



CITY OF WATERTOWN

Conservation Commission

Leo G. Martin, Chair
Maria P. Rose, Vice Chair
Charles C. Bering, Member
Patrick Fairbairn, Member
Darya Mattes, Member
Rachel Danford, Member

The Conservation Commission of the City of Watertown will hold a remote public meeting on Wednesday, October 14, 2022, at 7 p.m. This meeting has only remote opportunities for participation with public access provided as follows:

CONSERVATION COMMISSION MEETING WEDNESDAY, OCTOBER 12, 2022 AT 7:00 PM AGENDA

ACCESS INFORMATION:

- A. The meeting will be televised through WCATV (Watertown Cable Access Television): <http://vodwcatv.org/CablecastPublicSite/?channel=1>
- B. The Public may join the virtual meeting online: <https://watertown-ma.zoom.us/j/99597080710>
- C. Public may join the virtual meeting audio only by phone: (877) 853-5257 or (888) 475-4499 (Toll Free) and enter Webinar ID: 995 9708 0710
- D. Public may comment through email: lschwab@watertown-ma.gov

-
- 1. Public Hearing-
 - A. (Continuance was requested to November meeting)- **Request for Determination of Applicability**- for the proposed parking lot improvements and utility upgrades located at **10-30 Manley Way**, Watertown, Massachusetts. PPF Industrial 20 Seylon, LLC, Owner, Christopher M. Lucas, Representative/Applican
 - 2. Public Hearing-
 - A. (Continuance was requested to November meeting)- **Notice of Intent- O Arlington St.** (Williams Pond Parcel)- to construct a 2 story commercial building and parking lot on property known as the Williams Pond parcel: Max Hatziliades, Applicant/Owner, Mickey Marcus, Representative
 - 3. Discussion
 - A. Discussion on sending a letter to City Council to communicate the Commission's current

position on the potential removal of the Watertown Dam

4. Agent Report
 - A.
 1. CPC Update- Jamie O'Connell
 2. Climate and Energy Plan
 3. Whitney Hill
 4. Ongoing Orders of Conditions
 5. Pollinators
 6. Faire on the Square recap
5. Review and Acceptance of 2023 Calendar
 - A. Review and acceptance of meeting and filing dates for the Conservation Commission in 2023
6. Review and Acceptance of Minutes
 - A. Review and Acceptance of Minutes from July 13 and September 14, 2022 Conservation Commission meetings.



CITY OF WATERTOWN
Conservation Commission
Administration Building
149 Main Street
WATERTOWN, MASSACHUSETTS 02472

Leo Martin, Chairperson
Maria P. Rose, Vice Chair
Charles C. Bering, Member
Patrick W. Fairbairn, Member
Jamie O'Connell, Member
Darya Mattes, Member

Telephone (617) 972-6426
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www.watertown-ma.gov
Susan C. Jenness, Assistant

MINUTES

Meeting Date: Wednesday, April 6, 2022, 7:00 PM, Remote Meeting on Zoom

Conservation Commission Members Present: Leo G. Martin, Maria Rose, Jamie O'Connell, Patrick Fairbairn, Charles C. Bering, Maria Rose, Darya Mattes

Absent: N/A

Also Present: Christopher Zevitas, Rich Kirby, Deb Pierce, Elodia Thomas, Caroline Bays, Robert Kearns, Susan LaDue, Jeanne Trubek, Angelina Kounellis, Patrick Garner, Eileen Ryan, Mickey Marcus, Meghan, Stephen Tise, Richard Nylen, Alexia Hatziliades, Max Hatziliades

Staff Present: Laurel Schwab, Conservation Agent, Susan C. Jenness, Assistant

Martin chaired the meeting. The meeting began with an introduction of members of the Conservation Commission and staff, to welcome Darya Mattes, the new member of the Conservation Commission. Ms. Mattes spoke a few moments to introduce herself to everyone.

- 1. Informational Presentation and Discussion-** Charles River Watershed Association presented information regarding their advocacy of removing the Watertown Dam.

Robert Kearns, a member of the Charles River Watershed Association (CRWA), attended the meeting to present, discuss and receive feedback on their advocacy to remove the Watertown Dam. He informed members that the CRWA has been joined by the Massachusetts Fish Coalition (MFC) in support of the removal proposal.

One of the missions of the MFC is to find potentials for welcoming migratory fish populations back into an additional forty miles of the Charles River ecosystem to restore life to the river. Both parties agree that removal of the Watertown Dam would offer the opportunity to improve habitat, transform water quality, restore native plants, and remediate sediment that is contaminated, while increasing climate resilience for future extreme weather events, and protect downstream areas from future flooding.

Kearns discussed the background of the Watertown Dam. He emphasized the significant change in weather patterns in recent years, and explained this dam was not designed with this type of weather in mind.

Kearns also explained that when fish spawn they must migrate, and this dam currently limits their ability to do so. He listed habitat species as wild native brook trout or salmonids; as well as the freshwater and diadromous native species, such as short-nosed sturgeon, American eel, river herring, American shad, lamprey, redbfin pickerel, and darters.

Kearns explained there have been ten dams removed along the Charles, and there are still 18 left. He shared slides to show a precedent that was set when the Bellingham Dam was removed. The slides showed both before removal and after.

Kearns explained that along with limiting fish passage in the habitat, dams also lower the flow of water, and they trap sediment. The sediment found in this dam contains arsenic, copper, chromium, and zinc, which were all above safe thresholds. He stated that removal of the dam could have a positive effect on the limited recreational activities occurring in this area of the Charles River.

