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June 5, 2009

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

PROJECT NAME : Lower Ox Pasture Brook Dam Removal
PROJECT MUNICIPALITY : Rowley
PROJECT WATERSHED : Parker
EEA NUMBER : 14415
PROJECT PROPONENT : Massachusetts Department of Fish and Game –
Riverways Program
DATE NOTICED IN MONITOR : May 6, 2009

Pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I) 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).

As described in the Environmental Notification Form (ENF), the project consists of the removal of the Lower Ox Pasture Brook Dam and deteriorated concrete spillway for habitat restoration purposes. The Lower Ox Pasture Brook Dam is owned by the Massachusetts Division of Fish and Wildlife and is located within the 1,882-acre William Forward Wildlife Management Area. Removal of the dam and spillway will re-establish a stream channel through an upstream impoundment area and extend the tidal flushing regime beyond the dam. The project is designed to restore aquatic and riparian habitat, including improvement of upstream fish passage and spawning and foraging for rainbow smelt and other resident species. The ENF contemplated several project alternatives including a no-action alternative, construction of a fish

passage structure near the current spillway while leaving the existing dam in place, and the preferred alternative of full dam removal.

Estimated environmental impacts associated with the project include the temporary alteration of 0.18 acres of land, a net gain of 1.04 acres of Bordering Vegetated Wetlands (BVW) and a loss of 1.30 acres of Land Under Waterways. The project will also temporarily alter Bank, Fish Run, Bordering Land Subject of Flooding, and Riverfront Area. Approximately 316 cubic yards (cy) of rock and soil material will be excavated and disposed within upland areas of the project site. It is estimated that about 2,000 cy of the 15,000 cy of impounded sediment will be redistributed downstream using in-stream management of sediments to recreate a stream channel through the impoundment. The project site is adjacent to the Great Marsh Area of Critical Environmental Concern (ACEC). The dam is not considered a jurisdictional dam per the Office of Dam Safety, Department of Conservation and Recreation regulations. Comment letters from the Office of Coastal Zone Management, American Rivers, and the Parker River Clean Water Association have indicated strong support for the project in their comment letters on the ENF.

Jurisdiction

The project is undergoing MEPA review pursuant to Section 11.03(3)(b)(1)(f) because the project requires a State agency action and will alter ½ acre or more of Land Under Water. The project will require a Section 401 Water Quality Certificate (401 WQC) from the Massachusetts Department of Environmental Protection (MassDEP). The project will also require a Section 404 Permit from the United States Army Corps of Engineers (ACOE). Finally, the project will require an Order of Conditions from the Rowley Conservation Commission, or in the case of an appeal, a Superseding Order of Conditions from MassDEP.

The project is being undertaken by the Massachusetts Department of Fish and Game Riverways Program and will receive State funding. 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 as defined by the MEPA regulations.

Wetlands

Since the project is a dam removal and wetland restoration project, the project will directly alter (either permanently or temporarily during construction) a variety of wetland resource areas. Permanent wetland impacts were estimated in the ENF as: 67 linear feet (lf) of Bank within a Fish Run, 2,989 square feet (sf) of Land Subject to Coastal Storm Flowage, 45,302 sf net gain of BVW, and 56,628 sf of Land Under Water to be converted to BVW. Temporary wetland impacts include: 681 sf of Land Under Water within a Fish Run, 195 lf of inland Bank, 900 sf of Bordering Land Subject to Flooding, and 6,189 sf of Riverfront Area. Approximately 1,770 lf of inland Bank and 11,353 sf of Land Under Water will be restored in the former impoundment to provide increased spawning and foraging habitat for diadromous and resident fishes (i.e. a "Fish Run"). The ENF notes that this project is proposed under the limited project provisions of the Massachusetts Wetlands Protection Act regulations (310 CMR

10.53(4)). The project will require a 401 WQC from MassDEP and an Order of Conditions from the Rowley Conservation Commission. The Proponent should confirm that the proposed activities will not require a Chapter 91 permit from MassDEP. The Proponent should prepare an ongoing monitoring and reporting program to track the success of the overall restoration project.

