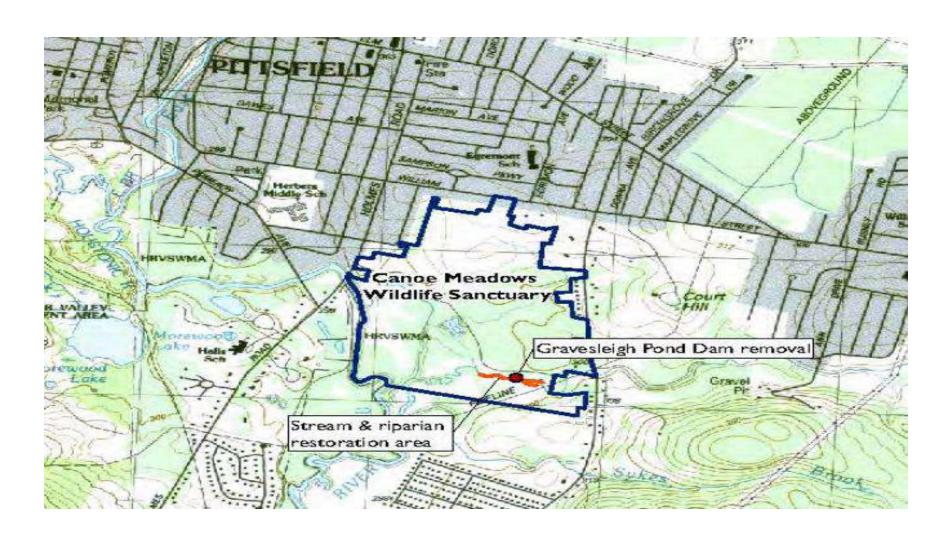
What's Up at Sackett Brook?





An Urban Sanctuary



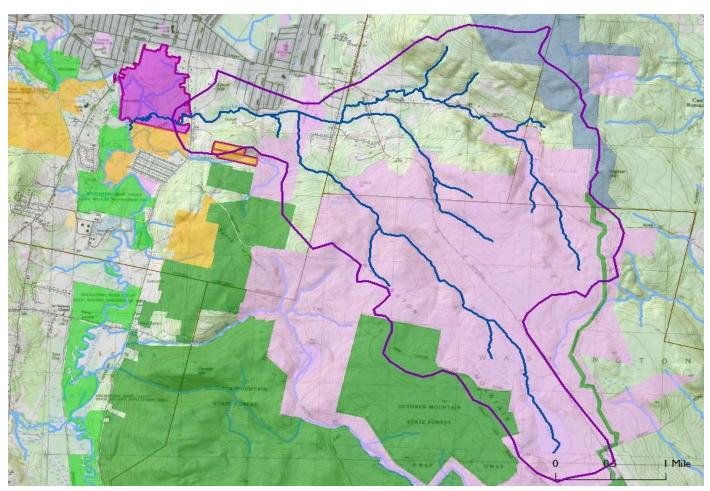
Project Background

Mass Audubon is implementing a riparian restoration project on Sackett Brook, an 8.5 mile tributary to the Housatonic River whose source is in the October Mountain State Forest, and which includes a section approximately 0.75 miles long that passes through Canoe Meadows Wildlife Sanctuary in Pittsfield, in the floodplain of the Housatonic. The confluence of the brook and the Housatonic lies in the southwest corner of the sanctuary.



Sackett Brook is a high-quality, sand and gravel-bottomed coldwater stream, but its natural flow is interrupted by the Gravesleigh Pond Dam, as the brook flows through hayfields on the sanctuary. Canoe Meadows provides habitat for bobolinks, ospreys, great blue herons, beavers, and otters, among others.

Canoe Meadows is considered core habitat for many state listed species and is part of the Sackett Brook watershed and the Upper Housatonic ACEC.



Interagency Involvement

- Key partners:
- Mass Audubon
- City of Pittsfield
- Mass Natural Heritage and Endangered Species Program (NHESP)
- Natural Resource Damages and Restoration Fund (NRDAR)
- Mass Historical Commission & PAL
- Stantec Consultants
- Kaszowski Construction

A complicated process...

- Multiple permits needed to be issued due to environmental sensitivity of the project.
- Mass Historical required an archeological assessment
- NHESP required a wood turtle plan and training
- Permits from the MDEP/ MESA, US Army Corp of Engineers, and the Pittsfield Conservation Commission. Notification to EPA, NOAA, tribal authorities.

Wood Turtles live and nest at Canoe Meadows. They are considered a Special Concern species, and are subject to NHESP jurisdiction.



State listed species: Wood Turtle (Clemmys insculpata)

- Project site located in Priority Habitat mapped for wood turtle, state-listed as Special Concern.
- Protected from a "take" under MA Endangered Species Act (MESA).

