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CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
SINGLE ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: Acushnet River Fish Passage Restoration
PROJECT MUNICIPALITY	: Acushnet
PROJECT WATERSHED	: Buzzards Bay
EOEA NUMBER	: 13074
PROJECT PROPONENT	: Division of Marine Fisheries
DATE NOTICED IN MONITOR	: April 10, 2006

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Single Environmental Impact Report (SEIR) submitted on this project and find that it **adequately and properly complies** with MEPA and its implementing regulations.

Project Description

As described in the ENF, the project consists of restoring anadromous fish passage along a 4-mile stretch of the Acushnet River as part of the River Restore Program of the Executive Office of Environmental Affairs (EOEA). This program promotes dam removal to restore the habitat of fish and other species that rely on flowing water for survival and to improve sediment transport and water quality throughout the river. The project proponent is the Massachusetts Division of Marine Fisheries (DMF). The project is being funded by the New Bedford Harbor Trustees Council to address natural resources injured by the PCB contamination of New Bedford Harbor.

The Hamlin Street Dam is a 15-foot high, 300-foot long dam with a 3-foot hydraulic head that also serves as a roadway. It was constructed in 1920 and is adjacent to an historic factory building. The dam is owned by the Town of Acushnet and is in need of long term structural work to address settling and deterioration of the stone masonry abutments and retaining walls. Three deteriorating concrete and stone masonry weirs are located upstream of the three bridge openings. The impoundment created by the dam is approximately 6.5 acres and includes open water as well as wetlands. Weir structures, fitted with stop logs, control the water level in the impoundment. The dam is a barrier to fish passage although the eastern culvert can support fish runs during certain flows.

The Sawmill dam is a privately owned, unused industrial dam located on the Acushnet River. It is an earthen dam with a 108-foot long concrete spillway. A functioning headrace bypasses a portion of the river's flow around the main spillway and conveys all flow during low flow periods. Immediately downstream of the dam, the river has been channelized between stone walls for approximately 400 feet before it returns to a natural reach. A 9.5 acre impoundment has been created by the dam. It includes areas of open water as well as wetlands. The dam is bordered to the northeast by an operating cranberry bog that relies, in part, on water from the Acushnet River for supplemental irrigation and flooding.

The project consists of two phases. Phase I, Hamlin Street Dam Eastern Sill Removal, consists of removing the weir located upstream of the eastern culvert. It requires the excavation of approximately 8 cubic yards (cy) of concrete and backfill material and upstream and downstream extension of the channel. In-stream armoring and/or bioengineering will be included in the design to mitigate the potential for riverbank erosion along the downstream eastern river's edge. The alternatives analysis conducted for the Hamlin Street Dam identified full bridge reconstruction as the preferred alternative for maximizing fish passage; however, funds are not available and no timeline has been identified for its replacement by the Massachusetts Highway Department (MHD). Phase I is proposed as an interim solution for Hamlin Street until bridge replacement is feasible.

Phase II, Modified Partial Breach of Sawmill Dam, consists of a partial breach of the existing dam. The alternative presented in the Expanded ENF consisted of constructing a transition channel through the dam face that would continue upstream as a shallow riffle. This alternative has been revised to minimize environmental impacts by eliminating the upstream riffle and creating a flow constrictor/step pool structure that extends 200 feet from the downstream side of the spillway. The project includes dredging and reuse of approximately 334 cy of concrete, stone, gravel and organic material and use of 1,300 cy of clean, granular fill for the construction of the flow constrictor/step pool, closure of the existing fish ladder, bank stabilization, creation of a point bar along the downstream face of the spillway and closure of the headrace.

Permits and Jurisdiction

The project is undergoing MEPA review pursuant to Section 11.03 (3)(a)(4) because it requires a state permit and involves a structural alteration of an existing dam that causes a decrease in impoundment capacity. The project requires a Chapter 91 license and a 401 Water Quality Certificate from the Department of Environmental Protection (DEP). It may require a

Beneficial Use Determination (BUD) permit from DEP as well. It requires a Special Permit from DMF for work involving anadromous fish passages, a Chapter 253 Dam Safety Permit from the Department of Conservation and Recreation (DCR) and Section 106 Review by the Massachusetts Historical Commission (MHC). Also, it requires an Order of Conditions from the Acushnet River Conservation Commission (and hence a Superseding Order from DEP if the local Order were appealed). The project requires a 404 General Program Category II Permit from the U.S. Army Corps of Engineers (ACOE). It may require federal consistency review from Coastal Zone Management (CZM). Because the proponent is a state agency, MEPA jurisdiction extends to all aspects of the project that may cause Damage to the Environment, including wetlands, water quality, dredge materials management, historic resources and wildlife habitat.

