

**FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL ASSESSMENT
MILLIE TURNER DAM REMOVAL PROJECT
PEPPERELL, MASSACHUSETTS**

The U. S. Fish and Wildlife Service (Service), in partnership with the Massachusetts Division of Ecological Restoration and other partners, is proposing to complete the Millie Turner Dam Removal Project in Pepperell, Massachusetts. The Project would remove 100 feet of the Dam's spillway impounding the mainstem Nissitissit River. The purpose of the Project is to restore fish passage and natural river process to the Nissitissit River and eliminate a public safety hazard.

The Environmental Assessment (EA) analyzes the impacts of two alternatives on the human environment, including the Proposed Action (Partial Spillway Removal) and a No Action Alternative. An additional alternative that was considered early on in the analysis and dismissed was the complete removal of Turner Dam. This option was dismissed because of the adverse effect it would have on historic resources and the environment.

The Proposed Action will have a net ecological benefit by restoring natural stream process to the watershed and reconnecting 20 miles of habitat for native eastern brook trout (*Salvelinus fontinalis*), American eel (*Anguilla rostrata*), and other aquatic organisms within the watershed. The Project complements the Service's ongoing efforts to restore diadromous and resident fishery populations within the lower Merrimack River Watershed and Gulf of Maine. The Project will also improve public safety by preventing the potential of a catastrophic dam breach.

The Proposed Action will remove 100 feet of Turner Dam's primary spillway. The breach will have a minimum bottom width of 70 feet, with side slopes along the breach face of 1.5H:1V or steeper. The full vertical height of the structure would be removed to expose the natural streambed, eliminate any potential barrier to fish passage, and pass without limitation the modeled 500-year storm event. Approximately 5 feet at each end of the primary spillway would be left to support the historic stone abutments. Construction would occur during seasonal low flows and the impoundment would be drawn down in a controlled manner prior to demolition to minimize the amount of in-water work. Once breached, the River would be allowed to naturally form a meandering channel through the impoundment that will allow the passive transport of accumulated sediments downstream. Following removal of the Dam, a canoe launch and historic interpretive materials will be installed at the site to improve recreational opportunities for the public.

The proposed Project will have negligible, if any, impacts on air quality, soundscapes, land use, socioeconomics, energy resources, geology, lightscapes, Indian Trust resources, scenic resources, and prime and unique farmlands. No adverse effects to cultural resources, including National Register-eligible Blake Machine Shop Complex or any other listed cultural resources, are expected as a result of the Project.

The Service finds there will be no significant impacts resulting from the proposed restoration activities of the Project. The Proposed Action provides net benefits that far outweigh its potential impacts on the natural and human environment. Therefore, the Service concludes that a Finding of No Significant Impact be issued for the proposed Project.



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Date

Reference:
Environmental Assessment, dated August 7, 2015