Commonwealth of Massachusetts Executive Office of Environmental Affairs ■ MEPA Office

Environmental Notification Form

For Office Use Only Executive Office of Environmental Affairs

EOEA No.: 13696

MEPA Analyst: Briany Angus Phone: 617-626-1029

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.

he provisions of the Massachusetts Environmental r	Onoy 7101, 001 0111			
Project Name: Thompson Island Salt Marsh R		t		
Street: Thompson Island				
Municipality: Boston	Watershed: Atlantic Ocean			
Universal Transverse Mercator Coordinates:	Latitude: 42.314154			
J. 11	Longitude: -71.007625 (WGS 84)			
Estimated commencement date: 5/1/06	Estimated completion date: 5/5/06			
Approximate cost: \$35,000	Status of project		%complete	
Proponent: Thompson Island Outward Bound	Education Cente	<u>er</u>		
Street: P.O. Box 127				
Municipality: Boston	State: MA	Zip Code: 02127	······	
Name of Contact Person From Whom Copies	s of this ENF May	Be Obtained:		
Kathleen Miller				
Firm/Agency: Northern Ecological Assoc., Inc.	Street: 451 Pres	Zip Code: 04103	3	
Municipality: Portland	State: ME	E-mail: kmiller@ne		
Phone: 207-879-9496 Ext. 242 Fax: 20	17-879-9481	L-man. kiniiler@ne	amame.com	
Has this project been filed with MEPA before?	Yes Yes (EOEA No)	0	
Is this an Expanded ENF (see 301 CMR 11.05(7)) requal Single EIR? (see 301 CMR 11.06(8)) a Special Review Procedure? (see 301 CMR 11.09) a Waiver of mandatory EIR? (see 301 CMR 11.11) a Phase I Waiver? (see 301 CMR 11.11)	□Yes □Yes □Yes □Yes	✓ No ✓ No ✓ No	o o	
Identify any financial assistance or land transfer the agency name and the amount of funding or IZone Management funded an initial feasibility \$20,000 through its Wetlands Restoration Pro	iand area (in acres) y study for this pr ogram	roject for approxim	ately	
Are you requesting coordinated review with any ☐Yes (Specify:) ✓No			gency?	
List Local or Federal Permits and Approvals: No Massachusetts Wetlands Protection Act (M.C Massachusetts Endangered Species Act (M.C Section 404 permit (Programmatic General F	G.L.c.131 and 310 G.L.c.131A); U.S. /	Army Corps of Eng	ling ineers	

ACEC [I Reguliations	_ ✓	Historical &	Archaeological	
	Regulation		Resources		
Summary of Project Size	Existing	Change	Total	State Permits &	
& Environmental Impacts				Approvals	
,, <u>-</u>	AND			✓ Order of Conditions ☐ Superseding Order of	
Total site acreage	14.3			Conditions	
New acres of land altered		0.0091 ac (395 sq. ft.)		Chapter 91 License	
Acres of impervious area	N/A	0	0	Certification	
Square feet of new bordering vegetated wetlands alteration		0		MHD or MDC Access Permit	
Square feet of new other wetland alteration		0.115 ac (5009 sq. ft.)		☐ Water ManagementAct Permit☐ New Source Approval	
Acres of new non-water dependent use of tidelands or waterways		0		☐ DEP or MWRA Sewer Connection/ Extension Permit ☐ Other Permits	
STR	UCTURES			(including Legislative	
Gross square footage	N/A	N/A	N/A	Approvals) - Specify:	
Number of housing units	N/A	N/A	N/A	1	
Maximum height (in feet)	N/A	N/A	N/A		
TRANS	PORTATION	V			
Vehicle trips per day	N/A	N/A	N/A	1	
Parking spaces	N/A	N/A	N/A]	
WATER/V	VASTEWAT	ER			
Gallons/day (GPD) of water use	N/A	N/A	N/A]	
GPD water withdrawal	N/A	N/A	N/A	1	
GPD wastewater generation/ treatment	N/A	N/A	N/A		
Length of water/sewer mains (in miles)	N/A	N/A	N/A		

Rare Species, or Exemplary Natural Communities?
Yes (Specify: The project site is located entirely within Priority Habitat 720 (PH720). See attached Massachusetts Natural Heritage and Endangered Species Program (MA NH&ESP) correspondence.) □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: Thompson Island, in its entirety, is listed in the National and State Registers of Historic Places as a contributing element of the Boston Harbor Island Archaeological District, for its Native American archaeological sites and land use. See attached Massachusetts Historical Commission [MHC] correspondence.)
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.*) Thompson Island Outward Bound is proposing to restore a salt marsh/pond on Thompson Island (Figure 1, USGS Quadrangle Map Excerpt). The project involves removing a debris pile that prevents tidal flushing of an existing salt marsh/pond located on the southwest side of the island (Figure 2). Lack of daily tidal exchange has resulted in a stagnant waterbody with severe algae blooms and encroachment by the invasive plant, common reed (*Phragmites australis*).

Based on an alternatives analysis, and discussions with Massachusetts Wetlands Restoration Program, U.S. Environmental Protection Agency, NOAA Fisheries, and Thompson Island Outward Bound representatives, a Recommended Alternative was developed for the Project. The Project proposes to reestablish the tidal connection between the pond and the ocean along the southeastern shore of the pond where the existing debris pile has eroded and there is evidence of a historic stream channel. The Project would involve partial removal of the existing obstructions between the pond and the ocean, including man-made debris (e.g., rebar, old pipes, bricks, concrete), while minimizing disturbance to existing resources (Figure 3). Removed large rocks and boulders would be side cast onto the adjacent man-made debris pile. The main channel would be approximately 22 feet long (along the northwestsoutheast axis), and approximately 4-6 feet wide (along the northeast-southwest axis). The elevation of the channel thread will be lowered to elevation 4 feet NGVD 1929 and will be approximately three feet wide. Approximately 0.7 vertical feet of material would be removed and disposed of in an approved offsite location. The change in water level, resulting in an increase in inter-tidal zone, is shown in Figure 4. The center of the swale would remain native sand/gravel materials and be allowed to erode naturally with the tides and find it's preferred location (thread) and grade. The total estimated limit of work (i.e., square foot area of ground disturbance) associated with this alternative is 395 square feet.

The Project is expected to have positive environmental effects. By opening up the hydrologic connection to the ocean, diurnal tidal flushing will replenish the water in the pond twice daily, during normal high tides, and expose a fringe of mudflat habitat during low tides, while maintaining valuable aquatic habitat (Figure 4). Tidal flushing is expected to improve water quality in the pond, refreshing DO levels and preventing the occurrence of summer die-offs due to low oxygen levels, and also preventing the formation of thick green algal mats over much of the pond's surface during the growing season. Tidal flushing will also help to minimize or reverse the spread of *Phragmites australis*, and provide opportunity for the development of additional salt marsh habitat along the edge of the marsh. Water quality improvements are also expected to improve submerged aquatic vegetation habitat, allowing the continued spread of valuable aquatic species such at *Ruppia maritima*. Improved salt marsh and submerged aquatic vegetation habitat would provide important nursery and feeding habitat, and predator refugia for fish and nekton, while also providing abundant foraging opportunities for wildlife.