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July 11, 2008

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

PROJECT NAME : Red Brook Habitat Restoration  
PROJECT MUNICIPALITY : Plymouth and Wareham  
PROJECT WATERSHED : Buzzards Bay  
EOEA NUMBER : 14260  
PROJECT PROPONENT : Massachusetts Department of Fish and Game Riverways  
Program  
DATE NOTICED IN MONITOR : June 11, 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 restoration of the Red Brook, a 4.5-mile-long coldwater stream running from White Island Pond to Buttermilk Bay in Wareham and Plymouth, Massachusetts. The entire project area is contained within the Red Brook Reserve, a 638-acre preserve including the 210-acre Theodore Lyman Reserve and the 428-acre Red Brook Wildlife Management Area. Management of the Lyman Reserve is overseen by The Trustees of Reservations (TTOR), the Massachusetts Division of Fisheries and Wildlife (DFW), and Trout Unlimited. The project will include: the removal of three flumes and all associated levees, the addition of woody debris habitat, removal of a side-channel culvert, conversion of a casting pool to side-channel habitat, and a reduction of the Sandwich Road weir elevation.

Estimated project impacts include temporary impacts to 516 linear feet of Fish Runs, 516 linear feet of Bank, 2,464 square feet (sf) of Bordering Vegetated Wetlands (BVW), 512 sf of Land Under Water, 15,812 sf of Bordering Land Subject to Flooding (BLSF), and 16,562 sf of Riverfront Area. The ENF estimates that approximately 50 cubic yards (cy) of sediment will be passively and naturally redistributed as a result of the dike and flume removals. According to the 12<sup>th</sup> Edition of the Massachusetts Natural Heritage Atlas, the project is located within Priority and Estimated Habitat.

### Jurisdiction

The project is undergoing MEPA review pursuant to Section 11.03 (3)(b)(1)(b) because it requires a state permit and consists of alteration of 500 or more linear feet of bank along a fish run or inland bank. The project will require Orders of Conditions from the Wareham and Plymouth Conservation Commissions, or in the case of an appeal, a Superseding Order of Conditions from the Massachusetts Department of Environmental Protection (MassDEP). The project will also require a Section 404 Individual Permit from the U.S. Army Corps of Engineers (ACOE).

The project will be receiving funding for this project from the Massachusetts Riverways Program. Therefore, 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 included an alternatives analysis that compared the preferred alternative to a no-action alternative. The ENF described existing and proposed conditions within the project area, including flume cross-sections, elevations and results of sediment sampling analyses. The *Final Design Report* contained information about on-site groundwater and tidal influences, and the relationship of Red Brook to nearby cranberry farming operations. Additional information in the *Final Design Report* included the impacts of the preferred alternative on hydrology and hydraulics of Red Brook, sediment management efforts, and cost estimates. A construction access and earth disposal area plan was provided at the MEPA consultation session.

### Wetlands, Waterways and Tidelands

This restoration project is designed to convert this altered stream back to its natural state. The historic placement of the three flumes has fragmented the stream, inhibiting fish passage and altering sediment transport patterns. Red Brook supports a variety of fish species including eel, alewife, herring, and one of the last remaining native sea-run brook trout populations in the eastern United States. Sea-run brook trout, or "salters" migrate to and from Red Brook, feeding on small fish and macroinvertebrates in the estuary and near shore habitats. Comments received from state and federal agencies on this project were supportive of the restoration goals and overall habitat improvements proposed for Red Brook.

The Division of Marine Fisheries (DMF) acknowledges the importance of Red Brook for diadromous fish passage, migration and spawning. DMF has recommended a time-of-year

(TOY) restriction on all in-water work from March 15 to June 15 to protect spawning alewife (*Alosa pseudoharengus*) and American eel (*Anguilla rostrata*) elver migration. Based upon information shared at the MEPA consultation session, this TOY restriction does not appear to conflict with the anticipated construction period.

MassDEP has expressed concern regarding sediment management, particularly those sediments showing levels of arsenic, copper and mercury above threshold concentration levels. The ENF stated that approximately 50 cubic yards (cy) of sediment will be naturally redistributed to the casting pool, which will serve as the project's sediment collection basin. Sediment sampling has shown that levels of arsenic, copper and mercury are higher in the casting pool than those that will be naturally distributed as part of the flume removal. MassDEP has noted that sediment migration from upstream into the casting pool meets the anti-degradation requirements under 314 CMR 9.00. However, downstream of the casting pool in the estuary, sampling shows concentration levels to be either lower or undetectable in comparison to samples from upstream. The potential migration of sediments downstream beyond the casting pool may lead to a failure of the anti-degradation requirements of the Massachusetts Clean Waters Act. To avoid such potential degradation of downstream waters, MassDEP has suggested the physical removal of the sediment that contains high levels of arsenic, copper and mercury and disposal in an approved upland location in lieu of natural redistribution into the casting pool. I encourage the proponent to consult with MassDEP regarding disposal options.

#### 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: Eastern Box Turtle (*Terrapene carolina*), Common Tern (*Sterna hirundo*), Roseate Tern (*Sterna dougallii*), Pale Green Pinion Moth (*Lithophane viridipallens*), and Water-willow Stem Borer (*Papaipema sulphurata*). The NHESP has noted that it can work with the Proponent to minimize impacts to State-listed species. Additionally, the NHESP has stated that it anticipates that the project will not require a Conservation and Management Permit pursuant to 321 CMR 10.23. Furthermore, the project may qualify for a habitat management exemption pursuant to 321 CMR 10.14(11). The proponent should prepare a habitat management plan for protection of the Eastern Box Turtle during construction. This plan may require the inclusion of protective measures for the Pale Green Pinion Moths' wetland host plants. The proponent and the NHESP should continue to work together on the preparation of this habitat management plan and ways to minimize impact to rare species in association with the restoration of Red Brook.

#### Stormwater

The project includes the upland deposition of excess materials (mostly associated with the removal of the levees). Materials disposed of in these upland locations will not contain metals or other compounds in excess of threshold levels. At the MEPA site consultation session, the proponent noted two areas proximate to the areas of work that could be used for earth materials deposition. These are existing depressions, likely created during the original

construction of the levees as earth-borrow areas. These depressions will be filled in and graded to match adjacent grades. Given the proximity of these disposal areas to Red Brook, I encourage the proponent to utilize erosion and sedimentation Best Management Practices (BMPs) during the construction period to limit overland flow of stormwater runoff towards Red Brook. Additionally, these disturbed areas should be planted with appropriate native grasses promptly upon completion of earth-moving 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.

July 11, 2008

Date



Ian A. Bowles

Comments Received:

06/24/2008	Warren Winders, Red Brook Liaison, MA/RI Council of Trout Unlimited
06/30/2008	National Oceanic and Atmospheric Administration (NOAA) Restoration Center
07/01/2008	Division of Marine Fisheries
07/01/2008	Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program
07/01/2008	Massachusetts Department of Environmental Protection - Boston

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