

## Appendix C

Clean Water Act: Section 404(b)(1) Evaluation

**CLEAN WATER ACT: SECTION 404 (b) (1) EVALUATION**

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MONTAUK POINT STORM DAMAGE REDUCTION PROJECT  
MONTAUK POINT, NEW YORK**

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NEW YORK DISTRICT  
U.S. ARMY CORPS OF ENGINEERS, CONCORD, MA

PROJECT: Montauk Point Storm Damage Reduction Project, Montauk Point, New York

PROJECT MANAGER: Frank Verga                      PHONE (978) 790-8212

FORM COMPLETED BY: Judith Johnson              PHONE (978) 318-8138

**PROJECT DESCRIPTION:** The Montauk Point Lighthouse is located in the Township of East Hampton, Suffolk County, New York, approximately 125 mile east of New York City. The lighthouse was commissioned by President Washington and completed in 1796 and is included in the National Register of Historic Places and is a National Landmark. Since its construction, the Lighthouse 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. Erosion of a coastal bluff at Montauk Point has been recognized as a problem for many decades.

The Montauk Point, New York Hurricane and Storm Damage Reduction Project consisted of 840-feet of revetment protection (73-year storm design) to protect the most vulnerable bluff area that would directly endanger the lighthouse complex due to bluff failure. The proposed revetment would extend in length 200 feet to the south and would be 8 feet higher than the existing revetment, and extend 24-feet seaward from the existing revetment on a typical cross-section. An embedded toe would be employed to stand against breaking waves at the base of the revetment structure. The stone revetment features a 38-foot-wide crest at 21 feet NAVD88, a 1 Vertical (V) to 2 Horizontal (H) slope, a 12 foot wide (post-construction) lower bench or toe berm at 10 feet NAVD88. The upper slope would be protected as needed to approximately elevation 25 ft. NAVD88. This is an area where cuttings from the slope may be utilized. Some stone already on-site will be reused.

Construction would start with the lower bench toe berm, which would initially be built 24 ft. wide with 15 ton armor stone, to facilitate the construction of the upper part of the revetment. It is anticipated that the lower bench toe berm would be built first and then the upper part of the revetment would be built on top of the lower bench toe berm, partially covering the construction platform. The existing toe would be excavated to remove all loose/soft material about three feet deep. Large boulders which have fallen from the revetment shall be left in place. From the

bench, two crews can work at the same a time. Starting from the center of the revetment, the crews can work backwards filling and narrowing the bench as the equipment backs up. 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 of 10 ft. NAVD88 would provide over 8 feet of freeboard between the construction (toe berm) platform and the MHHW tide level. This would provide reasonable protection against waves during construction. For construction access, stone ramps would be built to transitioning 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.

CLEAN WATER ACT  
Evaluation of Section 404(b)(1) Guidelines

1. Review of Compliance (Section 230.10(a)-(d)).

- a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose;

  X   YES    NO

- b. The activity does not appear to:

- 1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the CWA;
- 2) jeopardize the existence of Federally listed threatened and endangered species or their critical habitat; and
- 3) violate requirements of any Federally designated marine sanctuary,

  X   YES    NO

- c. The activity will not cause or contribute to significant degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values;

