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August 7, 2015

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME : Crescent Beach Seawall and Revetment Repair
PROJECT MUNICIPALITY : Hull
PROJECT WATERSHED : Boston Harbor
EEA NUMBER : 15396
PROJECT PROPONENT : Town of Hull
DATE NOTICED IN MONITOR : July 8, 2015

Pursuant to the Massachusetts Environmental Policy Act (MEPA) (M.G. L. c. 30, ss. 61-62I) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project will reconstruct the existing seawall and revetment along Crescent Beach to provide greater protection from coastal storms and flooding. The Town has received a grant from Coastal Zone Management's (CZM) Coastal Community Resilience Grant Program for the design of the project and may seek additional funding from State Agencies for construction of the project. Each year, Massachusetts coastal cities and towns experience coastal storm damages to property, infrastructure, and natural resources, along with associated economic disruptions. These impacts are projected to worsen and broaden with the effects of climate change. This grant program is part of the Commonwealth's effort to help address these impacts. The program provides financial and technical resources to advance local efforts to increase awareness of climate impacts, identify vulnerabilities, and implement measures to increase community resilience (i.e., the ability to endure impacts associated with coastal storms and the effects of erosion, flooding, and sea level rise and to respond, recover, and adapt to consequences). The project will improve an existing structure to the extent feasible while minimizing impacts to coastal resources. In conjunction with design measures adopted by adjacent homeowners, Town infrastructure and residences should enjoy improved protection from storm damage.

The revetment will be reconstructed with six- to seven-ton rough-faced armor stones on a new foundation of filter fabric and small stones. The revetment will be reconstructed in two cross-sections designed to address different conditions along the eastern and western sections of the beach.

The western end of the beach is subject to greater wave action than the eastern end and the revetment will be constructed to better endure these conditions and to provide greater wave dissipation. The 950-ft long western section will have a 10-foot (ft) wide crest matching the elevated height of the seawall behind it (23 feet (ft) above the mean low water mark (MLW)). The seaward face of the revetment will slope down toward the water at a 1:2 (vertical to horizontal) grade, extending approximately 20 to 30 feet further seaward compared to the existing revetment.

The eastern end of the beach is less exposed to wave action because it receives some protection from a stone breakwater. The 625-ft long eastern section will have a 10-ft wide crest that will match the elevation of the existing revetment (17 ft MLW). It will slope toward the water at a 1:3 (vertical to horizontal) slope, and will not extend beyond the footprint of the existing revetment. A 25-ft long transition will be constructed between the eastern and western sections to form a continuous 1,600-ft long revetment.

The project will include the dredging of approximately 2,500 cubic yards of sediment from a 1,000 linear foot (lf) section of the western part of the revetment. The dredging is necessary so that the toe of the revetment can be buried to prevent scouring, which could undermine the revetment. The easternmost section of the revetment is entirely buried in sand. The sand covering the revetment in this area will be excavated, and the revetment will be rebuilt and reburied. The concrete seawall at the landward edge of the revetment will be rehabilitated with a concrete veneer to repair the spalling and cracking on its surface. The crest of the seawall will be raised from 21 ft MLW to 23 ft MLW to provide further protection from waves that regularly overtop the seawall.

The existing revetment was constructed prior to 1939. In the 1960s, sheetpiling was installed at its toe and concrete grout added to its surface. The grout has helped the revetment withstand storm damage but has created a smooth surface that has reduced the ability of the revetment to dissipate wave energy and intensified overtopping. Overtopping has caused further deterioration of the seawall and greater storm damage landward of the beach. The design of the revetment includes a rough surface to more effectively dissipate wave energy. The project will not eliminate overtopping of the seawall; however, overtopping discharge will be reduced below critical levels for the 100-year storm.

