

**Commonwealth of Massachusetts**

**Executive Office of Environmental Affairs ■ MEPA Office**



**Environmental Notification Form**

<i>For Office Use Only</i> <i>Executive Office of Environmental Affairs</i>	
EOEA No.:	14265
MEPA Analyst:	Holly Johnson
Phone: 617-626-	X1023

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: <i>Nonquitt Salt Marsh Restoration Project</i>		
Street: <i>Mattarest Lane</i>		
Municipality: <i>Dartmouth</i>	Watershed: <i>Buzzards Bay</i>	
Universal Transverse Mercator Coordinates: <i>Easting: 338460.15; Northing: 4601639.73</i>	Latitude: <i>41.550118 N</i> Longitude: <i>70.936291 W</i>	
Estimated commencement date: <i>10/2008</i>	Estimated completion date: <i>5/2009</i>	
Approximate cost: <i>\$500,000</i>	Status of project design: <i>80</i>	%complete
Proponent: <i>Dartmouth Natural Resources Trust</i>		
Street: <i>P.O. Box P17 404 Elm Street</i>		
Municipality: <i>Dartmouth</i>	State: <i>MA</i>	Zip Code: <i>02748</i>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <i>Sam Whitin</i>		
Firm/Agency: <i>EA Engineering, Science, and Technology, Inc.</i>	Street: <i>2350 Post Road</i>	
Municipality: <i>Warwick</i>	State: <i>RI</i>	Zip Code: <i>02886</i>
Phone: <i>(401) 736-3440, ext 207</i>	Fax: <i>(401) 736-3423</i>	E-mail: <i>swhitin@eaest.com</i>

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) 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

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): *Project proponent is the landowner, the Dartmouth Natural Resources Trust, with assessment, design and permitting funding obtained from the New Bedford Harbor Trustee Council (EOEEA, NOAA and USFWS)*

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

List Local or Federal Permits and Approvals: U.S. Clean Water Act S. 404 Permit (*U.S. Army Corps of Engineers*), Section 10 Permit – Rivers and Harbors Act of 1899 (*U.S. Army Corps of Engineers*), Order of Conditions – M.G.L. Ch. 131, s.40 and Municipal Bylaws (*Dartmouth Conservation Commission*)

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land   | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water  | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                              |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste                     |
| <input type="checkbox"/> ACEC   | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources       |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/Extension Permit <input checked="" type="checkbox"/> Other Permits (including Legislative Approvals) – Specify:  <i>MA CZM Consistency Review Statement</i>
Total site acreage	90± acres			
New acres of land altered		0		
Acres of impervious area		0		
Square feet of new bordering vegetated wetlands alteration		See Attached Project Narrative		
Square feet of new other wetland alteration		See Attached Project Narrative		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	0	0	0	
Number of housing units	0	0	0	
Maximum height (in feet)	NA	NA	NA	
<b>TRANSPORTATION</b>				
Vehicle trips per day	20	0	20	
Parking spaces	0	0	0	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	0	0	0	
GPD wastewater generation/treatment	0	0	0	
Length of water/sewer mains (in miles)	0	0	0	

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify \_\_\_\_\_)  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify \_\_\_\_\_)  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes See MA-NHESP letter dated 9 November 2005 in Attachment J – Priority Habitat/Estimated Habitat (PH 1703/WH 4125, MA Natural Heritage Atlas, 11<sup>th</sup> Edition; PH 1232/EH 821, MA Natural Heritage Atlas, 12<sup>th</sup> Edition).

No

**HISTORICAL /ARCHAEOLOGICAL RESOURCES:** Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify \_\_\_\_\_)  No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_)  No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_)  No

**PROJECT DESCRIPTION:** The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (You may attach one additional page, if necessary.)

*The project site, known as Nonquitt Marsh, is a 90+-acre estuary system located in South Dartmouth, Massachusetts that has been tidally restricted from Buzzards Bay for more than a century. The marsh system is hydrologically connected to Buzzards Bay by two culverts and open channels at the southern end of the system. Because Nonquitt Marsh has been tidally restricted for a very long time period, the marsh has undergone severe degradation, with substantial loss in the ecological functions, and values of the marsh.*

