

Charles River Dam Advisory Committee | Meeting #4

October 2, 2021 | Field Trip to Andover, MA

Field Trip Summary

This summary was prepared by the Consensus Building Institute (CBI), a nonprofit entity contracted by the Town of Natick to facilitate the Charles River Dam Advisory Committee process. This summary is not intended to be a meeting transcript. Rather, it focuses on the main points covered during the field trip.

MEETING IN BRIEF

The Charles River Dam Advisory Committee (AC) convened for the fourth time in person in Andover, MA, on Saturday, October 2, 2021, to visit two dam removal sites. Eighteen people attended this site visit: 11 AC members, 1 CBI project staff member, 4 people associated with the dam removal project, and 2 interested members of the public.

NEXT STEPS

- The next AC meeting will be on October 14, 2021, focused on ecological considerations with presentations by staff from MA Division of Ecological Restoration and USGS.
- The Planning Team will send a draft site visit summary to AC members.

MEETING OVERVIEW

This in person site visit was provided as an opportunity for the Advisory Committee and members of the public to see two sites where dams had been removed on the Shawsheen River in Andover, MA. Armed with coffee and donuts, the group first visited the former Marland Place dam and then visited the former Balmoral dam site. See an excellent presentation here about the removal of these two dams:

<https://fws.rev.vbrick.com/#/videos/64c0b01b-75b9-479d-a0a8-72d1a0320225>

Nick Wildman from the Massachusetts Division of Ecological Restoration led the site visit. He was joined by Bob Douglas (Andover Conservation Director), Jon Honea (Andover Conservation Commission), and Bob Rauseo (Shawsheen River Watershed Association), all of whom were involved in the dam removal projects and shared their experiences and perspectives.

A few things Committee members shared things they learned at the former Marland Place dam site (*note these are provided by members and in some cases are conflicting*):

- *The sound of water*
 - The riffles created to replicate the sounds of the dam were designed. At this location, navigability was not a priority and so was not included as a design parameter, but this could easily be incorporated into a riffle design at the South Natick Dam location.
- *Invasives*
 - Invasive species were already present in the inundation area at this location, and while there has been some spread of invasives since the dam was removed, a significant number of native species were also present in the expanded wetland.
 - There was no attention given to invasive species, which were pointed out to us above the Steven Street bridge in the former impoundment area.

- *Elevation / Slope*
 - The elevation drop at this location is roughly double what it would be in Natick, so any slope present at the South Natick Dam location, should it be removed, would likely be more gentle.
 - The cascades at the former Marland dam site were visually appealing, but would make kayaking difficult at best. It could be difficult to both travel down and upstream.
- *Cost Containment*
 - “I was struck by the effort to cut costs, which prevented a number of amenities that I think are important in Natick:
 - There is no public park along the river, or even any location from which people can view the impressive cascades.
 - There was little attention given to invasive species, which were pointed out to us above the Steven Street bridge in the former impoundment area due to budget. However, much of the invasives in the area were already present prior to dam removal.
 - As previously described, there was no accommodation for canoes or kayaks.”
- *History*
 - Pieces of the spillway and former structure were preserved.
 - Plaque-style signs were posted with the site’s history.
- *Flooding*
 - Similar to the South Natick Dam, both the Marland and Balmoral sites were “run of river” dams.
 - Flooding was a significant concern of downstream neighbors and the removal of the dams did not change flooding risks - positively or negatively.
- *Fish*
 - The fish population increased after dam removal: however this portion of the river has no major downstream barriers.
 - It can take several years for fish populations to increase, as the young of the first fish that were able to pass the dam now mature and spawn.

And they shared observations of the former Balmoral dam site:

- It was generally very tranquil.
- It would have been a hard site to do a dam removal on in terms of having limited access to the water for machinery and a requirement to make the adjacent fields available during sports seasons for athletics programs.
- Dam removal generally occurs in the winter.
- This dam was directly upstream of a bridge similar to the South Natick dam.

RESOURCES

After the meeting, Nick provided this link to some files on the historical and archaeological resources work that was done at these sites. He also noted that both state and federal regulations require assessment of potential resources and the information that is accumulated almost always goes on file in the local library because it is a nice compendium of the archival info and whatever the consultants find on the site: <https://app.box.com/s/x9cq7y2cuvv6kt0ysxyzpi4x4srdt12q>¹.

¹ Nick noted that he could not share the report completed during the removal of the Marland Place Dam since it contains potentially sensitive information about the location of specific resources.

