

CRJC Riverbend Subcommittee

Minutes

Thursday, May 25, 2017

Mt Eustis Commons, Cottage St., Littleton

Present

Jim Sherrard, Littleton
Jan Edick, Littleton
Rick Walling, Bath
Richard Long, Bath
Pauline Corzilius, Haverhill
Dale Lewis, Haverhill
Bill Graves, Barnet
Mary Dole, Ryegate
Stephanie Taylor, Newbury
Tara Bamford, coordinator
Sean Sweeney, guest

1. Stephanie called the meeting to order at 7:01 and introductions followed.
2. Sean Sweeney, Headwaters Hydrology, gave a presentation on Riverbank Restoration & Stabilization, focusing on his projects that have sought to balance infrastructure protection with restoration (attached). Sean noted that since he is both an engineer and a wetland scientist, he is able to see how to blend the engineering and environmental considerations. Most of his work is in water resources, e.g., bank stabilization, bank/river restoration, and dam removals. He noted that there can be liability concerns when trying a “softer” “green” approach vs a hard/armoring solution. He emphasized the importance of considering the risks when recommending a more experimental/soft/green solution, e.g., is there a road or home at risk if it fails.
3. The minutes of January 26, 2017 were approved with one typo corrected by motion of Corzilius/Walling.
4. Permit Reviews
 - a. Report on activity between meetings – Rick reported that a permit came in after the last meeting. The Dalton Conservation Commission contacted Rick and he helped them with their letter. The project involves a shoreland permit for a house and leachfield that went too close to the river. They are redesigning the septic system and pulling it back from the river.
 - b. Current applications – Bath, Zona, Shoreland Permit – This is a house in Bath with an existing septic system and access road. They want to make a trail to the river. Rick spoke with their surveyor, Harry Burgess, and learned that there is a gully cutting

across the access road. The plans include adding a culvert and stabilizing the old road, and putting in a gravel path for, e.g., kayaks. It was agreed that this is a project that will result in an improvement in an existing situation. There were therefore no comments.

5. Updates

-ACT - Rick reported on ACT's Regional Conservation Partnership Project pre-application. He explained that there are 17 towns in ACT's 2005 strategic plan. The focus is on biodiversity and water quality, including floodplain forests with restoration potential. Fragmentation is increasing due to farmers retiring and selling or leaving property to nonfarming heirs and other factors. Conservation projects include protecting the farmland and restoring associated floodplain forests where possible. ACT is inviting partnerships with conservation commissions, Connecticut River Conservancy (fna CRWC), and numerous public and private partners. Riverbend Subcommittee could be a partner if interested in, e.g., helping identify priority restoration projects and helping make landowner connections. By motion of Corzilius/Dole it was voted to become a partner. Rick will draft a letter for Stephanie's signature.

-Ammonoosuc River LAC – Rick is acting chair. He reported that they are an active group, meeting monthly, with full representation from each town. Art Greene from TU is being appointed as a new member.

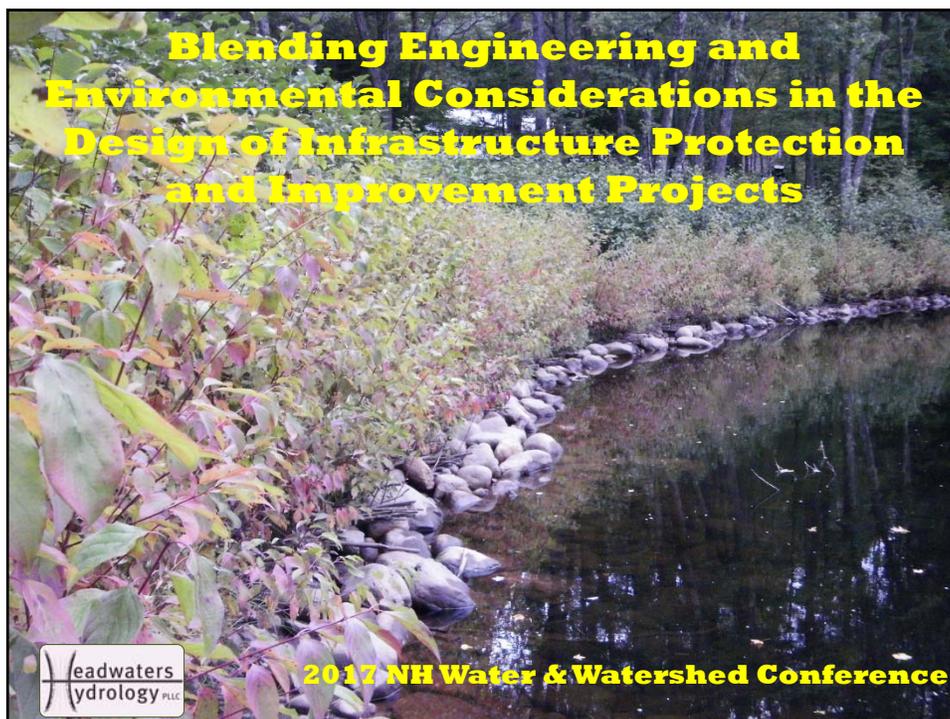
-CRJC – Rick is chair of the NH side. The annual meeting is coming up in June. He is not planning to run for Executive Committee again.