Project Site

Crescent Beach is located in the southeastern section of Hull along Atlantic Avenue. It is bounded by two rocky outcrops, Gun Rock to the west and Green Hill Rock to the east. A breakwater running parallel to the beach is located approximately 800 feet offshore. The breakwater extends from west Green Hill Rock to approximately the midpoint of Crescent Beach, forming a semi-sheltered mooring basin for recreational boats. Single-family homes are located landward of the seawall on both sides of Atlantic Avenue. Straits Pond, part of the Weir River Area of Critical Environmental Concern (ACEC) is located south of Atlantic Avenue.

Crescent Beach is designated as H1-8 in the Massachusetts Office of Coastal Zone Management's (CZM) *Massachusetts Barrier Beach Inventory*. According to the Federal Emergency Management Agency's (FEMA) National Flood Insurance Rate Map (FIRM) 25023C0039J (effective July 17, 2012), the beach is located in a coastal flood zone with a velocity hazard (VE zone) and a base flood elevation (BFE) of 21 feet North American Vertical Datum of 1988 (NAVD 88).¹ The properties between the beach and Straits Pond are located in coastal flood hazard areas (Zone A) with BFE ranging from 17 ft NAVD 88 to 11 ft NAVD 88. The houses and roadways south of the beach are routinely damaged by flooding caused by coastal storms and waves overtopping the seawall. Of the 73 homes adjacent to Atlantic Avenue in this area, 42 have received flood reimbursements from FEMA, 19 are repetitive loss properties, and eight are severe repetitive loss properties. Ten newly rebuilt homes have incorporated building design measures to make them more resilient to storm damage, including relocating away from the seawall, elevating the buildings on pilings, and installing flow-through decking. The Town's streets and infrastructure along Atlantic Avenue are routinely flooded and/or damaged by coastal storms, often requiring clearing to provide access for emergency vehicles and preventing access by other vehicles. Sediment and rocks carried by waves overtopping the seawall are deposited in the streets and in Straits Pond, which is located at a lower elevation than the beach. Straits Pond is the focus of efforts to restore wetlands impacted by storm damage and a goal of the project is to reduce these impacts.

Permitting and Jurisdiction

The project is undergoing MEPA review and required the filing of an ENF because it will require State Agency Actions and it meets or exceeds the following review thresholds: 301 CMR 11.03(3)(b)(1)(a), alteration of coastal dune, barrier beach, or coastal bank; 301 CMR 11.03(3)(b)(1)(e), new fill or structure or expansion of existing fill or structure in a velocity zone or regulatory floodway; and, 301 CMR Section 11.03(3)(b)(6), construction, reconstruction, or expansion of existing fill or structure of 1,000 or more sf base area provided the structure occupies flowed tidelands or other waterways. The project requires a Chapter 91 (c.91) License and a Section 401 Water Quality Certification (401 WQC) from the Massachusetts Department of Environmental Protection (MassDEP). The Town has received a grant from CZM's Coastal Community Resilience Grant Program for the design of the project and may seek additional funding from State Agencies for construction of the project.

The project also requires an Order of Conditions from the Hull Conservation Commission (and, if the Order is appealed, a Superseding Order of Conditions (SOC) from MassDEP). The project requires authorization from the U.S. Army Corps of Engineers (ACOE) under the General Permits for Massachusetts and may require a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit for Construction Activities from the U.S. Environmental Protection Agency (EPA).

The project has received Financial Assistance from the Commonwealth from CZM and the Town may seek additional Financial Assistance. Therefore, MEPA jurisdiction is broad in

¹ In this area, there is a difference of approximately 5.2 feet between the NAVD 88 and MLW datums. Therefore, the top of the existing seawall (elevation 21 ft MLW) is at elevation 15.8 ft NAVD 88.

scope and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Environmental Impacts and Mitigation

