SELECT BOARD MEETING MINUTES
MONDAY, MARCH 3, 2026
APPROVED

Select Board Members Present: Matt Pisani, Chair; Becky Pine, Vice Chair; Alison Manugian, Clerk; John Reilly;
Select Board Members Absent: Peter Cunningham;
Also Present: Mark Haddad, Town Manager; Kara Cruikshank, Executive Assistant to the Town Manager; Tom Delaney, Consultant; Jonas Procton, Horsely Witten Group; Brian Callahan, DPW Director.

Chair Pisani called the meeting to order at 7:00 p.m. and reviewed the agenda.

7:00 P.M. Public Hearing on the Squannacook River Dam
Mr. Haddad read the Public Hearing notice into the record.

Ms. Manugian made a motion to open the public hearing. Ms. Pine seconded the motion. The motion carried unanimously.

Mr. Haddad announced that the public hearing was being held to receive public input on options for repairing or removing the Squannacook River Dam, and that information on both alternatives would be presented. Mr. Pisani thanked everyone for attending that evening and explained that the public hearing would be replayed on the Groton Channel. If anyone has any questions, they should reach out to the Town Manager directly.

Discussion for the Removal of the Dam
Horsley Witten Group was hired to determine the feasibility and process for removing the Dam. Mr. Jonas Procton, a consultant of the Horsley Witten Group, attended the public hearing to provide a PowerPoint Presentation on the Squannacook River Dam Removal Assessment. The presentation provided an overview of the background and objectives of this project. Mr. Procton discussed the area's history before the construction of the Dam and its current state. He emphasized that the Dam is in need of repairs. The presentation outlined key tasks involved in evaluating the Dam's removal. He highlighted the ecological benefits of removing the Dam and emphasized that these changes would benefit the ecosystem. The potential next steps in the removal process were also discussed, with Mr. Procton stating that the total cost is estimated at $1.2 million to $1.7 million. He explained that state and federal grants are available and could potentially cover the entire cost of the removal. (Please refer to the attached full presentation for more details.)

Public Comments/Questions
Several members of the public raised questions and voiced concerns about the removal of the dam. Some worried about a possible rise in mosquito populations if the Dam were removed. Additionally, one property owner expressed concerns about how the removal could impact property values.

Mr. Haddad explained that the 2024 Fall Town Meeting allocated $160,250 to hire two consultants, Haley Aldrich and Horsley Witten Group. They were hired to study both the removal and repair of the Dam, as well as to determine the related costs and impacts. Mr. Pisani clarified to the residents that this meeting was an informational session so residents could make an informed decision, and the issue will be up for debate at the 2026 Spring Town Meeting. Mr. Haddad clarified that the Town of Shirley supports some action on the Dam but will not provide funding for either removal or repair.

Discussion for the Repair of the Dam

Haley and Alrich, Inc. was hired to develop plans and specifications for the repair of the Squannacook River Dam. Consultant Mr. Tom Delaney was present to provide information regarding the repair process. He explained that the Office of Dam Safety has been inquiring about potential solutions for fixing the Dam. The Town Meeting allocated funds to hire an engineer to assess the Dam's condition and then went out to bid for the repair work. A total of eight bids were received, with three in the $500,000 range and the others exceeding $1 million. Mr. Delaney explained that the low bidder will hold the bid price until the 2026 Spring Town Meeting. He clarified that this bid would cover only the repairs to the existing structure of the Dam, estimated at $812,500. If the town decides to proceed with the repairs, it will also need to take responsibility for ongoing maintenance costs.

Public Comments/Questions

Several members of the public raised questions about the dam's repair. Some inquired about the cost of repairs and the ongoing maintenance required.

Mr. Haddad recommended that the Select Board include the repair article on the Spring Town Meeting Warrant, but it is the Board's decision on whether it will be for the repair or removal. Whether through a Debt or Capital Exclusion, the proposal requires a 2/3rds majority vote at the Town Meeting and a corresponding ballot question during the May 19th Annual Town Election. Mr. Pisani thanked everyone for attending that evening, and Mr. Haddad respectfully asked the Board to close the public hearing.

Ms. Manugian made a motion to close the public hearing. Mr. Reilly seconded the motion. The motion carried unanimously.

The Select Board adjourned at 9:12 p.m.
Respectively submitted by Kara Cruikshank, Executive Assistant to the Town Manager.

West Groton Dam
Removal Assessment

Groton Public Hearing

3/3/2026

HORSLEY WITTEN GROUP
Sustainable Environmental Solutions

agenda

- Background
- Dam Removal Evaluation
- Potential Next Steps - Removal
- Questions

Background

Dam Removal Study

- Initial Feasibility Study: 2024
  - Identify benefits and design considerations of dam removal

- **Follow-up Study: 2025**
  - Answer specific questions raised in 2024 study
  - Permit-level design

Background

Goals of Dam Removal

- Safety
  - Eliminate risk of dam failure
- Resilience
  - Mitigate future flooding upstream of dam
- Nature
  - Restore fish passage and habitat

