional interim measures were warranted at that time. The second resolution authorized a study to investigate the feasibility of a comprehensive project and various alternatives. The District is the lead Federal agency for the Project, and the New York State Department of Environmental Conservation (NYSDEC) is the non-Federal cooperating agency.

The District performed an analysis of six different Project alternatives as part of the formulation of long-term storm damage protection at Montauk Point. These alternatives were developed to provide the most appropriate form of shoreline stabilization for the Turtle Hill plateau that would eliminate the threat of erosion and provide acceptable levels of protection to historic structures from the impacts of wave attack and storm recession. Alternatives included the no-action alternative, one non-structural protection alternative, and four structural protection alternatives. To accomplish this analysis, the District identified the causes and rate of shoreline erosion and storm damage, developed general evaluation criteria (*i.e.*, appropriateness to site conditions, compliance with New York State Coastal Zone Management criteria, effectiveness of protection,



environmental and cultural impacts, and annual erosion cost and benefits), analyzed specific evaluation criteria (*i.e.*, technical, economic, environmental, regional and local interests, and institutional), formulated planning objectives, and considered planning constraints.

The District's selected alternative is the stone revetment alternative, which consists of the construction of 840 feet of stone revetment that incorporates material from the existing revetment, and has a heavily embedded toe to protect against breaking waves and scour at the base of the revetment. The estimated construction costs for the stone revetment alternative is \$13,690,000 or \$887,3000 annualized for the 50-year evaluation period.

Two public scoping meetings were held to provide the general public with an opportunity to comment on the Project. The two meetings were held at the Montauk Fire House, Montauk, New York, at 1:00–3:00 pm and 7:00–9:00 pm on November 14, 2001. The regulatory agencies and public were invited to comment during the scoping meetings and during the 60 days following the meetings. In addition, the District coordinated and met with interested parties, including the Surfrider Foundation, Montauk Surfcasters Association, and the New York Sport Fishing Federation, to assist with the evaluation of short- and long-term impacts on recreational activities and to discuss mitigating solutions. The District also coordinated closely and met with the NYSOPRHP regarding short- and long-term impacts to cultural, recreation, visual, aesthetic, and natural resources. In addition, the United States Fish and Wildlife Service (USFWS) prepared a Fish and Wildlife Coordination Act Section 2(b) Report (FWCAR) which evaluated Project impacts on the natural environment and provided recommendations for avoidance and minimization of impacts. These contacts and consultations are summarized in this Draft Environmental Impact Statement (DEIS).

The USACE prepared this DEIS to fulfill the requirements of the National Environmental Policy Act (NEPA) process. The purpose of the DEIS is to summarize information in relevant background documents, public and agency comments, consultations, and recommendations, and evaluate changes in environmental and social conditions (*i.e.*, the human environment) in the Project area as a result of the construction, operation, and maintenance of the District's selected alternative. Based on the DEIS evaluations, the District has concluded that the changes in the conditions of the resources in and around the Project area as a result of implementation of the District's selected alternative will not cause adverse effects on the human environment.

This DEIS was filed with the United States Environmental Protection Agency (USEPA) and in accordance with the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the public has 30 days from the date of issuance to comment on this DEIS in the form of written comments. The USACE would review and take the comments into consideration in preparing a Final EIS (FEIS) for the Project.



For further information, please contact:

Dr. Christopher Ricciardi, Project Archaeologist
Environmental Impact Statement Coordinator
U.S. Army Corps of Engineers, New York District
Planning Division – Environmental Branch
26 Federal Plaza – Room 2151
New York, New York 10278-0090
Phone: 917-790-8630
Fax: 212-264-0961
Email: Christopher.g.ricciardi@usace.army.mil



Chris



New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

September 26, 2002

Leonard Hotston
Chief, Environmental Analysis Branch
Department of the Army
New York District, Corps of Engineers
Jacob K. Javits Federal Building
New York, NY 10278-0090

RE: Archeology Survey at the Montauk Point Light Station
Montauk, Suffolk County, NY
02PR04111

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We have begun to review the project in accordance with Section 106 of the National Historic Preservation Act of 1966 and relevant implementing regulations.

James Warren of our National Register unit agrees that the Montauk Point Lighthouse Complex could be listed as a National Register district encompassing the other historic resources associated with the lighthouse. The complex may also be eligible for National Historic Landmark designation, which would enable the property's owners to apply for rehabilitation funding under the National Park Service's Save America's Treasures program (more information available at <http://www.saveamericatreasures.org/>).

SHPO archeologist Doug Mackey reviewed the archeology report and concurs with its findings. To make a determination of effect the SHPO requests more detailed project information. Any proposal for erosion protection should take into account both visual and archeological impacts. Please forward the revetment plans to the SHPO as they become available.

Thank you again for your assistance. If you have any questions, feel free to call me at (518) 237-8643, ext. 3282. Please refer to the SHPO Project Review (PR) number in any future correspondences regarding this project.

Sincerely,

Greg Donofrio
Historic Sites Restoration Coordinator
(greg.donofrio@oprhp.state.ny.us)

103



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, N.Y. 10278-0090

19 November 2002

Environmental Analysis Branch

Ruth Pierpont
New York State Office of Parks, Recreation & Historic Preservation
Historic Preservation Field Service Bureau
Peebles, Island, P.O. Box 189
Waterford, New York 12188-0189

Dear Mr. Kuhn:

The U.S. Army Corps of Engineers, New York District (Corps), is pleased to furnish you with a copy of the final report, *Archaeological Survey At The Montauk Point Light Station, Montauk, Suffolk County, New York*.

The report outlines the following recommendations/conclusions: a) no further work is required on Features 2 and 4 (trash deposits) which were determined to be modern, b) Feature 3 (a well) was capped in concrete so no determination could be made, c) Feature 1 (an historic stone pavement) is eligible for nomination for inclusion on the National Register of Historic Places (NRHP) under Criteria A and C, d) further investigation may be required along the eastern bluff of the complex if further work will continue in that area, and finally, e) Feature 1, as well as the entire Lighthouse Complex, is eligible for nomination as part of an Historic District and a National Landmark.

The Corps concurs with all of the recommendations and conclusions of the report as well as your office with regard to the findings uncovered during excavations and the determination of the eligibility of the Montauk Point Lighthouse Complex as a Historic District and as a National Landmark. At this time no further work is planned for the Complex. However, if the nature of the proposed work changes, the Corps will recommend that further action be taken with regard to Feature's 1 and 3 as well as the eastern bluff area. Additionally, the Corps will recommend to the Montauk Point Lighthouse Historical Society that they pursue nominations for both a Historic District and National Landmark status for the Lighthouse Complex.

Thank you and Douglas Mackay for your participation in the Section 106 process for the Phase II portion of the Montauk Point Storm Damage Reduction Project. If you have any questions, please contact the Project Archaeologist, Chris Ricciardi, at (212) 264-0204.

Sincerely,

Leonard Houston
Chief, Environmental Analysis Branch

Enclosure



New York State Office of Parks, Recreation and Historic Preservation
Historic Preservation Field Services Bureau
Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

September 8, 2005

Dr. Christopher Ricciardi, EIS Coordinator
US Army Corps of Engineers-NY District
Planning Division-Environmental Branch
26 Federal Plaza, Room 2151
New York, NY 10278-0090

RE: Archeology Survey at the Montauk Point Light Station
Lake Montauk
Montauk, Suffolk County, NY
04PR04116 (formerly 02PR04111)

Dear Dr. Ricciardi,

Thank you for requesting the comments of the State Historic Preservation Office (SHPO). We received the Draft Environmental Impact Statement on August 22, 2005 and are reviewing the project in accordance with Section 106 of the National Historic Preservation Act of 1966 and relevant implementing regulations.

LO1a

Douglas Mackey of our archeology unit has reviewed the DEIS and concurs with the recommendations regarding archeology issues.

LO1b

We understand that moving the lighthouse was explored, but will not take place. We feel strongly that it should not be moved and are pleased that it is not being considered.

Please use the PR number of top of this letter when you refer to this project in future. If you or anyone involved with the project has any questions, please contact me at 518-237-8643, ext. 3252.

