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May 18, 2018

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

PROJECT NAME	: Seawall Improvements for a Residential Property
PROJECT MUNICIPALITY	: Fairhaven
PROJECT WATERSHED	: Buzzards Bay
EEA NUMBER	: 15840
PROJECT PROPONENT	: Sherry L. Gomes
DATE NOTICED IN MONITOR	: April 11, 2018

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

The project involves the construction of an approximately 518 square foot (sf) rip rap revetment at the base of an existing concrete seawall on a residential property. The revetment will be constructed with a 1:1 slope and the elevation will range between 8.2 and 8.7 feet (ft) mean low water (MLW). The revetment will be approximately 7 to 8 ft wide and 66 ft long. It will be comprised of boulders; voids will be filled with one-man stones backed by trap rock bedding and polypropylene geotextile. The project includes the removal of an approximately 20-foot-long section of seawall which runs perpendicular to the shoreline. The house landward of the seawall has been demolished and will be reconstructed. The cesspool will be removed and replaced with a tight tank. The house will be raised above base flood elevation (BFE) on concrete columns connected to a solid concrete slab within the same general footprint of the previous structure.

Project Site

The project site consists of an approximately 3,568 sf residential lot located on the shoreline of Buzzards Bay. It is bounded by residential uses to the north, south, Wilbur Ave to the west and Buzzards Bay to the east. The project site has been developed with an approximately 500 sf single

family dwelling and multiple concrete patios since the 1960's. An approximately 66 foot long concrete seawall runs parallel to the shoreline and an approximately 20 foot long seawall extends from the southerly corner seaward. These structures were previously authorized (License No. 9904) through the MassDEP Waterways Program. The site includes a cesspool. The ENF indicates that the original lot was 7,000 sf in size and approximately 50% of the lot has been lost to erosion.

The project is not located within mapped *Estimated or Priority Habitat of Rare Species* according to the 14th edition of the Massachusetts Natural Heritage Atlas. The project is located within the vicinity of mapped quahog (*Mercenaria mercenaria*) habitat, bay scallop (*Agropecten irradians*) habitat and eel grass (*Zostera marina*) beds. The project site is located within a designated Velocity Zone (VE zone) as depicted on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) (No. 25005C0503F, effective on July 7, 2009). The VE flood zone is at elevation 19 feet North American Vertical Datum of 1988 (NAVD 88).

Environmental Impacts and Mitigation

Potential environmental impacts associated with the project include alteration of approximately 118 sf of Coastal Beach, 650[1] sf of Rocky Intertidal Shore and 518 sf of Land Subject to Coastal Storm Flowage. Measures to avoid, minimize and mitigate damage to the environment include removal of the seawall that extends seaward and placing of 20 cubic yards (cy) of compatible cobble material at the base of the revetment.

Permitting and Jurisdiction

This project is subject to MEPA review and preparation of an ENF pursuant to 301 CMR 11.03(3)(b)(1)(e) because it requires a State Agency Action and consists of new fill or structure or expansion of existing fill or structure in a velocity zone. The project requires a Chapter (c.91) License from MassDEP.

The project received an Order of Conditions from the Fairhaven Conservation Commission which was not appealed. The project requires an Individual Permit from the U.S. Army Corp of Engineers (ACOE).

The project is not receiving Financial Assistance from the Commonwealth. Therefore, MEPA jurisdiction is limited to those aspects of the project that are within the subject matter of any required or potentially required State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations. In this case, jurisdiction is limited to land alteration, waterways, and wetland resources.

Review of the ENF

The ENF provided a description of existing and proposed conditions, preliminary project plans, and identified measures to avoid, minimize and mitigate project impacts. The comment period was

[1] An additional 350 sf of temporary impacts to Rocky Intertidal Shore associated with the removal of the perpendicular seawall was disclosed in an e-mail from the project engineer to the MEPA office on May 14, 2018.

extended two weeks to accommodate the submission of additional information including a supplemental alternatives analysis which was received on April 24, 2018.