A feasibility study was launched in 2018 that began to explore the effects of the removal of the dam. The study was completed in 2021, and removal was found to be a feasible option.

Martin said that removal of the dam might be positive on a good day, but he envisioned mud flats along the bank during the periods around August and September. Kearns explained the banks would be revegetated as part of the proposal. Martin said he was concerned with increasing invasives and additional areas in need of maintenance by the DCR. Martin said he would like to a chance to consider breaching the dam in response to this call to action seeking support for this initiative to help fish pass in this section of the Charles River.

Public comments- A resident named Meaghan spoke from her expertise as a certified horticulturist and inquired about the accuracy of the project models in terms of invasives and flowing. Kearns explained they would need to conduct invasive species management study to know exactly the conditions of the invasive species. As for the methodology for the flooding, SLR Engineering had conducted a feasibility study using appropriate data tools.

Rose asked if the DCR had a specific concern about removing the dam. Kearns said it just seemed to him they are not interested in having input into this discussion or venturing into any discussion about the removal of the dam.

CC members thanked Kearns for attending and said he can send more information about the data that was presented if that would help them to understand the methodology and consider other options better.

2. **Public Hearing- Notice of Intent- 93 California Street-** For the construction of an addition to an existing single-family dwelling and associated site appurtenances at the above-referenced property. Christopher and Rose Zevitas, applicants, and owners.

Chris Zevitas was present to review the materials filed in response to the requests and comments made by members of the CC at the last meeting. He reminded the commission members the focus of this appearance before them was to deliver the necessary additional information about the porous pavers being proposed.

Zevitas reminded them that the property is an unusual shape, and they were proposing to add a 2 ½ story addition over a 1 story garage with a crawl space underneath. He gave an expeditious update regarding the changes to the material that had been made over the last month.

The members of the Conservation Commission said they were pleased with the updates, and that all their questions had been answered.

Motion: Rose made a motion to close the public hearing and allow the proposed project to go forward with the conditions that would be set at the end of the meeting. O'Connell seconded the motion.

Poll: All members were polled, and they all agreed with the motion made by Rose.

3. **Public Hearing (continued from March meeting)- Notice of Intent- 0 Arlington St (Williams Pond Parcel)** - to construct a 2-story commercial building and parking lot on property known as the Williams Pond parcel; Max Hatziliades, Applicant and Owner.

Martin thanked Marcus for the detailed package of materials and oriented the discussion to whether the site meets the 200-foot riverfront redevelopment definition and whether it qualifies for a waiver from the local statute 50-foot no build zone.

Marcus explained the proposal package was still missing stormwater documentation because there were questions that had not been answered yet. The issues for this hearing would be primarily about redevelopment. Martin introduced the applicant's consultant, Richard Nylen, who was a former MDC Commissioner. As a side note to the discussion on the Watertown Dam, Nylen commented that when it rained back in his days with the MDC, they altered the Watertown Dam so it would not back up during heavy rains.

Regarding the project proposal, he explained that the degraded site regulations had been around for 25 years, and the basis for them was to distinguish areas that were pristine versus ones that had been degraded. Another item he discussed was Hood Rubber Plant's proximity to the site. He noted that PCBs, metals and hazardous materials had infiltrated the site, which were subject to pollution tracking numbers over the years.

Nylen defined degraded as performing at a less functional level and explained how their client was proposing to mitigate the degraded conditions by adding new vegetation to restore it to a higher functioning wetland. Nylen stated that removal of the contamination and increasing the functioning of the wetlands would substantiate his claim.

Nylen also argued that the site an abandoned dumping ground where contamination was never removed, and therefore it qualifies as degraded site. Marcus added that this will be a functional wetland in the future.

Nylen said he saw the waiver as a three-prong test based on the three provisions of the Watertown Wetland Ordinance. There are no reasonable alternatives, avoidance, minimization of impact, and mitigation have been employed through minimizing the building footprint and proposing wetland restoration, and the proposed project is in the public interest to improve the site and the function of the wetland. He explained that this proposal would offer protection to the river, improve an eyesore, and get rid of contaminated sediment. He completed by saying that solving the stormwater issues would reduce the contaminated water conditions from flowing into the river and watershed.

Rose showed aerial maps and photos of the site showing little debris on site as well as a separation between this site and the industrial businesses that had formerly been operating nearby. Nylen replied that this area has been heavily dumped on and he felt everyone in the city was aware of that.

Garner, the third party expert consultant, was present and cited his response letter to members of the CC, and to Marcus and Nylen as well. He said he agrees with Nylen this is contaminated, but pointed out is charged with interpreting regulations, and the current documentation does not meet the regulatory standards in the WPA. He pointed out water quality testing would be helpful to see what is going into the site. While this may be a dumping ground, we have not seen anything from the applicant directly speaking to the Wetlands Protection Act as we had asked for.

O'Connell said she appreciated the updated materials, but she did not believe the applicant responded to the Riverfront Regulations questions. They have not documented correctly what we asked for about degraded sites as defined in the riverfront area regulations. She asked for data and site maps that spoke to quantifying impervious surfaces, absent topsoil, dumping grounds, square footage of degradation, etc.

Members of the CC suggested they make a punch list and come back to show what is being requested. Martin agreed the revisions are very nice, but not what is needed to decide this case.

