Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only
EEA#: 16283
MEPA Analyst: Anne Canaday

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Towns of Marshfield & Duxbury Beach and Dune Nourishment		
Street Address: Various		
Municipality: Marshfield & Duxbury	Watershed: Atlantic Ocean	
Universal Transverse Mercator Coordinates:	Latitude: 42 06' 23.75" N Longitude: 70 39' 19.35" W	
Estimated commencement date: Winter 2023	Estimated completion date: TBD	
Project Type: Beach and Dune Nourishment	Status of project design: 85 %complete	
Proponent: Towns of Marshfield & Duxbury		
Street Address: See attached Addendum A		
Municipality:	State:	Zip Code:
Name of Contact Person: Leslie Fields		
Firm/Agency: Woods Hole Group, Inc.	Street Address: 107 Waterhouse Rd.	
Municipality: Bourne	State: MA	Zip Code: 02532
Phone: 508-495-6240	Fax: 508-540-1001	E-mail: lfields@whgrp.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☒Yes ☐No

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))	☒Yes ☐No
a Special Review Procedure? (see 301CMR 11.09)	☐Yes ☐No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☒Yes ☐No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes ☐No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

11.03(1)(a)1, 11.03(3)(a)1.b, 11.03(3)(b)1.a, 11.03(3)(b)1.e, 11.03(3)(b)4

Which State Agency Permits will the project require?

DEP Chapter 91 Waterways Permit, CZM Federal Consistency Determination

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:
CZM CR FY20 Grant for $175,842. Additional grant monies will be sought in the future.

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	90.85 acres		
New acres of land altered		72.25 acres = sum of footprints above MLW	
Acres of impervious area	0	0	0
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		18.6 acres = sum of footprints below MLW	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WASTEWATER			
Water Use (Gallons per day)	N/A	N/A	N/A
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	N/A	N/A	N/A
Length of water mains (miles)	N/A	N/A	N/A
Length of sewer mains (miles)	N/A	N/A	N/A

Has this project been filed with MEPA before?
☐ Yes (EEA #___) ☒No

Has any project on this site been filed with MEPA before?
☒ Yes (EEA #'s: **see below**) ☐ No

Duxbury Seawalls Phase 1 and Revetment
Ocean Rd. South & North, Cable Hill Way, Gurnet Road, Bay Avenue
Town of Duxbury as Applicant
12/26/2018
EEA No. 15957

Foster Avenue Revetment Improvement = *S end of Sunrise Beach*
Foster Ave. From 2nd Road to 7th Road
Town of Marshfield as Applicant
06/10/2019
EEA No. 16045

Foster Ave Seawall Revetment Project = *N end of Sunrise Beach*
Foster Ave from 5th Rd to Old Beach Rd
Town of Marshfield as Applicant
09/09/2015
EEA No. 15415

Seawall Revetment Project = *Fieldston Beach*
Surf Ave – Between Old Beach Road and Rexhame Road
Town of Marshfield as Applicant
09/05/2012
EEA No. 14956

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

Development in the Towns of Marshfield and northern Duxbury consists of single-family homes and some commercial development on small lots located directly along the shoreline. In Marshfield, this development extends along most of the town's 4.7 miles of east facing shoreline. In Duxbury, the northern 0.80 mile of the shoreline is developed. Over the years seawalls and revetments have been built to protect the properties from ongoing erosion. Within the Town of Marshfield, approximately 82.5% (i.e., 3.9 miles) of the east facing shoreline is armored, and in Duxbury 91.3% (i.e., 0.7 miles) of the developed barrier beach is armored. Most of these seawalls and revetments are publicly owned and maintained. The shore protection structures have caused a loss of sediment to the littoral system, a gradual retreat of the shoreline, and a lowering of the beach elevation. During storms, the public and private infrastructure behind the seawalls and revetments is subject to damage from wave overtopping and flooding and the shore protection structures becoming increasingly compromised.