The supplemental information provided by the Proponent identified site constraints which limited the availability of alternatives analysis. In particular, the Proponent noted the small size of the lot and associated setback requirements. During the review period, State Agencies requested that the Proponent analyze the feasibility of removing the concrete seawall and constructing the revetment landward of it to avoid impacts to coastal resources. This alternative was dismissed by the Proponent because it would require the seaward facing deck to overhang over the revetment and would require the concrete columns supporting the deck to be in close proximity to the revetment capstones. The Proponent was concerned with the potential for storm damage and its effect on the structure.

Four alternatives were considered in addition to the Preferred Alternative (Option A), as described herein. Option B would improve the seawall by installing precast concrete interlocking Redi-Rock blocks to the portion of the seawall parallel to the shoreline and removing the seawall perpendicular to the shoreline. This alternative would reinforce the parallel seawall and reduce coastal resource impacts by half (231 sf) compared to the Preferred Alternative. However, the Proponent did not believe that it would reduce wave energy or erosion at the site. Option C would repair the parallel seawall and reconstruct the perpendicular seawall. It would require pouring a 12-inch thick concrete face to portions of the parallel shoreline seawall. Reconstruction of the perpendicular seawall would require dewatering the area and excavation to install the stone footing. This alternative was dismissed because it would increase temporary impacts and would not reduce wave energy or erosion during a coastal storm event. Option D would reconstruct both seawalls. This option was dismissed because the seawall parallel to the shoreline is still functional. Option E involved replacing the seawall parallel to the shoreline with a steel sheet pile wall and removal of the perpendicular seawall. This alternative was considered cost prohibitive.

The ENF did not specifically address sea level rise (SLR) or increased storm frequency and intensity associated with climate change. As recognized in Governor Baker's Executive Order 569 (EO 569) "Establishing an Integrated Climate Change Strategy for the Commonwealth", the impacts of climate change must be an important consideration for development across the state. Statewide, downscaled climate change projections prepared by the Northeast Climate Science Center at the University of Massachusetts-Amherst indicate an increase in severe weather, sea level rise, precipitation, and extreme temperatures through the end of the century. Of particular concern for this site are severe storms and storm surge, tidal inundation and salt water intrusion. With rising sea levels, more regular flooding of developed and natural low-lying coastal areas is expected. Erosion of existing coastal landforms (e.g., beaches and dunes) will be increased. Damage to coastal engineering structures (e.g, seawalls/revetments) and more frequent flooding of coastal properties and neighborhoods may occur as tidal range and wave energy increases. The structure must meet specific standards outlined in the Massachusetts State Building Code (780 CMR) Ninth Edition for structures newly constructed or substantially improved in the floodplain.

Wetlands and Waterways

As indicated above, the project will result in permanent impacts to Coastal Beach, Rocky Intertidal Shore and LSCSF. The project will result in a net increase of 280 sf of fill below MHW.

MassDEP will review the project for its consistency with 310 CMR 9.00 Waterways Regulations. Comments from MassDEP indicate the project is a water dependent use pursuant to the Waterways Regulations 310 CMR 9.12. However, they indicate that the c. 91 License (License No. 9902) expired, requiring all existing and proposed structures subject to c. 91 to be authorized. Comments from MassDEP indicate the proposed revetment will dissipate wave energy more effectively than the seawall and the removal of the perpendicular seawall will improve sediment transport along the shoreline.

Comments from the Department of Marine Fisheries (DMF) and Coastal Zone Management (CZM) raise concerns with the encroachment of the revetment into coastal resources and recommend that it be shifted landward. In addition, CZM indicates that moving the revetment landward would allow the slope to be reduced which would increase its ability to dissipate wave energy. The Department of Conservation and Recreation's (DCR) Flood Hazard Management Program and CZM recommend that house be raised on open pilings, as opposed to concrete columns connected to a concrete slab. The purpose of the project is to increase protection from storm damage; however, it has been demonstrated that concrete slabs can increase scouring and transfer loads to the foundation which can result in structural failure.

Construction

The project must comply with Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. c.40, s.54. If oil and/or hazardous materials are identified during construction, notification must be provided to MassDEP pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000).