Procedural History

In July, 2003 the proponent submitted an Expanded ENF with a request to fulfill its EIR obligations under MEPA with a Single EIR, rather than the usual process of a Draft and Final EIR. Also, the proponent requested that a Phase I waiver be granted to allow Phase I of the project to proceed prior to the completion of the EIR. The Secretary's Certificate, issued on August 28, 2003, and the Final Record of Decision (FROD), issued on October 9, 2003, indicated that the proponent could submit a Single EIR and granted the Phase I waiver request. A condition of the Phase I waiver requires the proponent to address the concern identified by CZM (in its comments on the Expanded ENF) regarding the structural integrity of the central weir to serve as a flood control structure before or during permitting.

Review of the Single EIR

The Single EIR includes an updated description of the project, its permitting status and the project's consistency with required permits. It provides revised project plans and mitigation commitments. The proponent has indicated that the project is designed to create favorable conditions for migrating fish, improve habitat connectivity and substantially maintain annual flood elevations within the impoundment at their existing level. The Single EIR asserts that benefits of the project include restoration of year-round flow to a section of the river that is currently subject to no flow conditions and indicates that improved flow will improve water quality and Dissolved Oxygen (DO) levels while reducing impacts from organic and nutrient enrichment.
The project includes a commitment to 3 years of post-construction environmental monitoring.

The proponent was not required to provide further analysis of alternatives as part of the Single EIR because the analysis and comments received on the Expanded ENF supported the modified breach of the dam and the alternatives analysis completed appeared consistent with alternatives analyses required for securing state and federal permits. As directed, the Single EIR does include a revised design (described previously) that further avoids, minimizes and mitigates the environmental impacts of the preferred alternative, particularly with regard to impacts to water levels and water quality.

As required, the Single EIR provides a description of impacts to wetland resource areas and includes existing and proposed condition plans that illustrate these impacts. It describes how the project design has been revised to further minimize impacts and supports this with a revised hydraulic analysis that incorporates design changes. Elimination of the upstream riffle and raising of the riverbed downstream will minimize long-term changes to the impoundment's water levels and avoid impacts to approximately 6 acres of wetlands described in the Expanded ENF. The Single EIR describes mitigation measures to address short and long-term impacts.

The Single EIR includes a section on dredging and dredged materials management that describes how dredging will be conducted and includes plans that delineate the area of proposed dredging and fill. It presents sediment testing analysis and indicates that the tested sediments would be classified as non-hazardous according to the Massachusetts Thresholds Effects Concentration (TEC) guidelines. It describes efforts to avoid, minimize and mitigate impacts related to dredging including the scheduling of construction during low flow conditions and diversion of river flow through the headrace prior to and during construction to avoid impacts associated with turbidity, siltation and release of contaminants.

The Single EIR describes consultations about and provides updates on existing and proposed water withdrawals that could impact river flows and affect project goals. The Single EIR indicates that information on critical minimum flow requirements and migration periods for the Acushnet River were provided to the consultant for the Town of Acushent's proposed public water supply project although this information was not provided in the document itself. The proponent has indicated that it will provide this information to DCR's Water Resources Commission as required to support its review of the proposed interbasin transfer. The document indicates that additional consultation with the cranberry bog owner is necessary to address water critical flows and potential fish entrainment.

The Single EIR provides additional information about dam safety. It indicates that the Acushnet River does not have a history of major flooding and that, generally, flat topography and extensive floodplain wetlands act to attenuate flows and reduce flooding frequency and severity in the Acushnet River. Sawmill Dam has been identified by the Office of Dam Safety as a small (Class 3) dam with low hazard potential. The project has been designed to provide additional stabilization to the dam through the creation of a point bar on the downstream side that will reduce the exposed downstream face from 5.5 feet to 1.5 feet.

The Single EIR includes a section on historic and archaeological resources and is responsive to MHC comments on the project. Results of initial archaeological surveys are provided in the Single EIR and results of supplemental surveys were provided to MHC during the review period. MHC has indicated that no further MHC review of the project is necessary because the reports do not identify any significant cultural resources.

