

WORKING WITH Conservation Commissions ON DAM REMOVAL PROJECTS

Presented by

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for the

Dam Busters Webinar Series

OCTOBER 1, 2025



Overview

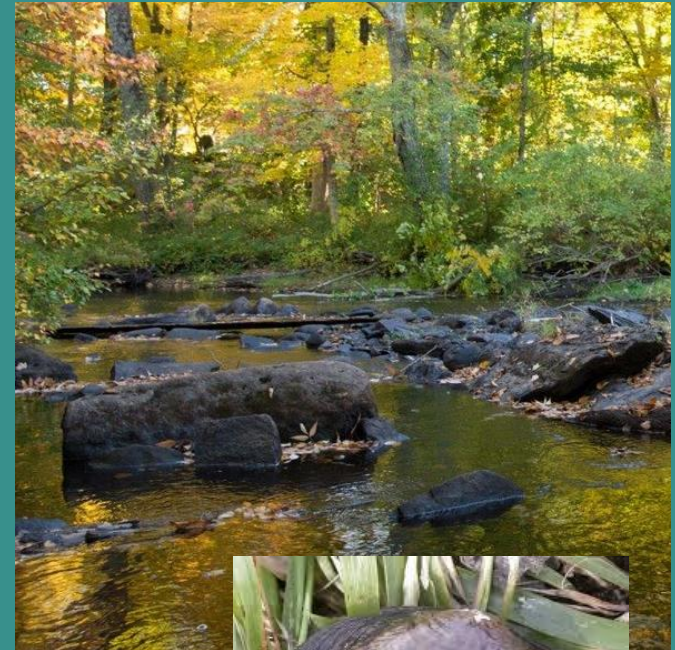
- Pepperell's Dam Removal Experience
- Ecological Restoration Projects
- Key Tips for Working with Cons Coms



Pepperell Dam Removals

Pepperell's Ecological Resources

- Coldwater Fishery Resources
- Outstanding Resource Waters
- Squannassit Area of Critical Environmental Concern
- Nashua, Squannacook, & Nissitissit Wild and Scenic Rivers
- Home to native eastern brook trout and rare mussel and turtle species



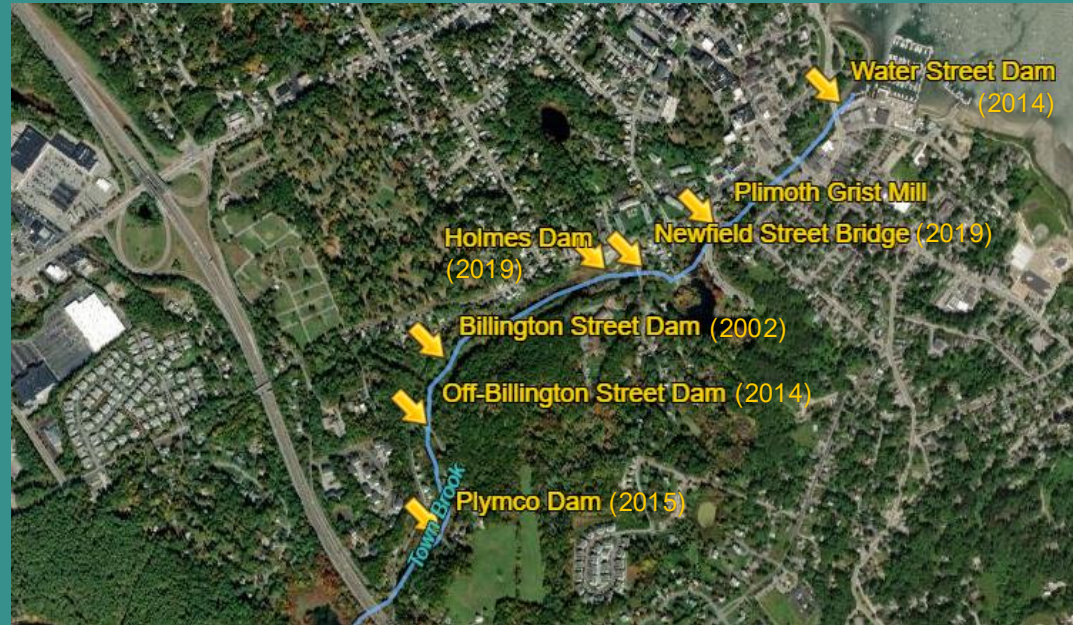
Pre-Removal – Public Concerns

- Heard questions & concerns from the public
 - Historic
 - Flow in the river
- Sought out others who had been through dam removals to learn from their experience
- Visited sites of other dam removals...



Pre-Removal – Town Brook Site Visit

- Plymouth, MA
- 5 dam removals and 1 fishway
- Historic dams
- Learned about Native American pre-dam history
- Learned about ecological benefits



Pre-Removal – Preliminary Studies

- MA Div. of Ecological Restoration (DER) provides funding and technical assistance for **Dam Removal Preliminary Design Services**
 - Topographic and bathymetric surveys
 - Sediment testing analyses
 - Wetland resource assessments
 - Hydrologic & hydraulic modeling
 - Identification of potential impacts to environmental resources, infrastructure, historic resources, etc.
 - List of potential permitting requirements
 - Preliminary design plans and cost estimates
 - Memo summarizing above info and recommending next steps



Pre-Removal – Public Outreach

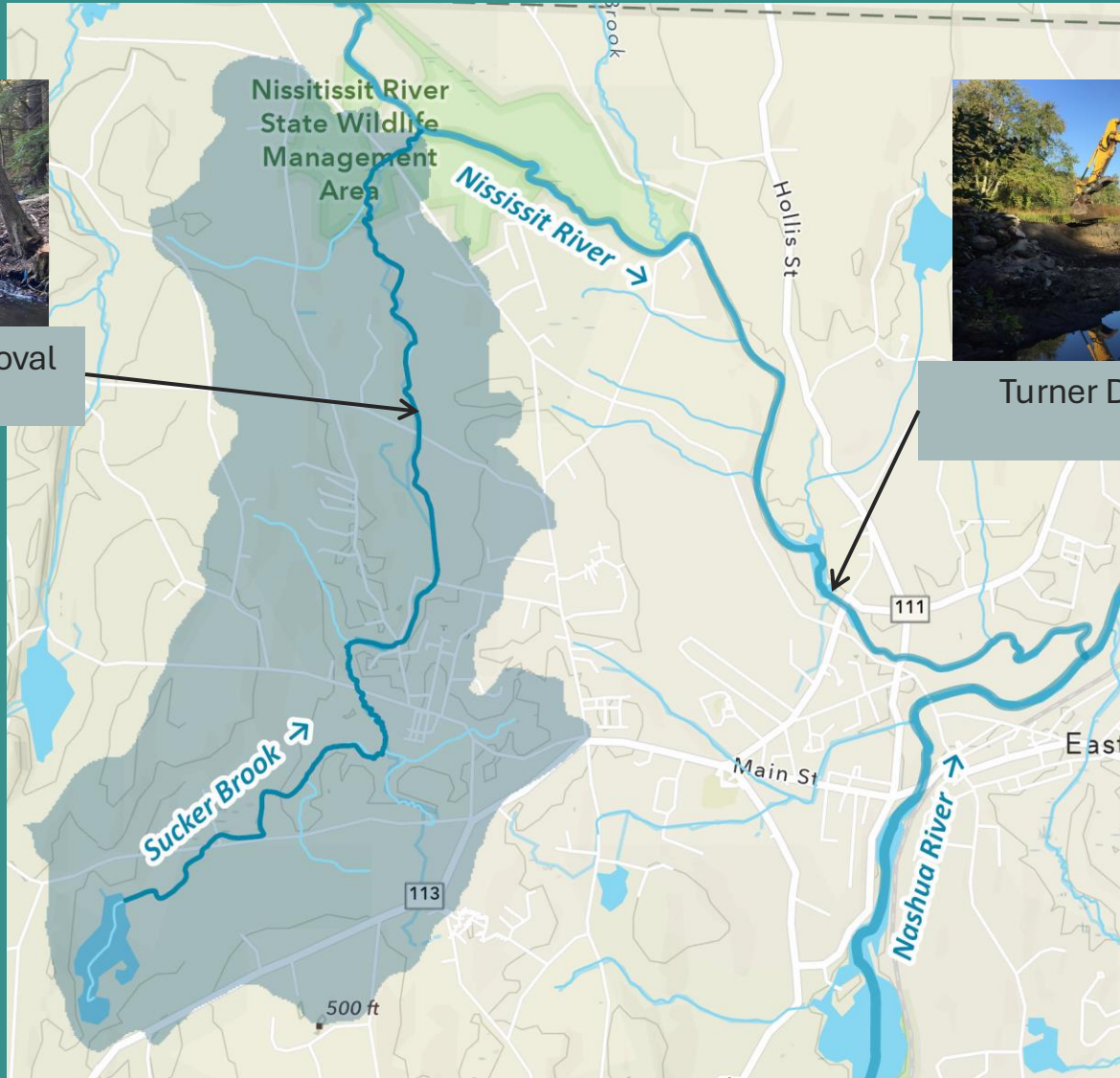
- Meetings with Conservation Commission and other town boards/commissions
- Presentations at local chapter of Trout Unlimited
- Outreach and presentations at local community centers
- Public site visits
- Town website