The reconstruction and expansion of the revetment will impact coastal wetland resources at Crescent Beach. These impacts include alteration of 16,100 sf of Land Under the Ocean (LUO) and of 15,300 sf of Coastal Beach. The project will impact 81,100 sf of Land Subject to Coastal Storm Flowage (LSCSF), of which 31,500 sf will be permanently impacted due to expansion of the revetment. The project will enhance the storm damage prevention function of these wetland resource areas and reduce impacts to Straits Pond from overwash. The project will meet the applicable performance standards of the Wetlands Protection Regulations (310 CMR 10.00). The new face of the revetment will have interstitial spaces that can serve as habitat for algae and other organisms. The Town will conduct a survey of benthic habitat within the footprint of the project prior to construction and any necessary mitigation will be developed during the permitting processes

Review of the ENF

The ENF provided a detailed description and plans of the project, discussed the modeled storm and wave conditions used to design the project, analyzed alternatives, and discussed the project's impacts and measures to reduce and mitigate impacts. The goal of the project is to reduce storm damage to properties, infrastructure, and the wetland resources of Straits Pond landward of the beach.

Comments from State Agencies, including CZM, DMF, and MassDEP were supportive of the project and did not identify any additional information or analysis that was necessary for their review. According to CZM, the project is the result of significant consultation between the Town and State Agencies and public outreach and education efforts. State agencies noted the comprehensiveness of the alternatives analysis and generally agree that the Preferred Alternative represents a reasonable design compromise that will minimize impacts to wetlands and biological resources while adding storm protection. I commend the Town for the quality of the ENF, which provided an impressive analysis of design alternatives supported by a thorough understanding of conditions at the beach and careful modeling. The design of the Preferred Alternative represents a compromise that will balance cost, reduction of wave overtopping, and benthic impacts. thorough

Alternatives Analysis

The ENF described three alternatives to the project: No Action, Beach Nourishment, and Submerged Wave Break alternatives. The No Action alternative would result in further deterioration of the existing revetment and seawall. The sheetpiling installed at the toe of the revetment slope would continue to decay and can be expected to fail, causing slumping of the revetment and loss of structural integrity. The beach would be expected to continue to lower, exacerbating wave overtopping and coastal storm damage to properties landward of the seawall.

The Beach Nourishment alternative would create a new beach profile to dissipate storm wave energy and reduce or eliminate wave overtopping. Because of the narrowness of the

existing beach, this alternative would require placing approximately 100,000 to 170,000 cubic yards (cy) of material across the beach to create a 60- to 80-foot wide beach crest (elevation 18 feet MLW). The beach crest would be located approximately above the toe of the current revetment, with the beach sloping at a 1:6 (vertical to horizontal) ratio to meet the sea bottom. This would extend roughly 200 to 300 feet beyond the existing revetment toe and cover existing benthic habitat. According to the ENF, this alternative would have a design life of five to 10 years. The longshore sediment transport regime would carry the sand to the southeast, requiring renourishment on a regular basis to maintain this design alternative as a long-term measure. A portion of the nourishment material would be expected to migrate into the mooring basin, thereby impacting navigation. The large quantity of sand needed to nourish the beach would likely come from an upland source, requiring 4,500 to 7,800 truck trips to deliver the material.

The Submerged Wave Break alternative would dissipate wave energy with a nearshore wave break extending from the seafloor into the water column. Types of wave breaks include manufactured devices or rubble or rock mounds. In order to dissipate wave energy, a wave break must be designed with the correct height and crest width suited to its surroundings. At Crescent Beach, the crest of the wave break would have to extend to 4.2 feet above MLW and be approximately 30 feet thick to dissipate wave energy in a 10-year coastal storm event. A wave break of this size would be emergent for half of the tide cycle, but would need to be even higher in order to achieve the project goal of reducing wave overtopping. A rock mound-type of wave break would have a large footprint on the seafloor, impacting benthic habitat and navigation.

