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July 25, 2025

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE NOTICE OF PROJECT CHANGE

PROJECT NAME	: Forty Steps Coastal Bank Stabilization and Mixed-Sediment Nourishment
PROJECT MUNICIPALITY	: Nahant
PROJECT WATERSHED	: North Coastal
EEA NUMBER	: 16836
PROJECT PROPONENT	: Town of Nahant
DATE NOTICED IN MONITOR	: June 25, 2025

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G. L. c. 30, ss. 61-62L) and Sections 11.10 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project change **does not require** an Environmental Impact Report (EIR).

Original Project Description

As described in the Environmental Notification Form (ENF) filed in 2024, the original project consisted of the stabilization of the Coastal Bank using soil encompassed in coir fabric supported with coir fiber rolls (described as bio-engineered stabilization). The coir materials would be anchored into the Coastal Bank and covered with a layer of sand nourishment which will be revegetated with native coastal grass plantings. According to the ENF, in 1960, the Massachusetts Department of Public Works (DPW) (now, the Massachusetts Department of Environmental Protection (MassDEP)) designed and constructed a seawall at the base of the Coastal Bank (DPW contract #2230) in order to protect the toe of the Coastal Bank and provide an anchor point so the over-steepened coastal bank face could be filled seaward, thereby lessening the potential for slope failure. As described in the ENF, the bio-engineered stabilization would be placed along the toe of the Coastal Bank above the existing seawall. In addition to

this stabilization effort, a mixed-sediment nourishment (consisting of a mixture of compatible sand and cobbles) would be added to the existing beach profile in front of the existing seawall, in the form of a berm. The berm would extend the length of the beach and would be 26 feet (ft) wide with a maximum crest elevation of 20 ft NAVD88. The design included 34.7 cubic yards (cy) of nourishment per linear ft, which equates to approximately 17,000 cy of sand and cobble that would likely be sourced from multiple borrow site locations. The sediment would have a median grain size consistent with the existing material on the beach. In addition, the project would include targeted invasive species management on the Coastal Bank. The beach nourishment, Coastal Bank stabilization, and invasive species management activities were also proposed to extend onto an adjacent private property to ensure the entire beach is nourished, the Coastal Bank is stabilized, and the invasive species are addressed to prevent spread onto the restored bank area. Access to the beach for the work, proposed over the Coastal Bank on an adjacent private property, would include removal of existing vegetation, placement of beach-compatible sediments to create an access roadway, and restoration post-construction utilizing the same techniques and methods used to stabilize the base of the Coastal Bank within the project area.

As previously stated in the ENF and reiterated in the NPC, the primary goals of the project are to provide storm damage protection; stabilize and restore the eroding Coastal Bank; promote increased resiliency; and reduce repetitive maintenance to ensure the long-term viability of Nahant Road along the crest of the bank. The Certificate on the ENF issued on August 16, 2024 found that the filing did not require the preparation of an EIR.

Project Change

As detailed in the Notice of Project Change (NPC), the proposed change pertains to the modification of the construction access from Nahant Road down to the beach. As noted above, construction access to the beach was previously proposed along the southern boundary of the project site from the adjoining private property. According to the NPC, the Town of Nahant (the "Town" or the "Proponent") was granted deeded access through the private property in 1962 to protect the Coastal Bank at Forty Steps Beach. The Town has utilized this access point several times since deeded access was granted to conduct maintenance on the Coastal Bank. However, the current owners of the property have requested that the Town utilize an alternative means of construction access and not conduct work to stabilize the Coastal Bank on their property. While not conducting work along the entirety of the Coastal Bank maintains the risk of failure of this portion of the Coastal Bank and potentially allows for the recolonization of invasive species, the Town will implement a Monitoring and Maintenance Plan (MMP) to ensure the success of the proposed project. Subsequently, the Town re-evaluated various access points and methodologies, and selected an alternative construction access route. Construction access is now proposed to consist of two components, including a temporary sediment delivery chute extending from Nahant Road to the beach, and a temporary construction accessway, consisting of Coastal Bank/Coastal Beach compatible sediment, constructed on the face of the existing Coastal Bank immediately above the existing seawall. The accessway will be constructed from the intersection of Nahant Road and Cliff Street (approximately 250 ft north of the previously proposed access point) down the Coastal Bank until the accessway reaches the seawall crest. According to the NPC, beach nourishment, Coastal Bank stabilization, and invasive species management activities will now terminate at the Town's property line, reducing the overall length of the project by approximately 34 ft.

