**Vermont Monitoring Cooperative, Lye Brook Wilderness Area Subcommittee Meeting**

**Wednesday, November 4, 2015, 9:00am-12:15pm**

**State of Vermont Agency of Natural Resources**

**Davis Building—2nd Floor, One National Life Drive Montpelier, VT**

Contents

[In attendance 1](#_Toc434826117)

[Meeting Objectives 1](#_Toc434826118)

[Review of August 19th Bourn and Branch Pond field visit; Jen Wright and Jim Kellogg 1](#_Toc434826119)

[Recreational monitoring 1](#_Toc434826120)

[Ecological monitoring 2](#_Toc434826121)

[Monitoring past, present, and future in the LBW 2](#_Toc434826122)

[Datasets 3](#_Toc434826123)

[Discussion of procedure to evaluate opportunities for funding and mobilize committee members 3](#_Toc434826124)

[Follow up on action items/tasks assigned at February meeting 4](#_Toc434826125)

[Wilderness Program Performance Elements (Jen Wright, GMNF) 4](#_Toc434826126)

[Forest Health Monitoring (Sandy Wilmot, of VT Dept. of Forests, Parks, and Recreation) 4](#_Toc434826127)

[Long-term Ecosystem Monitoring Project (Diane Burbank, GMNF) 5](#_Toc434826128)

[Recreation Use Impact on Lye Brook Wilderness Area Ponds and Public relations strategy discussion for resource protection (Jen Wright and Carol Knight, GMNF, Heather Pembrook and Jim Kellogg, VT DEC) 5](#_Toc434826129)

[A Geomorphic Assessment in 2007 listed areas needing rehabilitation. 5](#_Toc434826130)

[Webpage for LBW 5](#_Toc434826131)

[Wrap-Up 5](#_Toc434826132)

## In attendance

Jen Wright (USFS), Jim Kellogg (DEC), Heather Pembrook (DEC), Sandy Wilmot (FPR), Carl Waite (UVM/VMC), Jim Duncan (UVM/VMC), Bennet Leon (DEC), Ethan Swift (DEC), Dave Hardy (GMC)

## Meeting Objectives

* Yearly project review and update
* Identify future meetings and needs

## Review of August 19th Bourn and Branch Pond field visit; Jen Wright and Jim Kellogg

Field tour attendees: Ethan Swift (DEC), Jim Kellogg (DEC), , Dave Hardy (GMC), Diane Burbank (USFS), Judy Rosovsky (UVM/VMC), Emily Benning (GMC), caretaker (Ben) (GMC), Angie Quintana (USFS), Jennifer Wright (USFS), Danna Strout (USFS)

### Recreational monitoring

During the 2015 season, Forest Service, Green Mountain Club and UVM Parks Studies Lab collaborated in observing recreational users about their primitive or primeval and solitude experience at Bourn and Branch Ponds, via encounters by a seasonal caretaker and UVM student intern. Data are lacking on the number of users and their reasons for choosing the Lye Brook area. A formal survey may be coming in the future (possibly involving a caretaker asking people if he/she can ask them some more formal questions). The question concerning solitude needs revising-it is difficult to phrase effectively. Survey has to be approved by OBM (Office of Business and Management).

Action item: UVM Parks Studies Lab, GMC, USFS GMNF: Draft a better way to ask people about their wilderness experience. Determine whether there will be funding for a caretaker in 2016 to continue camper/hiker use.

### Ecological monitoring

Some high elevation or remote ponds are stocked with fish by helicopter which was determined to be the least invasive method in the wilderness. This practice is approved on a five year term, coming to term in 2017. USFS is working with FW to determine if natural reproduction of brook trout is occurring in these ponds. USFS may decide to end stocking based on the results.

Jim reports on some very interesting things to question or monitor in the Bourn/Branch biological community; e.g. how do stocked fish affect the ecosystem? Fish probably would not be present if not stocked in some remote or high elevation ponds.

Turbidity and erosion concerns were illustrated during the field trip by Jim kicking up some silt within the pond that could occur from camper traffic. Some expressed that Kellie Merrell’s shoreline work may not be as useful as previously thought for this site.

There is a re-routing of a the Bourn Pond trail planned with GMC. Dave H. said re-route will move the trail off an old truck road, and the south portion of the re-route is being moved off of the old railroad bed that is now too wet.

Dave H.: There is a January 14th deadline for grant application to the National Forest Foundation. Requires private application, and results in a one-to-one match (w/ Forest Service?). **Action**: Dave Hardy (GMC) will send out a request for support letters from ANR & VMC to include with a grant application; address shoreline management and waste management.