4. **Public Hearing- Request for Determination of Applicability-** For the proposed parking lot improvements and utility upgrades located at 10-30 Manley Way, Watertown, Massachusetts. PPF Industrial 20 Seyon LLC, Owner/Christopher M. Lucas Representative/Applicant

Schwab confirmed that the applicants had decided to move forward with this application although the tenant who was moving into the space had backed out. The applicants requested the public hearing on this matter be continued to the agenda for the Conservation Commission meeting taking place in May.

5. Agent Report

1. CPA
2. Climate and Energy Plan
3. Pollinators
4. Ongoing Orders of Conditions
5. Arsenal Park

Members of the CC agreed that they would continue the update to the meeting taking place on May 4, 2022, as there were no pressing updates.

6. Acceptance of Minutes- Minutes-review and approve minutes from March 2, 2022, meeting

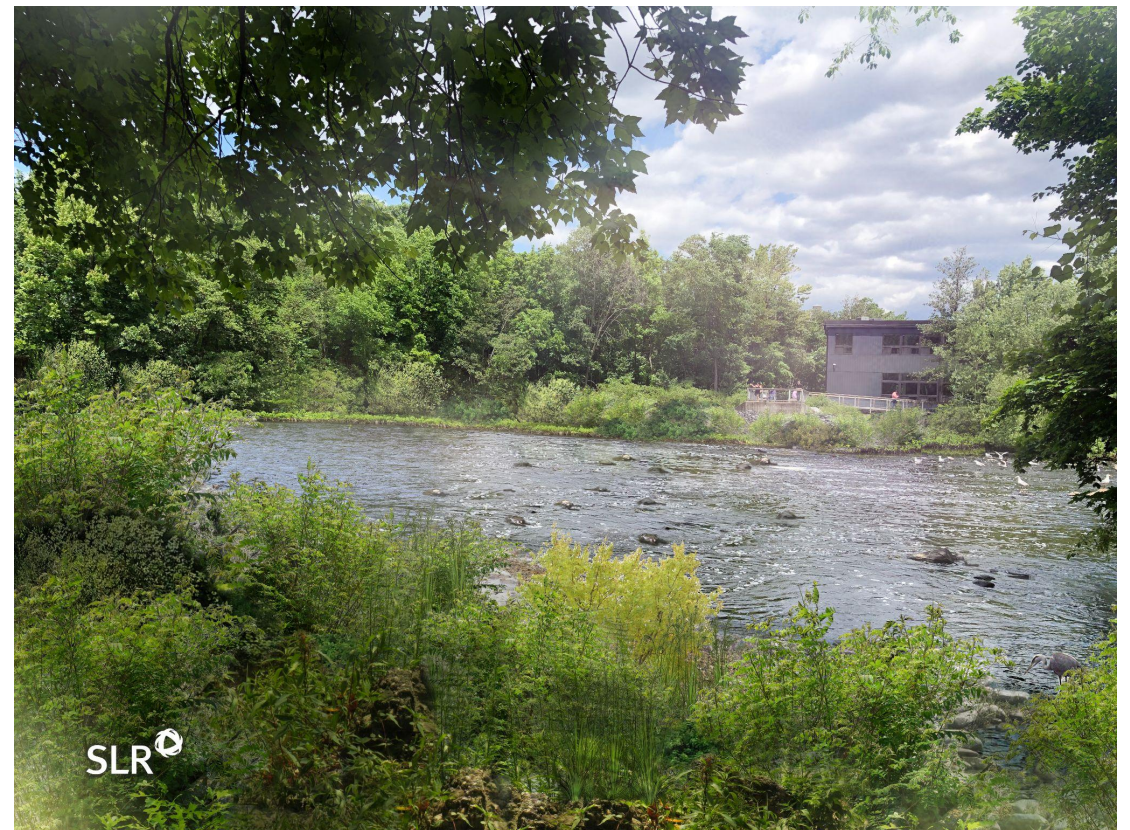
Members of the CC agreed to review the minutes for the March meeting at the meeting taking place on May 4, 2022.

Schwab announced that there was a potential new member for the Conservation Commission who was going through the review process and that she would keep members of the CC updated on any added information that she receives.

Motion: Rose made a motion to adjourn the meeting at 9:45 PM. O'Connell seconded the motion.

Poll: A poll was taken, and members unanimously agreed to adjourn the meeting at 9:45 PM.

Watertown Dam Removal Watertown Conservation Commission

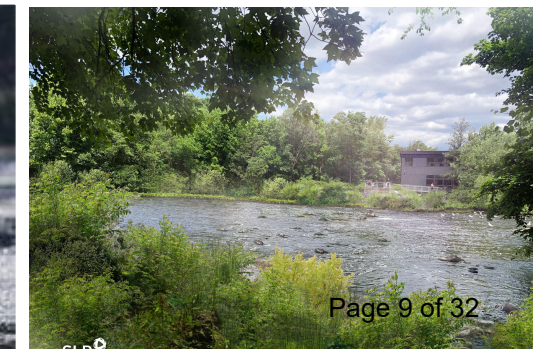


April 6, 2022

Robert Kearns, Climate Resilience Specialist

Mission: To protect, restore, and enhance the Charles River and its watershed through science, advocacy, and the law.