The design of the Preferred Alternative was developed by evaluating different combinations of four design elements, including seawall height, revetment height, a revetment location relative to the seawall, and toe designs. Combinations of design variables were modelled under 100-year storm conditions to determine which designs would minimize overtopping discharge, which reflects the rate and volume of water discharged landward of the seawall by overtopping waves. According to the ENF, damage landward of the seawall will be minimized when the discharge rate is less than 0.54 cubic feet per second per foot ($\text{ft}^3/\text{s}/\text{ft}$). While overtopping of the seawall will still occur with the implementation of the Preferred Alternative, the overtopping discharge will be reduced below critical levels for the 100-year storm. A revetment with a higher crest and larger footprint could reduce overtopping even further, but would cost more and have greater benthic impacts. The design of the Preferred Alternative represents a compromise that will balance cost, reduction of wave overtopping, and benthic impacts.

Climate Change Adaptation

The ENF included an analysis of the project design under sea-level rise (SLR) scenarios over the next 50 years. The analysis considered a range of SLR from 0.2 to 0.7 feet reflecting historical patterns, to two feet of projected SLR based on climate change models. Greater storm surge resulting from SLR would cause waves to break further inland, resulting in more overtopping. The project design would result in an increase in average overtopping of approximately 10 percent for a relative SLR of 0.2 to 0.25 feet. For relative SLR reaching two feet, the western revetment and seawall would need to be raised to elevation 25 ft MLW to provide protection from overtopping damage. The overtopping model used in the analysis cannot evaluate relative SLR greater than one foot for the eastern revetment. Under a one-foot SLR scenario, the revetment would not need to be modified, but the seawall would have to be

raised to elevation 25 ft MLW to provide protection from overtopping. According to the ENF, under the higher SLR scenarios, the footprint of the western portion of the revetment would need to be increased 6,000 sf and the overall project cost would increase by 35 percent.

Wetlands

The 31,500-sf seaward extension of the revetment will permanently impact 16,100 sf of LUW and 15,300 sf of Coastal Beach. The impacted area is also classified as LSCSF. According to the ENF, the project is designed to meet the Wetlands Protection Act Regulations performance standards for these resource areas. The project will minimize impacts to LUW by maintaining the revetment within the footprint of the existing revetment as much as possible while still achieving the project purpose. In addition, the habitat value of the impacted area will be evaluated prior to construction and any necessary mitigation will be provided during the permitting process. The project will meet Coastal Beach performance standards by avoiding impacts to sediment transport or changes to water circulation patterns. Consistency with regulatory standards will be addressed by the Hull Conservation Commission and MassDEP during permitting.

Construction

During the review period, the Town provided additional information about the construction process. The Town expects to commence construction in January 2016 and complete the seawall and revetment work within six months. Construction vehicles will access the beach through public property or across vacant lots, but are expected to remain within 10 feet of the seaward face of the seawall. Construction material will be stockpiled on the revetment and moved into place as the existing revetment is removed and the beach regraded. The ENF did not identify any mitigation measures that will be employed to minimize impacts to wetland resource areas. I am confident that any necessary mitigation measures will be developed through the project's permitting processes with MassDEP and the Hull Conservation Commission.

The project will generate approximately 2,000 truck trips during the construction period. The trucks will be required to use designated truck routes to reach the site, including Route 3A, Route 228, and local roads such as Atlantic Avenue.

Conclusion

Pursuant to 301 CMR 13.02, I am declining to require a Public Benefit Review for this project. The project is water-dependent and, as such, is presumed to provide adequate public benefits pursuant to 301 CMR 13.04(1). The site contains no landlocked tidelands and the project is within the jurisdiction of the MassDEP Waterways Program. I am satisfied that the project's impacts to tideland resources can be adequately addressed during the c. 91 Waterways permitting process.

The ENF has sufficiently defined the nature and general elements of the project for the purposes of MEPA review and demonstrated that the project's environmental impacts will be avoided, minimized and/or mitigated to the extent practicable. Based on the information in the ENF and after consultation with State Agencies, I find that no further MEPA review is required

at this time. Remaining issues can be addressed through the local, state and federal permitting and review processes.

