



**NEWTON
CONSERVATORS**

WINTER ISSUE

NEWSLETTER

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Let the Charles River Run Free: The Case for Removing the Watertown Dam

By Julia Hopkins, *Communication and Outreach Manager* with Lisa Kumpf, *River Science & Restoration Program Manager, Charles River Watershed Association*

Watertown Dam is a highly visible site on a nationally iconic river; its existence has long been opposed by Indigenous people, it does not serve a purpose, and its presence negatively impacts the river. Removing the dam, restoring fish passage, and healing the river is a transformative, positive act in a time of great change and uncertainty. Learn more at crwa.org/dam-removal and at <https://storymaps.arcgis.com/>.

For over 400 years, the Charles River has been altered, controlled, and dammed to bend to the will of industry and profit.



Aerial photo of the Watertown Dam

The river we know today is not free — but instead, is a river radically changed by the long history of human intervention. We dammed its waters to power industry, leaving a legacy of toxic pollution in our wake. We straightened its gentle meanders, buried its tributaries, and hardened its shores, constricting its natural flow. We drained and filled its wetlands to free up more land and let our parking lots sprawl right up to its banks.

Now, we are facing the consequences. Today, our river and all who depend on it suffer from our attempt to control nature — polluted water quality from stormwater runoff, impeded fish passage by aging, defunct dams, invasive species growth, harmful cyanobacteria blooms, and biodiversity loss. Climate change is amplifying these impacts. We took away our river's natural resilience to adapt to the challenges of increased precipitation, stronger storms, drought, and extreme heat — and now all of us, but especially our most vulnerable, are at risk.



Quote from Robert Kearns, Climate Resilience Specialist

We are at a critical juncture — the time is now to reverse the antagonistic relationship we've built with the river by setting it free.

A River Interrupted

Before colonization, the Charles River flowed freely, and Indigenous ancestors relied on its vibrant population of migratory fish for food, water, and cultural survival. Each spring, the Charles River historically welcomed hundreds of thousands of migratory fish from the depths of the ocean to the river's numerous lakes, ponds, and

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PHOTO: COURTESY OF THE CHARLES RIVER WATERSHED ASSOCIATION

Schooling fish

clean, rich habitats with cool, flowing waters to begin their life.

In 1783, despite Massachusetts law requiring dam owners to provide ample fish passage, colonists raised Watertown Dam several feet to increase its power yield, completely blocking spring fish runs upstream to the Nipmuc people in Natick. Nipmuc ancestors residing in Natick actively petitioned the state legislature in opposition to the Watertown Dam, as it infringed on Indigenous rights to



PHOTO: COURTESY OF THE CHARLES RIVER WATERSHED ASSOCIATION

Alewives schooling

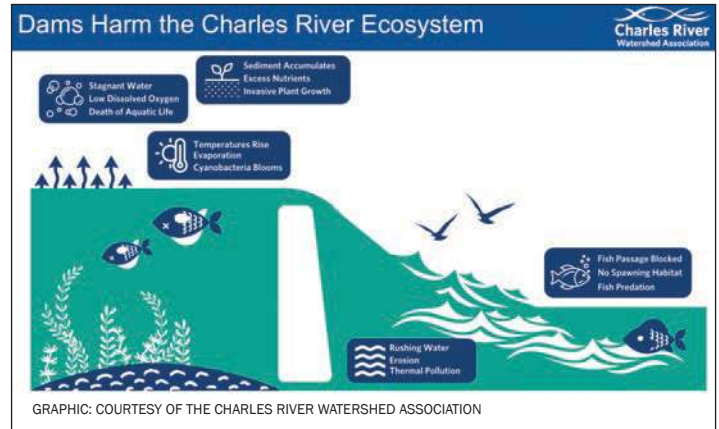
food sovereignty, stripping the community of vital resources, cultural ways of life, and free-flowing water. However, their protest was to no avail. As dams were constructed on the Charles River, migratory fish lost a staggering two-thirds of their available habitat. The consequences were stark and swift. By 1920, American Shad and Alewives, two of the most populous native migratory fish species, were declared extinct in the Charles River, and the possibility of their return was deemed remote in a study from the Massachusetts Division of Fisheries & Game. But American Shad and Alewives did not go extinct, thanks to the considerable cleanup of the Charles River, and ongoing restoration efforts.