Keyes Parker Dam, Pepperell

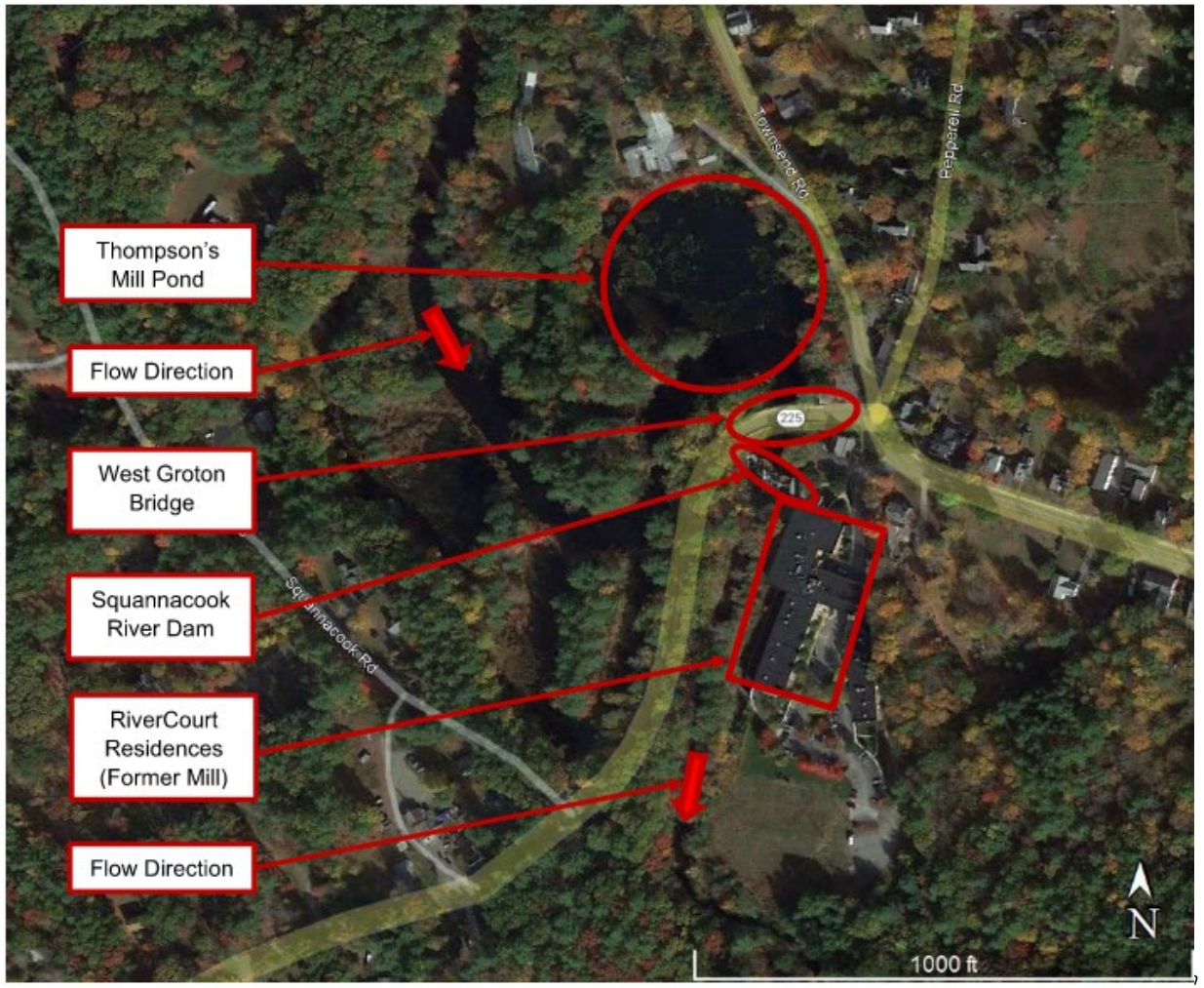
Before…

And **after…**

Background

Project Area

- West Groton Dam
  - 18 feet tall
  - Creates impoundment
- West Groton Bridge
- Hollingsworth & Vose (H&V) Dam 1.2 miles upstream



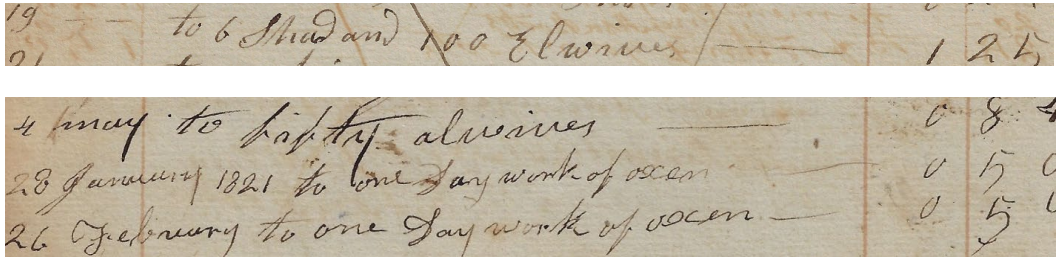
Key Project Area Features

Background

History – Prior to Dam

- Squannacook and Nashua Rivers occupied by Nipmuc people 13,000+ years ago
- Area named "Petapawag"
  - "Swampy Place"
- Records of migratory fish dating back to 1812
  - Shad and alewife (herring)

Paddling.com



Ledger of Jesse Farnsworth and John Heald, 1812-1821

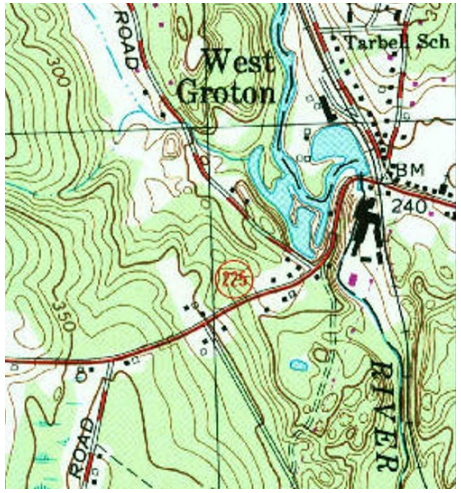
13,000 Years

Background

History – Dam to Present

- Original Dam (c. 1847)
  - Saw-and-grist mill
  - Thomas Tarbell
- Leatherboard Mill (1875)
  - E.H. Sampson
  - 1st Leatherboard factory in U.S.
- 1914 Fire and 1916 Reconstruction
  - Brick buildings seen today
  - Buildings have MHC historic status, dam does not
- Acquisition by H. Nielsen (1979)
  - Nielsen estate still owns Shirley side of dam
- Acquisition by Groton (1996)

1893 (USGS)



1965 (USGS)

1916, post-reconstruction (Stanley J. Kopec)