APPENDIX A: ATTENDANCE

Advisory Committee Members

Mike Balcom, Community Member

David Blease, Community Member

Dirk Coburn, Finance Committee Representative

Terri Evans, Planning Board Representative

Jeannine Furrer, Historic District Commission Representative

Martin Kessel, Community Member

David Lodding, Open Space Advisory Committee Representative

William McDowell, Town Engineer

Claire Rundelli, Conservation Agent

Mary Kate Schneeweis, Conservation Commission Representative

Jillian Wilson Martin, Sustainability Director

Project Staff

Ona Ferguson, CBI Facilitator

Site Visit Hosts and Presenters

Bob Douglas, Andover Conservation Director

Jon Honea, Andover Conservation Commission

Bob Rauseo, Shawsheen River Watershed Association

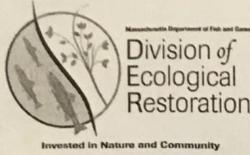
Nick Wildman, MA Division of Ecological Restoration

2 interested members of the public also attended the meeting.

APPENDIX B: PHOTOS

Please see a compilation of photos taken during the site visit by clicking [here](#).

APPENDIX C: HANDOUT FROM DER



Removing Two Dams Builds Resilience to Climate Change in Andover The Shawsheen River Restoration Project

Background: The Balmoral and Marland Place Dam Removals on the Shawsheen River in Andover were designated as Priority Projects by DFG's Division of Ecological Restoration (DER) in 2008. The dams block fish passage, degrade water quality, are liabilities to their owners and threaten public safety. Removing both dams will open up five miles of the Shawsheen River and restore access to 16 acres of habitat for migratory fish such as alewife, blueback herring, American shad, and sea lamprey.

Partners and funders: Division of Ecological Restoration, Town of Andover (owner of Balmoral Dam), Atria Senior Living/Marland Place Associates (owner of Marland Place Dam), National Fish and Wildlife Foundation's Hurricane Sandy Coastal Resiliency Grant Program, the NOAA Fisheries Restoration Center, American Rivers, Massachusetts Environmental Trust (MET), US Fish and Wildlife Service, Trout Unlimited, the Corporate Wetlands Restoration Partnership, the Center for Ecosystem Restoration, and the Shawsheen River Watershed Association.

Climate change adaptation and resiliency: Removing the dams makes the Town of Andover resilient to more frequent flooding associated with climate change. Both dams exacerbate upstream flooding. A catastrophic breach of the Marland Place Dam would jeopardize downstream properties and could destabilize the Stevens Street Bridge upstream, which carries approximately 7,300 vehicle trips each day.

State investment: \$130,000 capital funds from DER; \$100,000 MET.

Total project cost: \$1.3 million

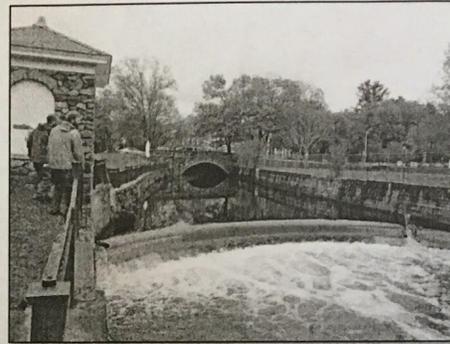
Jobs created or maintained: 16

Balmoral Dam

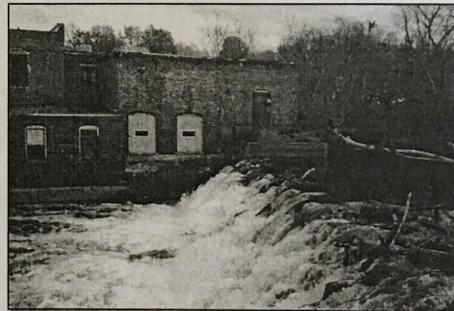
- First dam from the ocean on the Shawsheen River; no fish ladder
- Blocks passage for alewife and blueback herring.
- Hazard for paddlers.
- Owned by Town of Andover.
- No longer serves a purpose.
- Removal opens 1.6 miles to Marland Place Dam.

Marland Place Dam

- Second dam from the ocean on the Shawsheen River; no fish ladder.
- Rated Significant Hazard by the Office of Dam Safety. Dam failure may cause loss of life and damage homes, industrial or commercial facilities, secondary highway, or railroads.
- Blocks fish passage.
- Hazard for paddlers.
- Owned by Atria Senior Living / Marland Place Associates.
- Removal opens 3.4 miles of river habitat and restores 10 acres of wetlands.



Balmoral Dam, Andover



Marland Place Dam, Andover