Today, over 100 defunct dams continue to choke the Charles River and its tributaries in an affront to Indigenous peoples' rights and with stark consequences for water quality, aquatic life, public health, and climate resilience.

Migratory fish are still stopped short of insurmountable functionless dams. The rights of the Nipmuc, Massachusetts and Wampanoag nations to food sovereignty and cultural survival are denied. Defunct dams disrupt natural hydrology — the slow-flowing water upstream faces rising temperatures, rapid evaporation, the accumulation

tributaries to spawn. American Shad, Blueback Herring, Alewives, Rainbow Smelt, White Perch, Striped Bass, and American Eel; diadromous fish species enjoyed

of sediments and excess nutrients, and disastrously low dissolved oxygen levels; all of which contribute to invasive species growth, severe cyanobacteria blooms, biodiversity loss, habitat loss, and in extreme conditions, the death of all aquatic life. And above all, as climate change brings more frequent and intense heavy rainfall events, defunct dams were not designed for the intensity of today's storms, and our homes, roads, and critical infrastructure will flood in the event of catastrophic dam failure.

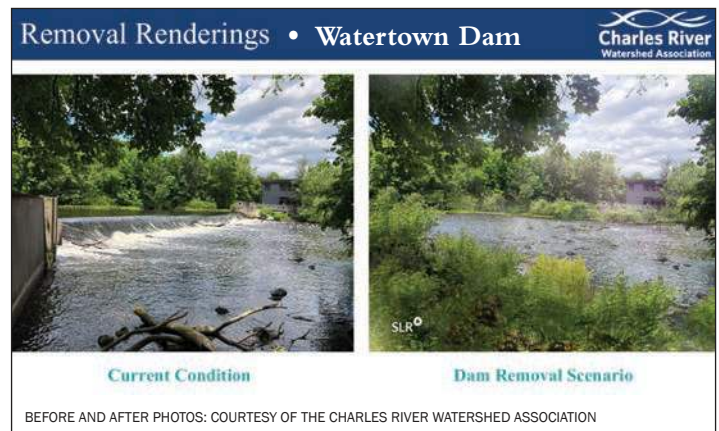


GRAPHIC: COURTESY OF THE CHARLES RIVER WATERSHED ASSOCIATION

A River Resurgent

Let's set the Charles River free — by removing functionless barriers like the Watertown Dam and allowing nature to take its course, our river again has the opportunity to be a welcome place for all people, plants, and wildlife. Dam removal offers the opportunity to acknowledge the rights of present-day Nipmuc, Massachusetts, and Wampanoag people, revive migratory fish populations, restore the river ecosystem, and build climate resilience across the watershed.

Across the state of Massachusetts, over 60 relic mill dams have been removed from our rivers, including Old Mill Dam in Bellingham, and many more are under consideration for



BEFORE AND AFTER PHOTOS: COURTESY OF THE CHARLES RIVER WATERSHED ASSOCIATION

removal, including Watertown Dam, Charles River Dam in Natick, and Eagle Dam in Wrentham.

For some, dams are seen as iconic or historical structures, reminders of the area's industrial past. Their long-lasting presence in our rivers and streams has become familiar, and dam removal presents an unknown. Some wonder how wildlife they have witnessed near the dam could adapt to such a big change. But nature knows what to do, and nostalgia should not hold back our river's right to be free.