180 Years

13,000 Years

West Groton Dam

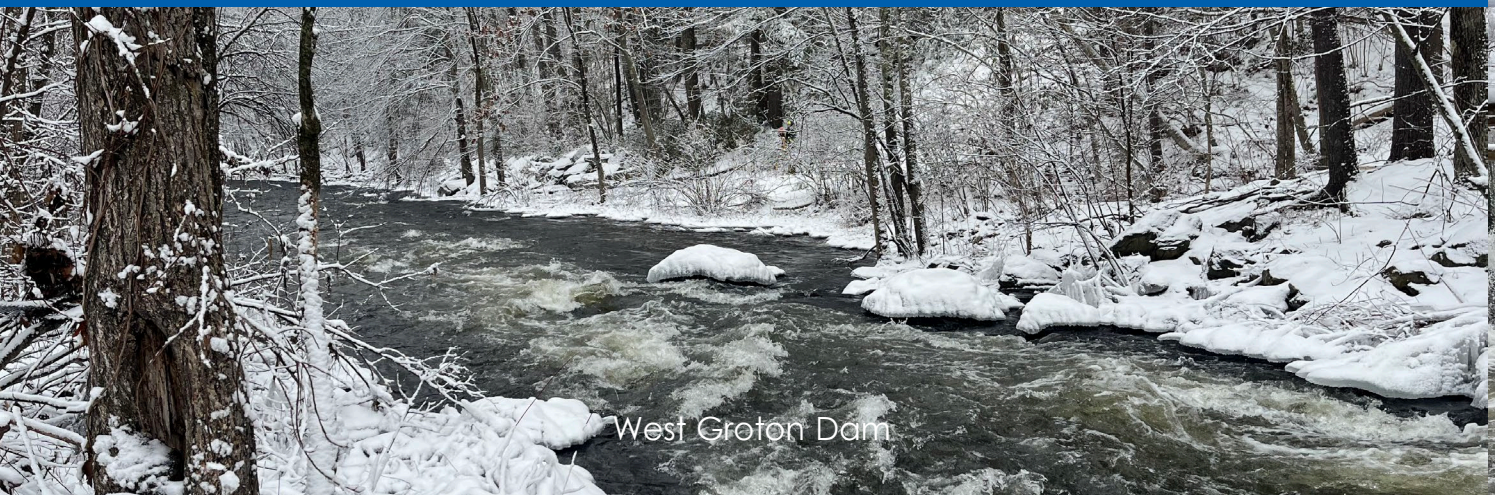
Horsley Witten Group

Background

Dam Condition – 2023 Inspection

- Cracking and spauling (flaking) on Shirley side of dam
- Shirley side of dam requires repair
- Repair retaining wall on Shirley side of river

Dam Removal Evaluation

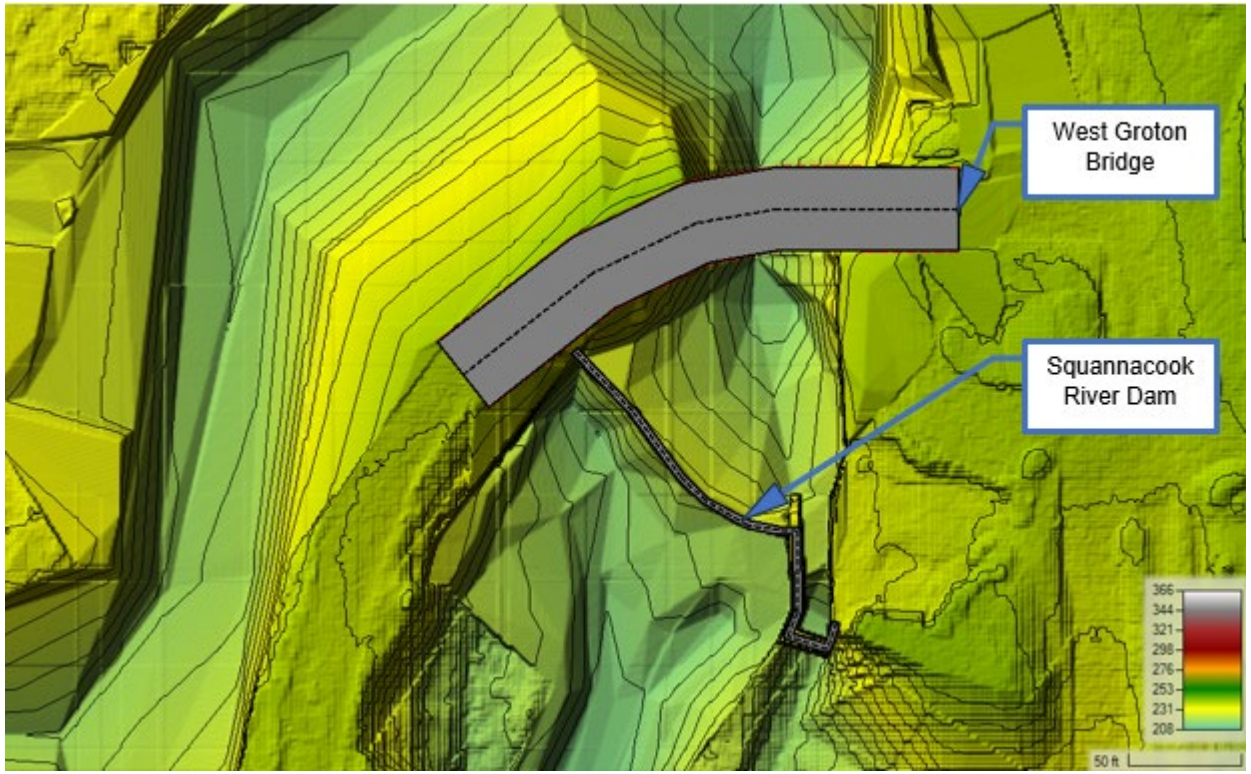


West Groton Dam

Dam Removal Evaluation

Key Tasks

- Hydrologic and Hydraulic (H&H) Modeling
  - Sediment Transport
  - Thompson's Mill Pond – water levels
  - Fish Passage
  - Scour Assessment
  - Impacts to Wells
- Sediment Quality



West Groton Dam

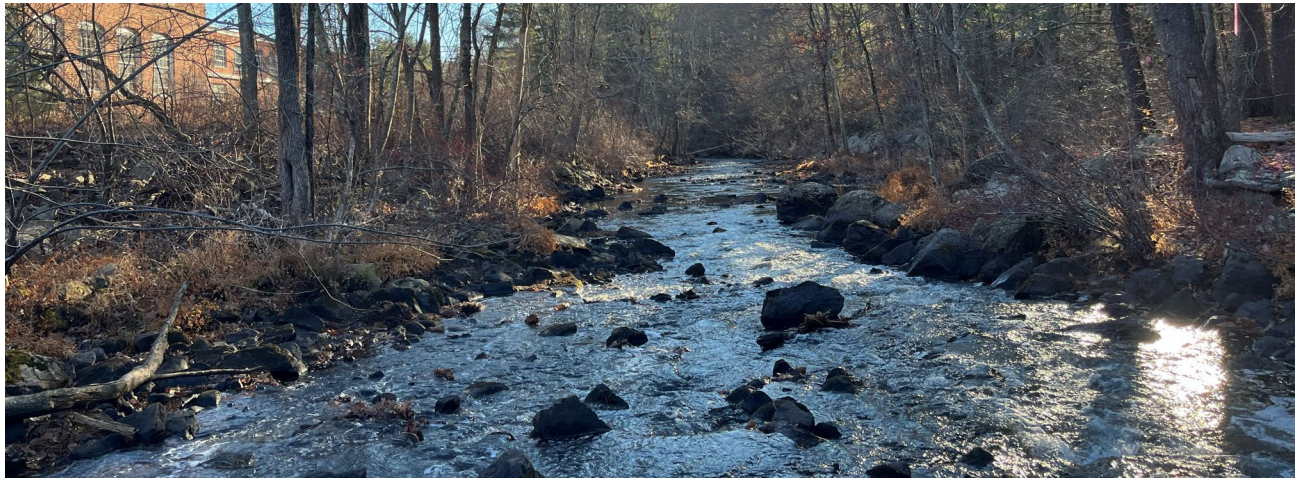
Dam Removal Evaluation

Hydrology

- The volume of water that enters the watershed as **precipitation** and is conveyed to the river as **flow**
- Impacted by:
  - Rainfall
  - Land cover
  - Topography
  - Geology