Required Mass Audubon & Stantec to develop turtle

protection measures for approval by the Natural Heritage & Endangered Species Program (NHESP) during MESA permitting

Wood Turtle Protection Plan

- Required during project MESA permitting as condition of project approval
- Approved by NHESP
- Objective: Protect wood turtle from harm during project construction (April – Oct)
- Identifies engineering and construction monitoring measures for pre-construction and construction phases



Archeological Assessment

- Historical records indicate that Native Americans held encampments and possibly had a burial ground at Canoe Meadows.
- Mass Historical Commission requested that an archeological assessment be performed in the work area before construction work could commence.
- PAL hired to conduct the assessment in July of 2013.



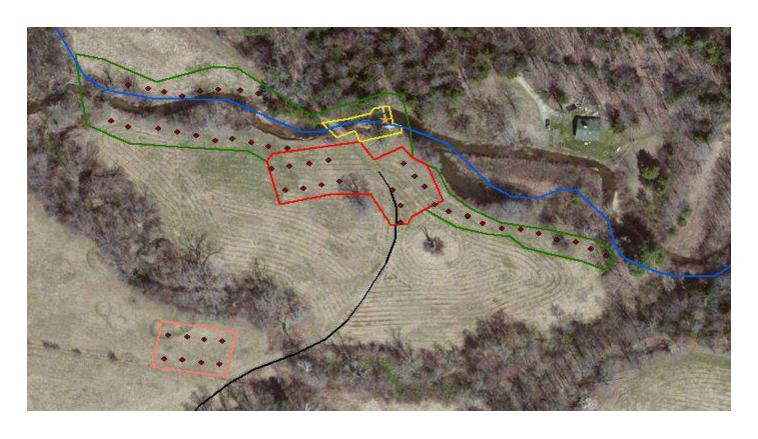


Public Archeology Laboratory (PAL)

- Conducted assessment between 7/8/13 and 7/12/13
- Peter Mair II, Senior Archeologist
- Team (left to right):
 Melissa Wales, Shawn
 Joy, Amelia Bidwell,
 Michael Duffin

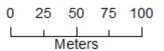


Sackett Brook Restoration Test Pits, Pittsfield, MA









Archeological Process

- Land surveying using test pits
- 1.Design transects
- 2.Dig test pit
- 3.Sift soil for objects
- 4. Classify soil
- 5.Refill test pit
- 6. Record test pits using GPS

No artifacts were located in the construction zone; several cherts were located in the proposed sediment resettlement area, resulting in a slight alteration to the construction plan.



Gravesleigh Pond Dam

- Built circa 1930
- Created to provide a fishing pond for the cabin
- Deteriorating structure
- With bridge, causing extensive scouring of banks along Sackett Brook



Deteriorating structures



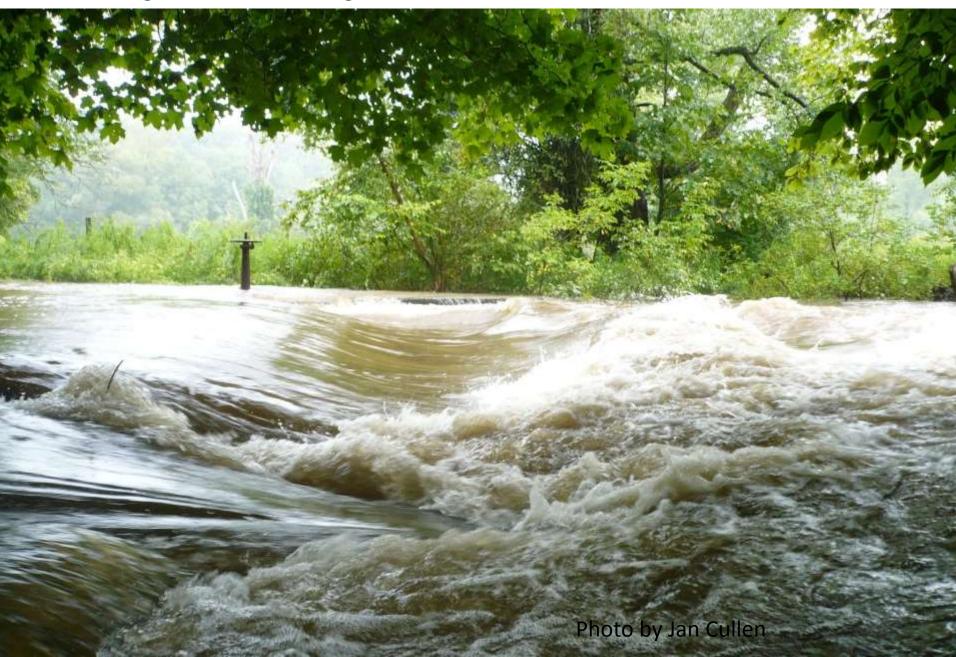




State Listed Dams

- Extreme weather events (Irene in 2011, Sandy in 2012) have drawn attention to the precarious situation of older dams.
- The state has classified dams according to their degree of concern. The dam at Sackett Brook was considered a top priority for removal and stream restoration.