MassDEP has provided several recommendations with regard to erosion and sedimentation control, fisheries impacts during drawdown, invasive species management, and dam removal, which should be considered by the Proponent during the permit application and review process. MassDEP has requested that the project monitoring program include monitoring for stranded fish during the impoundment drawdown period. An additional monitoring item should include the head-cut migration of the newly formed stream channel. MassDEP has recommended that once the location of the new stream channel has established, that banks be stabilized through the use of coir fibre logs, jute netting, or live fascines, where appropriate.

MassDEP has indicated that the project could benefit from the preparation of an invasive species management plan given the potential for invasive species establishment in those areas of the project where hydrologic changes are anticipated. An additional measure recommended by MassDEP to reduce the likelihood of invasive species colonizing the area is the appropriate methodology and timely broadcasting of seed from the upland edge of the impoundment. While the ENF has indicated that a conservation seed mix will be broadcast over approximately 3.4 acres of the former impoundment area, MassDEP has suggested that use of a wetland seed mix may be more appropriate adjacent to the stream channel. The Proponent should consider this design modification along with the potential use of mats of timber planking to assist in the broadcasting process in the permitting process.

The William Forward Wildlife Management Area is used for a number of activities, including horseback riding on a limited basis. The project site also has a history of all-terrain vehicle (ATV) usage, which is not an allowed use. The Proponent should continue to work with the management of the property to determine how the dam removal and restoration project can be designed to continue to facilitate certain permitted uses, discourage prohibited uses, and reach the overall wetland restoration goals of the project.

Hazardous Materials

As part of the dam removal engineering and design process, sediment samples were collected, analyzed and interpreted (both within the impoundment area and downstream) as per the requirements of 314 CMR 9.00, the 401 WQC regulations, and 310 CMR 40.0000, the Massachusetts Contingency Plan (MCP). Of all the contaminants tested, three metals (Arsenic, Chromium, and Nickel) and insecticides (DDE and DDD) were found at concentrations exceeding established risk thresholds for humans and ecology, respectively. As noted in the ENF, these contaminants were found both upstream and downstream of the impoundment in lower concentrations. While gradual release of these contaminated sediments may have minor environmental impacts, after meetings with MassDEP and other interested parties, this method of release was chosen as the preferred disposal option. Alternative dredging methods, such as excavation or suction removal of sediments, were dismissed as those processes would require

more extensive access, staging areas, and construction activities within wetland resource areas to facilitate sediment removal.

A 401 WQC is required for the in-stream management of sediment, which is considered dredging under 314 CMR 9.00. Additionally, the removal of approximately 316 cy of rock and soil from the stream and embankments are proposed for disposal on-site. The 401 WQC application should address the location of this spoils area, preferably in an upland area that is graded to avoid erosion and sedimentation into wetland resource areas. I anticipate that the Proponent will continue to work with MassDEP during the 401 WQC process to determine appropriate construction and management protocols, as well as monitoring requirements.

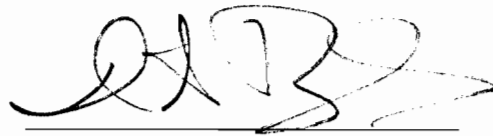
Construction Period Impacts

The preferred alternative presented in the ENF has strived to avoid, minimize and mitigate potential construction period impacts by tailoring the construction methodology and sequencing to the sensitive nature of the site. I anticipate that time of year (TOY) restrictions will be implemented to limit potential impact to the in-stream species and that erosion and sedimentation controls will be established and approved in the local Order of Conditions and 401 WQC.

Based on the information in the ENF and after consultation with relevant public agencies, I find that no further MEPA review is required at this time. The project may proceed to State permitting.

June 5, 2009

Date



Ian A. Bowles

Comments received:

05/13/2009	Massachusetts Office of Coastal Zone Management
05/13/2009	Parker River Clean Water Association
05/22/2009	American Rivers
05/26/2009	Massachusetts Department of Environmental Protection - NERO

IAB/HSJ/hsj