

**Lake Champlain Basin Program
Technical Advisory Committee meeting
54 West Shore Rd, Grand Isle, VT
Wednesday, September 4, 2019, 9:30 AM – 3:00 PM**

TAC meeting summary

Attendees: Bernie Pientka, Neil Kamman, Jennifer Callahan, Stéfanos Bitzakidis, Bridget O'Brien, Leigh Walrath, James Jutras, Bryan Dore, Eric Perkins, Ryan Patch, Breck Bowden, Bernie Pientka (phone), Bill Ardren (phone), Jamie Shanley (phone)

Staff: Matthew Vaughan, Bethany Sargent, Lauren Jenness, Ellen Kujawa

9:30 AM Executive session: Review TMDL implementation project RFPs

- TAC members reviewed the Missisquoi Bay and Lake Carmi RFPs. Matt Vaughan provided an overview of the RFP development process and suggested that the TAC focus their attention on the tasks and outputs of the projects.

Motion: Jenn moved to approve the Missisquoi Bay and Lake Carmi RFPs pending additional review committee and LCBP staff comments, seconded by Jim, all in favor. Breck abstained from Missisquoi RFP vote.

10:30 Updates, announcements, and public comments

- Lake Champlain Sea Grant has an RFP out for research-related projects. Breck asked the group if anyone would like to sit on the review committee as they need one more panel member. The panel will meet Oct 7th, but remote participation is possible.
- Neil note that the public comment period is open on Vermont's clean water funding. State is working on Act 76, which creates a decentralized funding system to fund non-regulated clean water projects. Neil is now the director of the Water Investment Division. More clean water funding opportunities will be made available soon.
- USGS is installing three new gages on the East Branch of Dead Creek, West Branch of Dead Creek, and the headwaters of the Little Otter Creek. NRCS and UVM approached USGS about helping with their conservation easement project. Neil added that this is part of NRCS's new paired watershed study.
- EPA has a new regional administrator, Dennis Deziel. Deziel has worked with Dow Chemical, DOE and DHS. Breck added that Deziel's brother works at UVM Extension, part time for LCSG, and expressed interest in going out on the Melosira. This may be an opportunity for him to meet Lake Champlain players.
- VTFWD has created a map of locations of American eel die-off occurrences. Bernie mentioned that the cause and increase in mortality is not known. Currently VTFWD is looking for OTC marks on otoliths and studying a live group.

Review and approve summary of previous TAC meeting

Motion: James Jutras moved to approve the June meeting minutes with minor revisions, seconded by Jenn Callahan, all in favor, no abstentions.

LCBP updates, LCBP staff

- A draft TAC schedule for 2019-2020 was provided to members. The tile drain monitoring project has been completed, and a final technical report will be circulated to the TAC. New York DEC will be picking up and funding the Little Chazy gage. Ellen provided an IJC update on both the LCRR and WQ projects; Curt Gervich added that four thousand surveys have been circulated to residents in the Basin as part of the flood study. Ellen

Kujawa will be leaving LCBP at the end of September to begin a graduate program at the University of Oxford; Matt Vaughan will be on family leave starting any moment and will return to work around Thanksgiving.

10:45 Presentation: Lake Carmi groundwater phosphorus source evaluation, *Jonathan Kim (VTDEC)*

- The TAC asked questions about whether it is possible to separate the manure versus silicate leachate as they are both big problems. Jonathan answered that because the nitrogen cycle is relatively short lived, you end up looking at soil nitrate levels. You might be able to if you sampled on a regular and more frequent basis. It was also noted that they have found the chloride study helpful as part of this monitoring.

Breck asked if the regions in diagram H are from the literature or from Jonathan's study. Jonathan answered that they are using a published framework for this modeling. Neil commented that the shallow well study taking place in the Lake Carmi watershed will complement this work.

Breck stated that the LCSG receives \$80,000 from USGS annually for water centers research. The funding has a severe 2:1 match which is hard to do unless the partner has resources. Breck would be happy to craft an RFP using the funding to focus on a PFOA or other resource study.

11:15 Presentation: The Cotton Brook Landslide and the Vermont Landslide Hazard Mapping Project, *Marjorie Gale (Vermont State Geologist)*

- Breck noted that the features in the Bolton Mountain Quadrangle map look similar to the permafrost melted thermokarsts in the Arctic. The Vermont landscape is more complicated because there are people habituating and recreating in the area.
- Breck asked whether neighboring states are doing similar landslide modeling. Marjorie explained that Maine and Massachusetts are doing some similar projects; there is minimal funding availability, which limits modeling work like this.
- Matt asked what the limitations of the model are. Marjorie noted that much of the data input is accurate, but the specific weighting of the model is more challenging. The models consistently over-predict the likelihood of landslides.
- Bill Arden noticed that there was more sediment in the Winooski River near Richmond this year than in the past; salmon need clean substrate to reproduce, so how long will this kind of fine sediment likely persist? Marjorie noted that the Cotton Brook area has had three major known landslides and likely has been unstable for a long time. The pieces currently breaking off the banks are relatively small and will continue to break for the coming years, but these pieces are not at the same scale of the major landslide. Sediment in the Winooski River will likely persist for at least two more years. Breck agreed that once the slope is able to be stabilized with vegetation, sediment will probably decrease.