  X   YES    NO

- d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

  X   YES    NO

2. Technical Evaluation Factors (Subparts C-F).

	N/A	Not Signif- icant	Signif- icant
a. Potential Impacts on Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).			
1) Substrate.	_____	<u>  X  </u>	_____
2) Suspended particulates/turbidity.	_____	<u>  X  </u>	_____
3) Water.	_____	<u>  X  </u>	_____
4) Current patterns and water circulation	_____	<u>  X  </u>	_____
5) Normal water fluctuations.	_____	<u>  X  </u>	_____
6) Salinity gradients.	_____	<u>  X  </u>	_____
b. Potential Impacts on Biological Characteristics of the Aquatic Ecosystem (Subpart D).			
1) Threatened and endangered species.	_____	<u>  X  </u>	_____
2) Fish, crustaceans, mollusks and other aquatic organisms in the food web.	_____	<u>  X  </u>	_____
3) Other wildlife.	_____	<u>  X  </u>	_____
c. Potential Impacts on Special Aquatic Sites (Subpart E).			
1) Sanctuaries and refuges.	<u>  X  </u>	_____	_____
2) Wetlands.	_____	<u>  X  </u>	_____
3) Mud flats.	_____	<u>  X  </u>	_____
4) Vegetated shallows.	_____	<u>  X  </u>	_____
5) Coral reefs.	<u>  X  </u>	_____	_____
6) Riffle and pool complexes.	<u>  X  </u>	_____	_____
d. Potential Effects on Human Use Characteristics (Subpart F).			
1) Municipal and private water supplies.	<u>  X  </u>	_____	_____
2) Recreational and Commercial fisheries.	_____	<u>  X  </u>	_____
3) Water-related recreation.	_____	<u>  X  </u>	_____
4) Aesthetics.	_____	<u>  X  </u>	_____
5) Parks, national and historic monuments, national seashores, wilderness areas, research sites, and similar preserves.	_____	<u>  X  </u>	_____

3. Evaluation and Testing (Subpart G).

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. (Only those appropriate are checked.)

- 1) Physical characteristics.....   X
- 2) Hydrography in relation to known or anticipated sources of contaminants.....   X
- 3) Results from previous testing of the material or similar material in the vicinity of the project..... \_\_\_\_\_
- 4) Known, significant sources of persistent pesticides from land runoff or percolation..... \_\_\_\_\_
- 5) Spill records for petroleum products or designated hazardous substances (Section 311 of CWA)..... \_\_\_\_\_
- 6) Public records of significant introduction of contaminants from industries, municipalities, or other sources..... \_\_\_\_\_
- 7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities..... \_\_\_\_\_
- 8) Other sources (specify)..... \_\_\_\_\_

List appropriate references. See the 2005 Montauk Point Storm Damage Reduction Feasibility Study and Environmental Impact Statement and the 2014 Hurricane Sandy Limited Reevaluation Report for the Montauk Point Storm Damage Reduction Project.

b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and disposal sites and not likely to require constraints. The material meets the testing exclusion criteria.

  X   YES      NO

4. Disposal Site Delineation (Section 230.11(f)).

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

- 1) Depth of water at disposal site.....   X
- 2) Current velocity, direction, and variability at disposal site.....   X
- 3) Degree of turbulence.....   X
- 4) Water column stratification..... \_\_\_\_\_
- 5) Discharge vessel speed and direction..... \_\_\_\_\_
- 6) Rate of discharge..... \_\_\_\_\_
- 7) Dredged material characteristics (constituents, amount, and type of material, settling velocities).....   X

- 8) Number of discharges per unit of time..... \_\_\_\_\_
- 9) Other factors affecting rates and patterns of mixing (specify)..... \_\_\_\_\_

List appropriate references. See the 2005 Montauk Point Storm Damage Reduction Feasibility Study and Environmental Impact Statement and the 2014 Hurricane Sandy Limited Reevaluation Report for the Montauk Point Storm Damage Reduction Project.

- b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or mixing zone are acceptable.

YES  NO

5. Actions To Minimize Adverse Effects (Subpart H).

All appropriate and practicable steps have been taken, through application of recommendation of Section 230.70-230.77 to ensure minimal adverse effects of the proposed discharge.

YES  NO

6. Factual Determination (Section 230.11).

A review of appropriate information as identified in items 2 - 5 above indicates that there is minimal potential for short or long term environmental effects of the proposed discharge as related to:

- a. Physical substrate  YES  NO  
(review sections 2a, 3, 4, and 5 above).
- b. Water circulation, fluctuation and salinity  YES  NO  
(review sections 2a, 3, 4, and 5).
- c. Suspended particulates/turbidity  YES  NO  
(review sections 2a, 3, 4, and 5).
- d. Contaminant availability  YES  NO  
(review sections 2a, 3, and 4).
- e. Aquatic ecosystem structure, function and organisms (review sections 2b and c, 3, and 5).  YES  NO
- f. Proposed disposal site  YES  NO  
(review sections 2, 4, and 5).  
c, 3, and 5).
- g. Cumulative effects on the aquatic ecosystem.  YES  NO

h. Secondary effects on the aquatic ecosystem.

YES  NO

7. Findings of Compliance.

The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines.