

Upper Valley Subcommittee  
of the Connecticut River Joint Commissions  
Feb 25, 2019 Meeting Minutes  
Lyme Town Office, Lyme, NH

NH Members:	Present	Absent
Alice Creagh, Hanover, NH	X	
Jim Kennedy, Chair, Hanover, NH	X	
Eric Agterberg, Lebanon, NH	X	
Ruth Bleyler, Lebanon, NH	X	
Bruce Garland, Lebanon, NH (alt)		X
Sue MacKenzie, Lyme, NH	X	
John Mudge, Vice-Chair, Lyme, NH		X
Christine Buntten, Orford, NH	X	
Carl Schmidt, Orford, NH		X
Karyn Brown, Piermont, NH		X
Helga Mueller, Piermont, NH		X

VT Members:	Present	Absent
Vacancy, Bradford, VT		
Vacancy, Bradford, VT		
Nancy Jones, Bradford, VT (alt)		X
Ben Dana, Fairlee, VT	X	
Vacancy, Fairlee, VT		
Danielle Allen, Fairlee, VT (alt)		X
David Barrell, Hartford, VT	X	
Lynn Bohi, Hartford, VT		X
Jason Houle, Hartford, VT (alt)		X
Tara Bamford, Thetford, VT		X
Bill Bridge, Thetford, VT		X
Linda Matteson, Thetford, VT (alt)		X
Melissa Horwitz, Norwich, VT	X	
Bartlett Leber, Norwich, VT		X

Others present:

Dr. Erin Rodgers, Trout Unlimited

Olivia Uyizeye, CRJC Staff from Upper Valley Lake Sunapee Regional Planning Commission

1. Chairman Kennedy opened the meeting at 7:12 pm and introductions were made.
2. Presentation on Stream Restoration by Dr. Erin Rodgers. (See attached slideshow for further details.)

In New England, Trout Unlimited (TU) focuses on their Cold Water Restoration Program with aspects in assessment, restoration and monitoring. The program is funded by “soft money”, primarily donations and volunteer efforts. This program works with towns and residents to prioritize restoration projects through an ecosystem approach. Diverse streams are able to meet the diverse needs of species through the provision of varied habitat types within the stream structure. These restoration efforts help downstream communities with floodplain access and the dissipation of flow, showing that “headwaters matter”. One large emphasis of this program is culverts, impacting how streams are disconnected to begin with where many are undersized, causing scour. Poorly functioning culverts are difficult to scale for fish due to high velocity and low water depth. In VT, 98% of publicly owned culverts have been assessed, while in NH it is approximately 45%.

One main stream restoration technique used by TU is the reintroduction of wood, which has been removed in past management systems to protect local infrastructure. This wood helps to slow water and create varied habitats in the stream. It is most common in old forests where studies by the US Forest Service have found a significant amount of large woody debris throughout the stream channel.

USFS has observed that 175 to 200 pieces of large woody debris are present in each mile of a healthy stream. This method could be used on large streams like the Connecticut River.

A local example of restoration using this method is the Nash River. The reintroduction of woody debris showed an increase of nutrient cycling. This method is now being done around Lake Champlain, the Great bay, and Long Island Sound.

Benefits of this reintroduction include: increased nutrient cycling (helps to settle out nutrients by accumulating organic matter and fostering good habitat for microbial decomposers); sediment transport and stream hydraulics (can structure wood different to foster varied impacts, creating a mosaic of stream bed sedimentation); slow the flow (slow it down and spread it out, increasing floodplain connection and more interaction with biotic material); hyporheic flow (ground water flow that keeps streams colder and filters water through natural methods).

The techniques used for this restoration practice can be generalized into three strategies. Hand placing of woody debris can be done with a large team (at least 10), often volunteers. Chop and drop takes advantage of knowledge and professional tools to use the wood in an area and then relocate it on site. Chop and drop is limited by the growth in the area and the shape/ledge of the stream. The method can help raise the streambed where it has incised into the landscape. Constructed jams, often with rootwads, are a larger effort where wood is dug into and buried under soils. Rootwads create many habitats for different ages and types of fish. Also, large piece collect sediment upstream and a pool downstream with more pockets than culverts that allow for fish to continue their swim upstream. These methods can provide stream bank protection and reduce flood peaks in relation to its impact on slowing and spreading the flow.