*Nonquitt Marsh, like many other tidally-restricted marshes, has been disturbed and affected by alterations in hydrology associated with construction of a road and by a dysfunctional water conveyance structure that is in near total disrepair and frequently becomes clogged. As a result of the lack of adequate tidal flushing, Nonquitt Marsh is now primarily unvegetated peat/mudflats, and poorly flushed open water habitat. The brackish/freshwater wetland vegetation has invasive species components including common reed (*Phragmites australis*) and open water areas have seasonally low dissolved oxygen levels that substantially affect the aquatic biota community within this restricted estuary-marsh complex.*

*The project proponents include the New Bedford Harbor Trustee Council (NBHTC) that includes the Executive Office of Environmental and Energy Affairs, the National Oceanic and Atmospheric Administration, and the U.S. Fish and Wildlife Service. The stated objective of the Nonquitt Marsh restoration project is to increase the ecological integrity of the marsh system to address natural resource injuries from the nearby New Bedford Harbor polychlorinated biphenyl contamination. The NBHTC, through NOAA, contracted with EA Engineering, Science, and Technology, Inc. to prepare a feasibility study (FS) to restore and enhance the marsh in providing important ecological functions. The FS, completed in April 2004, identified and assessed a number of conceptual design alternatives to restore Nonquitt Marsh and included conceptual plans and costs for each alternative (See Attachment C, CD-ROM).*

*A supplemental hydrologic/hydraulic analysis was completed as part of the Nonquitt Marsh Restoration Project in July 2007 (See Attachment D). This analysis supplemented information from the 2004 FS. Specifically, the supplemental analysis included: (1) the development of the hypsometry of the Nonquitt Marsh system, (2) a modeling assessment of the effects of varying the open channel dimensions on the potential water levels within and the wetting and drying cycles of Nonquitt Marsh, and (3) an evaluation of improved culvert design alternatives between Buzzards Bay and Nonquitt Marsh. This information was reviewed by the project partners and discussed extensively in pre-application with technical staff from MA DEP and MA OCZM. The technical guidance from MA DEP and OZM was used in developing the project plans, included, herein.*

*Input on the project design has been provided by the Council's Technical Advisory Committee and project partners including NOAA, Dartmouth Natural Resources Trust, Town of Dartmouth, Massachusetts Wetlands Restoration Program, and the Nonquitt Proprietors community. The project team currently proposes to increase tidal exchange in the marsh, in order to achieve project objectives, by replacing the existing inlet culvert with an open tidal channel and new road crossing culvert with a water management structure. The entrance will consist of an open channel and a new quadruple box culvert at the inlet crossing for Mattarest Lane. The proposed channel will be excavated to -3-ft NGVD and have a width of approximately 23.8-ft at MTL and 29.2-ft at MHW. The sides of the channel seaward of Matteredest Lane will be stabilized with standard stone armoring and a geotechnical fabric and gravel underlayer. Channel armor will extend seaward no more than the MHW elevation on Nonquitt Beach. Landward of Matteredest Lane the channel slopes will be constructed of bioengineered materials only. Project Plans are included as Attachment E of this submittal.*

*The proposed work involves the mechanical excavation of a total of approximately 3,050 cubic yards of material to improve the existing inlet channel to the marsh. Approximately 2,280 cubic yards of excavated materials will be reused (See Attachment G) in the project area to replenish existing coastal beach area that was previously authorized for beach replenishment. Approximately 210 cubic yard of the material excavated from the landward side of Mattarest Lane will be placed in the project area to construct the open channel in the restored marsh that will support a low marsh vegetation community. Excess excavated material (e.g. approximately 560 yd<sup>3</sup>) will be disposed of in an off-site upland landfill in accordance with all applicable solid waste regulations.*

*This design approach will require minimal manipulation and maintenance and will result in minimal channel maintenance (due to greater unimpeded flow) to achieve the natural resource and habitat restoration goals and fulfill the project objectives. The increase in tidal exchange as a result of this construction will result in the restoration of approximately 80 acres of salt marsh habitat, improve habitat linkages between the estuary and marsh complex and Buzzards Bay, enhance fish, wildlife, and macroinvertebrate habitat, and contribute to the control of invasive non-native plant species. Furthermore, the inclusion of a water management structure on the proposed replacement culvert will allow adaptive management of water elevations to potentially enhance the ecological services of this restored tidal marsh.*

*Additional details on the alternatives analysis, the proposed project, expected ecological benefits and potential mitigation measures can be found in Attachment B, Project Narrative, Attachment C (Nonquitt Salt Marsh Restoration Feasibility Study), and Attachment D (Nonquitt Marsh Restoration Supplemental Hydrologic/Hydraulic Analysis), attached.*