



US Army Corps
of Engineers®
New England District

Project Information Sheet

Presumpscot River Aquatic Habitat Restoration Project Smelt Hill Dam Removal Falmouth, Maine

October 5, 2003

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1. Project: Presumpscot River, Aquatic Ecosystem Restoration, Section 206 Water Resources Development Act of 1996 (PL 104-303).
2. Location of Project: The site of the former Smelt Hill Dam is located on a bedrock outcrop near Presumpscot Falls in Falmouth, Maine, about five miles northwest of Portland.
3. Project Description: The project consisted of the near complete removal of the 151-foot long, 31-foot wide and 15-foot high stone filled, timber crib dam and its associated structures. Most of the material removed from the dam, powerhouse and other structures was re-used on-site to re-establish the right bank (looking downstream) of the river. Some items, such as timber and reinforcing materials, were disposed of off-site. No hazardous materials were present at the site.

Presumpscot Falls has been the location of many types of dams since 1734. The Smelt Hill Dam was used for hydroelectric power generation until generating facilities were severely damaged during a flood in October 1996. The fish passage facility at the dam was also damaged to the point that it was non-functional. As a result, anadromous fish species were unable to freely bypass the dam without manipulation of the impoundment.

4. Sponsor: The Maine Department of Marine Resources is the project sponsor.
5. Important Effects: This head of tide dam was the first impediment to anadromous fish passage to the upper reaches of the Presumpscot River. The removal of the dam eliminated the impoundment behind the dam and restored a natural river ecosystem with important fishery and recreational values. The removal will improve water quality and has restored natural habitat and fish passage to seven miles of the Presumpscot River from Falmouth to Westbrook.

Removal of the dam opened about seven miles of the lower Presumpscot River and its tributary streams for passage of migratory fish, including shad, blueback herring, alewife, rainbow smelt, striped bass, and Atlantic salmon. (Eight more dams lie between the mouth of the Presumpscot River and Sebago Lake.) Many small streams and feeder branches of the main stem within the 640 square mile drainage area of the dam are now available to migratory fish for spawning and foraging. Removal of Smelt Hill Dam allows for full utilization of a fish passage previously constructed by the Maine Department of Marine Resources above Smelt Hill Dam at Highland Lake. An estimated 150,000 alewives and 14,000 American shad will

become established in the lower Presumpscot River and pass to the fish ladder at Highland Lake on Mill Brook, some 12 miles upstream as a result of the project.

The increased populations of important forage species, such as alewives and blueback herring, will provide a food source for recreationally and commercially important fish species, both inshore and offshore, in the Gulf of Maine. Wildlife, such as ospreys, eagles, herons, and kingfishers, will benefit from the abundant food supply provided by the anadromous fish runs. The project, within a short distance from Portland and its surrounding communities, has reduced the impediment to kayakers, canoeists, and fishermen traveling upstream and downstream on the river.

6. Other: The Corps of Engineers awarded a contract for the removal of Smelt Hill Dam to A.C.T. Abatement Corporation of Lawrence, Massachusetts on August 19, 2002. Site preparation began in early September 2002 and major construction was completed on November 25, 2002. The total cost of the construction contract was \$311,718.
7. Costs: The project was cost shared between the U.S. Army Corps of Engineers and the Maine Department of Marine Resources. The Coastal Conservation Association of Maine and the Maine Corporate Wetlands Restoration Partnership assisted the Department of Marine Resources with their financial requirements for the project. Project costs including the feasibility report, plans and specifications, real estate credit, and construction are about \$1,000,000. This sum was cost-shared on a 65% (Federal), 35% (non-Federal) basis. The sponsor's share was about \$350,000 (including credits for lands, easements, and rights of way).
8. Other agencies that provided funding and other support to this project include: The U.S. Fish and Wildlife Service, Gulf of Maine Coastal Program Office in Falmouth, through the National Fish and Wildlife Foundation, provided \$50,000 as a matching Challenge Grant to the Maine Coastal Conservation Association to assist the efforts to purchase the dam for the donation to Department of Marine Resources. Central Maine Power sold the dam to the Coastal Conservation Association at a reduced rate to ensure the success of the project.



Smelt Hill Dam, Falmouth, Maine
Pre-dam Removal



Presumpscot River Aquatic Habitat Restoration Project, Falmouth, Maine
Completed Project, November 2002