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator

Montauk Point Revetment Re-Analysis

In August 2013, the US Army Corps of Engineers (USACE) completed a post-Hurricane Sandy assessment of the existing Montauk Point revetment to review existing site conditions and determine if refinements to the 2005 feasibility level design might be advisable. USACE staff found that, in spite of continuous maintenance/repair activity, the existing stone structure is continuing to degrade and is inadequate to provide long term protection of the bluff. Some of the deficiencies noted included partial collapse of the revetment due to overtopping, movement downslope of material, gradual loss of interlocking of armor stones, water seepage along the south shore, and splitting of poor quality armor stone. Degradation of the revetment will continue and possibly accelerate in the future without the authorized project. Site visit findings reinforced the urgent need for the construction of the proposed Montauk Point revetment to protect the historic lighthouse complex and other natural, cultural and recreational resources.

Next, the original Revetment Design was reviewed and evaluated for potential refinements. Variations on the original Revetment Design were developed and considered for selection. The variations were evaluated based upon ability to meet performance requirements and consideration of sea level change (SLC), constructability, quantity of stone required, environmental impacts, long term maintenance implications, and cost. Eight variations of the revetment design were considered.

The selected option consists of 15 ton armor stone overlain on the existing 5-7 ton stone revetment. Loose material at the foot of the proposed revetment will be removed to form a stable base and prevent future scour. The revetment slopes from the toe at a 2:1 slope until elevation 10' NAVD88, at which point a 12 foot wide bench is constructed. This bench is located about 8' above mean higher high water. From there, the revetment continues to slope at a 2:1 ratio until reaching elevation 21' NAVD88. The top bench at 21' NAVD88 is approximately 30 feet wide. The final element is a splash apron from elevation 21-25 NAVD88. This element consists of 1-2 ton stone underlain by a geo-textile fabric.

The selected variation typical cross section is illustrated below in Figure 1:

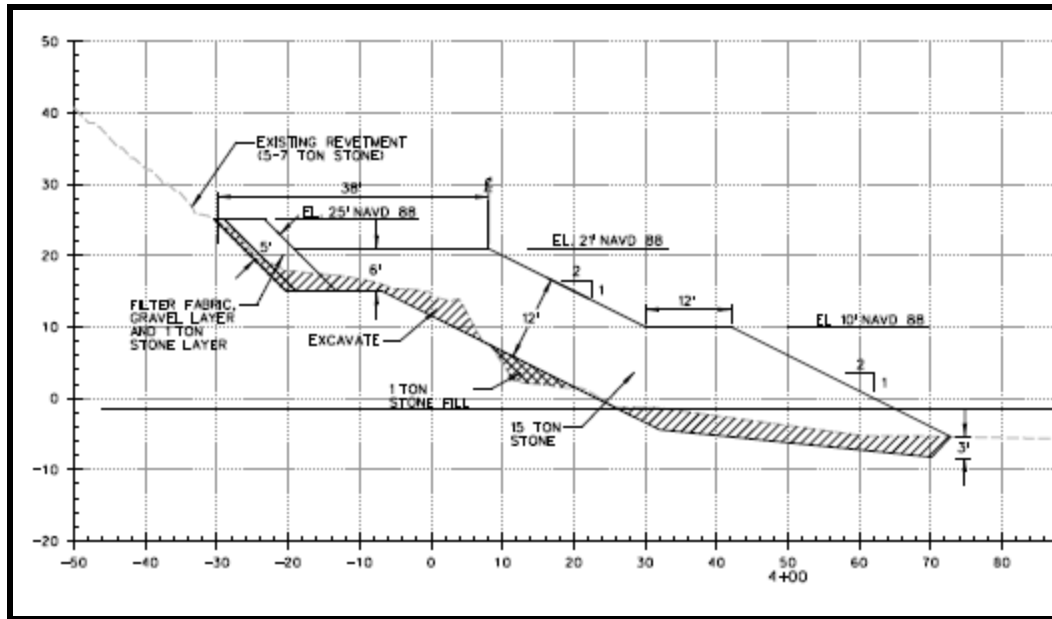
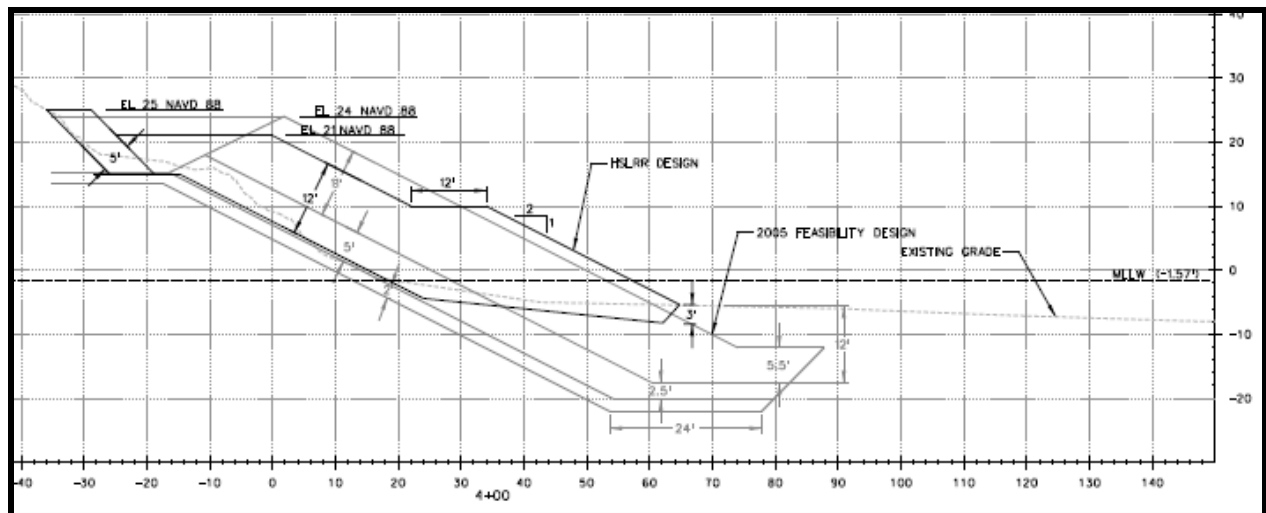


Figure 1. Revetment Typical Cross Section

The selected option includes the following refinements from the original design:

1. Build on top of the existing revetment (5-7 ton stone) instead of removing it. The original design included the removal of the existing revetment and constructing the new revetment in its place. The current design will utilize the existing revetment as a foundation for the new revetment. This approach will reduce the amount of stone required, and provide a stronger level of protection. Furthermore, this approach has the added benefit of providing protection for the bluff during the entire construction process.
2. Construct a toe berm instead of a buried toe. The original design included a buried toe installed to a depth of 16 feet below existing grade. The construction of the original toe design would be very difficult because the construction will take place approximately 65 feet away from the existing shoreline. In addition, de-watering would likely be required to place the toe, which complicates the construction. The current design consists of a toe berm constructed at 10 feet NAVD-88 (above Mean High High Water). Minimal excavation will be required (2-4 feet below existing grade) to remove loose material and place the stone. The stone will only need to be placed approximately 40 feet away from the existing shoreline. It is anticipated that the toe berm would be built first to a width of 25 feet to accommodate a crane. The upper part of the revetment would be constructed on top of the toe berm, leaving a 12 foot wide berm to facilitate future maintenance. Excavation material is reduced from about 32,000 cubic yards to about 4,200 cubic yards. Based on soil borings (refusal at 2.5 feet) and

- Below is a comparison of the original and current Cross Section and Plan View (Figures 2 and 3):