Erin opens up for comments and questions. Dr. Rodgers indicates that TU is willing to support financially for projects where priorities aligns and town willingness to engage exists. Barrell asks how emergency mistakes can be avoided in the future. Dr. Rodgers response highlights that we must continue to encourage maintaining the review process and multi-agency coordination during these situations. Kennedy notes that not everyone is excited about the idea of “reengaging the floodplain.” Dr. Rodgers agrees, but notes that some have been convinced as a trade off to protecting their stream banks and then allowing flooding at certain points of the year.

### 3. Meeting Minutes Review

The Dec 17, 2018 meeting minutes were reviewed. No edits were made.

### 4. Permit Review

#### *Dartmouth College*

Kennedy reports on the building of a 3 level parking lot that will replace a current open parking area. They are currently digging a hole and placing the soil in Norwich in an old gravel pit near the railroad. Uyizeye will follow up with TRORC on the regulations in VT for this disposal. The hole is being used to collect stormwater, which will then be run through a filtration system. For the long term, storm water will be pumped, filtered and then released into town sewer. The new building will be smaller and enclosed, therefore it is expected that the stormwater impact, including oils, will be reduced. Kennedy

continues to ask for a master plan on all current Dartmouth projects, but does note that each project stands on its own.

*Pinneo Rd, Hanover*

This permit was in relation to an emergency project that has already been completed on a culvert.

*Lebanon Westboro Rail Yard (See Referenced Article from Carl Schmidt)*

This area is owned by NHDOT; however, the City of Lebanon has been interested in turning the area into a park for quite some time. Kennedy reports on an area currently leased as a propane transfer point facility whose lease is up for renewal. NHDOT is presently only requiring the placement of a new chain link fence around the perimeter. There is a general concern among reps about emergency preparedness of the facility in the case of a large storm, as well as, mechanical failure that can be dangerous to the surrounding facility. The land does not appear to fall under shoreland, wetland or alteration permits. Agterberg notes that it is unclear if diesel is being added to the facility and what precautions are being taken if it is. Kennedy notes that the LRS has not received a full set of the plans. Kennedy will follow up with RMAC on CRJC jurisdiction in this case. Agterberg and Kennedy will follow up with the City of Lebanon on their response to the lease renewal.

5. Other Updates

*Jacobs Brook (Orford)*

Kennedy reports on the application submitted to the Mitigation Enhancement Fund for less than 10K.

*FERC Update (see attached report from CRC)*

GRH is still working on Instream flow studies. A study report meeting is expected on or before June 4 where LRS members may attend. MacKenzie asks about sonar imaging. Kennedy responds these have likely been incorporated into the stream bottom studies

*CRJC Survey Results*

Lionel Chute has reported to the CRJC Commissioners on the results of the survey to assess priorities within the organization. Four priority areas were highlighted – Erosion, Roads and Railroads, Groundwater Protection, and Water Quality Monitoring. The Commissioners have voted to focus on Water Quality for the coming 6 months. Erosion was considered due to strong support, however, decided against due to a large amount of work that is already being done. This is a focus, not to the exclusion of other topics.

Kennedy notes that the area of the CT River about the Wilder dam has been determined as impaired for Phosphorus. It appears this is an assumption by NHDES due to experiences in other waters. It appears more activity is happening around water quality on the VT side. Agterberg notes a concern about the presence of microplastics in our water systems and the lack anything being done at freshwater municipal treatment plants to evaluate or address the problem, specifically referencing the City of Lebanon.

6. Other Business

7. Adjourn

Barrell made a motion to adjourn. Agterberg seconded the motion. The meeting adjourned at 9:52pm.

Respectfully Submitted by Olivia Uyizeye.