The Board of Underwater Archaeological Resources (BUAR) indicates that the area may be archaeologically sensitive due to the level and diversity of maritime commercial, military, and recreational activities throughout the New Bedford/Fairhaven areas. Should any heretofore-unknown submerged cultural resources be encountered during the course of the project, the Board expects that the Proponent will take steps to limit adverse impacts and notify the Board, as well as other appropriate agencies, immediately in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources.*

Conclusion

Based on a review of the ENF and comments received, and in consultation with State Agencies, I have determined that 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. I encourage the Proponent to continue consultation with State Agencies during permitting and consider design changes that will increase the resiliency of the site and structures to the effects of climate change. No further MEPA review is required. The project may proceed to permitting.

May 18, 2018
Date

Matthew A. Beaton

Comments received:

04/26/2018	Board of Underwater Archaeological Resources (BUAR)
05/07/2018	Department of Environmental Protection – Southeast Regional Office (MassDEP – SERO)
05/08/2018	Department of Conservation and Recreation (DCR)
05/09/2018	Department of Marine Fisheries (DMF)
05/10/2018	Office of Coastal Zone Management (CZM)

MAB/EFF/eff

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Matthew A. Beaton
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Martin Suuberg
Commissioner

May 7, 2018

Mathew A. Beaton,
Secretary of Environment and Energy
Executive Office of Environmental Affairs
ATTN: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: ENF Review EOEEA # 15840
FAIRHAVEN. Seawall Improvements for a Residential Property at 16 Wibur's Point Drive, Fairhaven

Dear Secretary Beaton,

The Southeast Regional Office of the Department of Environmental Protection (MassDEP) has reviewed the Environmental Notification Form (ENF) for the proposed Seawall Improvements for a Residential Property Project at 16 Wibur's Point Drive, Fairhaven, Massachusetts (EOEEA # 15840). The Project Proponent provides the following information for the Project:

Work will commence with the removal of the remains of the concrete foundation for the house, work which has been permitted through the issuance of an Order of Conditions (OOC) under DEP File No. SE 23-1247 (Issued Circa April - 2017). Said OOC also permitted the reconstruction of a new single family dwelling. The excavated hole will be filled with clean gravel and utilized as the staging area for a crane or excavator to then perform the seawall improvement work.

All work shall be performed with the crane or excavator set on the existing concrete patio areas and shall begin with the removal of the 20 feet of existing vertical concrete seawall – perpendicular to the shoreline. Said wall shall be removed to 3" (min.) below the existing grade. All debris will be loaded into trucks and disposed of an offsite location.

The seawall work will begin with the installation of the toe stones to a depth of 2 ft. Trap rock will be placed between the toe stones and the existing concrete seawall for bedding material as depicted on the x-sectional view of the Plan. Rip-rap boulders will then be placed on a 1:1 slope with all voids filled with one-man stones. The seawall will run the entire 66 feet of shoreline to the abutting northerly property line. The existing grade along the seaward face of the seawall shall be restored to preconstruction conditions and nourished with any cobble scraped off the surface.

Upon completion of the seawall – the construction of the new foundation would then begin.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

Bureau of Water Resources Comments

Waterways Program: The Waterways Program has reviewed the referenced Environmental Notification Form (ENF), proposing to construct a 66-foot long rock revetment immediately seaward of an existing vertical-faced seawall and removal of the southerly 20-foot long concrete groin. Said seawall and groin were previously authorized under M.G.L., Ch. 91.

As indicated within the ENF, submittal of a new Chapter 91 Waterways License application is required, and has been received by the Department (Refer to Chapter 91 Transmittal No. X277134), however the application is on hold pending receipt of the Secretary's Certificate for this Project.

Upon reviewing License No. 9904, issued in 2004, which authorized the maintenance of an existing concrete seawall and groins, the Department has determined it has expired, requiring all existing structures subject to Ch. 91 jurisdiction on the property to be authorized.