- Founded in 1965 by concerned residents
- One of oldest watershed associations in the country
- Work with EPA, state agencies, and 35 watershed municipalities
- Interdisciplinary staff
- Program Areas:
 - River Science
 - Stormwater
 - Climate Change Adaptation
 - Law, Advocacy, and Policy



Over 3000 Dams in Massachusetts



Charles River Watershed Association

- Many dams are relics of history and serve no purpose like Watertown Dam
- In past 12 years, 60 dams removed in Massachusetts
- Over 300 river miles opened
- Per \$1 million spent on dam removal 13 jobs are created (MassDER)

Dams (by Hazard Code)

-  High Hazard
-  Significant Hazard
-  Low Hazard
-  N/A

Climate Change Impacts Are Here



Charles River Watershed Association



Franklin 2010

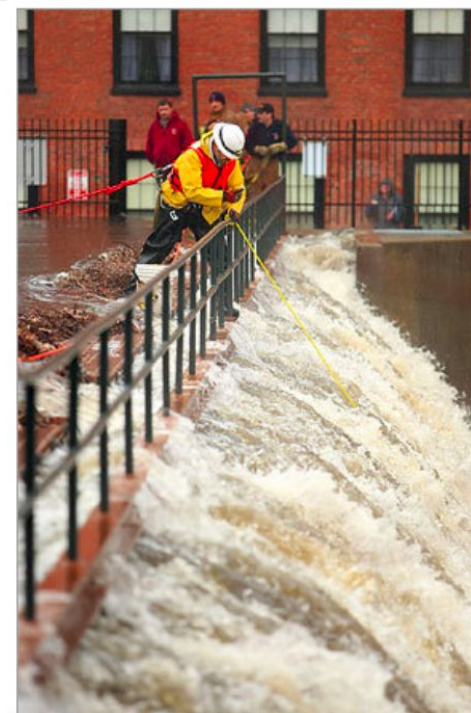


Dina Rudick / Globe Staff

Boston Seaport District 2018

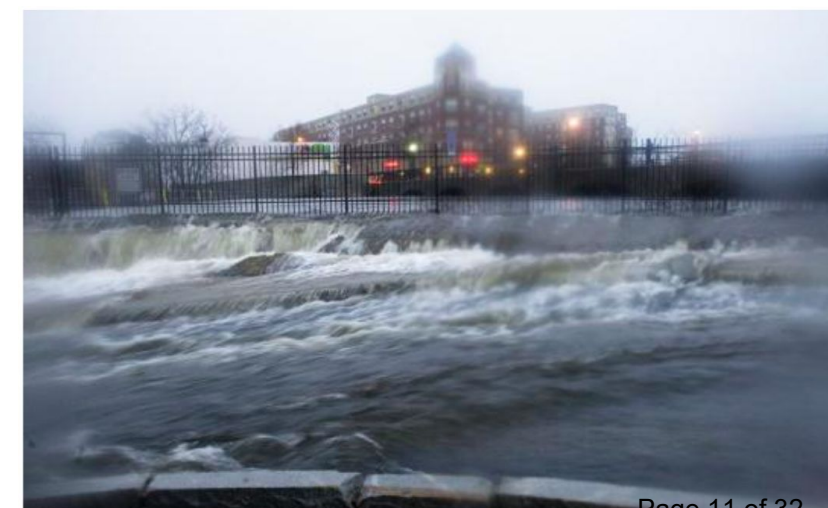


Boston 2021



Dina Rudick / Globe Staff

Moody Street Dam Failure Threat 2010 Floods



- Watertown Free Public Library has [Historic Fish Warden's Records](#)
- 1795 Act of State Legislature allowed for Town of Natick to regulate herring and shad fishery
- Wrentham Historical Commission has records of Atlantic Salmon migrating all the way to Eagle Brook in Wrentham
- Fish historically and today spawn in Tributaries like Beaver and Chester Brooks - Hardy Pond



Rainbow Smelt

Image: Digital Commonwealth

1795. — Chapter 33.

[January Session, ch. 5.]

AN ACT TO ENABLE THE TOWN OF NATICK TO REGULATE AND ORDER THE TAKING OF THE FISH CALLED SHAD AND ALEWIVES WITHIN THE LIMITS OF SAID TOWN.

Inhabitants in town meeting to determine respecting the taking of fish.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, that from & after the publication of this Act, it shall & may be lawful for the inhabitants of said town of Natick, at their annual meeting in March or April, during the continuance of this Act, to determine and order in what manner, and by whom the said fish called Shad and Alewives may be taken within the limits of said town; and the said inhabitants shall cause a copy of such order, attested by the town Clerk, to be posted up in some public place in said town, whereunto all persons shall conform with respect to the taking said fish called Shad & Alewives within said town of Natick, on penalty that each and every offender against the same, shall forfeit and pay the sum of three Dollars and thirty three Cents, to be sued for and recovered before any Court proper to try the same, one moiety to the Informer, and the other moiety to the poor of said town of Natick. Approved February 5, 1796.

- Native Americans from the Massachusetts Nation had fish weirs at the site of the dam which is the so-called “head of tide” or just upstream of the high tide mark.
- Indigenous people in Natick [petitioned state legislature to stop construction of dam in 1735](#)
- Critical food and nutrient source taken away from the Indigenous people upstream
- Dams are a legacy of colonization which favor agricultural settler colonial cultures over fishing-based ones



JUNE 18, 2019

By Carla

Cevasco

in FOOD AND

HUNGER,

ROUNDTABLES, VAST

EARLY AMERICA

Tags:

ENVIRONMENTAL

HISTORY, FISH, FOOD

HISTORY, LAND,

NATIVE AMERICANS,

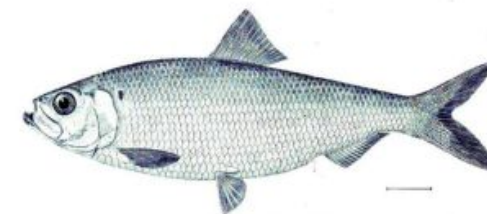
TECHNOLOGY

9 COMMENTS

Damming Fish and Indians: Starvation and Dispossession in Colonial Massachusetts

Today's post in the Roundtable on Food and Hunger in Vast Early America is by Zachary M. Bennett, who is Visiting Assistant Professor of History at Connecticut College this autumn. He is a Ph.D. candidate at Rutgers University-New Brunswick. His dissertation, "Flowing Power: Rivers, Energy, and the Making of New England," examines the political ecology of waterpower before the industrial revolution.

