

**ENF**

**Environmental  
Notification Form**

*For Office Use Only*  
*Executive Office of Environmental Affairs*  
EOEA No.: 13074  
MEPA Analyst: Deirdre Buckley  
Phone: 617-626-1044

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.

Project Name: <i>Acushnet River Fish Passage Restoration - Sawmill and Hamlin Street Dams</i>		
Street: <i>Sawmill Dam: Off Mill Road; Hamlin Street Dam: Hamlin Street</i>		
Municipality: <i>Acushnet</i>	Watershed: <i>Buzzard's Bay</i>	
Universal Tranverse Mercator Coordinates:	Latitude: <i>Sawmill N41° 41' 3.5", W 70° 55' 7.7"</i> Longitude: <i>Hamlin N41° 41' 46.5", W 70° 54' 51.1"</i>	
Estimated commencement date: <i>Sawmill: June 2004; Hamlin: September 2003</i>	Estimated completion date: <i>Sawmill: October 2004; Hamlin: November 2003</i>	
Approximate cost: <i>Sawmill: \$150,000; Hamlin: \$50,000</i>	Status of project design: <i>10</i> %complete	
Proponent: <i>Commonwealth of Massachusetts - Division of Marine Fisheries</i>		
Street: <i>50A Portside Drive</i>		
Municipality: <i>Pocasset</i>	State: <i>MA</i>	Zip Code: <i>02559</i>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <i>Ms. Mona Ellum</i>		
Firm/Agency: <i>Milone &amp; MacBroom, Inc.</i>	Street: <i>716-726 South Main Street</i>	
Municipality: <i>Cheshire</i>	State: <i>CT</i>	Zip Code: <i>06410</i>
Phone: <i>203-271-1773</i>	Fax: <i>203-272-9733</i>	E-mail: <i>monae@miloneandmacbroom.com</i>

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No
- Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8))  Yes  No
  - a Special Review Procedure? (see 301 CMR 11.09)  Yes  No
  - a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No
  - a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres) *Project proponent is Massachusetts Division of Marine Fisheries, with funding obtained from New Bedford Harbor Trustees Council. Funding to date has been \$104,600. (Additional funding sources may be secured as project nears construction.)*

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes  No

List Local or Federal Permits and Approvals: *ACOE-PGP Category II; Memorandum of Agreement from the Historic Commission in accordance with Section 106; CZM Consistency; Acushnet Conservation Commission Order of Conditions. (List is based on our current understanding; no permits or approvals*

*applied for as of 6/15/03)*

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land   | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water  | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                              |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste                     |
| <input type="checkbox"/> ACEC   | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources       |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superceding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits (including Legislative Approvals) – Specify:  <u>Massachusetts Historic Commission MOA in accordance with Federal Section 106</u>  <u>DEM Dam Safety Permit</u>
Total site acreage	<i>Sawmill: 11.0*</i> <i>Hamlin: 6.75*</i> <i>Total: 17.75*</i>			
New acres of land altered		0		
Acres of impervious area	<i>Sawmill: 2.0</i> <i>Hamlin: 0.25</i> <i>Total: 2.25</i>	0	<i>Sawmill: 2.0</i> <i>Hamlin: 0.25</i> <i>Total: 2.25</i>	
Square feet of new bordering vegetated wetlands alteration		<i>Sawmill: 4,500</i> <i>Temporary,</i> <i>0 Permanent</i> <i>Hamlin: 0</i> <i>Total: 4,500</i> <i>Temporary,</i> <i>0 Permanent</i>		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	0	0	0	
Number of housing units	0	0	0	
Maximum height (in feet)	N/A	N/A	N/A	
<b>TRANSPORTATION</b>				
Vehicle trips per day	0	0	0	
Parking spaces	0	0	0	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	0	0	0	
GPD wastewater generation/ treatment	0	0	0	
Length of water/sewer mains (in miles)	0	0	0	

\* Site acreage numbers provided are approximate areas of construction sites (dams) and upstream impoundments.

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify \_\_\_\_\_)  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify \_\_\_\_\_)  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify \_\_\_\_\_)  No

*Estimated Habitat and Priority Site of Rare Species exists in the Acushnet River approximately 0.5 miles upstream of the Hamlin Street Dam impoundment and project site. Based upon review of Mass GIS 1999-2001 Massachusetts Natural Heritage & Endangered Species datalayers.*

**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: \_\_\_\_\_)  No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify: \_\_\_\_\_)  No

*The Massachusetts Historical Commission has determined that both project sites have the potential to contain archaeological sites and features associated with industrial activities. Correspondence with MHC is included in Appendix of attached report.*

**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.)

*The proposed project will restore fish passage from Sawmill Dam up to the New Bedford Reservoir (which has a fish ladder constructed in 2002) through the following actions:*