Pepperell Dam Removals – Overview



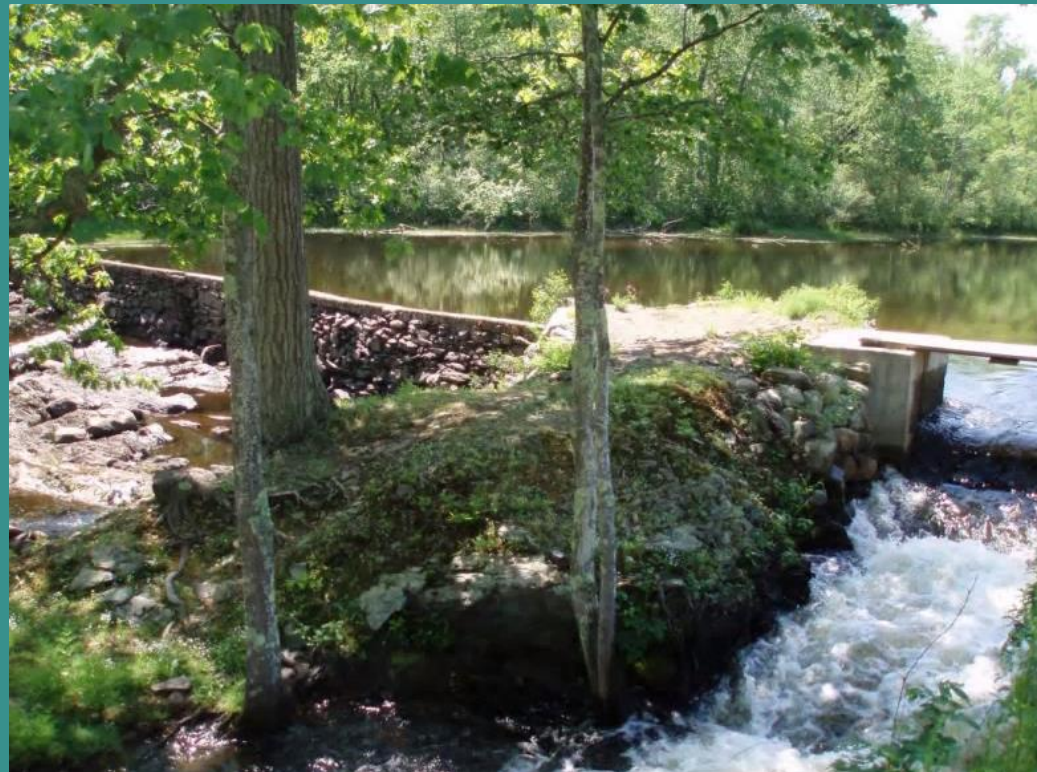
Keyes-Parker Dam Removal
(2021)



Turner Dam Removal
(2015)

Turner Dam Removal

- High-Hazard, privately owned dam
- Historic site (mill building demolished)
- Only barrier on the Nissitissit River
- State-listed mussels
- Timeline:
 - 2011 Recon Study
 - 2015 Removal
- Reconnected 40 miles upstream to 57 miles downstream