Compared to other Native Americans in southern New England, the Ninnimissinuok community of Natick, Massachusetts seemed to have secure footing going into the eighteenth century. Located only fifteen miles outside of Boston on the Charles River, Natick was the largest community of Native American converts to Christianity—or “Praying Indians”—in mainland New England with a population exceeding two hundred persons. These Praying Indians owned their land in corporation to safeguard their enclave against land hungry colonists. To passersby, Natick residents farmed like their English neighbors, dressed like them, and even worshipped like them too. Yet, in contrast to their English neighbors, this community steadily declined over the course of the eighteenth century. In 1753, Natick’s Praying Indians had dropped to “twenty-five families, besides a few individuals.” Eleven years later in 1764 there were only “eight or ten families.” By the 1790s there were only twenty-some “clear blooded” Indians in Natick.^[1]



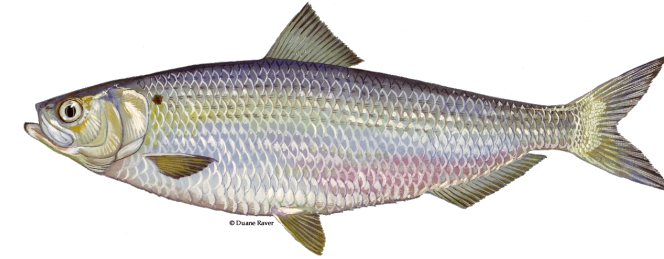
Anglo observers were mistaken in thinking that Natick’s Indians disappeared. Many moved, intermarried with African Americans, or became itinerants that were harder to track down.

Fish Passage at the Watertown Dam

- Rainbow Smelt, American Eel, American Shad Alewife and Blueback Herring
 - Eel migrate from river to spawn in Sargasso Sea/Bermuda Triangle
 - Alewife and Blueback herring, Smelt and Shad live in ocean, spawn in rivers/ponds

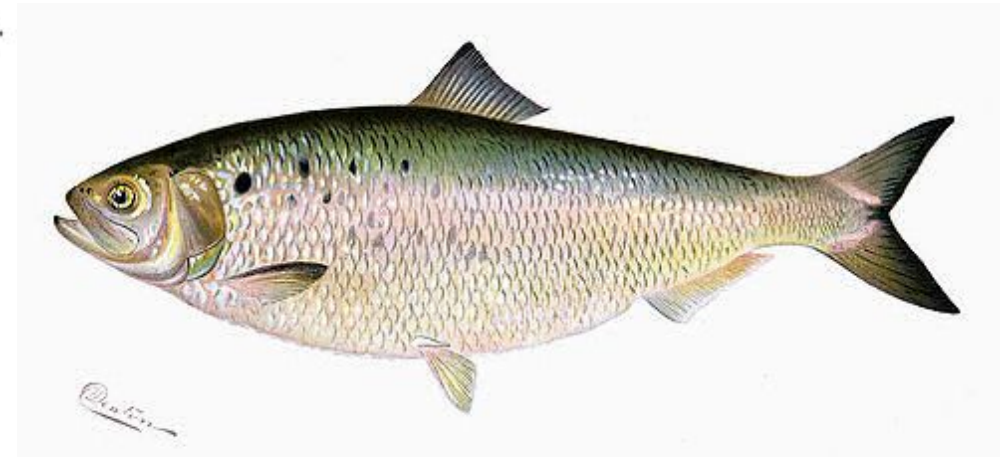
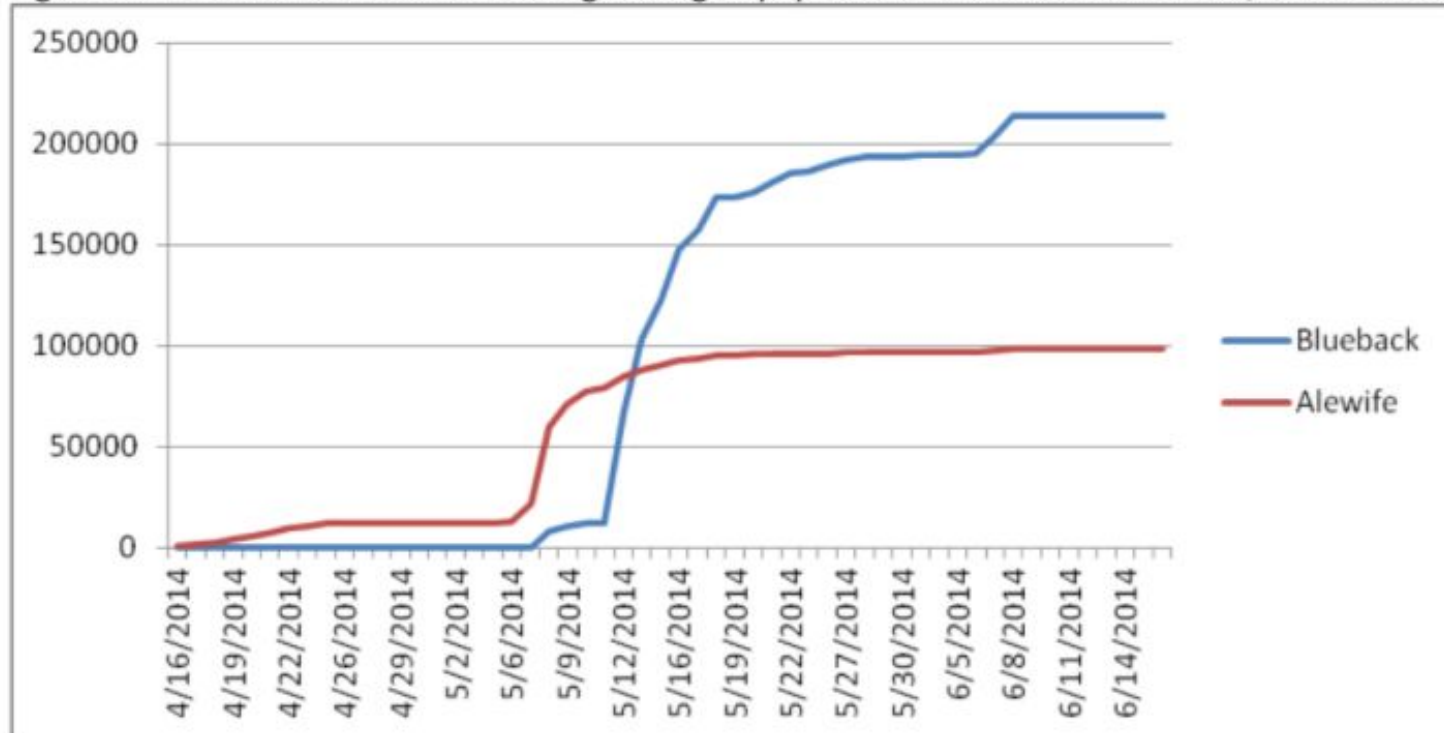