The Department has determined the Project to be a water-dependent use pursuant to the Waterways Regulations at 310 CMR 9.12.

Wetlands Program: The Wetlands Program notes that this Project has received an Order of Conditions (DEP File No. SE 23-1247) under the Wetlands Protection Act. No appeals were filed and therefore the Order of Conditions is final.

It is the Department's opinion that the proposed revetment should be more effective than the existing vertical-faced seawall at dissipating wave energy and reducing scour of the coastal beach in front of the seawall. Further, the removal of the short 20-foot long concrete groin should allow beach sediments to be more readily transported alongshore, thereby benefiting neighboring beaches

Wastewater Management: The attached plan shows a tight tank approved by the local Board of Health, in accordance with 310 CMR 15.260 of Title 5. In addition the plans outline that the old cesspool will be disposed of in accordance with the regulations cited in 310 CMR 15.354 of Title 5.

Bureau of Waste Site Cleanup Comments:

ENF #15840 – 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 site that would appear to impact the proposed Project. 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 and report submittals for 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 material are identified during the implementation of this Project, notification pursuant to the Massachusetts Contingency Plan (310 CMR 40.0000) must be made to MassDEP, if necessary. A Licensed Site Professional (LSP) should be retained to determine if notification is required and, if need be, to render appropriate

opinions. The LSP may evaluate whether risk reduction measures are necessary if contamination is present. The BWSC may be contacted for guidance if questions arise regarding cleanup.

Bureau of Air and Waste Comments:
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

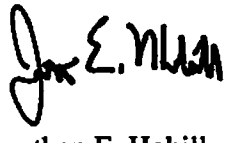
Construction-Related Measures. MassDEP requests that the Proponent use construction equipment with engines manufactured to Tier 4 federal emission standards, which are the most stringent emission standards currently available for off-road engines. If a piece of equipment is not available in the Tier 4 configuration, then the Proponent should use construction equipment that has been retrofitted with the best available after-engine emission control technology, such as oxidation catalysts or diesel particulate filters, to reduce exhaust emissions. The Proponent should provide a list of the engines, their emission tiers, and, if applicable, the best available control technology installed on each piece in the subsequent environmental filing.

Massachusetts Idling Regulations. MassDEP requests that the Proponent state specifically in the subsequent environmental filing how it plans to prohibit the excessive idling during the construction period. Typical methods of reducing idling include driver training, periodic inspections by site supervisors, and posting signage. In addition, to ensure compliance with this regulation once the Project is occupied, MassDEP requests that the Proponent establish permanent signage limiting idling to five minutes or less at the completed Project.

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.

Very truly yours,



Jonathan E. Hobill,
Regional Engineer,
Bureau of Water Resources

JH/GZ

Cc: DEP/SERO

ATTN: Millie Garcia-Serrano, Regional Director
David Johnston, Deputy Regional Director, BWR
Maria Pinaud, Deputy Regional Director, BAW
Gerard Martin, Deputy Regional Director, BWSC
Jennifer Viveiros, Deputy Regional Director, ADMIN
Brett Rowe, Wastewater Management, BWR
Jim Mahala, Chief, Wetlands and Waterways, BWR
David Hill, Wetlands and Waterways, BWR
Carlos Fragata, Wetlands and Waterways, BWR
Allen Hemberger, Site Management, BWSC

Commonwealth of Massachusetts

Division of Marine Fisheries

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May 9, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs (EEA)
Attn: MEPA Office
Erin Flaherty, EEA No. 15840
100 Cambridge Street, Suite 900
Boston, MA 02114

Dear Secretary Beaton:

The Division of Marine Fisheries (MA DMF) has reviewed the Environmental Notification Form (ENF) by Sherry Gomes for the Seawall Improvements Project at 16 Wilbur's Point Drive on Buzzards Bay in the Town of Fairhaven. Proposed work consists of the removal of an existing twenty foot section of seawall running perpendicular to the shoreline and the construction of a sloped rip-rap seaward of the remaining concrete vertical seawall. The house landward of the seawall has been demolished with the intent of rebuilding following proposed seawall repairs. Existing marine fisheries resources and potential project impacts to these resources are outlined in the following paragraphs.