August 7, 2015

Date


Matthew A. Beaton

Comments received:

07/24/2015	Board of Underwater Archaeological Resources (BUAR)
07/24/2015	Massachusetts Office of Coastal Zone Management (CZM)
07/28/2015	Division of Marine Fisheries (DMF)
07/29/2015	Massachusetts Department of Environmental Protection (MassDEP) - Southeast Regional Office (SERO)

MAB/AJS/ajs



The COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
251 Causeway Street, Suite 800, Boston, MA 02114-2136
Tel. (617) 626-1141 Fax (617) 626-1240 Web Site: www.mass.gov/eea/agencies/czm/buar/

July 24, 2015

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attention: Alex Strycky, MEPA Unit
100 Cambridge St., Suite 900
Boston, MA 02114

RECEIVED

JUL 27 2015

MEPA

RE: Crescent Beach Seawall and Revetment Repair, Hull (EEA#15396)

Dear Secretary Beaton,

The staff of the Massachusetts Board of Underwater Archaeological Resources has reviewed the above referenced project's ENF and accompanying materials submitted by Applied Coastal on behalf of the Town of Hull. We offer the following comments.

The Board believes the planned repair activities as currently proposed will not adversely affect submerged cultural resources at this time. However, the Board cannot conclude that there are no submerged cultural resources in the proposed project area. The historical record indicates the high occurrence of shipwrecks in the vicinity for which locations are ambiguous and vague. It is important to note that nearby are major hazards to navigation lying along a significant route for vessel traffic approaching Boston Harbor. Furthermore, the loss of earlier and smaller coastal vessels and the purposeful abandonment of obsolete or damaged vessels are generally not found in the documentary record. In addition, the area may be considered inundated land formations and as such there exists the possibility for the preservation of now submerged ancient Native American cultural resources. The dynamic processes along the beach in this area, however, have significantly diminished potential for the preservation of these sites.

However, should heretofore-unknown submerged cultural resources be encountered during the course of the project, the Board expects that the project's sponsor will take steps to limit adverse effects and notify the Board and the Massachusetts Historical Commission, as well as other appropriate agencies in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

The Board appreciates the opportunity to provide these comments. Should you have any questions regarding this letter, please do not hesitate to contact me at the address above, by telephone at (617) 626-1141 or by email at victor.mastone@state.ma.us.

Sincerely,

A handwritten signature in blue ink, appearing to read "Victor T. Mastone".

Victor T. Mastone
Director and Chief Archaeologist

/vtm

Cc: Brona Simon, MHC
Bettina Washington, THPO, WTGH/A (via email attachment)
Ramona Peters, THPO, MWT
Robert Boeri and Jason Burtner, MCZM (via email attachment)



THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
251 Causeway Street, Suite 800, Boston, MA 02114-2136
(617) 626-1200 FAX: (617) 626-1240

MEMORANDUM

TO: Matthew A. Beaton, Secretary, EEA
ATTN: Alex Strysky, MEPA Unit
FROM: Bruce Carlisle, Director, CZM
DATE: July 24, 2015
RE: EEA-15396, Crescent Beach Seawall and Revetment Repair, Hull

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Environmental Notification Form (ENF), noticed in the *Environmental Monitor* dated July 8, 2105 and offers the following comments.

Project Description

The proposed project involves repair and expansion of the existing 1,600 foot long seawall and revetment on the north side of the barrier beach. The proposed project involves raising the crest of the seawall from 21 feet MLW to 23 feet MLW. The revetment will be completely deconstructed and reconstructed using two different cross-sections which have been designed to address the wave conditions along the site. To the east, the proposed revetment cross-section will be approximately the same seaward extent as the existing structure. The westernmost 950 feet is proposed to extend 20-30' seaward of the existing revetment to achieve the required levels of energy dissipation. The goal of the project is to reduce the splash over and overtopping and damage to buildings and infrastructure landward of the seawall.