3

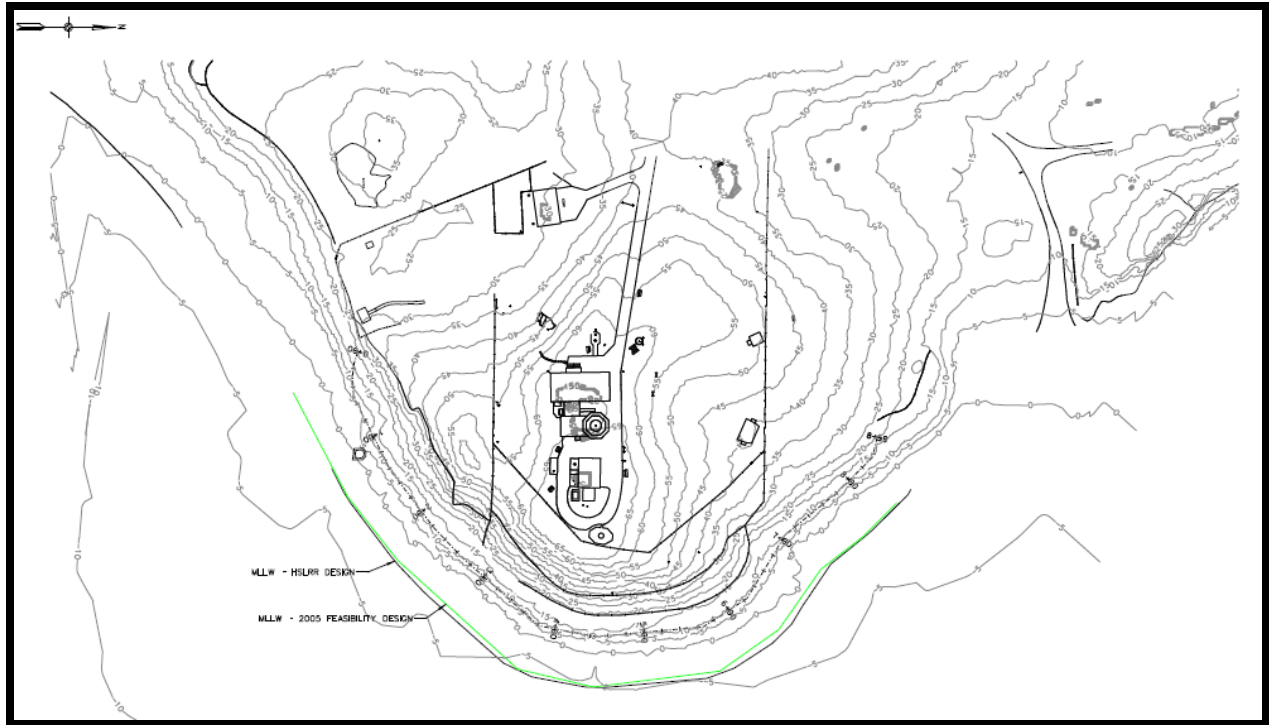


Figure 3. Comparison of original and current designs – Plan View

As noted above, the current design refinements result in a smaller footprint of impact than the original design. The current design does result in a slighter greater impact at the Mean Low Low Water interface. A summary of the key parameters of the original design and the current refinements are provided in the table below (Table 1):

Table 1. Key Parameters Comparison

Parameter	2005 Feasibility Study, Authorized Project	NAE Proposed Plan for HSLRR
Construction Approach	Remove Existing Revetment, Reuse Quality Stone	Build Over Existing Revetment, Remove Poor Stone
Armor Stone Size	12.6 Ton Stone, 2 Layers and 1.3 Ton under layer Stone (64,600 tons)	15 Ton Stone, 2 Layers (49,000 tons)
Splash Apron	4-5 Ton Stone, 3 layers	1-2 Ton Stone
Toe	Buried Toe (12.6 Ton Stone)	Partial Buried Toe (15 Ton Stone)
Bottom of Toe	Excavate 16.5 ft Below Grade (32,000 cy)	Excavate 2-3 ft. Below Grade (4,200 cy)
Toe "Bench"	None	10 ft. NAVD88, 12ft. Wide at Finish
Constructability	Difficult Construction. Major Toe Excavation.	Minor Toe Excavation. Bench Provides Access.
Reuse Existing Materials	Some Reuse of Existing Stone	Build Over Existing Revetment
Revetment at - 1.57 ft. NAVD88 (e.g. MLLW)	Moves Out 34 ft. From Current Revetment	Moves Out 38 ft. From Current Revetment
Inter-Tidal Area Loss (MHHW to MLLW)	28560 ft ² (0.655 Acres)	31920 ft ² (0.733Acres)

Figure 1: Area of Potential Effect, Montauk Point Storm Damage Reduction Project (1994).



Figure 2: General Location Map, Montauk Point Storm Damage Reduction Project.

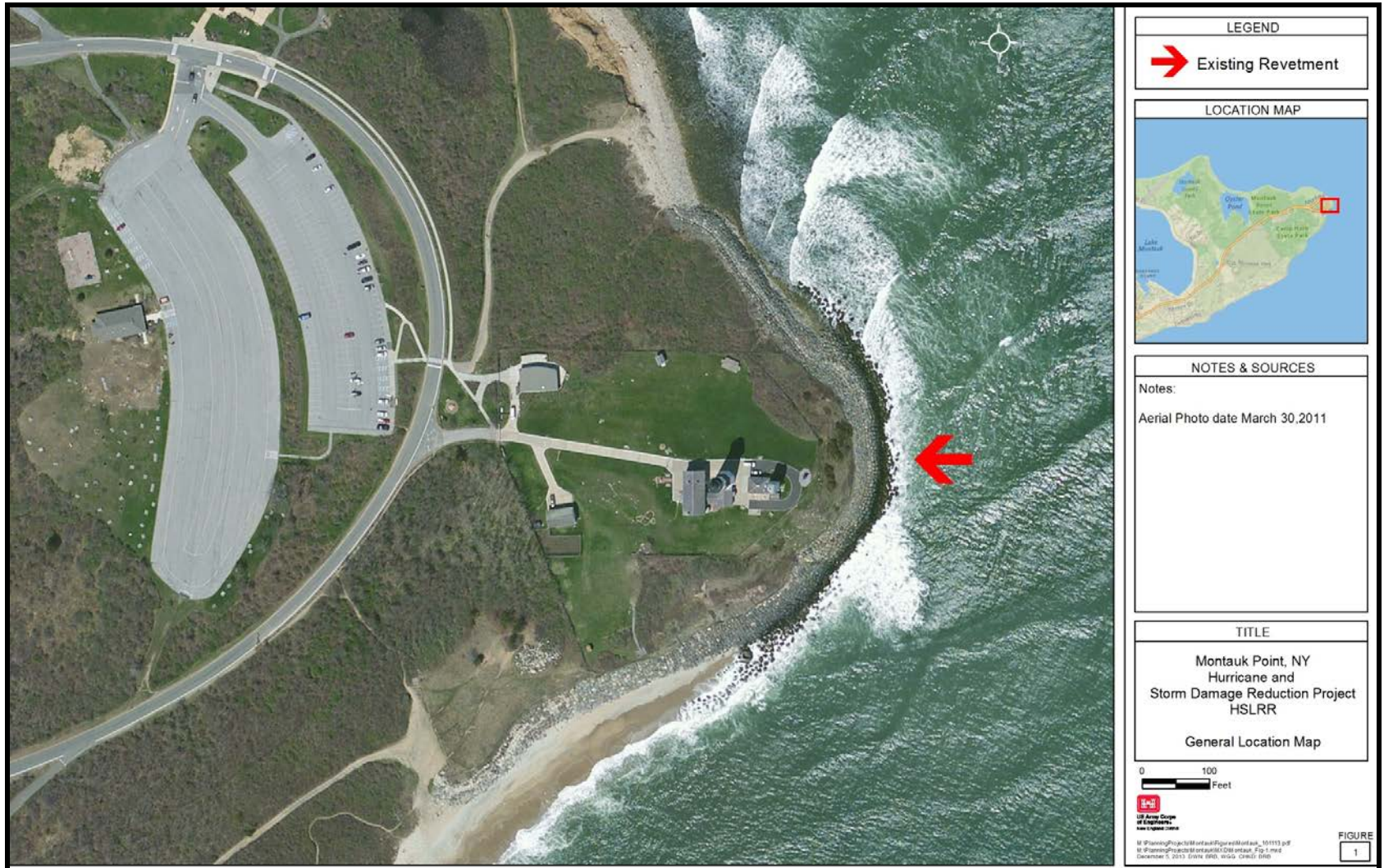


Figure 3: Preliminary Site Plan, Montauk Point Storm Damage Reduction Project

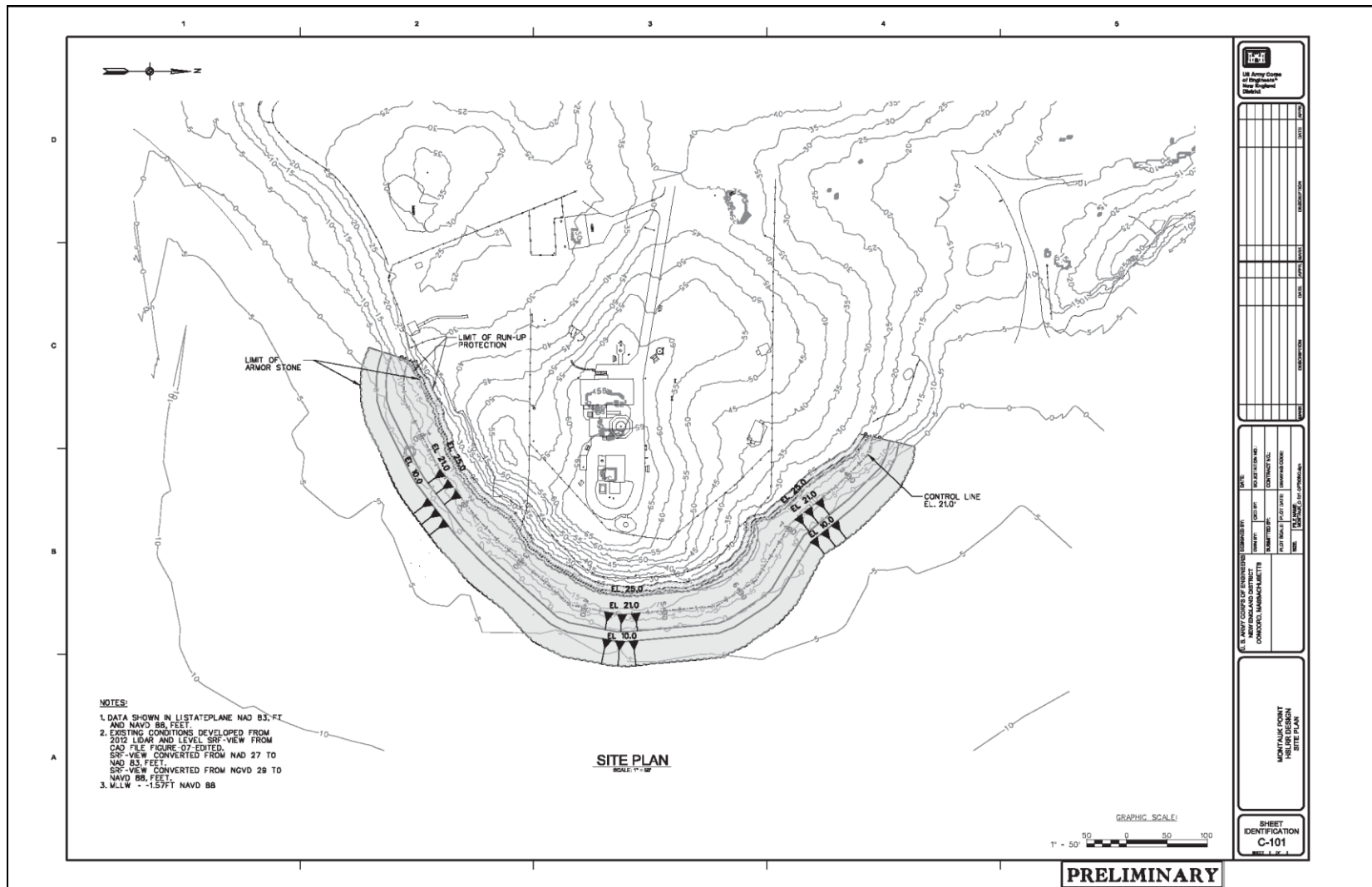
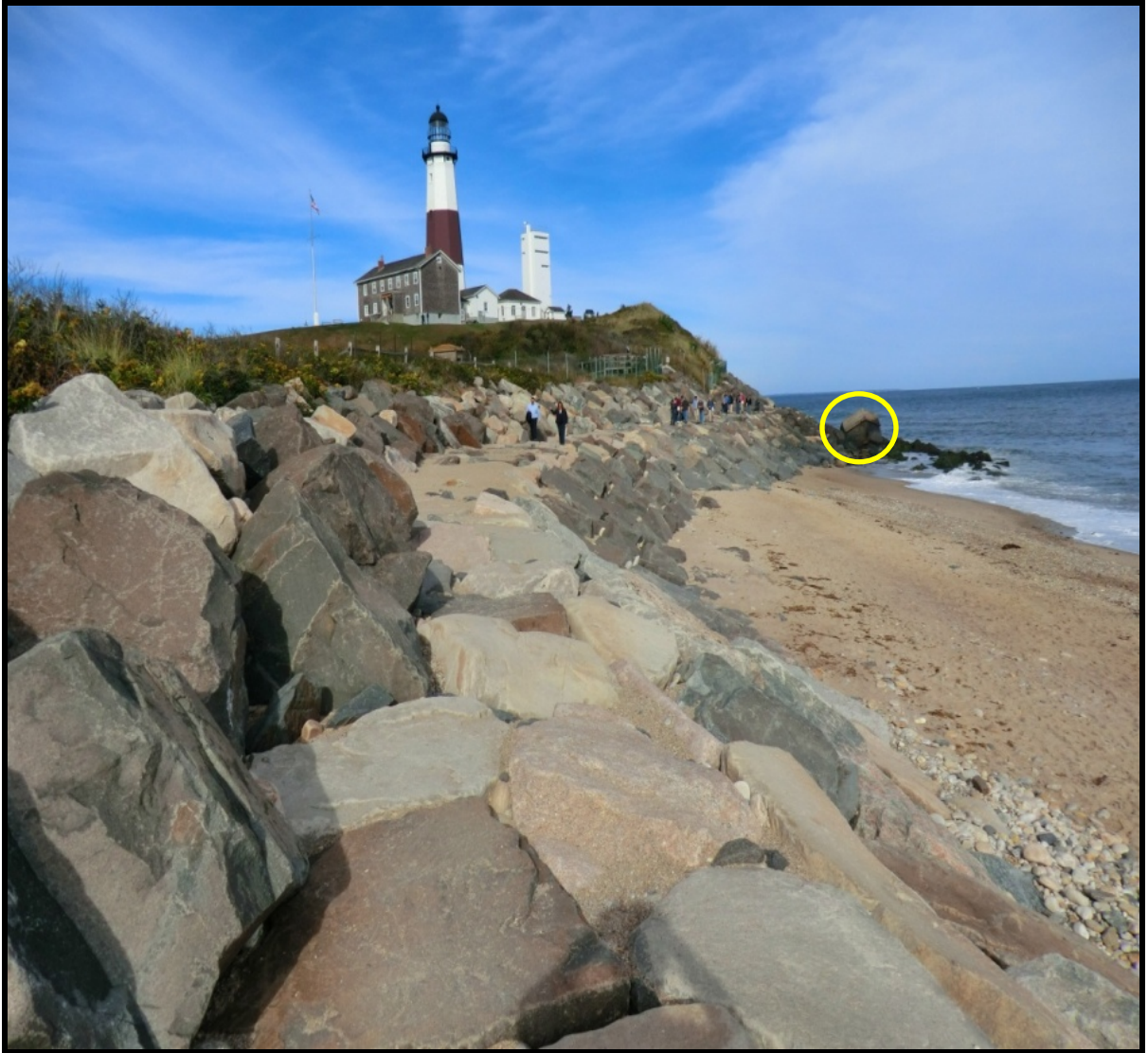


Figure 4: Photograph of the Montauk Point Lighthouse National Historic Landmark showing the Lighthouse, WWII Fire Control Tower, Keeper's House, Garage/Former Keeper's House, Oil House, and bluff as well as the existing stone revetment. Yello circle shows the location of the bunker that eroded from the bluff in the 1950s (facing southwest, Photo taken in 1995).



Figure 5: Southern end of the existing revetment, Montauk Point. Yellow circle is the bunker that eroded from the bluff in the 1950s (facing northeast, 2014).





DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK NY 10278-0090

Environmental Analysis Branch

April 19, 2016

Mr. Jeffrey Zappieri
Consistency Review, New York Coastal Management Program
New York Department of State
One Commerce Place
99 Washington Avenue, Suite 1010
Albany, New York 12231-0001

Subject: Montauk Point Storm Damage Reduction Project - Suffolk County, NY

Mr. Zappieri:

The Army Corps of Engineers (USACE) New York District (NAN) has evaluated and prepared a Hurricane Sandy Limited Reevaluation Report (HSLRR) and Environmental Assessment (EA) for the authorized, but unconstructed Montauk Point Storm Damage Reduction stone revetment project, which was designed to protect the bluff and historic lighthouse at Montauk Point in New York (Figures 1 and 2). Because the Montauk Point Storm Damage Reduction Feasibility Study (FS) and Environmental Impact Statement (EIS) were finalized by NAN in October 2005, and the project was congressionally authorized in 2006, a brief review of the project is necessary to verify that existing conditions have not changed significantly after Hurricane Sandy, and that the currently recommended project meets the project authorization. In general, the project proposed for construction in the HSLRR is the same length as the authorized project; however, there are some revisions to the design cross-section to ensure the stability, constructability and cost effectiveness of the structure. The purpose of this letter is to coordinate the minor changes to the Montauk Point Storm Damage Reduction project with your office and to give you an opportunity to update coordination pursuant to New York State's Coastal Management Program (CMP) as required by U.S. Department of Commerce regulations (15 CFR 930.57).

As stated previously, the stone revetment proposed for construction in the HSLRR is the same length as the authorized project (approximately 840 feet); however, there are some revisions to the design cross-section to ensure the stability, constructability and cost effectiveness of the structure. Foremost, the construction of the 2005 FS buried toe, was reviewed and deemed cost prohibitive as sheet piling and dewatering would be required in the area in front of the revetment during the estimated two year construction period. In the adjusted design, the toe is not buried. There is also a bottom bench at 10 feet NAVD88 for equipment during construction and future maintenance. The bench, which is mostly above Mean High Water (MHW), also functions to dissipate wave energy during storm events which decreases the need for

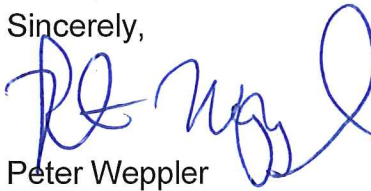
excavation and rock placement higher up the bluff face. The proposed plan increases the impact to intertidal habitat by 0.08 acres.

Several revetment profile options were evaluated, with varying bench elevations, bench widths and slopes to determine the most practicable revetment design in consideration of storm protection, constructability, cost and impacts to intertidal habitat (Figure 3 – Revetment Option Cross-Sections). After evaluating the revetment options and existing revetment conditions, Option C, with a top bench elevation of 21 feet NAVD88, a lower bench elevation of 10 feet and a slope of 1 Vertical (V) to 2 Horizontal (H), was determined to be the most practicable revetment option. Option C takes advantage of an existing layer of stone near Mean Low Low Water (MLLW) that has eroded from the hillside. In addition, the 1V to 2H revetment slope (the steepest stable seawall slope) is cost effective (e.g., requires less stone than a 1:3 slope) and minimizes impacts to intertidal habitat. See Figure 4 – Site Plan – HSRR (Option C) for a plan view of the current revetment design; Figure 5 – Cross-Section Comparative - Site Plan vs. 2005 Feasibility Design; and Table 1 - Comparison of 2005 Revetment Design vs. 2013 Revetment Design for a comprehensive comparison of the 2005 and 2013 revetment design features. In addition, the currently proposed project will use the same construction access roads and staging areas identified in the 2005 FS (Figure 6 – Access Roads and Staging Areas).

A comparison of the original and current, proposed projects was evaluated in the attached draft Environmental Assessment (EA) which includes a determination of how the project meets or advances the applicable State Coastal Policies. The District has determined that the intended activity is consistent with New York State's CMP.

I look forward to working with you and your staff on this effort. If you should have any questions, please contact Mr. Robert J. Smith of my staff at 917-790-8729

Sincerely,



Peter Weppeler
Chief, Environmental Analysis Branch

Attachments

Montauk Point Project Description

The Montauk Point Lighthouse is located on an eroding bluff at the eastern tip of Long Island in the Township of East Hampton, Suffolk County, New York (see Figure 1 – to view the General Location Map). Due to erosion of the bluff, the lighthouse is less than 120 feet from the edge of the bluff. Continued erosion has been recognized as a problem for many decades and various efforts have been made to stabilize the shoreline with limited success.

The Montauk Point Lighthouse was designated as National Landmark in March 2012. The lighthouse was commissioned by President Washington and completed in 1796. It has served as an important navigation aid for the first land encountered by ships heading for New York Harbor and Long Island Sound, as well as other eastern seaboard ports. The lighthouse continues to operate as a navigation aid with a marine rotating beacon and fog signal.

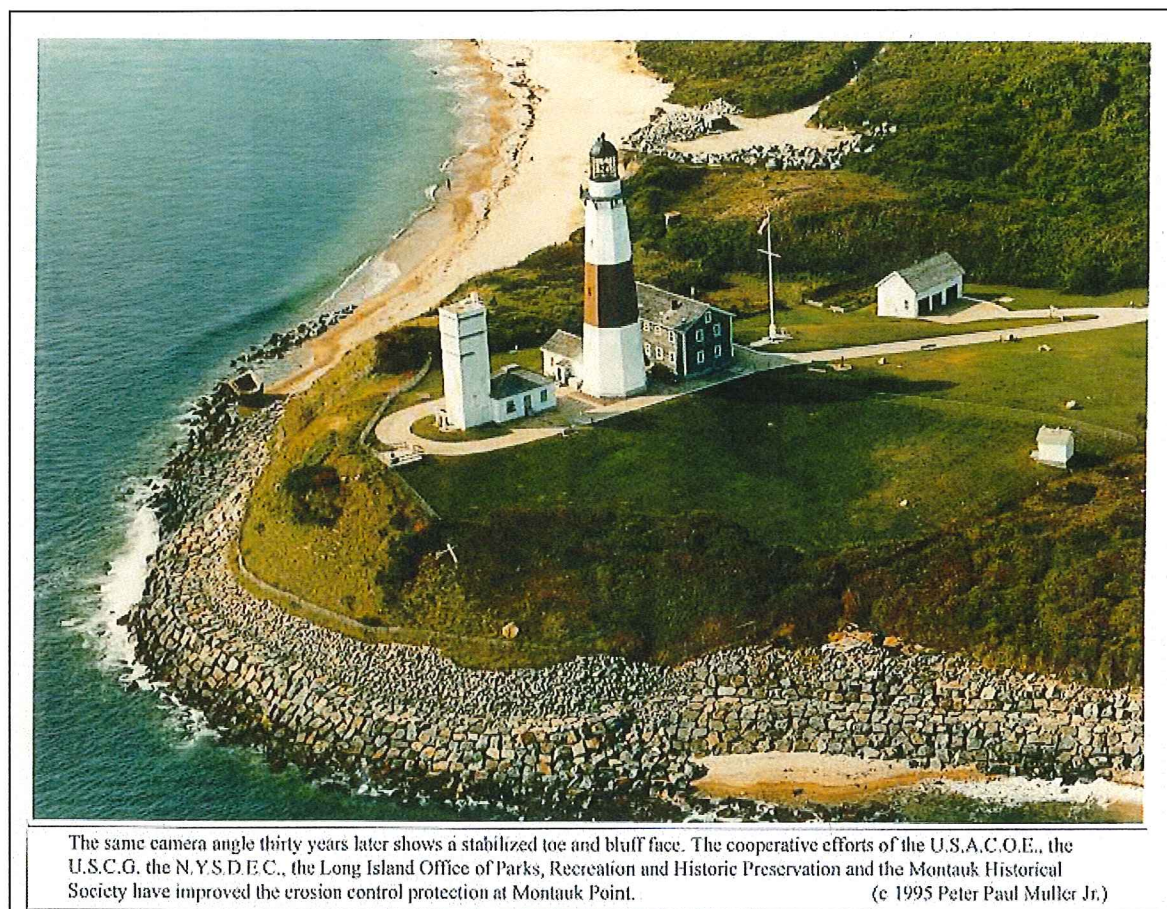


Figure 1. Project Location Map

The lighthouse complex is owned and operated by the Montauk Historical Society (nonprofit 501-C-3). The Montauk Historical Society is dedicated to the protection, preservation and educational development of this nationally significant historic site. Membership in the Montauk

Historical Society and visitation to the lighthouse is fee based and open to all without any discrimination. Fees help maintain the properties and overall operation.