Hydraulics

- How the **flow** and the **shape** of the river interact
- River properties like:
  - Water surface elevation
  - Velocity
  - Depth



Dam Removal Evaluation

Modeling Scenario

- Full removal of Squannacook River Dam
- Passive release of sediment
  - Some coarse sediment (gravel and cobbles) to be reused for bank stabilization
- Bedrock allowed to remain
- Protect existing retaining walls and raceway
- Evaluated wide range of flows
  - Present day conditions and climate change conditions

Dam Removal Evaluation

Existing

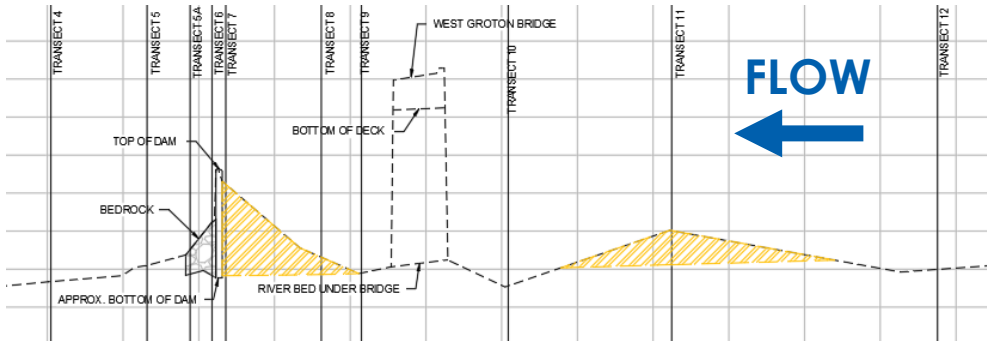
Dam Removal Evaluation

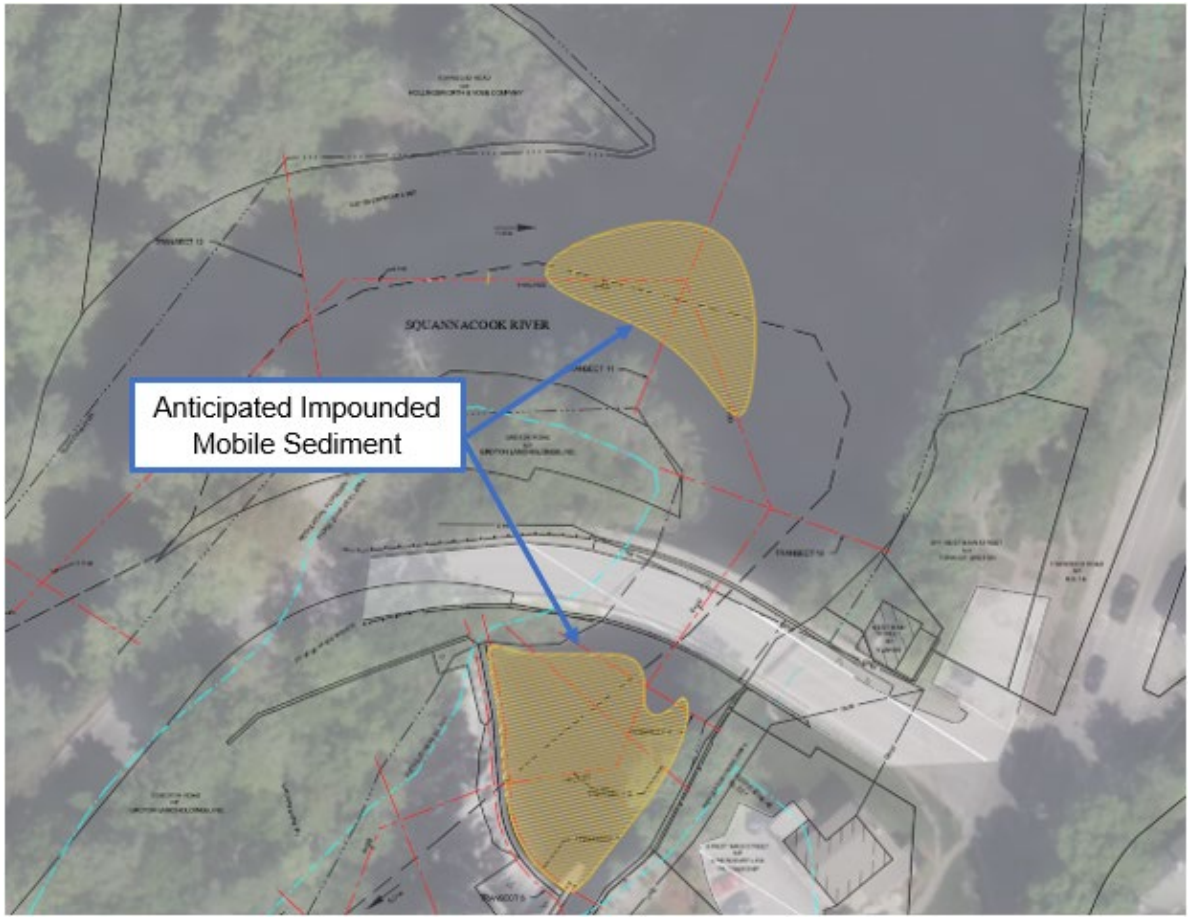
Dam Out

Dam Removal Evaluation

River Sediment

- Limited amount of accumulated sediment behind dam
  - Much is likely trapped behind H&V Dam (upstream)
  - Sediment behind SR Dam is mostly coarse
- Bedrock or very large boulders downstream of dam