Turner Dam Removal – Before



Turner Dam Removal – During



Turner Dam Removal – After

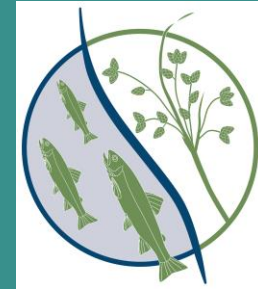


Turner Dam Removal – 12 Mo. After



Turner Dam Removal – Partner Efforts

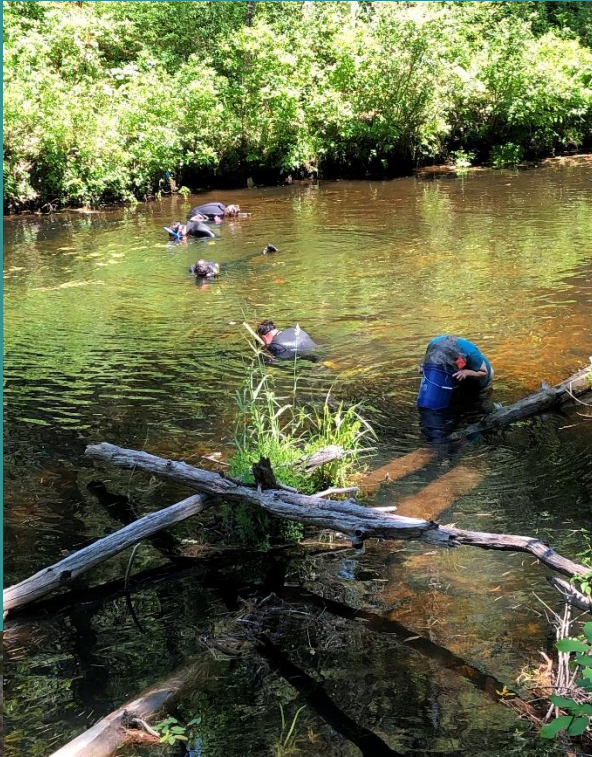
- **MA Div. of Ecological Restoration**
2011 Reconnaissance Study
- **Trout Unlimited Squan-a-Tissit Chap.**
Data loggers, leadership, volunteer efforts, funding
- **MA Division of Fisheries and Wildlife**
Fish surveys since 2014, PIT tags
- **MA Natural Heritage Program**
Study and translocation of rare mussels
- **Keene State College** *(with funding support from TU)*
Pre- and post-removal sediment transport studies
- **UMass Amherst**
Pre- and post-removal water quality studies
(temperature & dissolved oxygen)



MASSWILDLIFE



Turner Dam Removal – Partner Efforts



Keyes-Parker Dam Removal

- Non-jurisdictional dam within the town-owned Keyes-Parker Conservation Area
- Sucker Brook (coldwater fishery)
- Part of a larger ongoing connectivity restoration project involving multiple dam removals and culvert replacements



Keyes-Parker Dam Removal – Before



Keyes-Parker Dam Removal – After

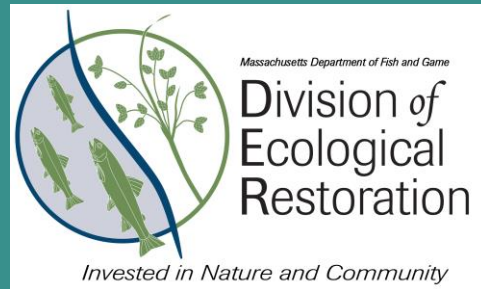


Keyes-Parker Dam Removal – 6 Mo. After

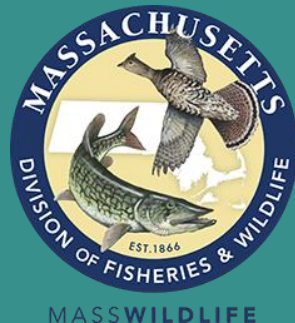


Sucker Brook Restoration Partners

KEY PARTNERS



KEY SUPPORT



Ecological Restoration Projects

Wetlands Protection Act

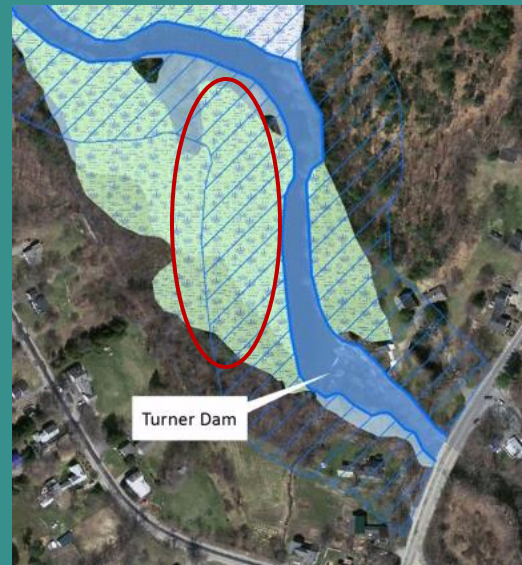
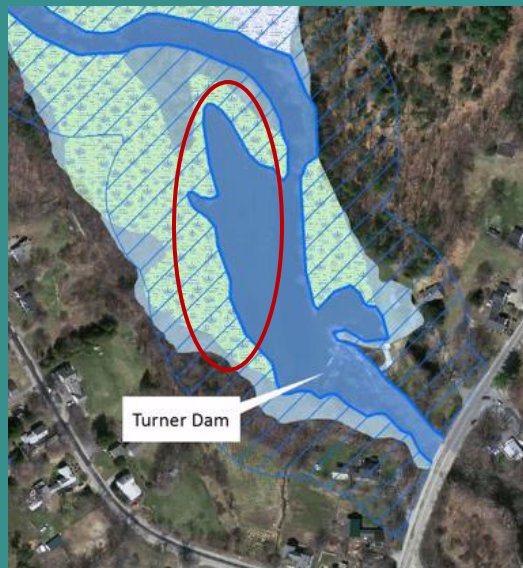
- **1972: Wetlands Protection Act (MGL c.131§40)**
Authorized each city and town in MA to establish a locally appointed municipal agency (conservation commission) to plan for natural resource protection, acquire important land and water areas, and manage properties for conservation and passive recreation
- **2014: Amendment to Wetlands Regulations**
Established criteria for Ecological Restoration Projects to be eligible to receive a Restoration Order of Conditions (310 CMR 10.11 – 10.14)