Erosion of the coastal bluff at Montauk Point has been recognized as a problem for many decades. There is a long history of erosion control activities constructed by both governmental and non-governmental agencies from 1946¹ to the most recent efforts in the 1990s (see Figure 2). The existing erosion control measures, including the revetment, are inadequate for long-term protection against waves and water levels.



The same camera angle thirty years later shows a stabilized toe and bluff face. The cooperative efforts of the U.S.A.C.O.E., the U.S.C.G. the N.Y.S.D.E.C., the Long Island Office of Parks, Recreation and Historic Preservation and the Montauk Historical Society have improved the erosion control protection at Montauk Point. (c 1995 Peter Paul Muller Jr.)

Figure 2. Montauk Lighthouse, associated grounds, and revetment circa 1995

¹ A 700 foot revetment was installed in 1946 by the Army Corps of Engineers. This revetment eventually failed and was replaced by a 300 foot revetment constructed by the Coast Guard in 1991. This revetment was augmented by a 150 foot long revetment completed by Montauk Historical Society on both ends of the Coast Guard revetment in 1992. Since 1992, the Montauk Historical Society has conducted periodic repairs to the revetment as the existing revetment continues to degrade due to storm damage.

AUTHORIZED PROJECT

Authorization History

The Final Report of the USACE Chief of Engineers (Chief's Report) on the Montauk Point, New York, and Hurricane & Storm Damage Reduction Project was provided to Congress on March 31, 2006 and the project was authorized in Water Resources Development Act of 2007. NAN is the lead Federal agency for the project, and the New York State Department of Environmental Conservation (NYSDEC) is the non-federal cooperating agency.

The 2006 Chief's Report and the project authorization are based on the Final Montauk Point Storm Damage Reduction Feasibility Study and EIS, October 2005. This report was prepared under the authority of a resolution adopted by the Committee on Environment and Public Works of the U.S. Senate on May 15, 1991. A second resolution, also dated May 15, 1991, authorized the study of interim emergency protection works until a comprehensive project was formulated, designed and constructed.

Project Area

The project area is located in Suffolk County, New York, between the Atlantic Ocean and Block Island Sound at the easternmost end of the south fork of Long Island. Montauk is in the Town of East Hampton. The study area includes the entire historic Montauk Point Lighthouse Complex situated on a high bluff underlain with glacial till, about 70-feet above Mean Sea Level (MSL). The lighthouse is the focal point of the historic complex and surrounding facilities. The lighthouse complex consists of the Lighthouse Tower and Keeper's House, the Fire Control Tower, and Garage, which was an earlier Keeper's House. Also part of the complex are the archaeological sites associated with the Lighthouse and Montauk Point.

The lighthouse is located adjacent to the Montauk Point State Park (New York). Turtle Cove, a popular surf casting and surfing beach, is located south of the lighthouse.

Lighthouse Ownership

The ownership of the light house and associated property was transferred from the U.S. Coast Guard to the Montauk Historical Society (nonprofit 501-C-3) on September 30, 1996. Surrounding property is owned by the State of New York and the Town of East Hampton. The Historical Society's continued ownership of the project is subject to the condition to maintain the Montauk Light Station in accordance with the provisions of the National Historic Preservation Act of 1966, amended (16 U.S.C. 470 et seq.) and other applicable laws. All rights, title, and interest would revert to the United States if the Montauk Light Station ceases to be maintained in accordance with the National Historic Preservation Act as a nonprofit center for public benefit

for interpretation and preservation of the material culture of the United States Coast Guard, maritime history of Montauk, and Native American and colonial history.

The Montauk Historical Society is dedicated to the protection, preservation, and educational development of this nationally significant historic site. Through programs, exhibits, publications and special events, the story of this site is conveyed to the public. Membership in the Montauk Historical Society and visitation to the lighthouse is fee based and open to all without any discrimination. Fees help maintain the properties and overall operation.

A waiver to the USACE single landowner policy from the Assistant Secretary of the Army (Civil Works) was granted on 29 June 2005 for the project.

Authorized Project Description

The project consists of 840-feet of revetment protection for the bluff. The protection covers the most vulnerable bluff area that would directly endanger the lighthouse complex due to bluff failure. The 2005 revetment design was based on Engineering Manual 1110-2-1614 "Design of Coastal Revetments, Seawalls and Bulkheads". The FS revetment was designed to withstand a 73 year return period storm. The revetment was designed to be 840 feet long utilizing 12.6 ton quarry stone armor units extending from the crest down to the embedded toe. The designed revetment was sloped at 2:1, with a crest of +24 NAVD88. The revetment was anchored by an embedded toe at a depth of 16 feet below existing grade, at a distance of about 65 feet from the interface between Mean Low Low Water and the existing revetment. The estimated first cost for the stone revetment was \$13,792,000 (2004 price level), including contingency, planning, engineering and design, and construction supervision and administration.

REEVALUATION OF PROJECT COSTS

Design Refinements

In August 2013, USACE completed a post-Hurricane Sandy assessment of the existing Montauk Point revetment to review existing site conditions and determine if refinements to the 2005 feasibility level design might be advisable. USACE staff found that, in spite of continuous maintenance/repair activity, the existing stone structure is continuing to degrade and is inadequate to provide long term protection of the bluff. Some of the deficiencies noted included partial collapse of the revetment due to overtopping, movement downslope of material, gradual loss of interlocking of armor stones, water seepage along the south shore, and splitting of poor quality armor stone. Degradation of the revetment will continue and possibly accelerate in the future without the authorized project. The site visit findings reinforced the urgent need for the construction of the proposed Montauk Point revetment to protect the historic lighthouse complex and other natural, cultural and recreational resources.

Next, the FS Revetment Design was reviewed and evaluated for potential refinements. Variations on the FS Revetment Design were developed and considered for selection. The variations were evaluated based upon ability to meet performance requirements and consideration of sea level change (SLC), constructability, quantity of stone required, environmental impacts, long term maintenance implications, and cost. Eight variations of the revetment design were considered.

The selected option consists of 15 ton armor stone overlain on the existing 5-7 ton stone revetment. Loose material at the foot of the proposed revetment will be removed to form a stable base and prevent future scour. The revetment slopes from the toe at a 2:1 slope until elevation 10' NAVD88, at which point a 12 foot wide bench is constructed. This bench is located about 8' above mean higher high water. From there, the revetment continues to slope at a 2:1 ratio until reaching elevation 21' NAVD88. The top bench at 21' NAVD88 is approximately 30 feet wide. The final element is a splash apron from elevation 21-25 NAVD88. This element consists of 1-2 ton stone underlain by a geo-textile fabric.