## Monitoring past, present, and future in the LBW

* Some past/present monitoring efforts:
* Discussion of Stratton pond—now closer to the wilderness after boundary was moved.
* Heather: lay monitoring has been used on Stratton. Kellie Merrell experimenting with temperature daisy chains through water column on another VT lake this summer to monitor climate change.
* Sandy: ozone biomonitoring near the CASTNET site; could have caretaker do this monitoring if training is easy and as long as there is an open area near where they are located. Merck Forest has been the most reliable for reporting ozone damage in that area.
* Dave: open areas near trail corridor are often camped in. Try ozone biomonitoring in the wind-throw area where campers will be scarce.
* Water quality monitoring on AQV streams (10 sites) were sampled in the spring, summer and fall of 2015. Temperature probes are also installed at all 10 sites by USFS. Total of 18 sites with the ABN sites (Annual Biomonitoring Network), where macroinvertebrates are collected.
* Future: (see updates to action items from Feb. 2015 meeting below)
* There was a suggestion that the more the caretakers know about monitoring efforts and can inform the public, the better.

## Datasets

* In order to gather a critical mass of LBW-related data, we need to identify datasets that are either easy to transfer or are high priority to make available.
* Jim Duncan: some data, such as AQV, are not on the website b/c there isn’t a place for it. Do we need a critical mass of Lye Brook data to put it up? Need support to define metadata for all data provided. What is the point of having Lye Brook specific data? Should we be collecting them? Is it important to have LBW data centrally located? (Make LBW tags for relevant datasets on the VMC site?)
* AQV data is currently sent to GMNF, but can also be put on the website (Jen will make sure with others at GMNF).
* Biomonitoring/macroinvertebrates, WDP (water quality data portal. The VTDEC on-line data portal which provides all water chemistry and biological data.
* National Visitor Use Monitoring for wilderness/forests aggregated datasets are available.
* No AQV sites are actually in the LBW—so are those data not relevant to LBW?
* Waiting for reports on the fish stocking program (Jen).
* 2005 stream sampling and through fall data may be available (work done by Don Ross).
* Campsite location data, GIS; 60-70 user-made campsites
* Needs to share this with GMC so caretaker knows where they are.
* More work needed to extrapolate data to a shareable form from GIS
* Long term (10yr) wilderness primeval/solitude experience study (not done yet)
* Dan McKinley, fish surveys…?
* Lichen surveys: Ralph’s effort (one-time study). Data are held by Ralph (maybe Jen has a copy).
* Bennet: acid deposition data from NADP extrapolation for watersheds and lakes.
* Sentinel stream monitoring (Aaron Moore from VTDEC). Report on sentinel streams has been produced.
* Ethan: geomorphic assessment data; looking to refresh these data, focused around lower reaches of Lye Brook; last assessment was done after a blow-out pre-Irene. River Geomorphic program want to assess whether to remove some berms where appropriate. Alternatives analysis is needed.
* Sandy: Jim Andrews would be interested because of his amphibians/wetlands interest.
* Jim D. data priorities:
* Want AQV stream data from VTDEC, --VMC
* National visitor monitoring survey, USFS—VMC will extract Vermont wilderness data
* DEC stream sampling—Jim D. to verify that VMC has these data from 1993-1995?
* Campsite monitoring/spatial data; to be made available by request only.
* Lichens, --VMC
* Sentinel stream monitoring, DEC product (no place to host now)—data archiving will happen as part of VMC annual report prep.
* Geomorphic assessment data—on ANR Atlas and on DEC site (low priority)
* Sandy: Forest inventory data on Lye Brook?
* ELTP(?) …forest types, stand type, natural community type?
* Contact point: Angie Q-J
* VIWIS. [Vermont Integrated Watershed Information System](https://anrweb.vt.gov/DEC/IWIS/). External data portal for Watershed Management Division data (water chemistry, bugs, fish). Internal to VTDEC this is called WDP (water quality data portal):

## Discussion of procedure to evaluate opportunities for funding and mobilize committee members

1. Carl:
	1. RFP for NSRC; due date was last August. There was no response to a request last summer for people to take a lead. Should we have a formal process for addressing grant opportunities?
		1. Consensus seems to be no, but having our monitoring/research priorities identified and defined would be a good start.
		2. Have a list of things we’re interested in to have ready to go when these grant opportunities are announced. Often monitoring alone doesn’t involve enough research to satisfy such proposals. VMC can help with the research element due to its UVM connection, but VMC needs others for their support and interest.
	2. Prepare synthesis priorities.
	3. Ideas:
		1. Spatial look at where everything has been monitored.
		2. Two-step framework to raise questions, e.g. assess the risks to water chemistry based on the hemlock stand threatened by HWA.
		3. Mini-annual-report on just Lye Brook; Gap analysis.
		4. Jim D. suggests a group of UVM students in the winter could work on some of this.
	4. Ethan: at a Wild and Scenic meeting, brought up candidate waterbodies (at <2500’) for reclassification from Class B to Class A1. A reclassification would meet expectations for the management plan for Lye Brook. Already pooled some data as justification for reclassification.

