The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Deval L. Patrick
GOVERNOR

Timothy P. Murray
LIEUTENANT GOVERNOR

Ian A. Bowles
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
http://www.mass.gov/envir

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

PROJECT NAME	: Nonquitt Salt Marsh Restoration Project
PROJECT MUNICIPALITY	: Dartmouth
PROJECT WATERSHED	: Buzzards Bay
EOEA NUMBER	: 14265
PROJECT PROPONENT	: **Dartmouth** Natural Resources Trust
DATE NOTICED IN MONITOR	: June 25, 2008

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project consists of the restoration of a severely degraded 90+-acre estuary, Nonquitt Marsh, in the Town of Dartmouth. This marsh has been tidally restricted for more than a century. The project aims to improve the ecological integrity and health of the marsh system in accordance with directives associated with the Final Restoration Plan issued for the Superfund site designation of New Bedford Harbor. The project will replace the existing marsh culvert with an open tidal channel, convert the existing culvert under Mattarest Lane with a four-barreled box culvert, and realign the open channel landward of Mattarest Lane. The increase in tidal exchange created by the project is anticipated to result in the restoration of approximately 80 acres of salt marsh habitat.

Estimated project impacts include both temporary and permanent alteration or conversion of coastal and inland resource areas.

Inland wetland impacts include:

- approximately 46 acres of indirect impact to Bordering Vegetated Wetlands (BVW) due to hydrologic alteration; and
- 5,345 square feet (sf) of permanent impact to Land Under Water (3,305 sf converted to Land Under Ocean (LUO) and 2,038 sf converted to Salt Marsh).

Coastal wetland impacts include:

- creation of 13,235 sf of LUO;
- 3,216 sf of permanent impact to Coastal Beaches (2,575 sf converted to LUO) and 51,870 sf of temporary impact to Coastal Beach associated with beach replenishment and dewatering;
- 2,935 sf of permanent impact to Coastal Banks (with 1,898 sf converted to LUO);
- 4,693 sf of permanent impact to Salt Marshes through the conversion to LUO;
- 2,083 sf of permanent impact of Land Under Water converted to Salt Marsh;
- 2,921 sf of temporary impact to Salt Marshes associated with construction access and staging areas;
- 1,748 sf of permanent impact to Land Subject to Coastal Storm Flowage (LSCSF) (with 761 sf converted to LUO); and
- 8,789 sf of temporary impact to LSCSF in the construction access and staging area.

The project site is mapped as *Priority* and *Estimated Habitat* by the Massachusetts Division of Fisheries and Wildlife Natural Habitat and Endangered Species Program (NHESP) according to the 12th Edition of the Massachusetts Natural Heritage Atlas.

Jurisdiction

The project is undergoing MEPA review pursuant to Section 11.03 (3)(b)(1)(a,c and d) because it requires a state permit and consists of alteration of a coastal dune and coastal bank, alternation of 1,000 or more square feet of salt marsh, and alteration of 5,000 or more square feet of BVW. The project will require a Chapter 91 (c.91) License and Section 401 Water Quality Certificate (WQC) from the Massachusetts Department of Environmental Protection (MassDEP), a Section 404 and Section 10 Permit from the U.S. Army Corps of Engineers (ACOE), and may require a federal consistency review statement from the Massachusetts Office of Coastal Zone Management (CZM). The project will require an Order of Conditions from the Dartmouth Conservation Commission, or in the case of an appeal, a Superseding Order of Conditions from MassDEP.

The project will receive funding for this project from the Executive Office of Energy and Environmental Affairs, the National Oceanic and Atmospheric Administration (NOAA) and the United States Fish and Wildlife Service via the New Bedford Harbor Trustee Council. Because State funding is involved, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment.

Review of the ENF

The ENF, along with supplemental materials submitted by the Proponent, included an alternatives analysis of both ocean-side and land-side channel locations, materials, and wetland impacts. The ENF provided a summary of potential environmental impacts, the results of a feasibility study conducted to facilitate project design, a hydrologic/hydraulic analysis, a sediment sampling analysis, a scour analysis, and a draft operation and maintenance plan. The feasibility study conducted to assist with the alternatives analysis included topographic/bathymetric mapping, plant community cover mapping and characterization, substrate characterization, and a hydrologic and hydraulic model for the site.

The Preferred Alternative presented in the ENF (and reiterated in the supplemental materials) consists of improving the functional capacity of the existing inlet by replacing the culverted inlet with an open lined tidal channel fitted with a water control structure at the Mattarest Lane crossing. The existing culvert, concrete headwall, and reinforced concrete pipe (RCP) will be removed and replaced with an open channel to a new box culvert comprised of four barrels at the inlet crossing for Mattarest Lane and continuation of the open channel for a distance of 315 feet. The ocean-side end and sideslopes of the channel will be stabilized with rip-rap armoring and a stone underlayer along with geo-textile filter fabric. Channel armor will extend seaward no farther than the Mean High Water (MHW) elevation on Nonquitt Beach.