The area bordering the existing seawall contains mapped quahog (*Mercenaria mercenaria*) habitat while bordering shoreline areas are also mapped as bay scallop (*Argopecten irradians*) habitat. Land containing shellfish is deemed significant to the interest of the Wetlands Protection Act (310 CMR 10.34) and the protection of marine fisheries.

The waters offshore of the seawall have been mapped by the Department of Environmental Protection (DEP) as eelgrass (*Zostera marina*) beds (Figure 1). Eelgrass beds provide one of the most productive habitats for numerous marine species (Jackson et al. 2001; Heck et al. 2008) but have declined statewide in the past decade (Costello and Kenworthy 2011).

Figure 1. Google Earth image of project site showing eelgrass (*Zostera marina*) beds historically mapped by the Department of Environmental Protection.

MA DMF offers the following comments for your consideration:

- MA DMF supports the proposed removal of the existing twenty foot perpendicular section of seawall.
- MA DMF attended the MEPA site visit held on April 19. The shorelines bordering the property directly to the north and south lack vertical sea walls and did not show any evidence of erosion. Additionally, the immediate northern shoreline border of the existing vertical seawall contains sloped rip rap along the same footprint (Figure 2). Replacement of the existing vertical concrete seawall and bordering concrete slab with equivalent sloped rip rap would avoid further seaward encroachment and provide an improvement to benthic habitat over the existing concrete structures. The alternatives considered in the supplemental information only provide variations of the preferred alternative presented in the original ENF (B: installation of concrete interlocking blocks, C: parallel seawall repair and reconstruction of perpendicular section, D: reconstruction of both parallel and perpendicular seawall sections). The Supplemental Information claims that "erosion has now exposed and is deteriorating the bottom portion of the vertical concrete seawall" but later states that the existing seawall is "significantly intact" and so should remain in place. The proposed rip-rap would extend the footprint of the existing hardened shoreline structure seaward resulting in impacts to existing cobble habitat. MA DMF continues to maintain its previous recommendation in response to the Army Corps PCN Determination of Eligibility to remove the existing concrete seawall and replace it with sloped stone rip rap to avoid seaward encroachment and improve existing shoreline conditions for benthic habitat.