Project Site

The project site consists of a public beach owned by the Town which encompasses approximately 1.66 acres on the eastern shoreline of Nahant.[1] Access to the beach is provided by a staircase extending from Nahant Road down the Coastal Bank to the beach. An existing seawall, comprised of an armor stone trapezoid base with a recurved concrete cap, is located at the landward extent of the beach at the base of the Coastal Bank. The site is bounded by Nahant Road to the west, rock outcroppings and residential properties to the north and south, and the Atlantic Ocean to the east.

State and local wetland resource areas located within the project area include Land Under the Ocean (LUO), Coastal Beach, Coastal Dune, Coastal Bank, Land Containing Shellfish, and Land Subject to Coastal Storm Flowage (LSCSF). According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) (Panel No. 25009C0541G, effective July 16, 2014), the project site is located within Zone VE with a Base Flood Elevation (BFE) of 31 ft NAVD88. In addition, a portion of the project site is located on flowed tidelands.

As shown in the EEA EJ Mapper, the project site is not located within one mile of any Environmental Justice (EJ) Populations.[2] Additionally, no languages were identified as being spoken by 5% or more of Limited English Proficiency ("LEP") residents within one mile of the project site.

Environmental Impacts and Mitigation

Potential environmental impacts associated with the original project included the temporary alteration of 175 sf of LUO; 41,050 sf of Costal Beach; 2,921 sf of Coastal Dune; 30,725 sf of Coastal Bank; 18,000 sf of Land Containing Shellfish; and 74,540 sf of LSCSF. As compared to the originally proposed project, the project change will eliminate impacts to LUO, and decrease the temporary alteration of Coastal Beach by 3,795 sf (for a total of 37,255 sf), Coastal Bank by 4,965 sf (for a total of 25,760 sf), Land Containing Shellfish by 1,560 sf (for a total of 16,440 sf), and LSCSF by 12,890 sf (for a total of 61,650 sf). The project will continue to result in the temporary alteration of 2,921 sf of Coastal Dune and the placement of 17,000 cy of beach compatible sediment.

Measures to avoid, minimize, and mitigate environmental impacts include the use of erosion and sedimentation controls during project construction; management of invasive species; the planting of native coastal grass species; and the restoration of temporarily disturbed areas following construction.

Jurisdiction and Permitting

The original project was subject to MEPA review because it requires Agency Action and met/exceeded the thresholds at 301 CMR 11.03 (3)(b)(1)(a) for the alternation of a coastal dune, barrier beach, or coastal bank; 301 CMR 11.03 (3)(b)(1)(e) for New fill or structure or Expansion of existing fill or structure, except a pile supported structure, in a velocity zone or regulatory floodway; and 301 CMR 11.03 (3)(b)(1)(f) for the alteration of one half or more acres of any other wetlands. The project requires Agency Action in the form of a Chapter 91 (c. 91) Permit from MassDEP.

[1] This represents a 0.43-acre decrease in the overall size of the project site due to the changes noted above.
[2] The EEA EJ Mapper is available at:https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts.

The project requires an Order of Conditions (OOC) from the Nahant Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP). The project also requires the submittal of a Pre-Construction Notification (PCN) to the U.S. Army Corps of Engineers (ACOE) seeking authorization under the General Permits for Massachusetts in accordance with Section 404 of the Clean Water Act. Additionally, the project may require Federal Consistency Review by the Massachusetts Office of Coastal Zone Management (CZM).

As noted in the NPC, the project change continues to meet/exceed the aforementioned thresholds, and require the aforementioned permits and approvals.

The project is seeking Financial Assistance, in the form of Coastal Resiliency Grants, from CZM. Therefore, MEPA jurisdiction is broad in scope and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in MEPA regulations.

Review of the NPC

The NPC included a description of the original project, the project changes, existing and proposed conditions plans, estimates of impacts related to the project change, and an identification of measures to avoid, minimize and mitigate environmental impacts.

Wetlands

The project change will result in the temporary alteration of 37,255 sf of Costal Beach; 2,921 sf of Coastal Dune; 16,440 sf of Land Containing Shellfish; and 61,650 sf of LSCSF. The project will also impact 25,760 sf of Coastal Bank, including 7,340 sf for stabilization and 18,420 sf for invasive species management.[3] The Nahant Conservation Commission (or MassDEP in the case of an appeal) will review the project for its consistency with the Massachusetts Wetlands Protection Act (WPA), the Wetland Regulations (310 CMR 10.00) and associated performance standards.