Dam Removal Evaluation

Sediment & Thompson's Mill Pond

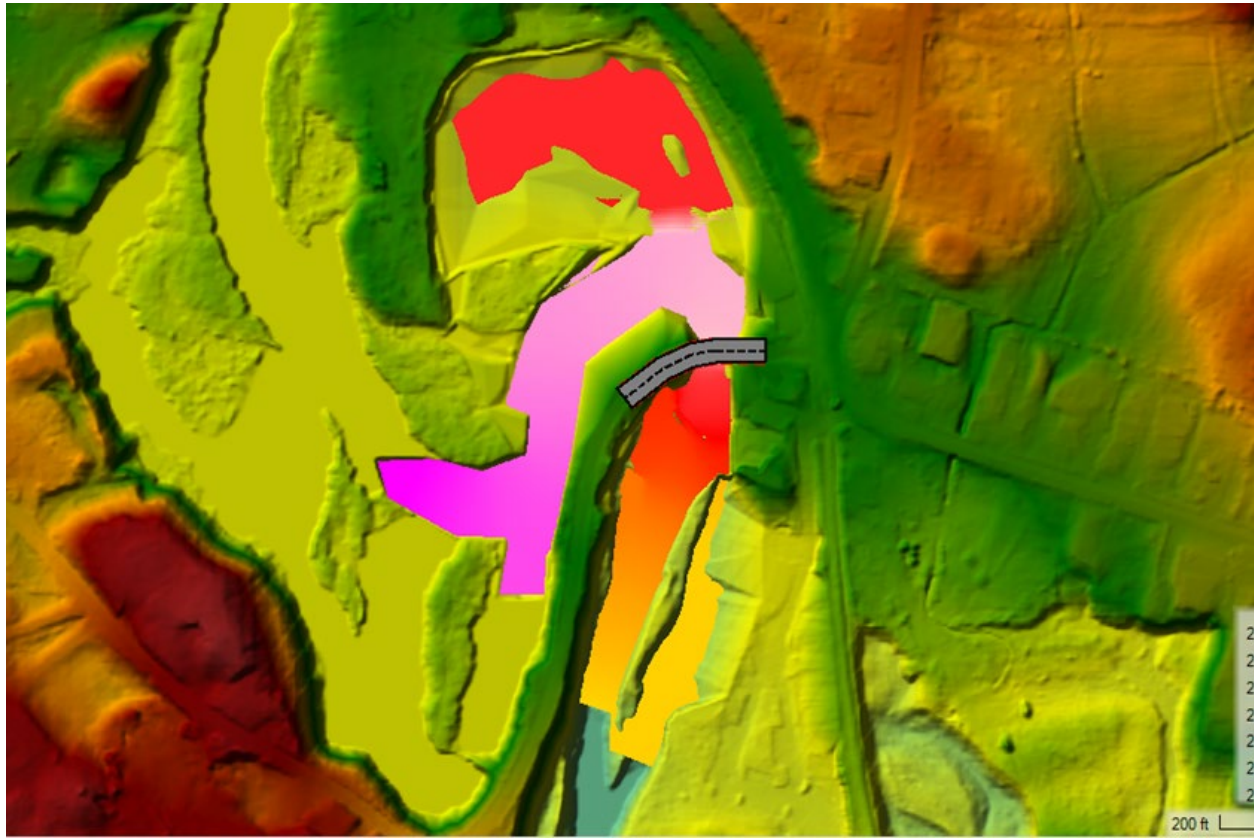
- Observed **ridge of sediment** between main river channel and Thompson's Mill Pond
- With dam out, water level is lower than ridge below 10-year flow

2-year Flow – Dam Out

Dam Removal Evaluation

Sediment & Thompson's Mill Pond

- Thompson's Mill Pond would act as **flood storage** during rare flood events
  - 10-year flow and greater
- The majority of the time, this area would be dry and revegetated