Describe the proposed project and its programmatic and physical elements:

The Towns of Marshfield and Duxbury applied for and received a CZM Grant in FY20 for $175,842 to fund field data collection, an alternatives analysis, and initial permitting for beach and dune nourishment at suitable beaches. A previous CZM Grant (FY18) ($36,000) funded an evaluation of beneficial reuse opportunities for material dredged annually from Green Harbor by the US Army Corps of Engineers.

The proposed project includes beach and dune nourishment at four (4) locations:

- **Rexhame Public Beach (Marshfield)**
- **Winslow Ave Beach (Marshfield)**
- **Fieldston & Sunrise Beaches (Marshfield)**
- **Bay Ave (Marshfield) and Gurnet Rd (Duxbury) Beaches**

The project triggers the requirement for an Environmental Impact Report (EIR) pursuant to

- **301 CMR 11.03(1) (a)1 as it will directly alter more than 50 acres of land,**
- **301 CMR 11.03(3)(a)1.b as a state Permit is needed for the project and it will alter more than 10**
- **acres of wetland other than salt marsh or bordering vegetated wetland.**

However, a waiver from the requirement for an EIR is being requested pursuant to 301 CMR 11.11. The Towns contend that preparation of an EIR would result in an undue hardship since the extra time Required to prepare an EIR would delay issuance of the permits that would result in lost opportunities for accepting sediment as beneficial reuse from nearby dredging projects. Additionally, the extra review time with an EIR could lead to missed funding and other cost share opportunities that would be used to offset costs associated with project construction and monitoring.

See Sections B, D & E for further details.

NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

Alternatives for enhancing shoreline resiliency were evaluated at fourteen (14) different beaches along the Marshfield and northern Duxbury shoreline. Alternatives considered included the following: (a) maintain existing management approach – status quo, (b) enhance and/or enlarge existing seawalls and revetments, (c) offshore breakwaters, (d) beach nourishment, (e) dune nourishment, (f) intertidal boulder field, (g) constructed reefs, and (h) managed retreat.

For beaches where soft, nature-based approaches using beach and dune nourishment were determined to be feasible, engineering designs were evaluated, and a preferred alternative was selected for permitting through this Expanded Environmental Notification Form (EENF). Other hard or hybrid options will require further study and engineering design, and therefore are not included as part of this permitting request. See Section D for further details.

NOTE*: The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

Mitigation measures proposed are directed toward avoiding and minimizing impacts during and after construction, and include the following (See Section F for further details):

- **Time of year restrictions will be followed for protection of endangered species.**
- **Equipment access for all beach and dune nourishment will utilize existing beach access ways.**
- **Nourishment footprints have been designed to avoid direct impacts to rocky intertidal resources. Where direct impacts are unavoidable, rocky intertidal habitat will be replicated within the nourishment footprint.**
- **Nourishment sediments compatible with existing beach and dune sediments have been specified.**
- **The nourishment footprint for the Bay Ave beach has been shortened to minimize impacts caused by increased shoaling at Green Harbor. Nourishment sediments at the northern end of Bay Ave will be predominantly cobble and gravel to minimize northerly transport towards the Harbor.**
- **Beach and dune slopes have been designed to meet habitat requirements for threatened and**
- **endangered nesting shorebirds.**
- **Beach grass plantings will only be conducted landward of the dune crest to maintain appropriate shorebird habitat.**

If the project is proposed to be constructed in phases, please describe each phase:

The project will be constructed in phases, as funding and material (i.e., large volumes of sediment for nourishment) are obtained. Once the project is fully permitted, the Towns will be able to receive sediment dredged annually from Green Harbor by the US Army Corps of Engineers. Nourishment materials will be directed to permitted beach areas in need of improved resiliency, or in response to significant erosion following storms.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

☐ Yes (Specify_____)

☒ No

if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;
If yes, describe how the project complies with this plan.

_____

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes ___ No;
If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

_____

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)