Dam during Hurricane Irene August 28, 2011



Sackett Brook is considered a "flashy" stream. Extreme weather events have resulted in considerable erosion damage to the banks and structures on Sackett Brook.

Stream restoration will allow the brook to assume it's natural contours and ameliorate the effects of extreme weather.

Using native plantings and placing natural items in the stream will allow for a more appropriate restoration.

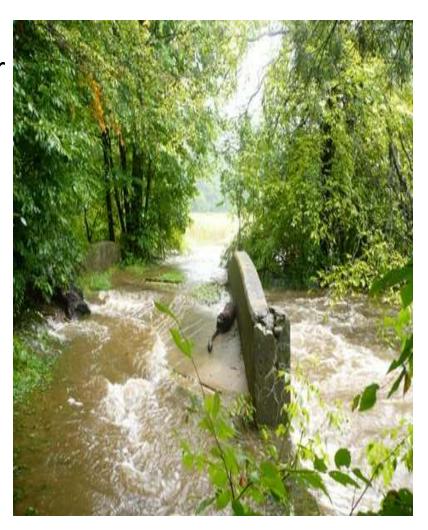


Photo by Jan Cullen



Construction Begins



Stream restoration is targeted at minimizing flood damage, and providing improved conditions for macroinvertebrates and fish.

Slimy sculpin



Photo by Jenn Smith, Berkshire Eagle



In less than two weeks, the dam and bridge were both removed.



















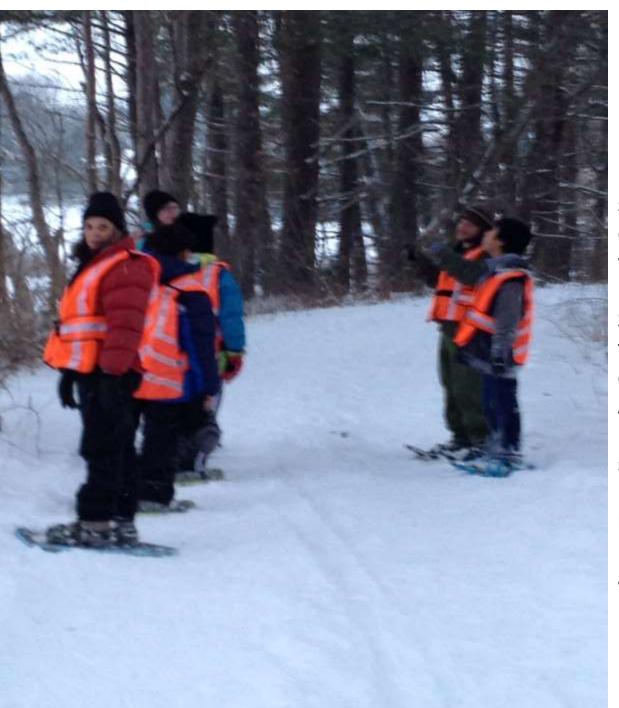






Acknowledgements for photos
Mass Audubon- Rene Laubach, Janice Cullen, Tom
Lautzenheiser, Gayle Tardif-Raser, Tim Liponis
Stantec- Dan Nein, Mike Chelminski
Public Archeology Labs





Mass Audubon is implementing a five year monitoring plan to assess the success of native plantings, effects on stream erosion, wildlife, and macroinvertebrates.

School groups will return in the spring to conduct their own studies.

An interpretive panel will be installed at the site this spring.

A public unveiling will be held on May 15, 2014 at 10:30 AM. All are invited to attend.

Funding sources:

In 2009, Mass Audubon originally submitted a proposal to the Natural Resource Damages and Restoration Fund for dam and bridge removal and stream restoration. Additionally, MAS sought funding for an educational component with local schools.

NRD suggested that the stream restoration be funded with remediation funds from the Pittsfield airport project, and that the educational program be funded by the NRD.

NRDAR Statement (2012)

"This project has been funded through the Natural Resource" Damage Assessment and Restoration (NRDAR) Programs of the Massachusetts Department of Environmental Protection and the U.S. Fish and Wildlife Service, using funding via the Massachusetts SubCouncil of the Housatonic River Trustee Council as part of a legal settlement with General Electric Company for releasing polychlorinated biphenyls into the Housatonic River and its floodplain. The contents do not necessarily reflect the views and policies of USFWS or of MassDEP, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use."

Any Questions?

Mass Audubon is working with several schools in a program about dam removal and stream restoration. If you know of any Pittsfield schools that may be interested in classroom lessons plus a field trip, please contact Gayle Tardif-Raser. gtraser@massaudubon.org.

Thank you!