10-year Flow – Dam Out

Dam Removal Evaluation

Existing

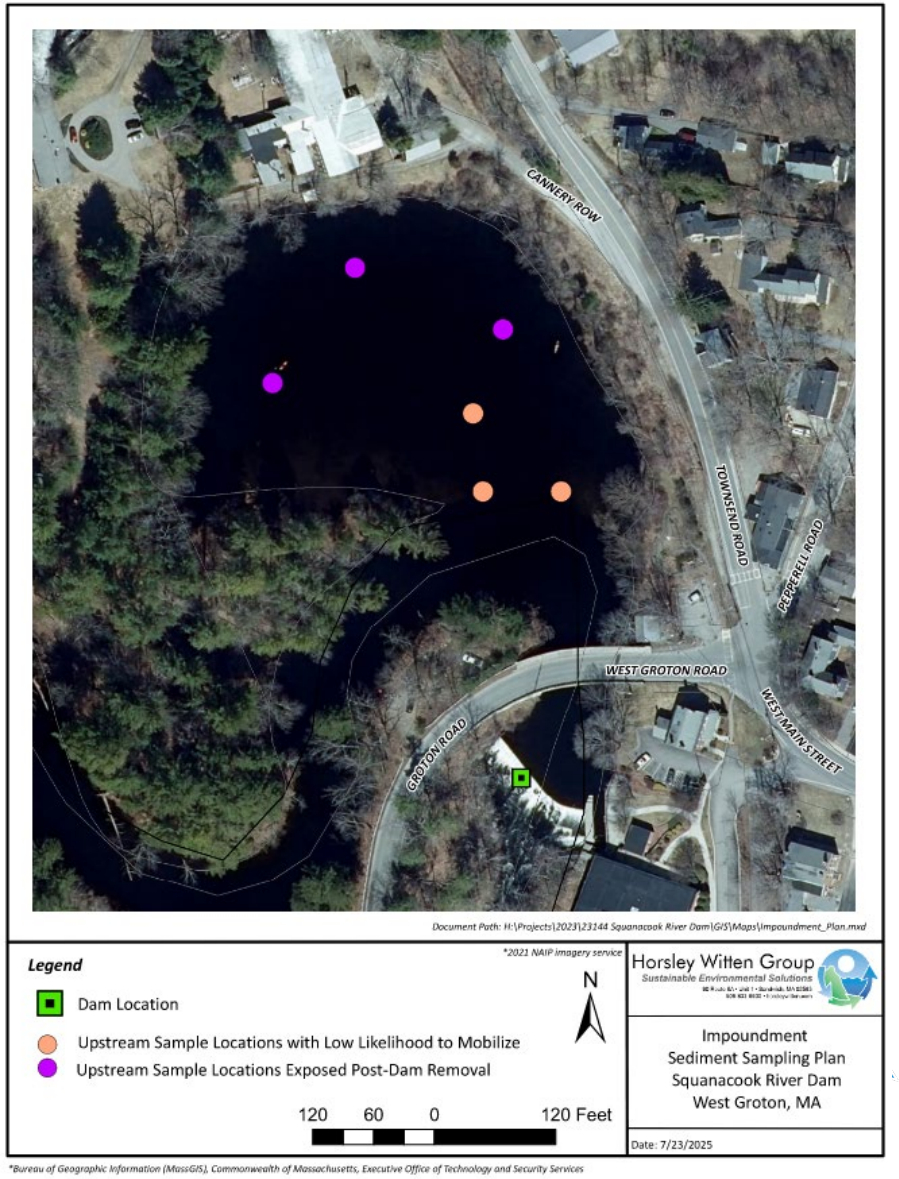
Dam Removal Evaluation

Dam Out

Dam Removal Evaluation

Sediment Quality

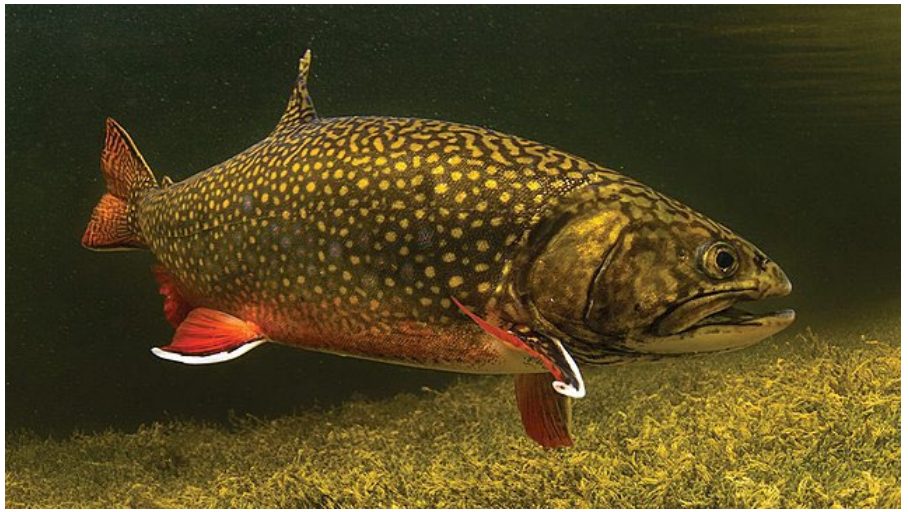
- Collected sediment samples in Thompson's Mill Pond
  - Sediment in impoundment was consistently safe for exposure to humans
  - No detection of asbestos



Dam Removal Evaluation

Fish Passage

- Biggest barrier: dam removed
- Depth
  - Water levels consistently deeper during typical range of flows
- Velocity
  - Water is fast-moving, but upstream passage is feasible
  - Consistent with downstream speeds