Project Background

The Town requested technical assistance from CZM in 2005 to address the increasing storm damage causing frequent closure of and damage to Atlantic Avenue, damage to private houses and property, and overwash into Straits Pond. Since the 1% chance event flood elevation, as mapped on the Flood Insurance Rate Maps produced by the Federal Emergency Management Agency, was over five feet above the top of the seawall, it was clear that regardless of the shore protection alternative implemented at the site, there would still be some overtopping of the seawall. CZM recommended that the Town consider redesigning the revetment and seawall to reduce overtopping, work with the residents to elevate homes on open pile foundations, and conduct public outreach regarding property management options that will help slow down the overwash as it flows landward across the barrier beach (e.g. reducing pavement and concrete, removing landscape walls that channelize flow). The Town of Hull applied for and received a grant from CZM's Coastal Community Resilience Grant Program to redesign the revetment and seawall and conduct public outreach and education. CZM assisted the Town in a public workshop for residents in July 2014 to discuss the storm damage issues and explain what property owners can do to reduce damages.



Project Comments

The Town and their consultants have conducted a very thorough alternatives analysis of the options to reduce overtopping of the existing revetment and seawall. Although CZM generally prefers to avoid further seaward encroachment of revetments, the alternatives analysis has shown that this is not practicable at this site.

A survey to document biological resources in the footprint of the proposed project will be needed to document any direct impacts from the project construction. CZM believes this can be conducted as part of the permitting process.

Federal Consistency

The proposed project may be subject to CZM federal consistency review. For further information on this process, please contact, Robert Boeri, Project Review Coordinator, at 617-626-1050 or visit the CZM web site at www.state.ma.us/czm/fcr.htm.

BKC/rh

cc: Rebecca Haney, CZM Coastal Geologist
Jason Burtner, CZM South Shore Regional Coordinator
Jim Mahala, Acting Section Chief, MassDEP SERO
Anne Herbst, Conservation Administrator, Town of Hull
John Ramsey, Applied Coastal Research & Engineering



David E. Pierce
Acting Director

Commonwealth of Massachusetts

Division of Marine Fisheries

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Matthew A. Beaton
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George N. Peterson, Jr.
Commissioner

Mary-Lee King
Deputy Commissioner

July 28, 2015

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Alex Strysky, EEA No. 15396
100 Cambridge Street, Suite 900
Boston MA 02114

Re: Crescent Beach Seawall and Revetment Repair

Dear Secretary Beaton:

The Division of Marine Fisheries (*Marine Fisheries*) has reviewed the Environmental Notification Form submitted on behalf of the Town of Hull for proposed seawall and revetment repairs along Crescent Beach, which borders Massachusetts Bay in the Town of Hull. The Crescent Beach shore protection consists of a 1,600-foot seawall and revetment structure located on the north side of the barrier beach system along Atlantic Avenue.

Crescent beach is not currently mapped by *Marine Fisheries* as shellfish habitat; however blue mussels (*Mytilus edulis*) occur here. The proposed project is located within MB12.0 which is currently prohibited to shellfish harvest.

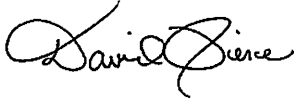
The proposed rehabilitation plan of the existing seawall and revetment is to increase the height of the seawall from 21 feet MLW to 23 feet MLW over the entire length of the wall. The existing revetment will be completely deconstructed and the existing stone will be sorted and reused where allowable. Filter fabric and smaller rocks will be used at the base of the revetment to create a stable foundation and provide protection against erosion.