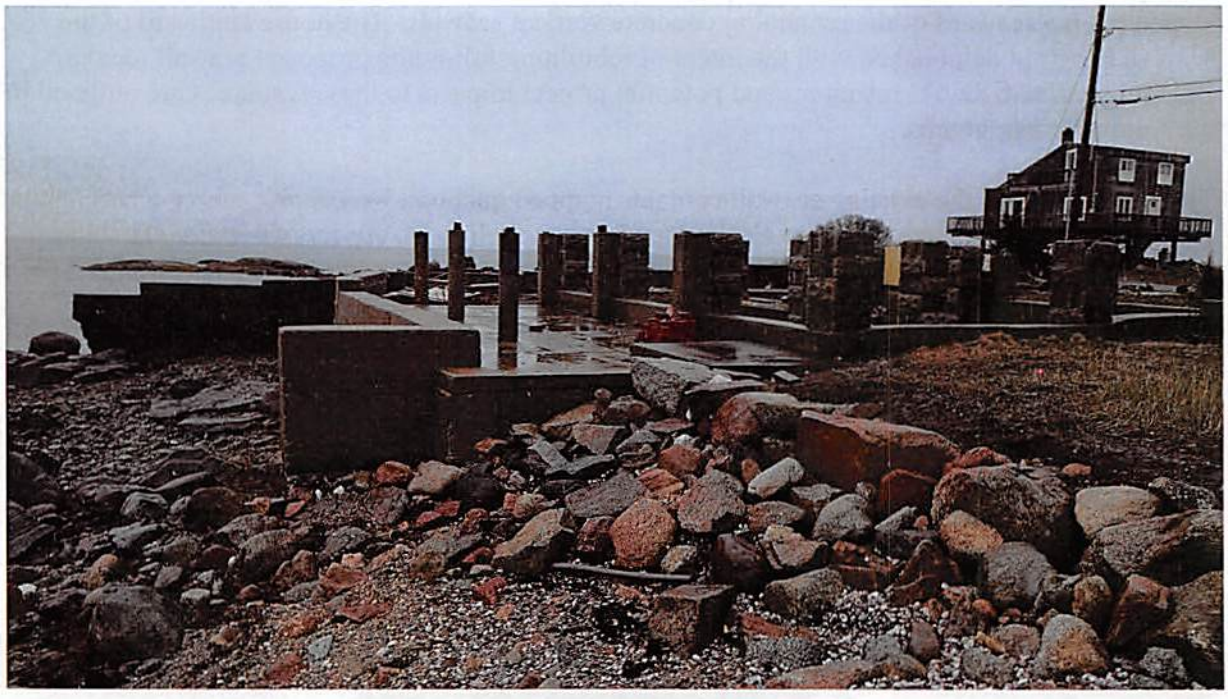

Figure 2. Project site image taken during April 19, 2018 MEPA site visit showing northern edge of existing vertical seawall and concrete pad with bordering sloped rip rap along same footprint.

Questions regarding this review may be directed to John Logan in our New Bedford office at (508) 742-9722.

Sincerely,

David E. Pierce, Ph.D.
Director

cc: Fairhaven Conservation Commission
David Davignon, N Douglas Schneider & Associates, Inc.
Timothy Cox, Shellfish Constable
David Wong, DEP
Robert Boeri, CZM
Ed Reiner, EPA
Richard Lehan, DFG
Kathryn Ford, Pooja Potti, DMF

References

Costello, C.T., and W.J. Kenworthy. 2011. Twelve-year mapping and change analysis of eelgrass (*Zostera marina*) areal abundance in Massachusetts (USA) identifies statewide declines. *Estuaries and Coasts* 34: 232–242.

Heck, K.L., Jr., T.J.B. Carruthers, C.M. Duarte, A.R. Hughes, G. Kendrick, R.J. Orth, and S.W. Williams. 2008. Trophic transfers from seagrass meadows subsidize diverse marine and terrestrial consumers. *Ecosystems* 11: 1198–1210.

Jackson, E.L., A.A. Rowden, M.J. Attrill, S.J. Bossey, and M.B. Jones. 2001. The importance of seagrass beds as a habitat for fishery species. *Oceanography and Marine Biology: An Annual Review* 39: 269–303.

DP/JL/sd

THE COMMONWEALTH OF MASSACHUSETTS
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MEMORANDUM

TO: Matthew A. Beaton, Secretary, EEA
ATTN: Erin Flaherty, MEPA Unit
FROM: Bruce K. Carlisle, Director, CZM
DATE: May 10, 2018
RE: EEA 15840, Seawall Improvements for a Residential Property (16 Wilbur's Point Drive); Fairhaven

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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 April 11, 2018, as well as the additional information submitted on April 24, 2018, and suggests the following issues be addressed in the state and federal permitting processes.

Project Description

The proposed project is to demolish an existing home and reconstruct a new home at the site located at 16 Wilbur's Point Drive, Fairhaven. The project site is located in a FEMA mapped Velocity Zone VE (elevation 19). The site has an existing seawall along a portion of the lot, parallel to the shoreline at elevation 8.2 - 8.7 ft. The northern portion of the property has rip-rap along the shoreline, but does not have a vertical seawall. On the southern edge of the property there is an additional section of seawall that is perpendicular to the shoreline and is approximately 20 ft long and 5 ft wide. The proposed demolition of the existing house has been completed. The project also includes the demolition of the portion of the seawall that is perpendicular to the shoreline along the southern edge of the property, removal of the concrete pads seaward and south of the house, and replacement of the existing cesspool with a new tight tank. (*Note: The description included in the Site Redevelopment section of the April 24, 2018 supplemental information says the existing concrete pads will be removed. However, the Subsurface Sewage Treatment System plans continue to show the existing concrete.*) The project includes the construction of a sloped rip-rap revetment within rocky inter-tidal habitat in front of the existing seawall parallel to the shoreline, and a 1:1 sloped rip-rap revetment in the area of existing rip-rap in the northern portion of the shoreline. The total length of the proposed rip-rap revetment is approximately 66 ft. long and 7 - 8 ft wide. The elevation of the top of the revetment will vary between 8.2 - 8.7 ft. MLW. The toe of the revetment is proposed to be buried approximately 2. ft below the existing grade, the revetment will be comprised of 4,000 to 6,000 pound boulders with the voids filled with one-man stones, and backed by trap rock bedding and polypropylene geotextile.