The comments on the Single EIR are generally supportive of the project design and its goals; however, comments from DEP identify a number of potential issues that will be addressed during the permitting process including whether the project meets the criteria for a Limited Project under the Wetlands Protection Act(310 CMR), efforts to further minimize wetland impacts and

reduced use of hard technologies such as boulders and imbricated riprap within the channel and riverbank. Additional information on wetland issues is provided below.

Wetlands

The revised Sawmill Dam design reduces environmental impacts by eliminating the upstream transition channel to maintain existing water levels and avoid the conversion of upstream wetlands. The previous alternative would have resulted in a significant drawdown (approximately 1.6 foot) in the surface elevation of the Sawmill Dam impoundment at peak annual flow conditions compared to the revised proposal (.24 feet) and would have resulted in the conversion of approximately 6 acres of wetlands. Project impacts include direct alteration of 3,282 sf of Bordering Vegetated Wetlands (BVW) associated with the construction of the flow constrictor/step pool, creation of the point bar and closure of the existing fish ladder and the headrace.

The Single EIR indicates that all disturbed sites and areas receiving fill material will be stabilized using a combination of biostabilization and boulder placement. Erosion mats, live stakes and seed mix will be used in areas above mean high water extending to upland banks. Toes of slopes and interfaces with mean high water will be protected from slumping by boulders and large cobble. Slopes greater than 1:1 will be stabilized using a combination of imbricated wall units, soil lifts and branch layering techniques. All plant material will be native species chosen to restore healthy native habitats and provide stabilization.

The proponent has indicated that the use of fill to create the flow constrictor/step pool and point bar is intended to ensure the stability of the dam and step pool while minimizing the potential for erosion and sediment transport. Filling of the existing headrace and fish ladder is intended to restore perennial flow to the river. The proponent has asserted that review of this project as a Limited Project is appropriate based on the project's primary goal – restoration and enhancement of fish runs – and the environmental benefits associated with enhancing existing riparian habitat, stabilizing eroding inland banks and restoring riverfront area. In addition, the proponent has suggested that these benefits should be considered adequate mitigation for wetland related impacts.

As required, the proponent consulted with DEP regarding wetlands issues prior to the filing of the Single EIR; however, it appears that additional consultation and revision to the project design will be required to further reduce project impacts. While I note that some impacts may be unavoidable while meeting project objectives (e.g. minimal changes in water elevation are associated with the creation of effective fish passage) and that the overall intention of the project is to improve the health of the river, additional opportunities remain to further minimize impacts to BVW. In particular, it appears that closure of the fish passage, headrace and creation of the point bar could be modified further to minimize fill and/or provide wetlands replication. The proponent shall continue to explore design modifications and mitigation measures to further minimize wetland impacts as the project proceeds through local and state permitting.

Mitigation

The Single EIR includes Draft Section 61 Findings that will be updated during permitting . The project includes the following mitigation measures:

- Maintenance of water surface elevations of the impoundment during the growing season through modification of the geometry of the spillway.
- Long -term bank stabilization utilizing hard and soft stabilization approaches.
- Use of native tree, shrub and plants to enhance riparian and wetlands buffers.
- Scheduling of construction during low-flow period (mid-July to mid-October) to facilitate constructing the project in the dry.
- Diversion of river flow through the headrace.
- Prohibition on in-stream work between March 1 through June 15 to avoid fish migration periods.
- Minimization of construction period impacts through the use of stabilized construction entrances, vehicle washdown pads, perimeter erosion controls, silt bag flltering devices at temporary water diversion outfalls and revegetation of disturbed areas with native plantings and seed mixes.
- Use of a Licensed Site Professional (LSP) in the event that oil and/or hazardous material is identified during construction.
- Development of a monitoring plan including assessment of the stability/function of the fishway for 1 year and monitoring of fish runs for a minimum of 3 years.

Based on a review of the Single EIR, comments received and consultation with public agencies, I am satisfied that the Single EIR adequately and properly complies with MEPA and its implementing regulations. Outstanding issues can be addressed through the local and state permit and review processes. The project may proceed to state permitting.

May 17, 2006
Date

Stephen R. Pritchard

Comments received:

5/9/06	Coastal Zone Management (CZM)
5/16/06	Department of Environmental Protection Southeast Regional Office (DEP SERO)
5//06	Division of Marine Fisheries (DMF)
5/1/06	Department of Conservation and Recreation/Water Resources Commission (DCR/WRC)
5/9/06	Massachusetts Historical Commission (MHC)
5/11/06	MHC (second letter)
5/10/06	Coalition for Buzzards Bay

SRP/CDB/cdb