Ecological Restoration Projects

- Projects whose primary purpose is to **restore or otherwise improve the natural capacity of a Resource Area(s)** to protect and maintain the interests identified in M.G.L. c 131§40, when such interests have been degraded or destroyed by anthropogenic influences
 - public or private water supply
 - groundwater supply
 - flood control
 - storm damage prevention
 - prevention of pollution
 - protection of land containing shellfish
 - protection of wildlife habitat
 - protection of fisheries
 - protection of the riverfront area
- Six project types including **dam removal**

Ecological Restoration Projects

310 CMR 10.13: Ecological Restoration Projects permitted by a Restoration Order of Conditions may result in the *temporary or permanent loss of Resource Areas and/or the conversion of one Resource Area to another* when such loss and/or conversion is necessary to the achievement of the project's ecological restoration goals



Typically, dam removals involve conversion of Land Under Water to Bordering Vegetated Wetland and associated reduction of buffers/ Riverfront Area

Working with Conservation Commissions

Overview

- Understand their concerns
- Provide examples/resources
- Focus on the Wetlands Regulations
- Make it easy for them!

Understand their Concerns

- Conduct public outreach early
- Offer informational presentations to Cons Com and other boards/commissions
- Meet onsite!
- Understand that many Cons Coms have not worked on Ecological Restoration Projects
- Emphasize that restoration projects are NOT development projects
 - Projects are designed to maximize ecological benefit

Provide Examples/Resources

- Show example before/after pics from other dam removal projects (*especially revegetation*)
- Connect them with other Conservation Agents who have been through dam removals/ERPs
- Identify nearby completed or ongoing dam removal projects and encourage them to visit
- Point them to dam removal resources (*last slide*)
- Emphasize that project partners have been doing this restoration work at dozens of sites across the state for many years with great success

Focus on the Regulations

- Educate them about Ecological Restoration Projects and Restoration Orders of Conditions
 - Restoration OOC includes general conditions and special conditions for dam removal projects
 - Cons Coms can only issue additional conditions under their bylaw/ordinance
- Refocus them on their jurisdiction if necessary
 - Wetland resources—not historic, aesthetics, etc.

Make it Easy!

- Reassure them that other agencies conduct extensive reviews and address major issues (*e.g., WQ, water supply, sediment, invasives, monitoring, etc.*)
 - DEP, DFW/DMF, NHESP, DCR, USACE
- Spell out exactly how the project meets Ecological Restoration Project criteria and WPA Performance Standards
 - Fish Runs, Banks, Bordering Vegetated Wetlands, Land under Water Bodies and Waterways, Land Subject to Flooding, Riverfront Area

Summary

- Pictures are worth 1,000 words
- Site visits are invaluable
- Wetlands Regulations have paved a pathway for these restoration projects
- Trust in the state/federal permitting process
- We all want the best for the wetland resources!



Dam Removal Resources

- Mass Rivers Dam Busters Program
 - <https://www.massriversalliance.org/dambusters>
- MA Division of Ecological Restoration
 - Chris Hirsch Dam Removal Program Manager
Chris.Hirsch@mass.gov | 857-202-2866
- Watershed Organizations / DER Partners
 - e.g., Nashua River Watershed Association
- Fisheries Organizations/Agencies
 - e.g., Trout Unlimited, MA Dept. of Fish & Game



Questions?