The ocean-side channel and proposed box culvert have been aligned such that impacts to Coastal Dune would be avoided. As a result, the centerline of the proposed road crossing box culvert is offset by nearly 15 feet from the centerline of the existing tidal channel landward of Mattarest Lane. The supplemental ENF materials analyzed several channel design alternatives beyond that presented as the Preferred Alternative. Each of these additional alternatives, while reducing impacts to the salt marsh, required the placement of substantial amounts of stone armor to reduce erosion. The Preferred Alternative will mitigate some of the impact of realigning the channel by planting salt marsh vegetation along the edge of the relocated channel.

Construction processes will include the use of coffer dams and dewatering techniques, which will temporarily block tidal flows through the existing channel. The landward side of the new box culverts will be fitted with a flashboard adjustable weir to manage water levels in Nonquitt Marsh during the restoration process. Disposal areas for excavated materials will either include a nourishment area on the adjacent beach, an on-site marsh substrate amendment location, or an approved off-site disposal site. The project will have short-term (construction) monitoring and a long-term monitoring program to assess system response to the restoration of tidal exchange.

Wetlands, Waterways and Tidelands

In order to achieve the overall habitat restoration goals, the project will impact both inland and coastal resources to restore tidal flows to the marsh. Comment letters received from State agencies were supportive of the project and its habitat restoration goals. However, several details remain to be resolved during the MassDEP permitting processes. As noted by MassDEP,

the application for the 401 WQC should include an alternatives analysis in accordance with the applicable regulations. This alternatives analysis should address the continuing concerns expressed by MassDEP regarding the seaward extent of stone to maintain the proposed channel configuration to MHW. The Proponent should explore alternatives that may reduce the length and height of the stone at the terminal end of the channel to further reduce potential wetland resource area impacts.

The project will also require a new c.91 License for the proposed expansion of the box culvert and placement of rip-rap. The c.91 application should be prepared in accordance with the guidance provided in the MassDEP comment letter on the ENF. The c.91 License application should address the ongoing beach nourishment efforts, future maintenance of the channel, and public access provisions.

At the request of the Division of Marine Fisheries (*MarineFisheries*), the Proponent should establish a time-of-year (TOY) restriction prohibiting the closing of the entrance channel to the marsh from March 15th through June 15th to protect American eel (*Anguilla rostrata*) elver migration. Furthermore, during the construction period, equipment should be limited to the footprint of the construction site and activity in the intertidal area and salt marsh should be prohibited to the maximum extent practicable.

According to the draft Operation and Maintenance Plan in the ENF, the post-construction monitoring program will include routine field survey measurements of the tidal channel morphology and measurement of ecological changes in the marsh due to tidal exchange conditions. The ENF has indicated that these reports will be made available to the Nonquitt Salt Marsh Restoration Advisory Committee and regulatory agencies as specified by permits.

Rare Species

According to the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP), the project site and surrounding areas are mapped as *Priority* and *Estimated Habitat* for rare species. The NHESP has identified the site and its surroundings as containing the following species: Common Tern (*Sterna hirundo*), Roseate Tern (*Sterna dougallii*), and Least Tern (*Sterna antillarum*).

The NHESP comment letter noted that on November 9, 2005, the NHESP reviewed the proposed project pursuant to the Massachusetts Endangered Species Act (MESA) (321 CMR 10.18) and determined that the project, as currently proposed, will not result in a take and therefore does not require a Conservation and Management Permit pursuant to 321 CMR 10.23. The Proponent should, as requested by the NHESP, submit completed Rare Species Plant or Animal Observation Forms if state-listed species are observed on the project site and copies of future project revisions and monitoring reports of the restoration activities.

The review of the ENF has served to adequately disclose the potential impacts associated with this project. Although there are several outstanding issues that must be resolved, these

issues can be addressed during the permitting process. Based on the information in the ENF and after consultation with relevant public agencies, I find that no further MEPA review is required.

August 8, 2008
Date

Ian A. Bowles

Comments Received:

07/14/2008	Division of Marine Fisheries
07/15/2008	Division of Fisheries and Wildlife – Natural Heritage and Endangered Species Program
07/17/2008	Division of Fisheries and Wildlife – Natural Heritage and Endangered Species Program (2nd letter)
07/30/2008	Office of Coastal Zone Management
07/30/2008	Department of Environmental Protection - Boston

IAB/HSJ/hsj