Comments

CZM is concerned with the potential natural resource/habitat impacts associated with locating the new stone revetment seaward of the existing seawall in the inter-tidal zone. CZM strongly encourages the proponent to consider replacing the existing shore-parallel section of seawall with a new sloped revetment landward of the seawall to minimize seaward encroachment. This could be achieved by locating the proposed new house and proposed tight tank closer to the road, and/or minimizing the deck on the east side of the new home, or cantilevering the deck over a portion of the suggested sloped revetment, similar to how the deck is proposed to be cantilevered over the existing rip-rap on the northern portion of the lot. CZM also recommends that the proponent consider decreasing the slope of the revetment to the greatest degree possible, construct

the revetment with a rough surface and avoid tightly filling the void space between the rip-rap. This is to encourage wave energy dissipation along the surface of the revetment, reducing wave reflection and providing more protection to landward areas.

CZM recommends that new houses in Velocity Zones be elevated on open pilings, not columns or piers connected to a solid concrete slab, as is proposed here. Post-storm damage assessments conducted by coastal engineers for the Federal Emergency Management Agency have shown that solid concrete slabs at grade have significant scour around them, which can exacerbate erosion and damage to the foundation. Therefore, CZM recommends that the proposed house be constructed on open pilings. The proposed new house should consider and adhere to elevational requirements for construction in Velocity Zones per the 8th Edition of the Massachusetts State Building Code, the 9th Edition Code, which went into full effect on January 1, 2018.

Finally CZM encourages the proponent to consider the projected sea-level rise that is likely over the life-span of the proposed new home and to consider including additional freeboard in the final design.

Federal Consistency Review

This project may be subject to CZM federal consistency review, which requires that the project be found to be consistent with CZM's enforceable program policies. For further information on this process, please contact Bob Boeri, Project Review Coordinator, at 617-626-1050 or visit the CZM web site at www.mass.gov/czm.

BKC/dsj/rh

cc: Jim Mahala,
MassDEP BWR/WW SERO, Lakeville
Dave Hill,
MassDEP, Waterways Program SERO, Lakeville
Crystal Gardner
U.S. Army Corp of Engineers
Wayne Fostin,
Conservation Agent, 40 Center Street, Fairhaven, 02719
David Davignon,
N. Douglas Schneider & Assoc., 1 County Road, P.O. Box 480, Mattapoisett, 02739

dcr
Massachusetts

May 8, 2018

Secretary Matthew A. Beaton
Executive Office of Energy and Environmental Affairs
Attn: Erin Flaherty, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: MEPA File No. 15840 – Seawall Improvements for a Residential Property

Dear Secretary Beaton:

The Department of Conservation and Recreation ("DCR" or "the Department") is pleased to submit the following comments in response to the Environmental Notification Form ("ENF") filed for the proposed Seawall Improvements for a Residential Property (the "Project") in Fairhaven.

As proposed, the Project involves activities within a 100-year floodplain as delineated on the current effective Flood Insurance Rate Map ("FIRM") for Bristol County, dated July 16, 2015. In its role as the state coordinating agency for the National Flood Insurance Program ("NFIP"), DCR submits the following comments.

