

Meeting Minutes Thursday, October 1st, 2020: MRBA Office, East Berkshire

Attendees: Cynthia Scott, Paul Stanley, John Little, Mike Manahan, Ari Lattanzi, Lindsey Wight; Brian Jerosse and Ellen Fox joined via Zoom.

- 1) Greetings; welcoming Ari Lattanzi – **Meeting called to order at 7:08pm; Ari gave a quick intro for folks who hadn't yet met her, and outlined some of the things she has been working on.**
- 2) Review of September meeting minutes – **CS motions; JL seconds; all in favor.**
- 3) Administrative business – **Lindsey discussed our YTD for donations and passed around an autograph card that she received from actor Emmet Walsh. Some discussion about asking him to do a PSA.**
- 4) Outreach/Projects

Water sampling – **Through a training grant with WUV, Becky Tharp is able to provide some consulting for us. She is going through some of our water sampling data and will suggest some options for where to take our water sampling program from here. Ari has dug into our old data: we have tested 74 sites since 2005; nine of these are “sentinel site” and have been tested numerous times over the years – 4 of these are on the mainstem and 5 are on tributaries. It is hard to draw conclusions from the data that we have – some are collected during high flow, some in low flow, and this makes data comparison difficult due to outliers. Ari ran just M-SMR (the site furthest west in the watershed, nearest to Missisquoi Bay) for all the years and found no data trend. She will continue to dive into our data, and can say that Phosphorus seems to spike more dramatically with high flows than Nitrogen.**

Ellen has been doing strip monitoring (phosphorus and nitrate) on two properties during 2020, including 17 sites on the Wright farm. All sites are on farm land: there are cows even in the woods, so animal access to all the tribs. She did spread out from Wright property – there is no ag activity on a site on a sugarhouse road, but she is still finding phosphates here. Tentative conclusion: any soil disturbance at all leads to phosphates.

All the sample streams flow into larger streams, down the valley and – as expected – lead to higher numbers. Similarly, she is finding higher numbers where livestock has access to the bigger streams. However, the sampling doesn't seem hyper sensitive to flow regimes happening on the sampling day. Rain seems to dilute the numbers. Tentative conclusion: erosion from rain events isn't the source of phosphates – instead this is directly related to activities on the ground (i.e. animal access). Nitrates are less available, although there was a spike of nitrate right after the corn was cut (even without overland flow).

The major benefit of this site-specific testing is the growth/creation of relationships with people. The method is labor intensive, but better at connection people and their land. Would be great to monitor before and after projects (i.e. cowyards). There is so much data (fluvial and geomorphic, etc.) that we can use as parameters to measure land use over time; and we can use precipitation data to say “does this predict the nutrient numbers?” This is a long-term proposition to track land-use and nutrient changes, and it's not at all comparable to the La Rosa data, or even across multiple landowners, BUT it has real-world context, unlike the La Rosa data.

Some questions and suggestions from Becky: Separate out our high flow data from low flow data. Compare our historic data. Find a site to bracket. Use our data to id project sites. Streamwalks: train volunteers to walk up streams and note land use impacts and soil movement – qualitative data collection.

Where do we want to put MRBA energy as we move forward with water quality monitoring?

Thoughts from the Board:

- **A benefit of the sampling that Ellen has been doing this year: a very obvious, same-day bracketing**

that could help identify any potential problem areas. Also, it can be more frequent, and translates well to volunteers – may be able to set up a program that pairs a sampler with a landowner, and have full-year monitoring/relationship building.

- The value of sampling is seeing the relative contributions of the sites: both possible hotspots and pristine locations. Most years, the majority of the P that hits Lake Champlain comes in 5-15 rain or snowmelt events; the rigid every-two-week sampling doesn't catch those. Seems like the goal of our sampling program should be to guide implementation AND citizen science.
- We've been doing the same thing for so long, it would be nice to see the benefits of all that effort: may be able to still capture this, in a different way?
- How do we get the best of both: volunteer efforts and high quality results? Do we need volunteers for water sampling? Or would we be better suited courting them for other tasks?
- Long continuous datasets are nice. Maybe we continue a small bit of La Rosa (our 9 sentinel sites?)
- Immediate results are more fulfilling for volunteers. Could we do various layers of volunteerism related to this?
- Is there a way we could do automated monitoring at some of our sentinel sites? Automated would be sure to capture those high flow events. Advocate to get these set up by the State? Look for resources to support this.
- Benefit of this ^ is that then the people hours will go towards connecting with people!

Summary: try to figure out a hybrid format, so that we can still get some of our long-term monitoring data – continue as minor players in the La Rosa program, but get the more real-time benefits of our new landowner-based model – perhaps training volunteers to do this, as well. And also we should explore the qualitative assessments like streamwalks and the Adopt-A-Site program.

Adopt-A-Site – 4 tote bags are out: 2 in Lowell are caring for sites on their own property. They do sampling, but also site descriptions and other observations. Not the same as the proposed “streamwalk”.

One other things that Becky brought up is an app that can collect data from volunteers (would be good for streamwalks). The Board supports exploring this, as long as it works while people are out of service!

Japanese knotweed mapping/pilot control project – For LCBP AIS grant round (see below): Identify priority sites? Large sites vs new sites? Demo projects – side-by-side comparisons?

Education/Outreach opportunities/ideas – seasonal sampling? Winter vs. summer; animal activity should be less – would we see that in our samples?

5) Grants/financials update

LCBP grants – AIS coming up, we will apply for funding to expand on the knotweed project (more details above). Soon we should see the E&O and Org Support rounds.

- 6) Next meeting – November 5, 2020 – Enosburg Comm Center? Backups: FField Library; Bakersfield FD
December 3, 2020 – thoughts? Possibly do a meal? Will determine in Nov.
January 7, 2020 – thoughts?

7) Adjourn – meeting adjourned at 8:46pm.