-CRJC Subcommittees – Upper Valley is participating in the FERC relicensing. It was noted that the Wilder Dam causes erosion as far north as Haverhill and is a concern for farmers in the Riverbend region. Headwaters is participating in the SEC process for Northern Pass. Mt Ascutney is planning another septic smart workshop in the fall.

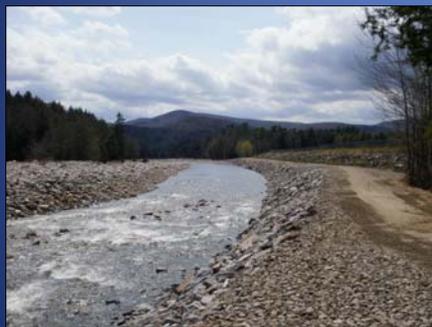
-Other – It was reported that the Woodsville power dam has been sold to Green Mtn Power.

There being no other business the meeting adjourned at 9:25.

Minutes respectfully submitted by Tara Bamford.



Impacts to aquatic and riparian environments have often been overlooked in the design and construction of infrastructure protection and improvement projects.



Riprap bank stabilization on the East Branch of the Pemigewasset River adjacent to municipal sewage lagoons in Lincoln, NH



Concrete-encased oil pipeline across Stag Hollow Brook in Jefferson, NH creating a fish passage barrier

The Prioritization of infrastructure protection is understandable given high project costs, consequences of failure, and potential liability.



Landslide along the Souhegan River in Greenville, NH (above and below)



Bank erosion on the Mad River in Campton, NH following TS Irene



However, in some cases it is possible to utilize or at least incorporate bioengineering into project designs to minimize adverse environmental impacts.

The key is to identify where a completely bio-engineered solution is appropriate, a traditionally engineered solution is needed, or a combination of hard armor and bioengineering can be utilized.

The best designs achieve the multiple objects of improving/protecting infrastructure and enhancing riparian and aquatic environments.

Several examples of project designs follow.

Breezy Hill Road Bridge Replacement Warner River, Bradford, NH



Roadway inundation during 2006
Mother's Day Flood



Pre-existing bridge (33' span)



New bridge (80' span)

Breezy Hill Road Bridge Replacement Warner River, Bradford, NH



Construction: 2016
Photos captured: November 2016



View downstream



View upstream

Smith River Bank Stabilization Bristol, NH

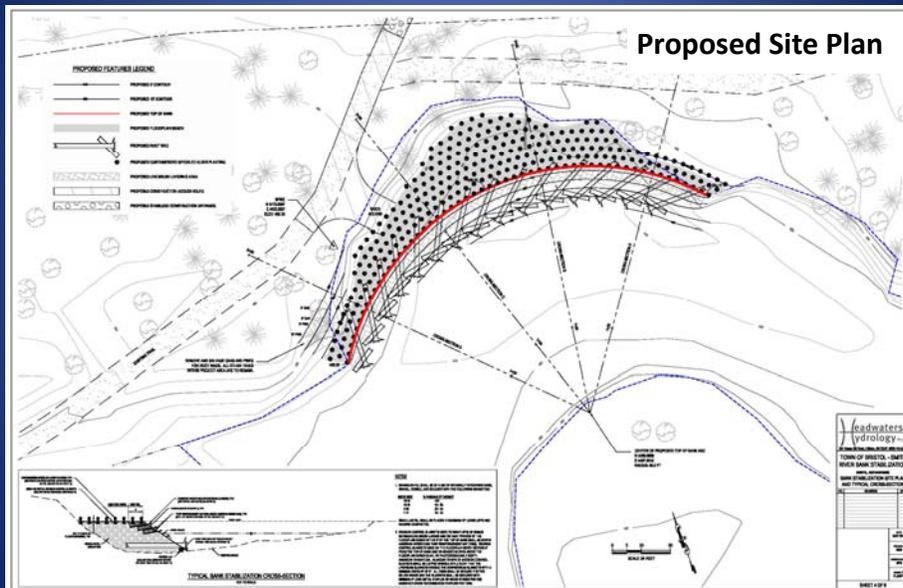


April 2011 (pre-construction)



April 2016 (post-construction)

Smith River Bank Stabilization, Bristol, NH



Smith River Bank Stabilization, Bristol, NH



Construction: October/November 2011
Photo above captured: November 2011
Photos right captured: September 2013