The selected variation typical cross section is illustrated below in Figure 3:

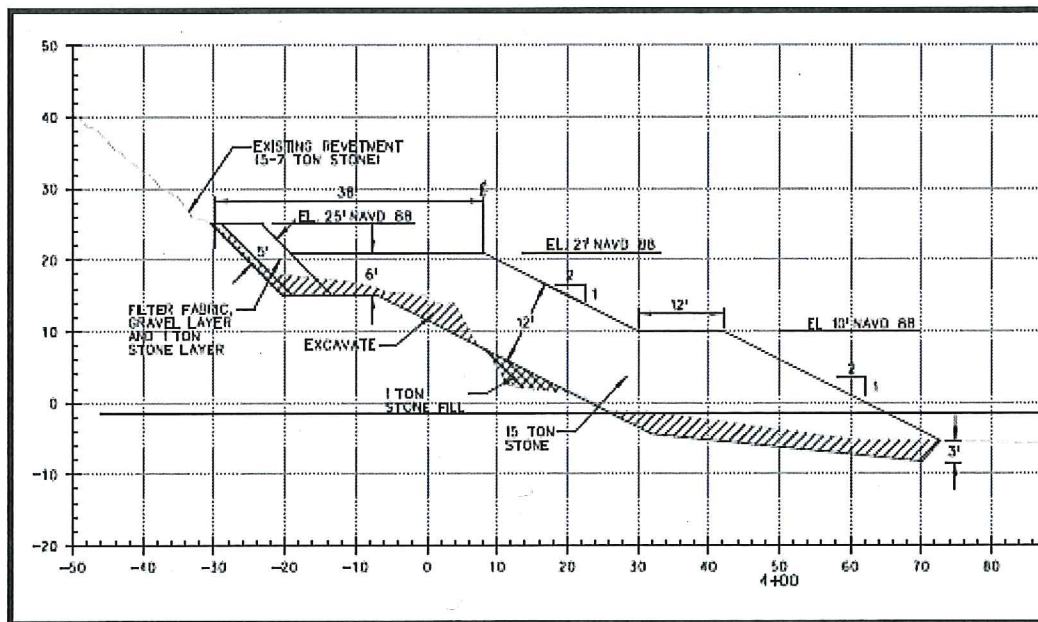


Figure 3. HSLRR Revetment Typical Cross Section

The selected option includes the following refinements from the FS design:

1. Build on top of the existing revetment (5-7 ton stone) instead of removing it. The FS design included the removal of the existing revetment and constructing the new revetment in its place. The HSLRR design will utilize the existing revetment as a foundation for the new revetment. This approach will reduce the amount of stone required, and provide a stronger level of protection. Furthermore, this approach has the added benefit of providing protection for the bluff during the entire construction process.
2. Construct a toe berm instead of a buried toe. The FS design included a buried toe installed to a depth of 16 feet below existing grade. The construction of the FS toe design would be very difficult because the construction will take place approximately 65 feet away from the existing shoreline. In addition, de-watering would likely be required to place the toe, which complicates the construction. The HSLRR design consists of a toe berm constructed at 10 feet NAVD-88 (above Mean High High Water). Minimal excavation will be required (2-4 feet below existing grade) to remove loose material and place the stone. The stone will only need to be placed approximately 40 feet away from the existing shoreline. It is anticipated that the toe berm would be built first to a width of 25 feet to accommodate a crane. The upper part of the revetment would be constructed on top of the toe berm, leaving a 12 foot wide berm to facilitate future maintenance. Excavation material is reduced from about 32,000 cubic yards to about 4,200 cubic yards. Based on soil borings (refusal at 2.5 feet) and observations made during site assessment, the existing material provides an adequate base. The toe berm design also reduces the amount of armor stone required.
3. Use 15 ton stone instead of 12.6 ton stone for armor stone. While 12.6 ton stone is adequate for the design wave height of 13.4 feet under current conditions, the water depths in front of the structure are anticipated to increase throughout the project life (thus increasing the design wave height) due to both erosion and sea level change. The selection of 15 ton stone results in increased strength without having to upgrade to special heavier duty equipment for stone handling and placement. In addition, the larger stone size increases productivity because a lower number of stones are required to be placed resulting in a shorter construction duration. Lastly, the larger stone will stay in place better, reducing future maintenance requirements.
4. Lower crest to 21 feet NAVD-88 instead of 24 feet NAVD-88. The reduced elevation of the crest reduces the amount of armor stone required, while still providing adequate protection against wave over-topping. This is achieved by an extra wide crest (approximately 33 feet). To provide an additional layer of protection against overtopping, a five foot layer of 1-2 ton stone is placed from 21' NAVD88 to 25' NAVD88. See the Coastal Engineering Appendix for additional details on this analysis.

Below is a comparison of the FS and HSLRR Cross Section and Plan View (Figures 4 and 5):

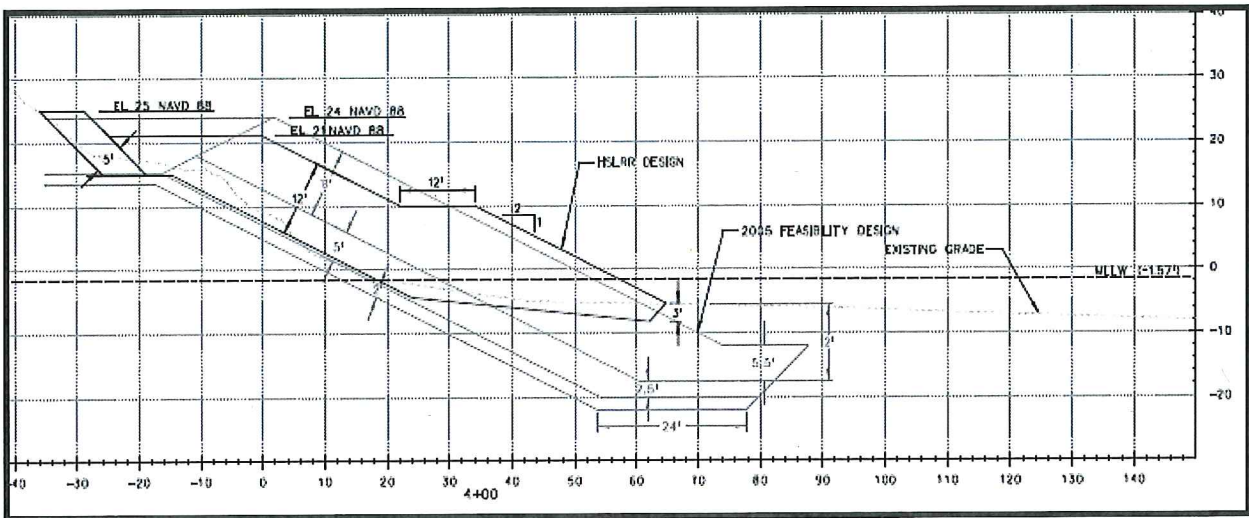


Figure 4. Comparison of FS and HSLRR - Cross Section (Typical)