Alewife

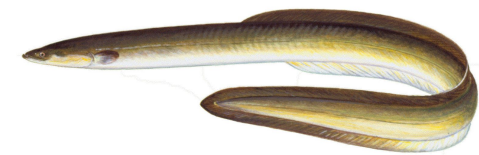


Blueback Herring

Figure 3. Estimated 2014 River Herring Passage by species at the Watertown Dam, Charles River.



American Shad



American Eel



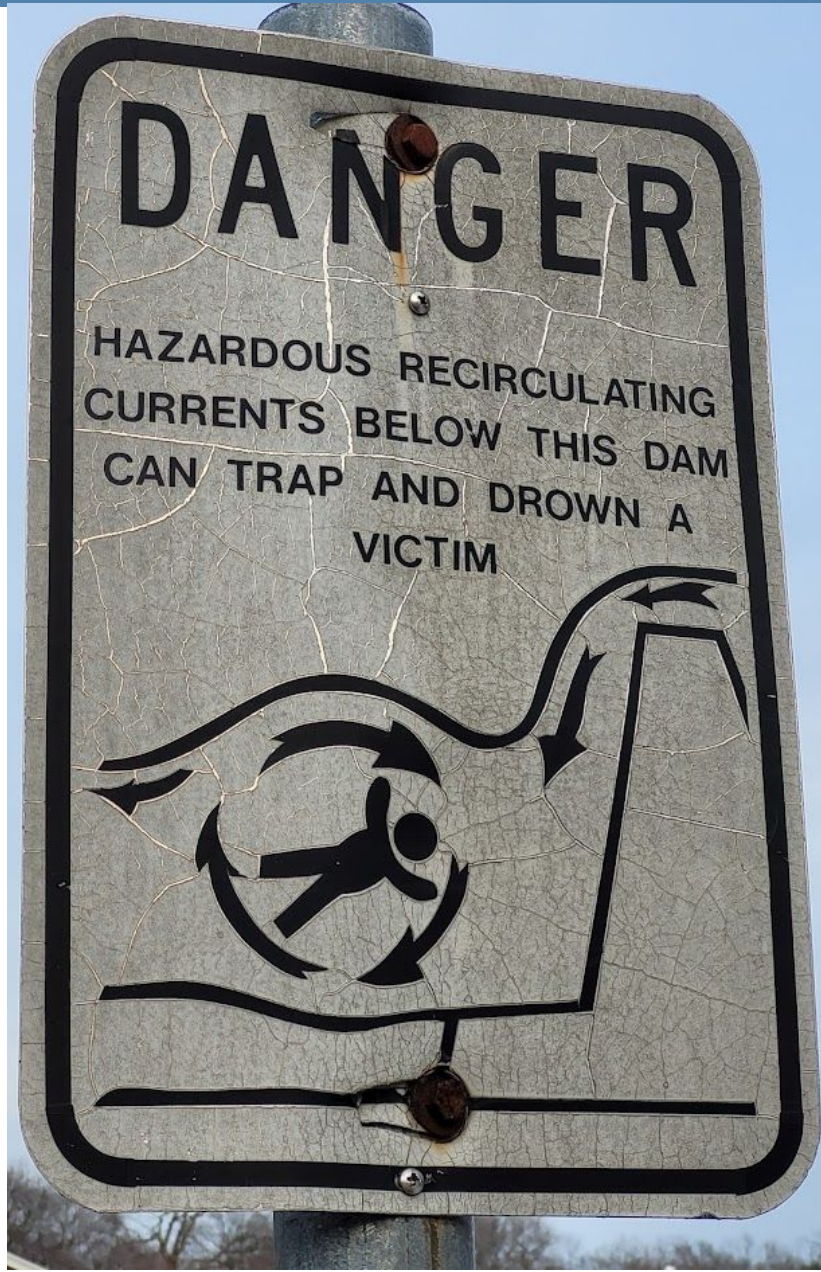
Partially Breached North Bellingham Dam
(Poor Condition)