11:45 Review: FY20 core projects, *LCBP staff – pushed to 2pm.*

12:15 PM Lunch

1:00 Workplan review: Quantifying the road salt pollution load to Mirror Lake and the Chubb River, *Brendan Wiltse (Ausable River Association)*

- James Jutras wondered whether there might be opportunities for alternative salt management strategies (using salt-free sand on south facing slopes, for examples). Brendan would like to collect a year of monitoring data before encouraging the

installation of this sort of BMP, but this will be an ongoing conversation with the Village of Lake Placid.

- Leigh Walrath asked how many edges the new live edge plows will have. Brendan clarified that these will be single edge plows. Leigh asked about how application rates will be collected; these data will be collected for roads and sidewalks but likely will not be available for parking lots.
- Curt asked for more information on the survey to be circulated to applicators. Brendan noted that they will be asking about how much salt applicators have purchased, rates of application, etc. Leigh suggested asking about salt storage; Brendan will add this to the survey.
- Eric Perkins noted the salt reduction potential of pervious pavers, and asked whether this would be part of the public outreach campaign. Brendan agreed that this is a topic for discussion especially as Lake Placid is considering redoing their stormwater system.
- Regarding Task 16, Eric Perkins wondered what will happen to the two live-edge plows after the conclusion of the project; Brendan clarified that they will likely stay with the municipality and continue to be used in the Mirror Lake watershed.
- Steve Kramer suggested that trail cameras might be used in tracking salting in parking lots. Brendan noted that there may be opportunities to install road cameras as well, but this will depend on the budget available.
- Curt asked for more information on commercial and residential surveys. How many, how will they be distributed? Brendan clarified that they will be distributed to all business and residents in the watershed, though the Mirror Lake watershed will be particularly targeted. There will be some door knocking, especially for commercial surveying, and potentially residential as well if participation is low. Curt and Brendan will discuss these methods in more detail.
- Neil pointed out a typo in the task numbers.

Motion: Breck moved to approve the Quantifying the Road Salt Pollution Load to Mirror Lake and the Chubb River workplan with minor revisions, seconded by James, all in favor, no abstentions.

2:00 Review: FY20 core projects (continued), *LCBP staff*

- Cyanobacteria Monitoring Proposal reviewed by Lori Fisher. The budget for this project has increased from last year in both personnel and supply costs.
 - Steve Kramer asked for more information on the survey test strips. Who will be using them? Lori clarified that LCC would like to test these strips' usage before making them available for all monitors' samples. They would be used for field testing this season.
 - Neil asked whether additional staff will be hired to supplement current LCC work on cyanobacteria monitoring. Lori explained that an intern or an Eco-Americorps member might be hired, and LCC is considering contracting out some weekend activities.
- Water Chestnut Monitoring Program. The budget has increased for this item from \$90k to \$150k, to better align the planned work with the funding schedule.
 - Neil asked whether the increase to \$150k reduces the technical budget by \$60k. Matt stated that the short answer is yes, though the LCBP budget is still under development and the technical budget is not yet set. The TAC discussed the increase and remaining \$30k in next year's budget.
 - The TAC does not disagree with the technical aspects of this project, and is comfortable asking LCBP staff and Steering Committee to coordinate funding details.

- Enhanced BMP Grants Program.
 - Breck Bowden asked for more information on the impact of these projects. While P tracking information is collected and shared with the state, no analysis of relative usefulness of this RFP category has been done. Breck asked how this relates to the new clean water funding initiatives. Neil suggested that as much as possible, LCBP grants should be aligned with state funding initiatives, especially as the Act 76 model decentralizes state funding and provides funds per pound of phosphorus reduced.
 - Neil noted the importance of being sure that grant applications in this category are within regulations in both Vermont and New York.
- AIS Rapid Response Fund
- Boat Launch Steward Program
 - Breck asked how often we have activated the AIS Rapid Response Fund and therefore, take away from BLS program. Ellen clarified that unused AIS RR Funds roll over to support the boat launch steward program. Breck noted his belief that the investment in stewards is a higher need as once an invasive species is in a waterbody, it is hard to eradicate. Leigh noted that Hydrilla is one of the species that might need those funds, at least in a smaller lake where eradication might be possible. The funds are helpful.
- NY Agronomy
 - Steve Kramer noted the importance of having non-DEC, non-extension personnel to do this kind of BMP outreach on farms. Neil asked what the best use of funds in NY watersheds might be; Steve noted the difficulty in answering this question but suggested manure pits and other structural BMPs. The smaller scale projects covered by this NY Agronomy funding will also be useful.
 - Breck asked for clarification on how this project is now included in the LCBP suite of “core” projects. His original recollection of core projects was that they were only projects that were crucial to the LCBP mission. Neil added that there’s a minimal technical component to this particular line item, so it may be less appropriate for TAC discussion. Breck suggests that at the Steering Committee, Neil and Matt relay that TAC discussed how “core” certain core items are.
 - Ryan Patch added that this kind of agronomy work is crucial to nutrient reduction in the NY portion of the Basin, especially if a long-term agronomist is able to forge interpersonal relationships with farmers.
- Long-term monitoring program
 - TAC expressed support for initial automated monitoring season.