As noted above, construction access for implementation of the project has been modified to avoid the adjacent private property. To facilitate construction access, the project proposes:

- **Sediment Delivery Chute** – A temporary sediment delivery chute will be utilized to transfer sediment from delivery trucks on Nahant Road to the beach, where it will be graded within the nourishment profile. The sediment chute will be installed adjacent to the existing stairway that provides access to the beach. The chute will be constructed with open-topped corrugated pipes (approximately 12 to 15 ft in width) attached to one another. The chute will be placed on the surface of the Coastal Bank, following removal of large woody vegetation. To ensure stability, the chute will be anchored at the top and bottom using temporary cabling and earth anchors. The chute will be removed once the nourishment of the beach is completed.
- **Construction Accessway** – A temporary construction accessway, consisting of Coastal Bank/Coastal Beach compatible sediment, will be constructed on top of the existing Coastal Bank immediately above the existing seawall. The accessway will provide a consistent 15 ft width, and slope downward at an approximately one ft vertical to eight ft horizontal (8:1) slope.

[3] This represents a decrease in the temporary alteration of Coastal Beach of 3,795 sf; Coastal Bank of 4,965 sf; Land Containing Shellfish of 1,560 sf; and LSCSF of 12,890 sf from the ENF.

> The accessway will be constructed from the intersection of Nahant Road and Cliff Street (approximately 250 ft north of the previously proposed access point) down the Coastal Bank until the accessway reaches the seawall crest. To provide access over the seawall to the surface of the beach, compatible beach nourishment material will be utilized. Prior to the construction of the accessway, large woody vegetation that will interfere with the creation and use of the accessway will be cut at ground level. Once the placement of the beach nourishment is complete, larger construction equipment will no longer be necessary, and smaller equipment and hand labor will be utilized to construct the Coastal Bank stabilization system. Sediment used for the accessway will be reused as part of the stabilization system, and the face of the Coastal Bank along the accessway will be covered with a biodegradable erosion control blanket to act as a temporary means of stabilization until native grasses become established.

According to the NPC, the modified construction access will not result in additional wetland impacts as the it will be located within the footprint of the proposed beach nourishment and Coastal Bank stabilization. Rather, beach nourishment, Coastal Bank stabilization, and invasive species management activities will now terminate at the Town's property line, reducing the overall length of the project by approximately 34 ft, and subsequently reduce the project's wetland impacts from those previously reviewed. However, the NPC states that the minor reduction of the proposed nourishment area is not anticipated to negatively impact the project's ability to dissipate incoming wave energy. In addition, due to the dynamic nature of the project site, once the material is placed on the beach, it will naturally redistribute due to incoming wave action, and migrate to fill the entire beach, including portions of the adjacent private property, as it stabilizes.

Construction Period

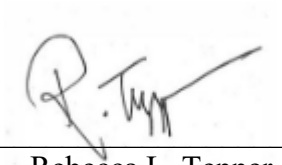
According to the NPC, construction of the project is still expected to commence in 2026 and be completed by 2027. As noted above, to establish construction access, existing vegetation on the face of the Coastal Bank will be removed, and compatible sediment will then be brought in to grade the accessway down to the crest of the seawall. Simultaneously, a temporary sediment chute will be installed adjacent to the existing stairs and anchored in place along the Coastal Beach and Nahant Road. The accessway can easily be maintained during construction by adding additional sediment to maintain the slope. Once nourishment activities are completed, the stabilization system will be installed on the Coastal Bank. The face of the Coastal Bank will be covered with a layer of coir matting and three rows of 20-inch diameter high-density coir fiber rolls, which will be placed from the surface of the ledge up to an elevation of 22 ft NAVD88, to stabilize and hold the Coastal Bank sediments in place. An outer layer of sand-based nourishment, primarily reutilized from the accessway, will then be placed over the coir matting and revegetated with native species.

The NPC states that the MMP developed for the project has been modified to reflect changes in construction access. Under the MMP, the project area will be visually inspected semi-annually (spring and fall), to assess the performance and monitor for any damage or changes that may occur to the project. An annual monitoring report, which will include a survey of the beach, to analyze and record the evolution of the beach nourishment, will be produced in the spring after the inspection. The annual monitoring will be conducted over a five-year period with additional post-storm episodic monitoring to occur immediately after named storm events. Should negative impacts to the stabilization efforts be identified through monitoring, the Proponent will engage the appropriate parties, including local and

state agencies, to identify and undertake potential corrective actions; however, additional nourishment beyond the project described herein is not proposed. Comments provided by CZM state that the MMP should be incorporated into the permitting documents and ongoing conditions for the project.

Conclusion

The NPC has sufficiently described the nature and general elements of the project change for the purposes of MEPA review and described measures to avoid, minimize and mitigate the project's environmental impacts. Accordingly, I find that an EIR is not required for this project change.