- Since colonization 10 dams been breached or fully removed
 - Fully Breached
 - Claflin's Dam (Hopedale/Milford)
 - Factory Pond Dam (Bellingham, Hopedale, Mendon)
 - Red Mill Dam (Bellingham)
 - Caryville/Old Mill Dam (Bellingham)
 - Upper Privilege (Franklin/Medway)
 - Middle Privilege (Franklin/Medway)
 - Third Privilege (Franklin/Medway)
 - Rockville Dam (Millis/Norfolk)
 - Baltimore Dam (Millis)
 - Charles River Dam (Boston/Cambridge)
- 19 dams remain on the main stem of the Charles River
 - 44-244 Years Old
 - Remaining Partially Breached Dams:
 - North Bellingham Dam (Bellingham)
 - Bemis/Nonantum Dam (Newton/Watertown)
 - Bleachery Dam (Waltham)
- Condition of Charles River Dams
 - 1 Unsafe
 - 5 Poor
 - 6 Fair Condition
 - 2 Satisfactory
 - 1 Good

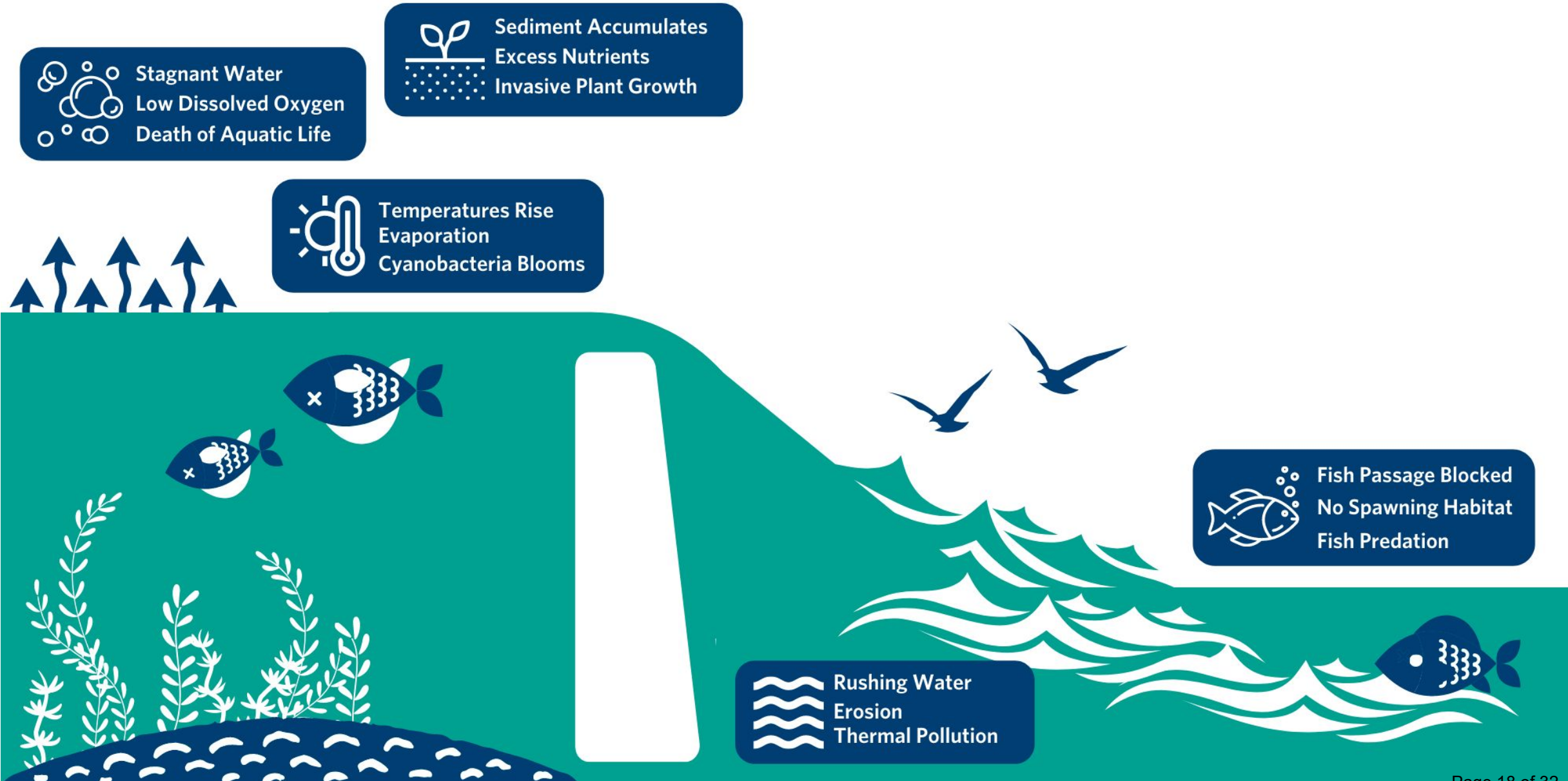
Bellingham Old Mill Dam Removal 2017



- There is precedent for recent dam removal on the Charles River
- Town of Bellingham Removed Old Mill Dam in 2017