But what does dam removal actually look like? The Charles River's transformation will look a little bit like the renderings on page 2 — from the instant the functionless barrier is slowly and carefully removed by engineers, in collaboration with wildlife experts and with the help of streambank restoration, our river will be resurgent — meandering more naturally through the newly created flood

plain, buffered by a vibrant wetland ecosystem that helps us weather intense storms, and welcoming all manner of fish, birds, insects, and life. And the transformation will be swift — as the river's edges are exposed to sunlight, dormant seeds will blossom from the riverbed into lush native plants — milkweed, swamp hibiscus, sedges, marsh marigold, asters, goldenrod — providing habitat for birds and wildlife and scenic beauty for all to enjoy. With the dawn of spring, migratory fish will return from the ocean, instead of stopping short at a wall of concrete, and experience free passage to an abundance of clean, cool waters and tributaries to spawn for the first time unimpeded in over 400 years.

We will all be able to again enjoy the wonders of a wild, living river. ♦

The Community Way Forward — A Green Connector for Newton and Needham

By George Kirby, Upper Falls Greenway cofounder and board member, Bay Colony Rail Trail Association (BCRTA)

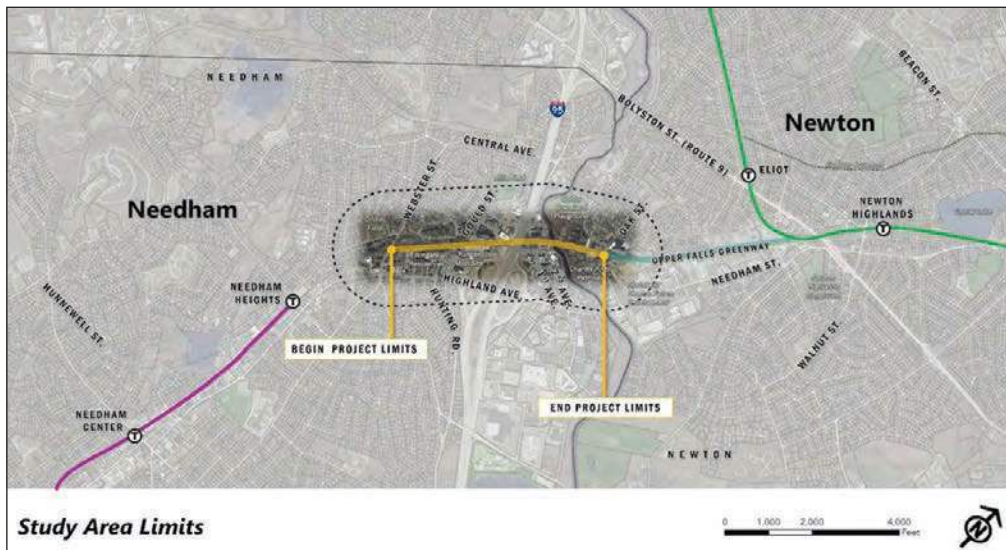
Thinking back over 12 years ago to the beginnings of what became the Upper Falls Greenway, our group of dedicated volunteers understood that it would take time to make the old railroad right-of-way into a future bicycle and pedestrian trail. Over 12 years and many efforts later, we're continuing to walk, run, and bike the Greenway for fresh air, exercise, and access to Needham Street shopping without having to drive. Together with the City of Newton and the Town of Needham, the first steps have been taken to bridge our Greenway to the proposed Community Way spanning the Charles River and Route 128/95.

Last year, a study initiated through a state grant of the American Rescue Plan Act of 2021 (ARPA) provided funds to conduct an initial feasibility assessment of the proposed Community Way. The grant terms provided for a two-pronged assessment of the corridor for use either as

a bicycle/pedestrian way or as a combined pathway and busway. The consulting group GPI conducted the study and included professionals with expertise in design and construction of both transportation corridors and bicycle/pedestrian trails. The study working group also included representation from municipal administrations, elected officials, and volunteers.

Josh Ostroff provided positive input and insight as Director of Transportation Planning for the City of Newton.

The results released this September included a survey of potential users in Newton and Needham that showed roughly a 2:1 preference for building a dedicated bicycle and pedestrian way (without carrying shuttle bus traffic). Although the study was limited to the area of the Community Way, the working group further noted that bicycle and pedestrian connectivity would be improved. Still, rapid shuttle bus access to nearby transportation



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