

Watertown Dam Removal Opportunity
Charles River, Watertown, MA
Spring 2019



Background

The Watertown Dam is a 180-foot long, 8-foot high concrete weir structure located in Watertown, MA. The Charles River Watershed Association, the Watertown Conservation Commission, and others have long expressed interest in evaluating the potential to remove the Watertown Dam. In response to this interest, the Massachusetts Department of Fish and Game Division of Ecological Restoration (DER) hired Stantec, Inc. in June, 2011 to conduct a *Site Reconnaissance, Preliminary Evaluation, and Opinion of Cost for Dam Removal* study of the site. In the spring of 2016, with a letter for support from the Commissioner Leo Roy of the Massachusetts Department of Conservation and Recreation (DCR; the dam owner), the Charles River Watershed Association (CRWA) applied to DER for support in conducting a feasibility study to investigate removal of the Watertown Dam. The Watertown Dam Removal was accepted as a Provisional Project pending completion of a feasibility study and support for removal from DCR.

Ecological problems caused by the dam:

- The dam raises the level of the river upstream, submerging the natural floodplain.
- The dam degrades water quality, particularly water temperature and dissolved oxygen, which are critical for river ecology.
- The dam is a fish passage barrier, and the adjacent Denil ladder is unable to pass female shad, according to acoustic tagging studies conducted by the Massachusetts Department of Fish and Game Division of Marine Fisheries (DMF).

Infrastructure issues associated with the dam:

- The dam is a significant hazard according to the Massachusetts Office of Dam Safety. If it were to fail, loss of life and damage to homes, industrial and commercial facilities, and infrastructure such as the Bridge Street crossing could occur.

Ecological and social benefits of removal:

- Reduced maintenance and liability for the owner of the dam (DCR);
- Climate resiliency, including improved floodplain storage and function;
- Improved water quality;
- Improved habitat for fish and wildlife including waterfowl, turtles, resident fish, and migratory fish;
- Improved passage for river herring and American shad;
- Facilitating a sustainable shad population that could support a recreational fishery;
- Improved opportunities for birdwatching, wildlife observation, recreational fishing, and boating;
- The dam is in a highly visible location among bike paths, parkland, and scenic overlooks. Its removal will inspire countless Boston-area residents drawn to this iconic river.

Project partners & roles

- DCR- provide data and technical assistance; responsible for decisions regarding the future of the dam
- DER- manage the project as scoped by the Project's Technical Team; assist with fundraising
- CRWA- provide data and technical assistance, public outreach assistance, fundraising
- DMF and Massachusetts Department of Fish and Wildlife- provide technical assistance; assist with fundraising
- U.S. Fish and Wildlife Service, National Oceanographic and Atmospheric Administration (NOAA), other agencies – provide technical assistance, funding

Project Timeline

1. DCR convened a Project Technical Team (Tech Team) in 2017.
2. The Tech Team developed a scope of work for a Charles River Dam Removal Feasibility Study in 2017. The Feasibility Study will focus on the following technical areas:
 - a. The history of the dam
 - b. The role of the dam and its removal in the river's ecology, including fish and wildlife.
 - c. The role of the dam in flooding; the effects of its removal on upstream and downstream flood levels
 - d. The effects of removing the dam on upstream and downstream infrastructure and the methods and costs of addressing any potential impacts.
 - e. The effects of the dam and fish ladder on fish passage and the expected benefits of removal.
 - f. Aesthetic changes associated with removal of the dam; including artistic renderings to help stakeholders visualize potential changes.
 - g. The cost of removing the dam and addressing any infrastructure impacts.
 - h. Concept plans for removal of the dam.
3. DER hired Milone and MacBroom, Inc. to conduct the feasibility study in 2018.
4. CRWA, DCR, and DER will develop a Public Outreach and Stakeholder Engagement Plan to be implemented before, during, and after the feasibility study.
5. The Tech Team will continue to raise funds to complete the feasibility study and review and disseminate the results once the study is completed.

