



Town of Woolwich Nequasset Fishway Restoration Planning

“This site has been preserved since the early settlers in Woolwich to encourage the alewife to migrate into Nequasset Lake as they seek fresh water to spawn. Repeated dam installations to power grist and saw mills have retained the passage requirement necessary for the yearly migration...the ladder has deteriorated over time and at this time is in need of major repairs or replacement.”

Bill Potter, Chairman
Woolwich Fish Commission 2012



High water at Nequasset June 3, 2012

PARTNERS

Kennebec Estuary Land Trust (KELT), Bath Water District (BWD), Trout Unlimited, Maine Department of Marine Resources (DMR), Chewonki Foundation, U.S. Fish and Wildlife Service, NOAA Fisheries Service, Maine Department of Inland Fisheries and Wildlife, Gulf of Maine Council on the Marine Environment, and Bowdoin, Bates and University of Southern Maine researchers

PROJECT DESCRIPTION (completed December 2012)

Less than 5% of prime spawning ground for anadromous fish remains accessible in Maine due to barriers such as dams and culverts. The populations of species such as alewife, blueback herring and shad have declined steeply. Based on a 2010 survey by KELT of barriers to fish passage in the lower Kennebec River watershed, the fish ladder at Nequasset Dam was selected as the #1 priority for improvement. Funds were used to plan the restoration of a 58 year old concrete pool and weir style fish ladder. The existing structure is part of a dam which impounds Nequasset Lake, a spawning ground for river herring, as well as a residential drinking water supply. It has been managed for long term sustainability by one family for 60 years. Nequasset is one of Maine's 19 remaining alewife runs still open to a municipal harvest. Restoration of the current structure will ensure access to prime spawning ground for a species considered essential in the restoration of Gulf of Maine.

APPROACH

The goals were to establish a system that provides maximum fish passage while being easy to maintain, requiring minimal manipulations to adjust for water flow and that can be built for a modest price. Woolwich selectmen requested that the design be appropriate for the historic site and provide ample access for community outreach and education. BWD and Woolwich have a long history of joint management of the fish ladder. Wright Pierce Environmental Engineers and a US Fish & Wildlife Service engineer assisted with design development and a site evaluation. The BWD worked with KELT on community outreach, fundraising, and ecological/technical aspects of the restoration planning. Preliminary plans were circulated for public comment.

RESULTS

Funds were used for outreach and project planning. BWD committed significant funds, submitted several grant applications, and sought corporate support to cover the remaining construction expenses. Advice from engineering firms, plus state and local agencies was incorporated into the design for a pool and weir style passage combined with a small section of denil at the top of the ladder. In 2012, \$25,000 was secured from a Trout Unlimited-NOAA partnership grant for the preliminary engineering and \$40,000 was received in 2013 for final engineering costs. Construction is anticipated for late Summer/early Fall 2013. Nequasset subsequently was awarded an FY14 CCG to defray the cost of construction materials for the project.

NEEDS

We are in need of financial support and increased community awareness of the importance of unimpeded passage for anadromous species and the ecological systems they support.

LESSONS LEARNED

While the Town of Woolwich provided administrative services, access to the Select Board, and oversight from the Fish Commission, funders seem to prefer financial commitment from municipalities and federal funding sources require a non-federal match. It is important to partner with others to advocate for the needs of migratory fish that have lost 95% of their spawning habitat due to barriers. Every habitat restoration project is important to reverse this trend, including small watersheds like Nequasset.



COASTAL COMMUNITY GRANTS: Coastal Habitat Restoration

APPLICABILITY FOR OTHER MUNICIPALITIES

Gather a wide range of stakeholders, have a local champion, and identify non-federal matching money. Community based restoration is more effective than top-down initiated projects.

RECOMMENDATIONS

Provide financial incentives for barrier remediation. Improve coordination with Maine DOT and Public Works. Continue support for DMR interaction in coastal fisheries. Balance environmental and economic needs and maintain a long-term management perspective for natural resources.

ADDITIONAL INFORMATION

<http://kennebecestuary.org/resources/nequasset-fish-ladder-restoration>

https://www.youtube.com/watch?v=EYg_hz2Mhok

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FY12 CCG - 4
2.6.17.

Financial assistance provided by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce Grant CZM NA10NOS4190188 to the Maine Coastal Program. Coastal Community Grants are awarded and administered by the Maine Department of Agriculture, Conservation and Forestry Municipal Planning Assistance Program.