DCR's Flood Hazard Management Program ("FHMP"), under agreement with the Federal Emergency Management Agency ("FEMA"), is the state coordinating agency for the NFIP. As such, the FHMP provides technical assistance to communities that participate in the NFIP related directly to the program and also related to floodplain management in general. Communities that participate in the NFIP are required by FEMA, as a condition of their participation, to regulate development within the 100-year floodplain in a manner that meets or exceeds the minimum standards established by FEMA, located at 44 CFR 60.3. Participating communities such as Fairhaven are required to adopt the NFIP requirements through locally enforceable measures. In Massachusetts, many of the requirements contained in 44 CFR 60.3 are enforced through existing state regulations such as the State Building Code (780 CMR) and Wetlands Protection Act regulations (310 CMR 10.00). Communities typically adopt the remainder of the requirements as part of a zoning ordinance or other locally enforceable measure. Fairhaven has a zoning bylaw that includes a Floodplain District section which has been accepted by FEMA as meeting their requirements under the NFIP.

In our role as NFIP coordinator, the FHMP offers comments on the proposed Project's relationship to many of the above regulations and requirements. The FHMP does not directly administer any of these requirements and therefore does not provide official determinations as to compliance with them; rather, our comments are provided as an overview of the requirements and the documentation necessary to demonstrate compliance with these requirements.

The Project includes demolition and reconstruction of a single family dwelling. Based on information submitted with the ENF, the structure is located within the 100-year floodplain on the current effective FIRM, specifically a zone VE with a base flood elevation of 19 feet above North American Vertical Datum ("NAVD"). Because of its location in the 100-year floodplain, compliance with the requirements of several

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Governor

Karyn E. Polito
Lt. Governor

Matthew A. Beaton, Secretary, Executive Office of Energy & Environmental Affairs

Leo Roy, Commissioner
Department of Conservation & Recreation

federal, state and local measures related to floodplain development is required. The Massachusetts State Building Code (780 CMR) Ninth Edition, includes specific standards for structures newly constructed or substantially improved in the floodplain.

Information in the ENF, and supplemental information provided by the proponent, indicates that there is a concrete slab proposed at grade beneath the residence. We encourage the proponent to consider other design options for this part of the structure. Concrete slabs have been shown to increase the effects of scour and also to transfer loads to the foundation, often leading to failure. If the slab is constructed, it must meet the requirements of the Building Code, Section R322.3.3. Other resources that may be helpful include ASCE 24-14, Sections 9.3 and C9.3; FEMA's Coastal Construction Manual, Volume II, Chapter 9, Designing the Building; and FEMA's Technical Bulletin 5, Free-of-Obstruction Requirements. In addition, given the impacts of recent storms, DCR questions the advisability of rebuilding in a floodplain and a VE zone.

DCR appreciates the opportunity to comment on the ENF. If you have any questions regarding these comments, or to request additional information or coordination with DCR, please contact Eric Carlson at (617) 626-1362.

Sincerely,

Leo P. Roy
Commissioner

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
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April 26, 2018

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MEPA

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

RE: Proposed Seawall Improvements, 16 Wilbur's Point Drive, Fairhaven (EEA #15840)

Dear Secretary Beaton,

The staff of the Massachusetts Board of Underwater Archaeological Resources has reviewed the above referenced project's ENF (EEA#15840) and supporting materials prepared by N. Douglas Schneider & Associates, Inc., on behalf of Sherry L. Gomes. We offer the following comments.

The Board has conducted a preliminary review of its files and secondary literature sources to identify known and potential submerged cultural resources in the proposed project area. No record of any underwater archaeological resources was found. Based on the results of this review, previous disturbance, and the nature of the proposed project, the Board expects that this project is unlikely to impact submerged cultural resources.

However, the Board notes the level and diversity of maritime commercial, military, and recreational activities throughout the New Bedford/Fairhaven areas waterfront may have resulted in the creation of a number of undocumented and anonymous underwater archaeological sites such as small craft, derelict vessels, or dumpsites. Although unlikely, such sites could be encountered during the course of the proposed project activities. Therefore, 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 affects and notify the Board, as well as other appropriate agencies, immediately in accordance with the Board's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources.*

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

Sincerely,

Victor T. Mastone
Director

/vtm

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