July 25, 2025
Date

Rebecca L. Tepper

Comments received:

7/15/2025 Massachusetts Office of Coastal Zone Management (CZM)

RLT/NJM/njm

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
OFFICE OF COASTAL ZONE MANAGEMENT
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MEMORANDUM

TO: Rebecca L. Tepper, Secretary, EEA
ATTN: Nicholas Moreno, MEPA Office
FROM: Alison Brizius, CZM Director
DATE: July 15, 2025
RE: EEA-16836; Forty Steps Beach Bank Stabilization and Mixed-Sediment Nourishment; Nahant

The Massachusetts Office of Coastal Zone Management (CZM) has completed its review of the above-referenced Notice of Project Change (NPC), noticed in the *Environmental Monitor* dated June 25, 2025, and offers the following comments.

Project Description

The proposed project includes a bio-engineered coastal bank stabilization system and mixed-sediment beach nourishment to stabilize and minimize the ongoing erosion along the base of the coastal bank within a FEMA zone VE (elevation 31 NAVD88). An existing seawall structure will be left in place. In areas where significant bank erosion has occurred, engineered soil lifts wrapped in coir fabric will be used to build the bank face seaward of the seawall face. High-density coir fiber rolls will be installed as part of the soil lifts to an elevation of approximately 20 to 25 feet NAVD88. The envelopes and coir rolls are proposed to be anchored into the coastal bank using earth anchors and cabling to keep the system in place and prevent movement during moderate to significant storm events. The outward face of the system is proposed to be wrapped in coir matting, with an outer layer of sand-based nourishment that will be re-vegetated with American beach grass to enhance the coastal bank's ability to weather wave runup and minimize scour from runoff from the upper elevations of the bank. The mixed-sediment nourishment will be added to the existing beach with a one-to-three back slope tied into the crest of the seawall, a flat berm 26 feet wide at elevation 20 feet NAVD88, and a one-to-three foreshore slope.

Since the ENF, the project has been amended to include work only on town-owned property. The design includes 34.7 cubic yards (cy) of nourishment material per linear foot, which is approximately 17,000 cy of sand and cobble that will likely be sourced from multiple borrow site locations. The sediment will have a median grain size consistent with the existing material on the beach. The project will also include targeted invasive species management on the coastal bank. Access to the beach for the work, previously proposed over the coastal bank on an adjacent private property, is now proposed to be constructed from Nahant Road down to the base of the coastal bank immediately above the existing seawall at an approximately 8:1 slope. The proposal still includes the removal of existing vegetation, placement of beach-compatible sediments to create the access roadway, and restoration post-construction utilizing the same techniques and methods used to stabilize the base of the coastal bank within the project area. Existing native large woody vegetation within the access pathway will be cut back, leaving roots in place. Only invasive species will be entirely removed. A temporary, 12- to 15-foot-wide sediment delivery chute is proposed adjacent to the existing access stairway to facilitate the transfer of the nourishment sediment from delivery trucks to the beach before being placed. The sediment chute will be constructed with open-topped corrugated drainage pipes and anchored at the top and bottom using temporary cabling and earth anchors and will be removed once the nourishment of the beach is completed. The proposed changes to the project reduce the areas of impact for all affected resource areas, except for the coastal dune, where the area

of impact will remain the same. The project will now impact 37,255 square feet (sf) of coastal beaches, 2,921 sf of coastal dunes, 16,440 sf of land containing shellfish, and 61,650 sf of land subject to coastal storm flowage. In addition, it will impact 25,760 sf of coastal bank, including 7,340 sf for stabilization and 18,420 sf for invasive species management.

Comments

The ENF stated that piles of small cut trees and vegetation have been dumped at the crest of the bank immediately adjacent to the low fence demarcating the edge of the sidewalk next to Nahant Road, possibly as a result of vegetation being cut to maintain views of the ocean. Erosion is occurring along the slope on the northern end, where runoff associated with rainfall is likely the most significant factor contributing to erosion. As noted in previous comments, the Town should ensure that vegetation and debris are not placed on the coastal bank, as this could damage the living vegetation that stabilizes the upper slope of the bank, exacerbating erosion. In addition, the Town should implement strategies to redirect stormwater flows away from the bank to eliminate or reduce the additional erosion impacts that this is creating.

The proponent submitted a Monitoring and Maintenance Plan with the ENF, which included a monitoring schedule and adaptive maintenance measures to ensure the project continues to function as designed. This plan should be incorporated into the permitting documents and ongoing conditions for the project.

Federal Consistency Review

The proposed project may be subject to CZM federal consistency review and, if so, must be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Sean Duffey, Project Review Coordinator, at sean.duffey@mass.gov or visit the CZM website at https://www.mass.gov/federal-consistency-review-program.

AB/kg/rh

cc: Kathryn Glenn, CZM
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Daniel Padien, MassDEP
Christine Hopps, MassDEP
Kristin Kent, Nahant Conservation Commission Agent
Alison Nieto, Nahant Interim Town Administrator