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January 20, 2012

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

PROJECT NAME : Pleasant Bay Narrows Trust Revetment
PROJECT MUNICIPALITY : Orleans
PROJECT WATERSHED : Cape Cod
EEA NUMBER : 14834
PROJECT PROPONENT : Pleasant Bay Narrows Trust c/o Margaret Bancroft et al.
Trustees
DATE NOTICED IN MONITOR : December 21, 2011

Pursuant to the Massachusetts Environmental Policy Act (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** the preparation of an Environmental Impact Report (EIR).

As described in the Environmental Notification Form (ENF), the project consists of the removal of an existing gabion revetment and the construction of a stone revetment along the shorefront of a residential property in Orleans. The stone revetment will be an approximately 100-foot extension of an existing licensed coastal structure consisting of vinyl sheet pile, poured concrete and riprap. This existing coastal erosion structure, approximately 475 feet in length, currently protects the eastern, southern, and southwestern shoreline of the peninsula. The existing revetment has been constructed in phases over time under previous State and local permits. In addition to the extension of the revetment, the project also includes an extensive invasive species management plan, ongoing beach nourishment and the placement of dug-in timber steps for access from the upland property. Stone steps associated with the existing

revetment will be removed. The project site consists of an 11.4-acre property located on Pleasant Bay, immediately west of “the Narrows”. The project site is located within the Pleasant Bay Area of Critical Environmental Concern (ACEC).

As disclosed in the ENF, the project is estimated to permanently impact 836 square feet (sf) of Coastal Beach, 1,104 sf of Coastal Bank, and 1,685 sf of Land Subject to Coastal Storm Flowage (LSCSF). These types of wetland resource areas will also be temporarily impacted during the construction period to facilitate access for revetment construction, beach nourishment and implementation of the land management plan for the property. The primary goal of the project is to reduce the impact of erosive forces that have increased since the 2007 inlet was created through the southern portion of Nauset Beach in Chatham. The creation of this second inlet has resulted in increased tidal ranges, increasing susceptibility to storm and general erosion damage, and has resulted in a dynamic coastal environment within the Pleasant Bay/Chatham Harbor system. The project site has experienced the retreat of the coastal beach northwest into the existing salt marsh system, higher wave action (due to the increased high tides), and general failure of alternative methods to dissipate wave action and reduction coastal erosion on-site.

Jurisdiction

The project is undergoing review pursuant to 301 CMR Sections 11.03(3)(b)(1)(a) and 11.03(11) of the MEPA regulations because it will require a State Agency Action and will alter Coastal Bank and is located within an ACEC. The project will require a Chapter 91 (c.91) License from the Massachusetts Department of Environmental Protection (MassDEP). The project has received an Order of Conditions from the Orleans Conservation Commission and the associated appeal period has expired.

Because the Proponent is not seeking financial assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required state permits and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, MEPA jurisdiction extends to wetlands and waterways and potential impacts to the ACEC.

Alternatives Analysis

The Proponent provided additional information at, and subsequent to, the January 5, 2012 MEPA site visit regarding prior attempts to reduce erosion on-site. The Proponent has attempted various “soft” solutions prior to proposing the extension of the rock revetment. In 2002, three rows of fiber rolls were installed, along with beach nourishment and beach grass planting. According to the Proponent, this erosion control structure was unsuccessful and subsequently failed under the forces of storm waves and tides. In 2006, gabions were installed along the shorefront, tying into the rip rap associated with the existing revetment, and extending north approximately 75 feet. Since 2006, this gabion wall has been rebuilt/repared once (in 2009), and under existing conditions appears to be experiencing additional strain that may lead to future collapse. Beach nourishment activities have been ongoing through 2010 with a goal of maintaining the original beach elevation that existed in 2006. According to the Proponent, despite these beach nourishment efforts, the coastal beach has migrated approximately 40 feet

northward since the establishment of the 2007 inlet in Nauset Beach. Nourishment disappeared quickly after placement due to storms and the increased tidal regime from the new Nauset Beach inlet. Based upon the challenges facing the property with regard to the dynamic coastal environment, and prior attempts to mitigate erosion through the use of soft and less invasive structures, the Proponent has proposed a sloped, irregularly-surfaced stone revetment with a top of stone height of approximately elevation 13 feet (this is higher than the existing top row of gabions). Beach nourishment will be provided to provide an additional sediment source in the area.

Wetlands and Waterways

The ENF indicated that the project will permanently alter 836 sf of Coastal Beach, 1,104 sf of Coastal Bank, and 1,685 sf of Land Subject to Coastal Storm Flowage (LSCSF). The existing stone gabions will be removed and relocated above Mean High Water (MHW) adjacent to the on-site garage to provide additional protection for that structure. The stone revetment will impact areas above and below the MHW line, notably the placement of toe stones at elevation 0 feet. The revetment will be designed at a one-foot to 1.5-foot slope to absorb the energy associated with wave action. The MassDEP comment letter has noted that the project will be classified as a water-dependent use project in accordance with 310 CMR 9.12 and will not require a Section 401 Water Quality Certification.

