



Public Notice

U.S. Army Corps
Of Engineers
New England District
696 Virginia Road
Concord, MA 01742-2751

Date: April 28, 2005

Comment Period Closes: May 28, 2005

Evaluation Branch, Engineering/Planning Division

TEN MILE RIVER ECOSYSTEM RESTORATION PROJECT EAST PROVIDENCE, RHODE ISLAND

Interested parties are hereby notified that the U.S. Army Corps of Engineers, New England District, in response to a request by the state of Rhode Island, city of East Providence, and Save the Bay, Inc., is proposing the restoration of anadromous fish passage at the three lowest dams on the Ten Mile River in East Providence, Rhode Island. These dams include those located at Omega Pond, Hunts Mill and Turner Reservoir. The restoration study is carried out under authority contained in a September 12, 1969 resolution of the United States Senate, and implementation is recommended under Section 206 of the Water Resources Development Act of 1996 (P.L. 104-303). This public notice provides information about the restoration project and documents compliance with all applicable laws and regulations.

Project Description: The proposed project consists of providing Denil fishways at the three lowest dams on the Ten Mile River: Omega Pond Dam, Hunts Mill Dam and Turner Reservoir Dam (Figure 1). These fishways will provide for upstream migration of adult Blueback Herring, Alewife, and American Shad to historic spawning areas. Migrant slots would also be cut into the existing spillways at Omega Pond and Turner Reservoir to facilitate downstream migration of juveniles. A migrant slot is not required at Hunts Mill Dam as the shape and irregularities of the existing spillway will provide sufficient water depth for downstream passage. As anadromous returns to the Ten Mile River are likely to exceed available spawning grounds, a fish trap is included at Hunts Mill Dam to relocate excess fish to other watersheds.

Denil Fishways: Each fishway would be 4 feet wide, have a 1 vertical on 8 horizontal floor slope, and consist of the following major features:

- Entrance channel – The entrance channel would be flat and located as close as possible to the base of the dam. It is designed so that the attraction jet of water exiting the fishway is stronger than any other flow vectors so that migrating fish can easily locate the entrance.
- Denil baffle section – At the upstream end of the entrance channel, the Denil baffle section begins. The concrete floor becomes sloped, with baffles placed along this

section every 30-inches at a 45-degree angle. A second Denil section will be required at each dam due to the height of each dam. A turning section would be provided at the top of the first baffle section to allow the fish a rest before moving upstream again.

- Exit channel – The uppermost Denil section terminates at a level exit channel that would be cut into the existing spillway. The width of the fishway at this point remains at 4 feet. The channel would be designed to have a minimum of 2 feet of water depth at minimum pool operating levels.

Purpose and Need for Work: The purpose of this project is to restore anadromous fish, primarily river herring (blueback herring and alewives) and American shad, to historic spawning grounds in the Ten Mile River watershed. For over 200 years, dams on the lower Ten Mile River have blocked upstream migration of anadromous fish. Providing fish passage at the three dams in East Providence (Omega Pond Dam, Hunts Mill Dam and the dam at Turner Reservoir) would restore access and lost productivity to this area.

A. No Action Alternative

Under the No Action Alternative, limited use of the habitat below Hunts Mill Dam would continue as it is expected that volunteers would continue to net herring over Omega Pond Dam. Areas upstream of Hunts Mill Dam, which represent the majority of available habitat, would not be utilized. Under this alternative, a self-sustaining population of river herring would not be established in the Ten Mile River upstream from Omega Pond. Other species, such as American Shad and Atlantic Salmon, would also be denied access to spawning and habitat areas.

B. Dam Removal

In this alternative, one or more of the three dams that are currently blocking upstream migration of anadromous fish would be removed. The habitat would change from lacustrine (impounded lakes) to riverine as the impoundments drain and the river is restored to free flowing. Removal of dams at Omega Pond, Hunts Mill Pond and Turner Reservoir would affect water quality, hydrology, terrestrial wildlife, reptiles and amphibians, riverine processes and sediment chemistry, wetlands, fisheries, and essential fish habitat. Based on these resource effects, plus existing and potential uses, such as water supply and recreation, public opposition, and historic and archaeological concerns, dam removal was eliminated as a reasonable and implementable restoration alternative.

C. Other Fish Passage Alternatives

An alternative method of fish passage would be the installation of fish lifts at the dams. The primary disadvantage of a fish lift is that it requires manual operation as compared to Denil fishways that passively allow fish to migrate after the fishway is put into operation. Another disadvantage is the potential for crowding and stress related injuries as fish wait to be transported. The costs associated with operating and maintaining fish lifts are also much higher than costs associated with Denil fishways.