Dams Destroy the Charles River Ecosystem





- 56 year old significant hazard potential dam in fair condition
- Owned by DCR
- Removal would have little impact on recreation
 - Likely net positive
- [Feasibility Study](#) 2018- 2021
 - Dam removal found to be feasible
- CRWA building grassroots support to convince DCR to remove the dam

Restoring Shad Fishery to the Charles

- 2006 - 2016 CRWA worked with US Fish & Wildlife and Mass DMF to stock American shad in the Charles River
 - ~25 million+ baby fish (fry) released
- 2012-2017, CRWA worked with DMF to monitor American shad returning to the Charles to spawn
 - Alewife and blueback herring were able to pass through the fish ladder, but Shad, especially females, had trouble
- 2016 CRWA petitioned to Division Of Ecological Restoration the dam as a priority project
 - Accepted in 2017



Watertown Dam and Flooding



Charles River Watershed Association



- 2010 Water went above and around dam
- Feasibility Study: **Watertown dam does not provide flood control or operate as such**
- Removal: Lower flood elevations approximately 6 feet (at the dam)
- Reduction in floodplain approximately 1/2 mile upriver of the dam
- No changes anticipated for flooding or flow downriver of the dam

FIGURE 5-6
Existing Conditions 100-Year +30% Floodplain Extents vs. Post-dam Removal



Watertown Fish Ladder



Charles River Watershed Association

- About 300,000 river herring attempt to migrate up river annually
- 15000 fish per day using ladder
- None of the American shad that were tagged were observed to make it up the ladder
- Ladder in shallower location (right bank), deepest on left bank
- Fish mortality b/c of predation and poaching below the dam where fish get stuck
- New ladder likely costly, no water quality benefits nor passage for all species



Is a new fish ladder a smart solution?



Charles River Watershed Association



Stagnant Water
Low Dissolved Oxygen
Death of Aquatic Life



Sediment Accumulates
Excess Nutrients
Invasive Plant Growth



Temperatures Rise
Evaporation
Cyanobacteria Blooms

Fish Ladders DON'T:

1. Improve water quality
2. Allow sediment transport
3. Restore groups of aquatic organisms

Some Fish may Pass
On Ladder, Rainbow
Smelt Still Blocked

Many fish will still be
blocked with ladder!
Nothing beats a
free-flowing river!



Fish Passage Blocked
No Spawning Habitat
Fish Predation

Fish congregate at
ladder entrance,
increasing predation



Rushing Water
Erosion
Thermal Pollution

-- WATERTOWN DAM --

PHASE I

INSPECTION / EVALUATION REPORT



Dam Name: Watertown Dam

NID ID#: MA00456

Owner: Department of Conservation &
Recreation

Town: Watertown

Consultant: GZA GeoEnvironmental, Inc.

- Dam owners required to pay for regular dam safety inspections every few years
- Dam Owners Required to comply with repair recommendations/orders out of own pocket/budget of state agency (DCR)
- Dam removal often less expensive than maintenance and repair of aging dams.
 - Savings to Residents/Taxpayers in this case
- Federal and state funding and technical assistance available to help finance and support dam removal projects
 - Division of Ecological Restoration
 - NOAA Fisheries Restoration Center
 - US Fish and Wildlife Service
 - Municipal Vulnerability Preparedness Program
 - MA Dam and Seawall Repair Grants/Loans
- One time cost of removal with immediate and lasting benefits

- Legacy of industry in river, feasibility study found some pollutants behind the dam
 - Heavy metals (cadmium, arsenic, copper, chromium, zinc) above safety thresholds
- Most fine-grained (polluted) material on the banks
- Larger dams upstream hold back larger amounts of sediment
- ~1,700 cubic yards of sediment would likely need to be removed off site
 - Removal of sediments would also prevent any uncontrolled releases

FIGURE 5-4
Aerial View of the Watertown Dam Removal and Sediment Removal Extents



(2021 Feasibility Study)

Dam Today - Before Downstream View



Dam Removal Rendering After



Watertown Dam Today Aerial



Charles River Watershed Association



Dam Removal Rendering Aerial



Charles River Watershed Association



Thank You!

Would love your support
to advocate to the DCR
Commissioner and EEA
Secretary.

Robert Kearns

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617.540.5650 x 1075



SLR[®]



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2023 CONSERVATION COMMISSION MEETINGS-PROPOSED
AND FILING SCHEDULE
1st Wednesday of Each Month
7:00 p.m.

Please check the updated meeting agenda on the City Website for the specific meeting participation information within 48 hours of the scheduled meeting.

Filing Date 5:00 p.m.	Additional Deadline 12:00 p.m.	Meeting Date 7:00 PM
December 14	Dec 28	January 4
January 11	January 25	February 1
February 8	February 22	March 1
March 15	March 29	April 5
April 12	April 26	May 3
May 17	May 24	June 7
*June 21	July 5	July 12
No August Meeting		
*August 23	Sept 6	September 13
September 13	September 27	October 4
October 11	October 25	November 1
November 15	November 29	December 6

Commented [SL1]: First night of Passover

FILING DEADLINE – This is last day to file to be scheduled for next month's Public Hearing.

ADDITIONAL INFORMATION DEADLINE – For applicants who have filed, this date is for additional supporting documentation not submitted at filing date.

*Moved for a holiday.