- 1) *Modify Sawmill Dam to provide fish passage while limiting the permanent pool drawdown through a partial breach of the spillway.*
- 2) *Excavate a channel approximately 100 feet long in the backfill and impounded sediment behind the Sawmill Dam spillway, which will tie into the impounded sediments upstream. Line the channel with river cobble.*
- 3) *Place fill material in the approximately 50-foot long reach downstream of the Sawmill Dam spillway to create river banks in the area where the river is over-wide and too shallow for fish passage.*
- 4) *Breach the Hamlin Street dam through removal of the eastern-most weir and three associated concrete piers. The weir is approximately 27 feet long and 1.5 feet high. The piers are on top of the weir and are approximately 5 feet high and 2 feet on each side.*
- 5) *Stabilize a 50-foot (+/-) long river channel upstream of the removed Hamlin Street weir through excavation of backfill and impounded organic sediments and placement of river cobble.*
- 6) *Place boulders along approximately 150 linear feet of a currently eroding riverbank downstream of Hamlin Street to prevent increased erosion potential from increased proportion of flow in the eastern-most river channel.*

1) **Sawmill Dam:** *The Sawmill Dam consists of an earthen dam with a 5-foot (+/-) high concrete spillway approximately 100 feet in length and a functioning headrace. The headrace bypasses all of the flow around the main spillway during times of low flow. The dam is not currently suitable for generation of hydropower. The impoundment created by the dam is approximately 9.5 acres in size and includes Lands Under Water and Bordering Vegetated Wetlands that have colonized previously open water. Wooded swamps*

and uplands border most of the upper impoundment. There is a functioning cranberry bog adjacent to the northeastern limit of the impoundment. The bog relies in part on water withdrawn from the Acushnet River to supplement water available on-site for irrigation and flooding.

**Hamlin Street Dam:** Hamlin Street acts as an earthen dam to the Acushnet River, with three deteriorating concrete and stone masonry weirs providing the spillway. The weirs are located approximately 15 feet upstream of three stone bridges of Hamlin Street. The bridges are in fair to poor condition, with noticeable settling occurring on the roadway above the central bridge. Flow was historically regulated with stop logs for irrigation purposes, and the weirs acted as sills below the stop logs. Nearly all the stop logs have been removed, and the concrete sills now determine the water level in the upstream impoundment. The historic White Cotton Mill is located adjacent to the channel downstream of the western-most bridge.

b) There are many alternatives available for providing fish passage, including technical fishways (e.g. fish ladders), roughened ramps, bypass channels, and dam removal. Of these, dam removal provides the most efficient fish passage and enables passage of all riverine species and life stages. Dam removal also enables river restoration through the provision of habitat connectivity, sediment and nutrient transport, and improved water quality (lower temperatures, increased dissolved oxygen) in the impoundment. Dam removal, however, may result in greater environmental impacts than the other alternatives by decreasing upstream water levels or releasing sediments that may or may not be contaminated. The modifications proposed to the Sawmill and Hamlin Street Dams provide the best fish passage and river restoration possible, closest to fully removing the dams, while minimizing the environmental impact by limiting the amount of drawdown in the upstream impoundments and limiting the potential for mobilization of impounded sediments. The environmental impact under alternative passage options (other than full dam removal) would be similar to the proposed action, while the extent of river and fish restoration would decrease under those alternatives in comparison to the proposed action. In addition, the alternatives other than full dam removal would require costly repairs to the Sawmill Dam to provide adequate spillway capacity, and the dam would continue to be a public safety hazard. There are no off-site alternatives available since the project is to restore fish passage at the two existing barriers.

Two additional dam breach alternatives for the Sawmill Dam were analyzed in detail. One involved a larger dam breach and greater impact on the upstream wetlands. The second involved a smaller breach and placement of an upstream riffle. That alternative would result in greater temporary impacts due to the required remote construction access, greater amount of fill in wetlands, and less efficient fish passage.

At the Hamlin Street Dam, removal of each of the three spillways was examined. Removal of the central spillway would result in greater environmental impact due to construction activities, greater potential for structural damage to the bridge, and lower efficiency of fish passage. Removal of the western spillway would result in greater potential for damage to existing historic structures (a historic stone arch spans the western channel), and greater environmental impact since a new channel would need to be dredged upstream of Hamlin Street or additional fill would need to be placed to redirect the main flow of the Acushnet River to the western bridge. A bridge replacement alternative at Hamlin Street Dam was also investigated in greater detail. That alternative is preferable from a fish passage standpoint and a design for bridge replacement should be able to maintain upstream water levels in the wetland under normal flow rates. A bridge replacement is recommended for most efficient fish passage, however, that project is expected to take many years in design due to the multiple agency coordination and funding required. The proposed project is intended to provide partial restoration of the herring run until the bridge can be replaced.

- c) Mitigation for the proposed project includes the following:
- Restoration of fish runs to the Acushnet River.
  - Maintenance of existing water surface elevations in the impoundment under growing conditions at Sawmill Dam and under all flows at Hamlin Street Dam.
  - Limiting the project area to exclude the existing bridges and the historic cotton mill and associated structures at Hamlin Street Dam.
  - Leaving the ends of the spillway and all other dam structures, including abutments and stone walls, in place at Sawmill Dam.
  - Use of natural materials (weathered cobble and boulders) for stabilization of both constructed river channels and the streambank downstream of Hamlin Street.
  - Construction during lower flows when all of the Acushnet River flow is directed through the headrace at Sawmill Dam and through the central bridge at Hamlin Street Dam, resulting in dewatered construction areas.
  - Use of best management construction practices.

All other alternatives would include the same mitigation activities, with the exception that fish passage would not be restored to the extent of the currently proposed project for most alternatives. The full dam breach alternative for Sawmill Dam and bridge replacement alternative for Hamlin Street Dam would provide similar or improved fish restoration over the proposed project.