Other alternative actions that were considered included no action that would result in further damage to the existing revetment and seawall, resulting in increased damage to the homes and infrastructure along Atlantic Avenue, as well as a public road that acts as one of three evacuation routes for the Town of Hull. Another alternative was beach nourishment, however due to the transport of sediment, a long term maintenance plan for re-nourishment and back-passing would be necessary. Mitigation for fill and habitat change would also be required. A final alternative included a nearshore submerged wave brake that would dissipate wave energy. This alternative would also require mitigation due to impacts to marine habitat and resources.

Marine Fisheries agrees that the option to heighten and repair the existing seawall, and to deconstruct and repair the existing revetment is the best possible option for this location. We request that the proponent include the total square footage of temporary and/or permanent impacts to intertidal. The proposed project includes dredging 60,000 CF of intertidal habitat. To achieve the necessary level of storm protection, approximately 950 FT of the revetment at the northwest end will require the toe to be extended further offshore than the existing structure. The extension of the toe will be approximately 20 to 30 feet seaward of the existing revetment limit. These actions may require mitigation.

Thank you for considering our comments. Feel free to contact Kate Ostrikis of our Gloucester Office with any questions about this review at 978-282-0308 x157 or katelyn.ostrikis@state.ma.us.

Sincerely,

A handwritten signature in black ink, appearing to read "David Pierce". The signature is fluid and cursive, with the first name "David" and last name "Pierce" clearly distinguishable.

David Pierce, Ph.D
Acting Director

cc:

J. Ramsey, Applied Coastal
J. Carr, DMF

MEMORANDUM

TO: Alex Strycky, Environmental Reviewer, MEPA Unit

THROUGH: Jonathan Hobill, Regional Engineer, Bureau of Water Resources
Millie Garcia-Serrano, Acting Regional Director
Gerard Martin, Acting Deputy Regional Director, BWSC
David Johnston, Deputy Regional Director, BWR
Maria Pinaud, Deputy Regional Director, BAW
Jennifer Viveiros, Deputy Regional Director, ADMIN

CC: Jim Mahala, Acting Chief, Wetlands and Waterways
Jeffrey Gould, Chief, Wastewater Management
David Hill, Wetlands and Waterways
Greg DeCesare, Wetlands and Waterways
Allen Hemberger, Site Management

FROM: George Zoto, SERO MEPA Coordinator

DATE: July 29, 2015

RE: ENF EOEEA #15396 - HULL- Crescent Beach Seawall and Revetment
Repair Project, Atlantic Avenue

"For Use in Intra-Agency Policy Deliberations"

The Southeast Regional Office of the Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) for the proposed - Crescent Beach Seawall and Revetment Repair project to be located at Atlantic Avenue, Hull, Massachusetts (EOEEA #15396). The project proponent provides the following information for the project:

The seawall and revetment can be redesigned and rehabilitated to provide a greater level of protection to the homes and infrastructure landward, while not significantly increasing or changing the impacts to adjoining habitats and resources. The proposed rehabilitation plan calls for raising the crest of the seawall from 21 feet MLW to 23 feet MLW over the entire length of the wall. The increase in height will reduce wave overtopping and damage to structures landward. The additional height will be added to the seawall by encapsulating upper profile of the exposed seawall with a concrete veneer. The cap will be cast and anchored over the crest of the existing structure. This approach provides the structural connection to structurally support the extension of the seawall and addresses the spalling, cracking, and breakage along the surface of the existing seawall.

Wetlands and Waterways Program Comments

The Wetlands & Waterways Program has reviewed the ENF submitted by the Town of Hull, Conservation Department, to reconstruct approximately 1,600 feet of stone revetment at Crescent Beach and offers the following comments;