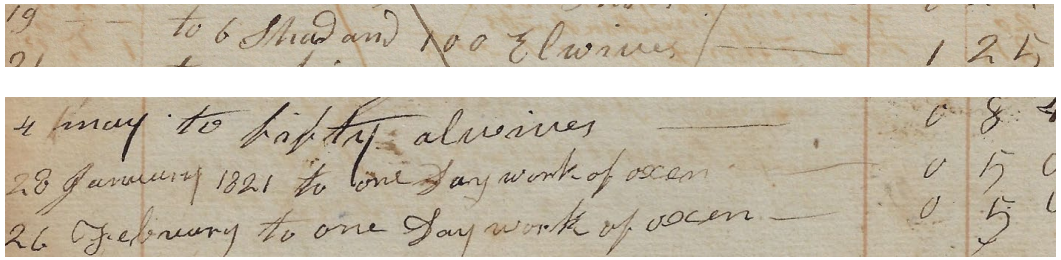


Eastern Brook Trout, Wikimedia Commons

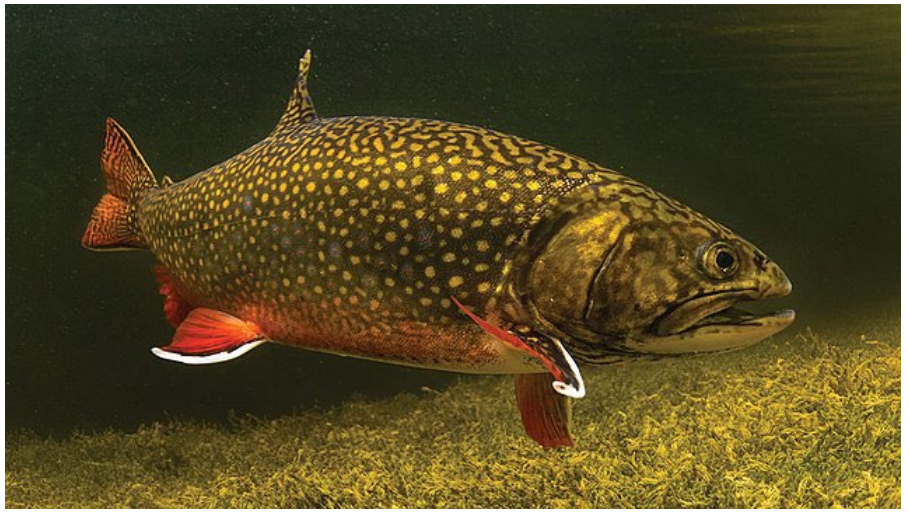
Dam Removal Evaluation

Fish Passage

- The best predictor for future conditions?
- **Past conditions!**



Ledger of Jesse Farnsworth and John Heald, 1812-1821



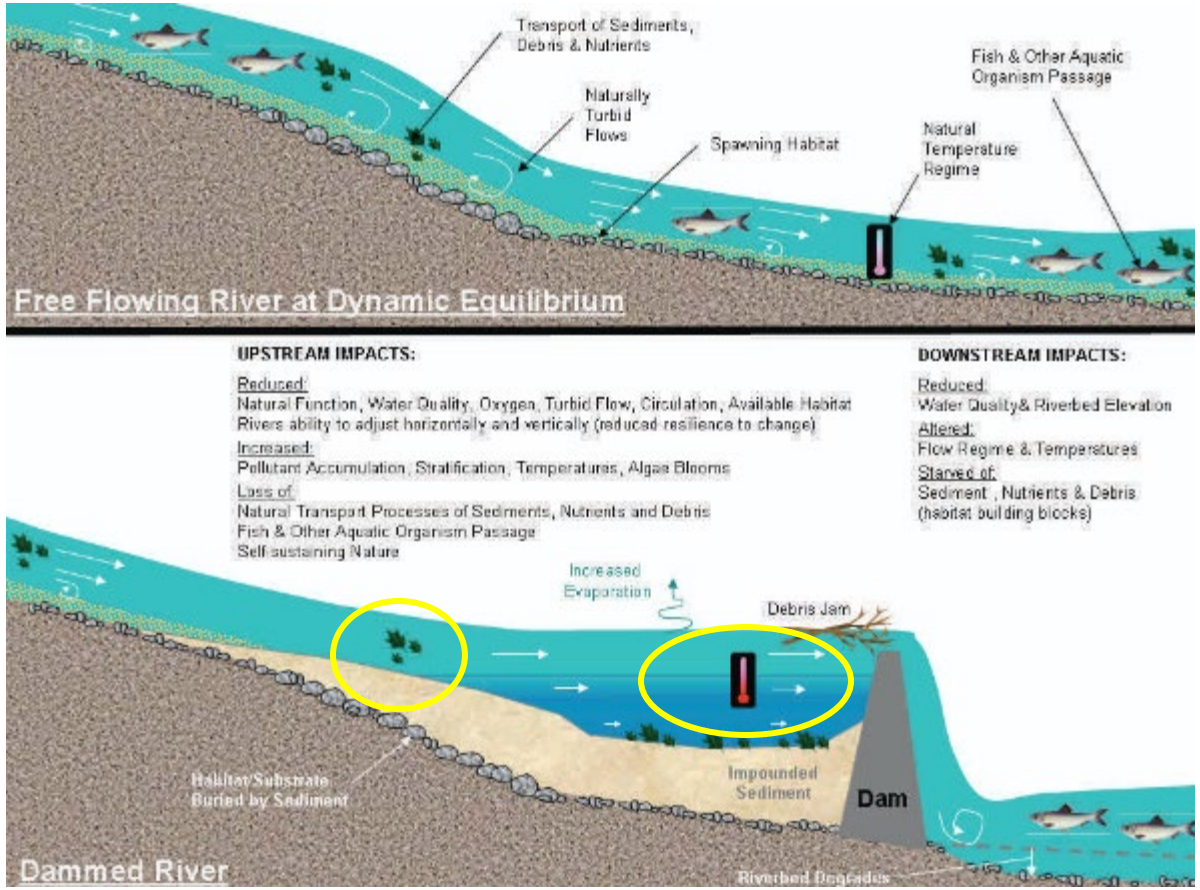
Eastern Brook Trout, Wikimedia Commons

Dam Removal Evaluation

Other Ecological Benefits

- Coldwater temperatures
- Dissolved oxygen
- Reduced buildup of pollutants
- Aquatic connectivity

…a **system change**



American Rivers

West Groton Dam

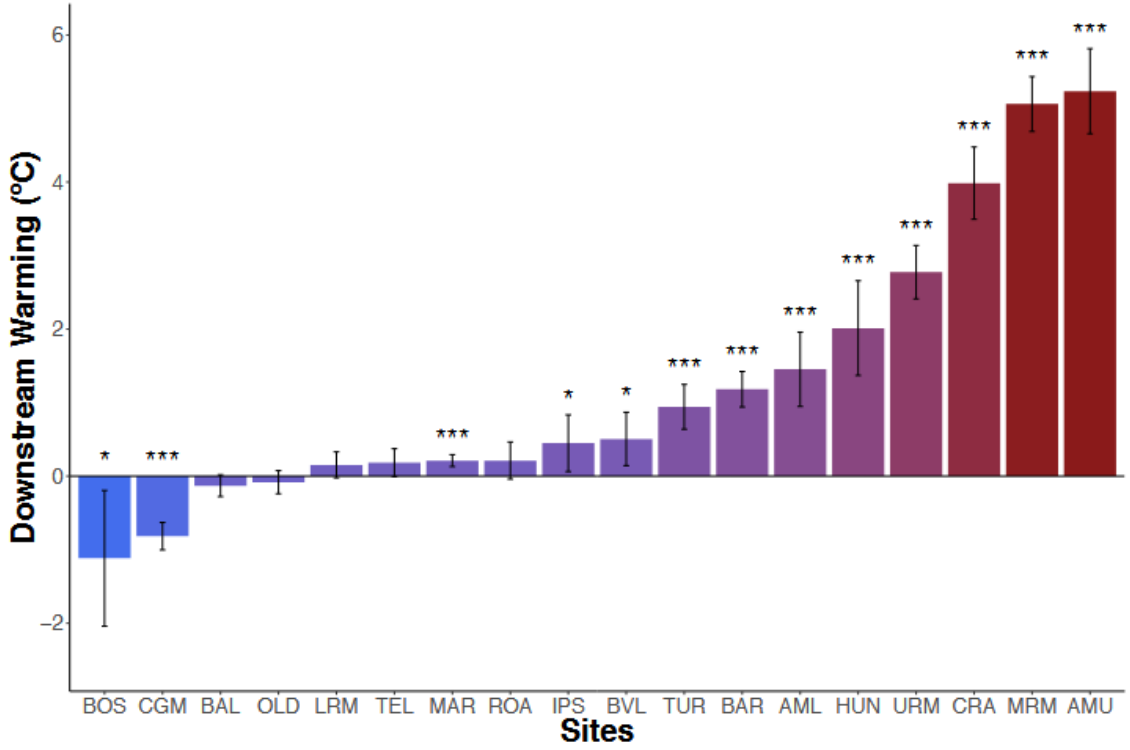
Dam Removal Evaluation

Other Ecological Benefits

- Coldwater **temperatures**
- Dissolved oxygen
- Reduced buildup of pollutants
- Aquatic connectivity

…a **system change**…

- Dams have been measured to increase downstream water temperatures from **5-10° F**



Zaidel, 2018

Dam Removal Evaluation

Scour Assessment

- Scour risk is modeled to **decrease**
- Scour protection included in design for extra measure of protection
- Above water level, planted slopes are proposed