## Follow up on action items/tasks assigned at February meeting

### Wilderness Program Performance Elements (Jen Wright, GMNF)

1. February’s action item was that Jen would send out the descriptions of the Wilderness program and elements and solicit input on element selection, and coordinate a teleconference to discuss.
2. Funding uncertain until mid-November.
3. Ethan has Green Mountain College connections to share with Jen so that students who are based closer may be more easily available for working on capstone projects in LBW
4. Sandy: State Wildlife Action Plan in progress; identifies species of concern. Speak to John Austin about what is included for LBW area—a “high priority” area?
5. Jim Andrews has done a lot of work there in the past and is still interested. Needs a little seed money to get going (only ~$300).

### Forest Health Monitoring (Sandy Wilmot, of VT Dept. of Forests, Parks, and Recreation)

1. Action item: Sandy will contact the Stratton Ski Area to discuss forest health monitoring.
2. Progress: started trying to find who to talk to at Stratton.
3. Dave Hardy knows a VP of Operations that he can contact if it would be helpful.
4. Work on an environmental message on the gondola or at fire tower? Summit caretaker is there Memorial Day through Columbus Day.
5. Action item: Make a connection with Stratton, but define the objectives for reaching out to them. Installing interpretive signs at Stratton near the fire tower or in the gondola were discussed.

### Long-term Ecosystem Monitoring Project (Diane Burbank, GMNF)

1. Past action Item: Angie will coordinate a meeting to discuss 2017 data collection with all those present who indicated interest. Please contact Angie if you were not at this meeting but would like to participate.
2. Overview by Jim D.; progress made with data collection over the summer.
3. Tree-growth study
	1. Sandy: Josh Halman at FPR interested in pursuing these studies.
	2. Jim D.: Paul Shauberg and Rebecca have some data.
4. Heather: drafting a monitoring plan
	1. Kellie Merrell is the one who has done shoreline monitoring; but she doesn’t think there is a need for this type of monitoring at Bourne and Branch.
	2. Heather will be working out some Total Phosphorous data, making time-of-year comparisons consistent—narrow down to the springtime levels. Increase in P in some of the acid-impaired lakes as pH increases; Heather hopes to use Bourn and Branch to see if there is a trend in Al and P there.

### Recreation Use Impact on Lye Brook Wilderness Area Ponds and Public relations strategy discussion for resource protection (Jen Wright and Carol Knight, GMNF, Jim Kellogg, VT DEC)

1. Past action item: Jen Wright, Carol Knight, and Diane Burbank will initiate work on a site management plan, collaborating with interested parties, the public, Green Mountain Club, and UVM LANDS program, keeping potential WSP funding in mind. Jen will coordinate a field trip on August 19, 2015 to the area.
	1. Jim: Stratton pond very interesting; eutrophication issues; monitoring data suggests it could be mesotrophic—based on a number of variables: Secchi disk, etc.
		1. Weakly buffered, but higher pH than Bourn and Branch—Grout pond area, better buffered than some areas.
	2. Dave H.: Manchester Ranger District engages the caretakers who would continue the monitoring at Stratton pond (which had been discontinued for some years).
		1. Monitoring may be a good idea as the trails are moved away from the shoreline in the next few years.
	3. Jen: GMNF looking at an EA for there. Modified Environmental Assessment, not a full EA w/ specialists. There will be a public comment period.

### A Geomorphic Assessment in 2007 listed areas needing rehabilitation.

Past action Item: Ethan Swift will share this with Dan McKinley and Angie Quintana, and coordinate site visits to sites needing revisiting since TS Irene.

### Webpage for LBW

1. Do we want to have a place to post material for subcommittees? E.g. meeting presentations, notes, list of projects, and/or progress/status of projects. Yes.
2. Useful for internal collaboration

## Wrap-Up

1. Future meeting schedule
	1. Winter meeting:
		1. 9am-12pm, February 2th, 2016
		2. VMC Office, Burlington, Spear St.
	2. Summer meeting:
		1. July or August
		2. Special guest? Such as Charlie Cogbill or Jerry Jenkins?
	3. Fall meeting:
		1. Some time in early November 2016
2. Other action items:
	1. Fundraising opportunities
		1. National Forest Foundation
			1. Dave Hardy to send out request for letters of support for grant application
	2. Jen—winter meeting agenda