- As indicated in the ENF, the seaward extension of the proposed stone revetment into flowed tidelands and associated dredging will require the submittal of a Chapter 91 License application. Since the project will also require a Water Quality Certification (WQC), the Proponent may choose to file a BRP WW26 Combined Application for Waterways and WQC. Based on the information contained in the ENF, it has been determined that the project would be classified as a water-dependent use pursuant to the Waterways Regulations at 310 CMR 9.12.
- The ENF states that approximately 2500 cubic yards of material will be dredged to facilitate the construction of the revetment and that any beach compatible material will be placed at the toe of the proposed revetment. While the Department supports the use this dredged material for beach nourishment, plans submitted with the Chapter 91 application will need to show the proposed location and grading of the nourishment material
- Since the project proposes to dredge approximately 2,500 cubic yards of material, and if the proponent does not pursue a BRP WW26 Combined Application for Waterways and WQC, then an individual 401 WQC must be obtained from the Department's Boston office. A copy of the application should also be forwarded to the Army Corps of Engineers for review.
- Portions of the work area are proposed in Land Subject to Coastal Storm Flowage (LSCSF), Coastal Beach (310 CMR 10.27), Barrier Beach (310 CMR 10.29), and Land Under the Ocean (310 CMR 10.25). Applicable Wetlands Protection Act performance standards must be complied with for these resource areas.
- The proponent will need to submit a Notice of Intent to the Department and the Hull Conservation Commission for the project under the Wetlands Protection Act. The Department notes that if the minimum submittal requirements have been met a File Number will be issued. It is anticipated that the Hull Conservation Commission will conduct a Public Hearing and issue an Order of Conditions. A Final Order of Conditions must be obtained before any work within Areas Subject to Jurisdiction commences.

Air Quality

Construction and operation activities shall not cause or contribute to a condition of air pollution due to dust, odor or noise. To determine the appropriate requirements please refer to:

310 CMR 7.09 Dust, Odor, Construction, and Demolition
310 CMR 7.10 Noise

Construction Stormwater Permit

The project construction activities may disturb one or more acres of land and therefore, may require a NPDES Stormwater Permit for Construction Activities. The proponent can access

information regarding the NPDES Stormwater requirements and an application for the Construction General Permit at the EPA website: <http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>

Bureau of Waste Site Cleanup

Based upon the information provided, the Bureau of Waste Site Cleanup (BWSC) searched its databases for disposal sites and release notifications that have occurred at or might impact the proposed project area. A disposal site is a location where there has been a release to the environment of oil and/or hazardous material that is regulated under M.G.L. c. 21E, and the Massachusetts Contingency Plan [MCP – 310 CMR 40.0000].

There are no listed MCP disposal sites located at or in the vicinity of the proposed project area that might impact the site. Interested parties may view a map showing the location of BWSC disposal sites using the MassGIS data viewer (Oliver) at:

http://maps.massgis.state.ma.us/map_ol/oliver.php Under “Available Data Layers” select “Regulated Areas”, and then “DEP Tier Classified 21E Sites”. The compliance status of specific MCP disposal sites may be viewed using the BWSC Waste Sites/Reportable Release Lookup at: <http://public.dep.state.ma.us/SearchableSites2/Search.aspx>

The Project Proponent is advised that if oil and/or hazardous materials are identified during the implementation of this project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) may be necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required, and render appropriate opinions as necessary. The LSP may evaluate whether risk reduction measures are necessary or prudent if contamination is present. The BWSC may be contacted for guidance if questions arise regarding assessment and cleanup under the MCP.

Proposed s.61 Findings

The “Certificate of the Secretary of Energy and Environmental Affairs on the Environmental Notification Form” may indicate that this project requires further MEPA review and the preparation of an Environmental Impact Report. Pursuant to MEPA Regulations 301 CMR 11.12(5)(d), the Proponent will prepare Proposed Section 61 Findings to be included in the EIR in a separate chapter updating and summarizing proposed mitigation measures. In accordance with 301 CMR 11.07(6)(k), this chapter should also include separate updated draft Section 61 Findings for each State agency that will issue permits for the project. The draft Section 61 Findings should contain clear commitments to implement mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

The MassDEP Southeast Regional Office appreciates the opportunity to comment on this proposed project. If you have any questions regarding these comments, please contact George Zoto at (508) 946-2820.