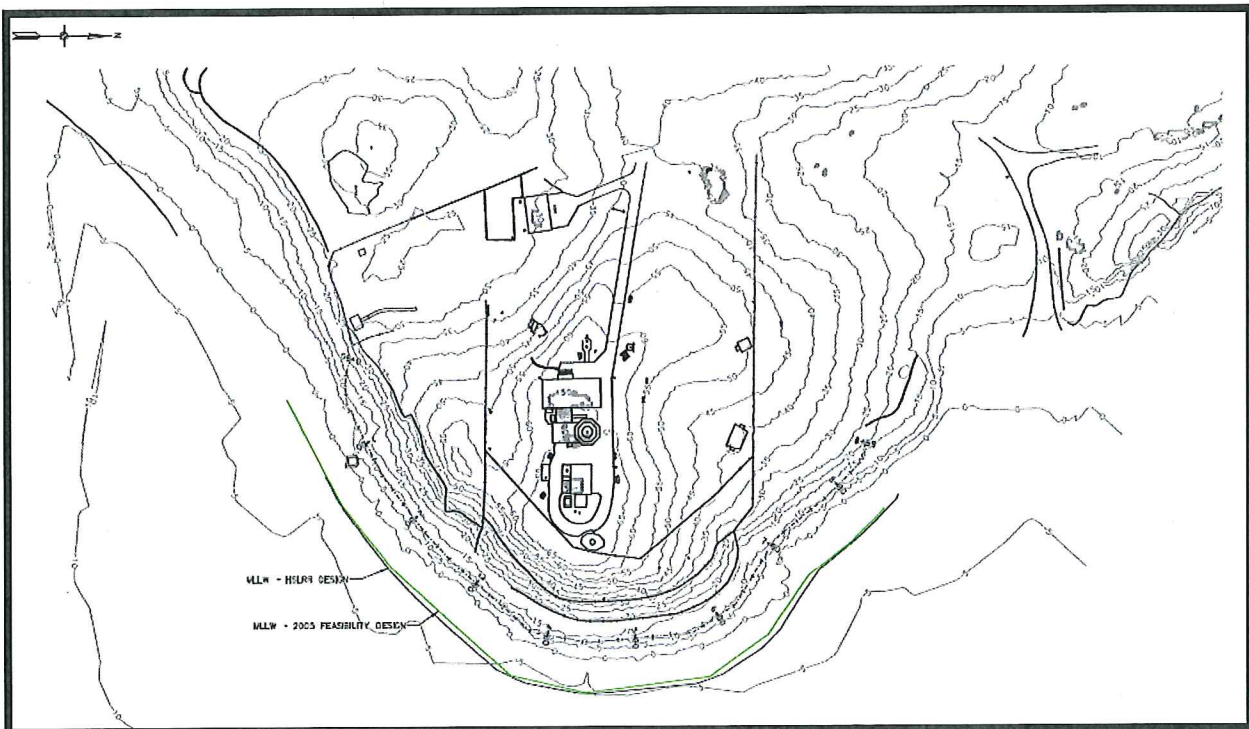


Figure 5. Comparison of FS and HSLRR - Plan View

As noted above, the HSLRR design refinements result in a smaller footprint of impact than the FS. The HSLRR design does result in a slighter greater impact at the Mean Low Low Water interface. A summary of the key parameters of the FS design and the HSLRR refinements are provided in the table below (Table 1):

Table 1. Key Parameters Comparison

Parameter	2005 Feasibility Study, Authorized Project	NAE Proposed Plan for HSLRR
Construction Approach	Remove Existing Revetment, Reuse Quality Stone	Build Over Existing Revetment, Remove Poor Stone
Armor Stone Size	12.6 Ton Stone, 2 Layers and 1.3 Ton under layer Stone (64,600 tons)	15 Ton Stone, 2 Layers (49,000 tons)
Splash Apron	4-5 Ton Stone, 3 layers	1-2 Ton Stone
Toe	Buried Toe (12.6 Ton Stone)	Partial Buried Toe (15 Ton Stone)
Bottom of Toe	Excavate 16.5 ft Below Grade (32,000 cy)	Excavate 2-3 ft. Below Grade (4,200 cy)
Toe "Bench"	None	10 ft. NAVD88, 12ft. Wide at Finish
Constructability	Difficult Construction. Major Toe Excavation.	Minor Toe Excavation. Bench Provides Access.
Reuse Existing Materials	Some Reuse of Existing Stone	Build Over Existing Revetment
Revetment at - 1.57 ft. NAVD88 (e.g. MLLW)	Moves Out 34 ft. From Current Revetment	Moves Out 38 ft. From Current Revetment
Inter-Tidal Area Loss (MHHW to MLLW)	28560 ft ² (0.655 Acres)	31920 ft ² (0.733Acres)

Value Engineering

Essentially, the HSLRR process entailed an analysis that was analogous to a Value Engineering Analysis of the FS Design. While both designs meet the intended purpose of providing adequate protection against a 73 year design storm, the refinements proposed under the HSLRR improve the constructability and sustainability of the revetment. The construction of a buried toe 65 feet seaward of the existing revetment would have been very difficult and expensive. The toe berm provides a suitable construction platform to simplify initial construction, and permits an access point for future maintenance projects. Most normal waves will break on the toe. Larger storm waves will break on the toe berm, or at the base of the armor stone above the toe berm. At this point above the toe berm (10 ft. to 21 ft. NAVD88), the revetment will consist of two layers of 15 ton armor stone, plus the existing revetment of 5-7 ton armor stone beneath it as a foundation. This will provide excellent protection against the intended design storm. The HSLRR refinements have the added benefit of reducing the rock quantity and the construction duration, resulting in lower overall construction costs.

Coastal Engineering Review

As part of the HSLRR, a Coastal Engineering review was conducted for the Montauk Point project. Items included in the review were design storm return period, design water level, sea level change, shoreline erosion-water depth impact, design wave height, stone size, and overtopping rate. For the most part, the 2005 feasibility level design was found to be adequate with the most significant changes resulting from a more robust sea level change (SLC) analysis and from constructability/sustainability considerations. These factors resulted in a recommended larger stone size for the revetment and for a toe berm feature instead of a buried toe. The overall foot print of the revised structure fits within five feet of the original revetment design footprint and eliminates a large amount of excavation that would have been necessary for a buried toe.

Potential Project Construction Description

Montauk Point is accessible by land via Route 27 Long Island. It is anticipated that stone required for the project would be trucked to the site for placement. Two areas would be available to stage the stone, at the north side of the revetment and at the south side of the revetment. The entire proposed revetment project would be built on top of the existing revetment to take advantage of the existing armor stone. Unsuitable stone in the existing revetment would be removed. The revetment will be 840 ft. long and tie into the ends of the existing revetment.

For the purpose of the HSLRR cost estimate, the following construction sequencing was assumed:

Construction would start with the toe berm at elevation 10 ft. NAVD88. The berm will be constructed with 15 ton armor stone. The berm will be approximately 24 ft. wide to accommodate a construction crane. The crane will be able to reach both the upper and lower limits of the revetment. All loose material will be removed from the proposed toe area. From the bench, two crews can work at the same time. Starting from the center of the revetment, the crews can work backwards filling and narrowing the bench. As the crews back up, they would bury the bench with two layers of 15 ton stone. A 12 ft. bench would remain and be available for future maintenance access. The toe berm elevation provides over 8 feet of freeboard between the construction (toe berm) platform and the MHHW tide level. This provides reasonable protection against waves during construction. For construction access, stone ramps would be built to transition between the new and old revetment. Furthermore, the ramps would act to support the ends of the new revetment and should remain in place following construction.

A top bench would be constructed at approximately elevation 21 ft. NAVD88 with a stone splash apron to 25 ft. NAVD88. The upper slope would be protected as needed to approximately 30 ft. elevation. This is an area where cuttings from the slope may be utilized.

Note: The selected contractor will have the option to alter the construction sequence provided above to meet their requirements and resources.

Revetment Maintenance

Maintenance of the revetment post-construction will be the responsibility of the non-Federal sponsor. The possibility of one coastal storm closely following another requires that the revetment be maintained to the extent practical in a state of readiness. Measures to effect repairs found necessary by inspections will be undertaken in a timely manner by the non-Federal sponsor. The annual cost of maintenance is reflected in the total project economic cost. For the 2005 Feasibility study and this HSLRR economic analysis, the annual maintenance cost was estimated to be about 0.5% of the total direct first cost of construction.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington, D.C. 20240



In Reply Refer To:
FWS/DBTS-BGMTS

SEP 30 2015

Mr. Robert J. Smith
U.S. Army Corps of Engineers

Dear Mr. Smith:

The U.S. Fish and Wildlife Service (Service) has reviewed the request dated September 8, 2015, Case # 3002, for a determination as to whether the following project is within a System unit or an otherwise protected area (OPA) of the John H. Chafee Coastal Barrier Resources System (CBRS).

Project: Repair of Stone Revetment at Montauk Point
Montauk, NY 11954

We compared the project above, as depicted on the information that was provided, to the official CBRS map for the area, numbered 117A, dated October 15, 1992. The U.S. Army Corps of Engineers project located at Montauk Point is not located within a System unit or an OPA of the CBRS. See the enclosed plot showing the location of the project in relation to CBRS Unit NY-55.

We hope this information is helpful. Additional information concerning the CBRS can be found on our website at <http://www.fws.gov/cbra>. If you have any additional questions, please contact Ms. Dana Wright, Program Specialist, at (703) 358-2171.

Sincerely,

Jonathan Phinney, PhD
Chief, Branch of Geospatial Mapping and
Technical Support

cc: Steve Papa, FWS, Shirley, NY
Cynthia Bohn, FWS, Atlanta, GA

TAKE PRIDE
IN AMERICA

Point

IN
NY-55



OUT

Lightho
s CO
UARI

1:2,500

Case 3002

Imagery: 2013 NAIP Imagery
System Map Number: 117A
System Map Date: 10/15/1992