The Cape Cod Commission (the Commission) reviewed the proposed project pursuant to several Minimum Performance Standards (MPS) in the Coastal Resources section of the Regional Policy Plan (RPP). The Commission indicated that it is unclear whether construction will directly impact Barrier Beach wetland resource area; i.e., the small barrier spit located immediately west of the site. The Proponent should review whether or not the project, as proposed, will directly impact this wetland resource area and ensure that appropriate performance standards can be met. I strongly encourage the Proponent to seriously consider the Commission's recommendation to adjust the area of proposed beach nourishment to place additional sediment on the beach fronting the revetment and plant American beach grass if feasible. The Proponent should revise its c.91 License Application plans as requested by MassDEP to reflect the proposed elevation and volume of beach nourishment that is included as part of the project, particularly beach nourishment that will be placed seaward of the MHW line.

As noted previously, the project site is located within the Pleasant Bay ACEC. MassDEP has stated that the Waterways Regulations at 310 CMR 9.32: Categorical Restrictions on Fill and Structures allow it to license structures within the ACEC that are necessary for shoreline stabilization or the rehabilitation of an existing shore protection structure, provided that reasonable measures are taken to avoid, minimize and mitigate any encroachment in a waterway. MassDEP has indicated that based upon the review of the ENF, the proposed extension of the stone revetment appears to meet this criterion. The Commission expressed concern regarding the potential exacerbation of erosion and retreat of the adjacent barrier spit, potential subsequent impairment/loss of Salt Marsh behind the spit, and the apparent loss of updrift sources of sand. While the Commission has requested that the Proponent explore less permanent options to stabilize the Coastal Bank, MassDEP, the permitting authority will have the final approval of the appropriateness of the proposed revetment. I expect that as part of the MassDEP c.91 Licensing

process, alternatives will be explored again in the context of c.91 licensing standards with consideration of how a more rigorous maintenance commitment may make softer solutions a possibility for the project site.

The ENF included a copy of the Land Management Plan prepared for the project site. The goal of this plan is to remove invasive species from the Coastal Bank and restore the native plant community within this area. The initial work proposed as part of the Land Management Plan has already commenced on-site and includes removal and/or treatment of invasive species and the placement of erosion control fabric with seed. All of this work has been undertaken above the Mean High Water line. The Land Management Plan indicated that active on-site work will occur in phases through late fall/winter 2013, followed by an ongoing maintenance period to monitor any re-growth of invasive species and identify additional removal strategies.

To facilitate project monitoring, a drill hole will be set in the face of the stone revetment at elevation 6.0 for the purpose of monitoring beach elevation and to inform the Proponent when additional beach nourishment may be required. As part of the Order of Conditions, the site will be inspected annually to demonstrate adequate coverage and nourishment of the structure and beach area up to elevation 6.0. If additional nourishment is required, nourishment will consist of compatible beach sand.

Construction Period

The construction period is estimated to take approximately three weeks to complete. Erosion and sedimentation control best management practices (BMPs) should be implemented to reduce impacts to adjacent wetland resource areas. As required by the Order of Conditions, the revetment should be constructed between November 1 and April 1 to reduce potential impact to Salt Marsh. The Proponent should comply with all the conditions outlined in the Order of Conditions and c.91 License.

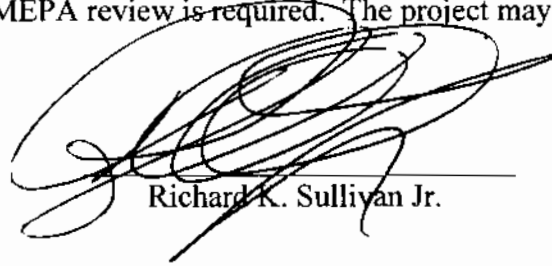
Based upon information shared at the MEPA site visit, the construction access point currently established as part of the invasive species management program will be used to facilitate revetment construction and beach nourishment. The Bank will require grading to eliminate the cross-slope that currently exists. Sand will be placed at the bottom of the Bank upon which one-inch steel plates will be placed to provide for a stable access and reduce impact to the Salt Marsh. It is anticipated that this access route will continue to be used, as necessary, for additional beach nourishment activities or revetment repair, as allowed in accordance with applicable local and State permits. Construction staging will occur within the site driveway.

Conclusion

Based on the information presented in the ENF and after consultation with relevant public agencies, I find that no further MEPA review is required. The project may proceed to permitting.

January 20, 2012

Date


Richard K. Sullivan Jr.

Comments received:

12/23/2011 Board of Underwater Archaeological Resources
1/10/2012 Cape Cod Commission
1/10/2012 Massachusetts Department of Environmental Protection - SERO

RKS/HSJ/hsj