View downstream



View upstream

Lower Warren Brook Restoration Alstead, NH

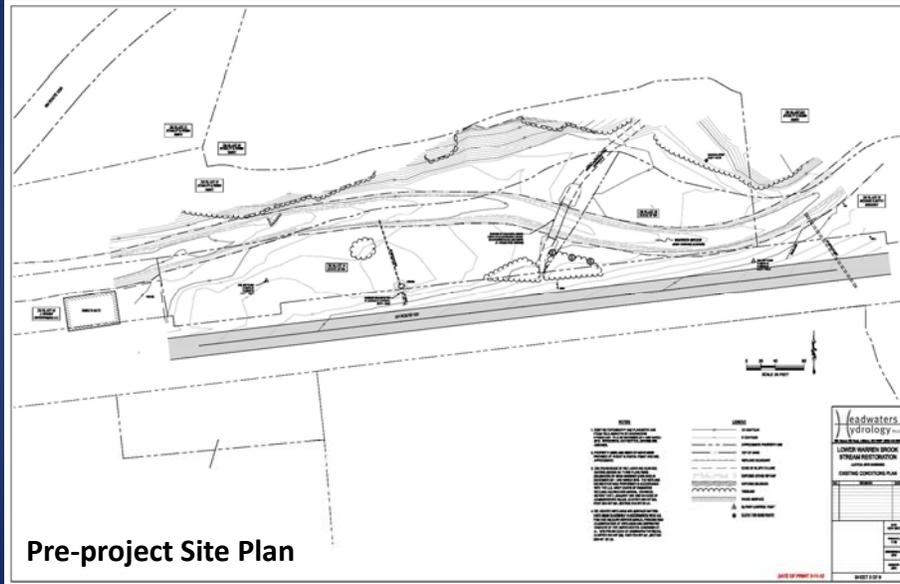


Post 2005 Flood



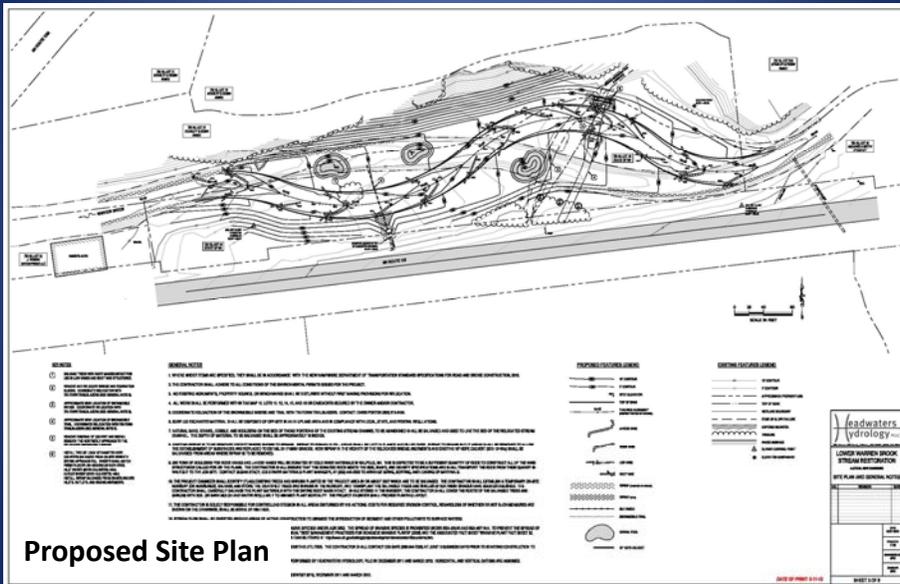
Pre-Restoration (Dec. 2011)

Lower Warren Brook Restoration, Alstead, NH



Pre-project Site Plan

Lower Warren Brook Restoration, Alstead, NH



Proposed Site Plan

Lower Warren Brook Restoration, Alstead, NH



Construction: July-October 2016
All photos looking downstream
November 2016



**Bissell Brook Bank
Stabilization
Stratford, NH**



Construction: October 2016
All photos captured October 2016

**Bissell Brook Bank
Stabilization
Stratford, NH**



All photos captured October 2016

Bissell Brook Bank Stabilization Stratford, NH



View downstream



View upstream



Shrub plantings

All photos captured October 2016

Ainsworth Pond Dam Removal, Jaffrey, NH



10/20/15



11/4/15



5/10/16



9/27/16

Ainsworth Pond Dam Removal, Jaffrey, NH



Ainsworth Pond Dam Removal, Jaffrey, NH



May 2015 (pre-construction)



April 2016 (post-construction)

Ainsworth Pond Dam Removal, Jaffrey, NH



5/10/16



9/27/16