

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

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

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: Polpis Harbor Oyster Restoration and Salt marsh stabilization, Nantucket, MA		
Street Address: Medouie Creek, adjacent water body, Nantucket MA 02554		
Municipality: Nantucket	Watershed: Polpis Harbor	
Universal Transverse Mercator Coordinates: 415170.29E, 4573247.05N	Latitude:41.306225 Longitude:-70.013356	
Estimated commencement date: July-August 2021	Estimated completion date:September 2021	
Project Type:Oyster Restoration	Status of project design: 100 %complete	
Proponent: Nantucket Conservation Foundation and Town of Nantucket Natural Resources Department		
Street Address: 118 Cliff Rd		
Municipality: Nantucket	State: MA	Zip Code: 02554
Name of Contact Person: Jennifer Karberg		
Firm/Agency: Nantucket Conservation Foundation	Street Address: 18 Cliff Rd	
Municipality: Nantucket	State: MA	Zip Code: 02554
Phone: 508-228-2884	Fax:	E-mail: jkarberg@nantucketconservation.org

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 301 CMR 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)?

301 CMR 11.03(3)(b)(1)€ - new fill or structure or Expansion of existing fill or structure, except a pile-supported structure, in a velocity zone or regulatory floodway

Which State Agency Permits will the project require?

Wetlands permit, Chapter 91, DMF Special Permit, Coastal Zone Management review, Natural Heritage and Endangered Species Program Review

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: NA

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	NA		
New acres of land altered		NA	
Acres of impervious area	NA	NA	NA
Square feet of new bordering vegetated wetlands alteration		NA	
Square feet of new other wetland alteration		850	

Acres of new non-water dependent use of tidelands or waterways		NA	
STRUCTURES			
Gross square footage	NA	NA	NA
Number of housing units	NA	NA	NA
Maximum height (feet)	NA	NA	NA
TRANSPORTATION			
Vehicle trips per day	NA	NA	NA
Parking spaces	NA	NA	NA
WASTEWATER			
Water Use (Gallons per day)	NA	NA	NA
Water withdrawal (GPD)	NA	NA	NA
Wastewater generation/treatment (GPD)	NA	NA	NA
Length of water mains (miles)	NA	NA	NA
Length of sewer mains (miles)	NA	NA	AM
Has this project been filed with MEPA before? ☐ Yes (EEA # _____) ☒ No			
Has any project on this site been filed with MEPA before? ☒ Yes (EEA # <u>14258</u>) ☐ No			

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

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

Polpis Harbor is connected by a periodically dredged channel to Nantucket Harbor. The project area is Located on the northern shore of the eastern lobe of Polpis Harbor and is tidally influenced with a high And low tide twice a day. The project area is flowed tidelands adjacent to a large salt marsh area That was restored through the removal of a tidal restriction in 2008. The salt marsh restoration was Highly successful, results published in the Journal Wetlands June 2018. We field measured multiple Parameters of existing conditions during summer 2020, results found in the attached Project Description. The proposed project area is relatively shallow with average water depths at 1.3ft 100% of sampled days. The site is easily accessible for monitoring, deployment and maintenance with a parking lot and dock nearby.

This area is ideal for oyster restoration. The sampled bottom type consists of sand and mucky soft Sediments with little habitat value. No submerged aquatic vegetation was sampled in the proposed Project area and the only shellfish observed were a few mussels. The measured environmental conditions Within the proposed site are within conditions deemed suitable for oysters. The only element missing Is substrate, which this project will provide through the placement of the oyster castle reef. The project Site was determined through consultation with biologists from the Town of Nantucket Natural Resources Department to ensure appropriate water quality and substrate type and avoid interference with Navigational or existing fisheries.

This location was also chosen due to its proximity to a large salt marsh. The salt marsh has been Experiencing salt marsh dieback due to overgrazing of salt marsh grasses by the native purple marsh Crab. This dieback has been ongoing for ~5-7 years. Two years ago we started a restoration research Project to reduce crab populations and facilitate native grass colonization. This has been working well but Will take time. In the mean time, this oyster reef placement is designed to buffer the salt marsh shore from Constant wave impact and storm impact to reduce the erosion of exposed salt marsh sediments.

Describe the proposed project and its programmatic and physical elements: _____

Please see attached Project Description.

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:

The proposed project is an ecological restoration project designed to improve conditions both within the Harbor and provide erosional protection to the adjacent salt marsh. This location was selected to perform A particular ecological restoration function: provide buffering to an impacted salt marsh shoreline with the Added benefit of providing oyster habitat. While salt marsh dieback may occur in other areas of the Harbor, other areas were not considered alternatives because we have current research and restoration At this site that will dovetail with this restoration. The site also meets key criteria necessary for a

Successful project:

1. Shallow but permanently sub-tidal conditions
2. No navigational concerns
3. Away from harbor users
4. Associated with current research/restoration and adjacent to property owned by the Nantucket Conservation Foundation
5. In an area of no eelgrass or other shellfish populations

The site is adjacent to land owned by the Nantucket Conservation Foundation and this project will be managed by NCF science and stewardship staff with oversight from the MA in Lieu-Fee Program. Meeting the above criteria should allow for successful project deployment, favorable growing conditions for oysters, ease of monitoring and management and allow the project to contribute significant ecological benefits. Review by local, state and federal agencies will ensure that negative ecological impacts are small relative to anticipated ecological benefits of the restoration project.

While this project derives a lot of benefit from the oyster community establishment, the oyster benefits are only one part of the research.

The primary purpose of this small scale research project is providing buffering to an impacted salt marsh to prevent future erosion while restoration actions occur. To provide that buffering we propose the small three linear reefs constructed using the oyster castles. These castles are ideal and were chosen over other hard oyster substrate because of a reef's ability to absorb wave action and reflect it in multiple directions. Because of the angles of the oyster castle and the spaces within them, an oyster castle reef does not act as a hard refractive wall. Combined with the more natural wave refraction and the ecological benefit of the oysters, this option proved the most ecologically viable to protect the marsh from erosion. This project will be monitored extensively to document the use of this method in future salt marsh protection.

Alternatives:

A hard linear breakwater would protect the salt marsh but could potentially lead to negative erosion impacts on adjacent property and would not provide the added oyster habitat benefit.

Providing oyster habitat on shell and cultch would be another alternative. The softness of the sediment would make constructing a shell bag reef with enough structure to protect the salt marsh from erosion would be difficult. This option would provide oyster habitat but would most likely not protect the salt marsh.

Not conducting this restoration project will potentially lead to further erosion of the salt marsh shoreline. This project will serve as a pilot project to track how successful this project will be at improving ecological function and shoreline resilience while monitoring any potential adverse impacts.

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:

No mitigation is planned since this project explicitly aims to improve habitat and ecological conditions of the site and adjacent salt marsh.

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

_____ NA _____