Coordination: The proposed work is being coordinated with the following Federal, State and Local agencies:

Federal Agencies:

U.S. Environmental Protection Agency, Region 1, Boston, MA
U.S. Fish and Wildlife Service, Concord, NH
National Marine Fisheries Service, Gloucester, MA
Tribal Historic Preservation Officer

State Agencies:

Rhode Island Department of Environmental Management
Rhode Island Coastal Resources Management Council
State Historic Preservation Office
Rhode Island Natural Heritage Program

Local Agencies:

City of East Providence

Non-Governmental Organizations:

Save the Bay, Inc.

Endangered Species: The proposed project is not expected to negatively affect any Federal or State listed threatened or endangered species.

Floodplain Management: In accordance with Executive Order 11988, the Corps of Engineers has determined that the proposed project will not contribute to negative impacts or damages caused by floods

Essential Fish Habitat: The National Marine Fisheries Service will be providing comments on the project's essential fish habitat assessment pursuant to the Magnuson-Stevens Fisheries Conservation Act. The proposed project is not expected to negatively affect essential fish habitat.

Environmental Impacts: An Environmental Assessment was prepared for this restoration project. Construction impacts are expected to be minor and temporary. I have made a preliminary determination that an Environmental Impact Statement for the proposed restoration is not required under the provisions of the National Environmental Policy Act of 1969.

Cultural Resources: Hunts Mill Dam is listed on the Register of National Historic Places. Coordination with the State of Rhode Island Historic Preservation Office is ongoing to ensure that the proposed project will avoid, minimize or mitigate potential adverse effects to this historical property.

Federal Consistency with Coastal Zone Management: The restoration project will be conducted in a manner consistent to the maximum extent practicable with the approved coastal zone management program of the State of Rhode Island.

Federal Permit Requirements: An application will be submitted to the Rhode Island Department of Environmental Management under Section 401 of The Clean Water Act of 1977 (P.L. 95-217). A Section 404(b)(1) evaluation, pursuant to the Clean Water Act, is provided as an attachment to the draft Environmental Assessment

Compliance: This Public Notice is being issued in compliance with several environmental laws and regulations (see Attachment A).

Availability of the Draft Report and Environmental Assessment: Copies of the draft report and environmental assessment are available on the Internet at www.nae.usace.army.mil (click on "Rhode Island," then "Projects"). Copies on compact disk (CD) may be obtained by contacting the project manager, Mr. Richard Heidebrecht by calling 978-318-8513.

Additional Information: Any person who has an interest that may be affected by this restoration project may request a public hearing. The request must be submitted in writing to me within 30 days of the date of this notice and must clearly set forth the interest that may be affected and the manner in which the interest may be affected by this activity.

Please bring this notice to the attention of anyone you know to be interested in the project. Comments are invited from all concerned parties and should be directed to the District Engineer at 696 Virginia Road, Concord, MA 01742, ATTN: Engineering/Planning Division (Mr. Richard Heidebrecht), within 30 days of this notice.

27 APR 05
Date



Thomas L. Koning
Colonel, Corps of Engineers
District Engineer



Ten Mile River Feasibility Study, East Providence, Rhode Island
Anadromous Fish Passage Restoration Sites

Figure 1

Attachment A

PERTINENT LAWS, REGULATIONS AND DIRECTIVES

Clean Air Act, as amended (42 U.S.C. 1221 et. seq.)

Clean Water Act, as amended (33 U.S.C. 1251 et. seq.)

Coastal Zone Management Act of 1972, Sections 307 (c)(1) and (2)[16 U.S.C. 760c-760g]

Code of Federal Regulation, Title 33, Parts 335 through 338

Endangered Species Act of 1973, as amended (16 U.S.C. 668aa-668cc)

Estuary Protection Act (16 U.S.C. 1221 et. seq.)

Executive Order 11988, Floodplain Management, 24 May 1977

Executive Order 11990, Protection of Wetlands, 24 May 1977

Federal Water Project Recreation Act, as amended (16 U.S.C. 4601 – 12 et. seq.)

Fish and Wildlife Act of 1956 (16 U.S.C. 472a, et. seq.)

Fish and Wildlife Coordination Act (16 U.S.C. 661-666c)

Land and Water Conservation Fund Act of 1965, as amended (16 U.S.C. 4601 – 4 et. seq.)

Magnuson-Stevens Fishery Conservation and Management Act and amended by the Sustainable Fisheries Act of 1996

Marine Protection, Research, and Sanctuaries Act of 1972, as amended (33 U.S.C. 1401 et seq.)

Migratory Marine Game-Fish Act (16 U.S.C. 760c-760g)

National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347)

National Historic Preservation Act of 1966 (16 U.S.C. 470)