Dam Removal Evaluation

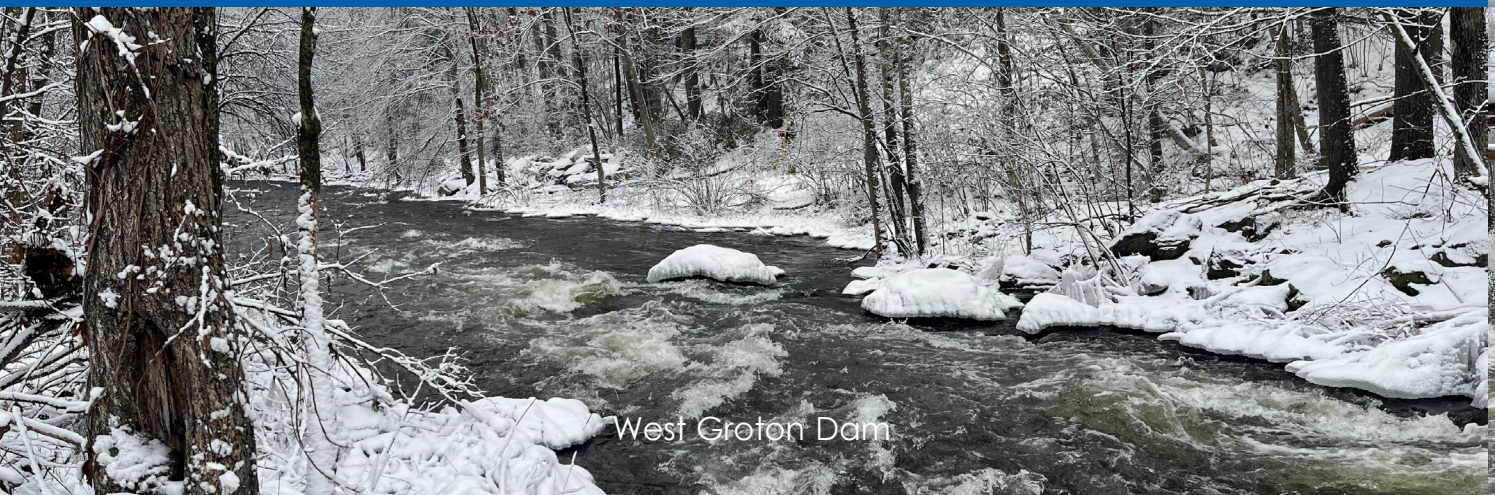
Impacts to Wells

- 5-15 private wells in Shirley are in the vicinity of impoundment
- Wells near Squannacook River are very deep **bedrock wells**
- Wells in bedrock are minimally affected by overlying aquifer
- Any decrease in groundwater levels from dam removal would **not be expected to impact well yield**

Existing Conditions	Feet bgs
Surface	0
	5
	10
	15
	20
	25
	30
	35
Water table	40
	45
	50
Deepest Start of Bedrock	55
	60
	65
	70
	75
Shallowest Well Bottom	80
	85

Proposed Conditions	Feet bgs
Surface	0
	5
	10
	15
	20
	25
	30
	35
	40
Water table	45
	50
Deepest Start of Bedrock	55
	60
	65
	70
	75
Shallowest Well Bottom	80
	85

Potential Next Steps - Removal



West Groton Dam

Potential Next Steps - Removal

Cost & Funding

- Total cost for removal estimated to be $1.2-1.7M
- Dam removal can be funded through multiple state and federal grants
  - Dam and Seawall Program
  - MA Environmental Trust
  - Municipal Vulnerability Preparedness (MVP) Program
  - DER Priority Projects
  - US Fish and Wildlife Service
- Entirely feasible for grants to fund 90-100% of remaining project

Project Phase	Approximate Cost Estimate
Permit Level Design	$50 – 90K
75% Design	
Permitting	
Final Design	$30– 50K
Additional Field Work and Analysis	
100% Design	
Specifications	
Construction Administration	$30 – 50K
Bid Documents	
Bidding Assistance	
Construction Inspections & Submittal Reviews	
As-built Survey and Plans	
Construction (**Attachment D**)	$1.1 – 1.4M
Post-Construction Monitoring	$25 – 50K
Water Levels	
Habitat/Ecology	
Total	**$1.2 – 1.7M**

Potential Next Steps - Removal

Economic Benefits of Removal

- Grant funding is much more widely available for removal vs. repair
- Eliminates ongoing cost of maintenance and inspections
- Eliminates liability associated with dam failure

Potential Next Steps - Removal

Summary

- End of long-term costs and liability
- No risk to nearby infrastructure
- Significant ecological benefits
- Likely to be easier to fund than dam replacement

Questions?

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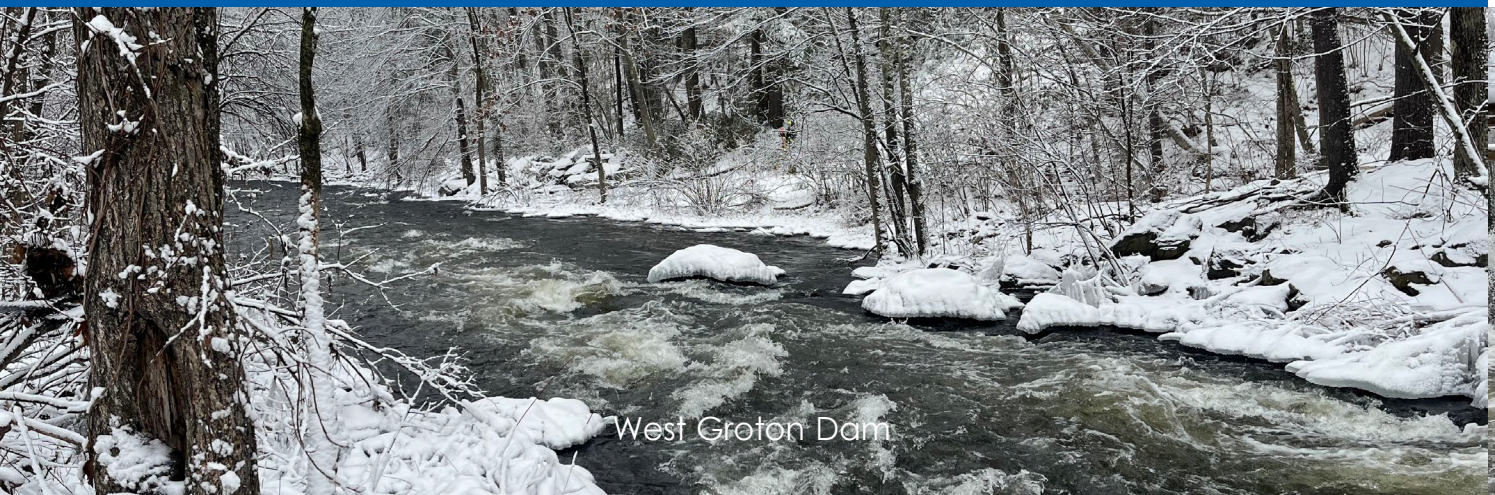
857-263-8193 ext. 207


West Groton Dam