

**Lake Champlain Basin Program
Technical Advisory Committee meeting
54 West Shore Rd, Grand Isle, VT
Wednesday, June 5, 2019, 10:00 AM – 2:30 PM**

TAC meeting summary

Attendees: Neil Kamman, Stéfanos Bitzakidis, Jennifer Callahan, Leigh Walrath, Fred Dunlap, Bernie Pientka, Angela Shambaugh, Steve Kramer, Ryan Davies, Breck Bowden, Laura DiPietro, Eric Perkins, Bryan Dore, Mindy Morales-Williams, Bill Ardren, Bridget O'Brien (phone), James Jutras (phone)

Staff: Matthew Vaughan, Lauren Jenness, Ellen Kujawa, Jim Brangan, Colleen Hickey, Ryan Mitchell, Bethany Sargent

Guests: Dan Albrecht (phone)

Updates, announcements, and public comments

- Fred Dunlap: The new I-87 boat decontamination station has been put online at the Northway Rest Stop just outside Glens Falls. This is the first decon station on the state on an interstate highway and we hope it may help stop the spread of invasive species into the Adirondacks.
- Laura DiPietro: A new position has been created in partnership with VAAF, NEIWPCC, and NRCS to work on the conservation reserve enhancement program.
- Angela Shambaugh: Vermont Lakes Seminar begins tomorrow at Lake Morey.
- Bernie Pientka: Both Brian Chipman and Chet MacKenzie will be retiring June 21st.
- Neil Kamman: Passage of an act related to water quality services that decentralizes the process of putting water quality remediation projects on the ground, and has the state assign regional water quality service providers. Will issue fixed block grants based on kilos of phosphorus reduction. Neil proposes spending time on this legislation at the September meeting of the TAC. This bill also provides a long-term funding source for clean water in Vermont, from three sources: 6% component of the rooms and meals tax, 4% of the property transfer tax, and the forfeiture of bottle deposits. This should raise around \$20 million per year.
 - Matt: Is it written in the bill who will be assigned block grants? Neil: No, this is up to the secretary to assign. Meetings planned with all state agencies and presented to the legislature at the end.

Review and approve summary of previous TAC meeting

- Jennifer Callahan moves to approve May TAC summary. Angela Shambaugh seconds. Eric Perkins noted that a note should be added to suggest that the TAC priority discussion would be considered at the next meeting. Neil noted two minor corrections. Amended motion is carried; abstentions Breck Bowden, Laura DiPietro, Steve Kramer, and Ryan Davies.

LCBP updates, LCBP staff

- The next TAC meeting will be in September.
- NALMS call for abstracts is closed. See you there on Nov 11-15!
- Steering Committee meeting is tomorrow. LCBP staff will present TAC FY20 priority recommendations for the FY20 request for pre-proposals.

- Boat Launch Stewards are out on launches around the lake. We have 12 stewards working mostly in VT, one in NY covering Point Au Roche state park, and Wilcox if it opens. QC has one steward, and we are hoping to hire a second through OBVBM.
- IJC project updates:
 - Flood study: The Public Advisory Group held a meeting at the MNWR on May 10th, and discussed public meetings, which will be held this November. They plan to present a suite of performance indicators used to assess flood damage, and some flood mitigation measures at these meetings. The next meeting of the technical working groups and study board will be held June 18-20 in QC.
 - WQ study: The science and policy workshop to vet and discuss recommendations for this project was held on May 8th and went well – we got great feedback. The TAC will see these recommendations later today and will have another opportunity to give feedback on these recommendations. We're planning on an extension on this project and will be holding a public meeting in the early fall, planning to submit the final report soon after that.

Presentation: Overview of Education and Outreach and Champlain Valley National Heritage Area programs, *Colleen Hickey and Jim Brangan (LCBP)*

- Jim Brangan gave an overview of the cultural heritage work in the watershed, and described the role of the HAPAC. The HAPAC has adopted the TAC's pre-proposal process and this year will focus on the Conservation and Community interpretive theme. The International Year of the Salmon is a collaborative technical/heritage program that is currently underway, wrapping up in October on the Winooski River. Next year will focus on the 19th Amendment.
- Colleen Hickey introduced the Education and Outreach team and gave an overview of the E&O program. She provided information on the Resource Room, Champlain Basin Education Initiative, high school watershed stewardship program, artist in residence program, and raise the blade campaign. Ryan Mitchell discussed several recent publications produced at LCBP, including the State of the Lake Report.

Set FY20 technical program priority recommendations for LC Steering Committee

- The TAC discussed the five broad priorities drafted by Neil Kamman and Matt Vaughan.
- Steve Kramer asked about the specificity of the first bullet (Research on BMP design standards), and suggested that it was currently too broad. Matt recommended that the TAC narrow this topic if they're interested.
- Stéfanos wondered whether it might be possible to integrate the IJC water quality recommendations into a future set of TAC priorities.
- The TAC discussed the issue of research versus implementation projects. Neil K suggested that while there are significant opportunities for implementation, the TAC is uniquely positioned to advocate for research.
- Breck Bowden suggested that "high impact" be added to bullet #2, to adequately reflect the importance of large parcels of land.
- Laura suggested considering whether opportunity costs apply only to municipalities or to agriculture and other systems as well. VAAF is doing some work to this effect on agriculture.
- The TAC discussed including research on economics per an earlier discussion with the Steering and E&O committees. Matt explained that there is approximately \$5k in the LCBP budget to scope this research, and that this will likely result in the drafting of a separate RFP. Neil plans to bring this up in the June 6th Steering Committee meeting.

- Angela raised the issue of applications that address one or more priorities, but that the TAC does not approve. Matt reminded the TAC that the pre-proposal process allows for feedback to applicants as an opportunity for the TAC to shape a final project they may want to see.
- Neil Kamman asked whether the TAC was interested in adding any automated monitoring (particularly of winter dynamics) to their priorities. Angela recommended that this be discussed by the long-term monitoring subcommittee and that the pre-proposal process may not be the right fit for this type of work. Breck recommends separating winter monitoring from automated monitoring. Steve Kramer suggested that winter monitoring could be grouped with the deicing practices priority; Matt agreed that this is a possibility, but will effectively make the deicing item into two separate priorities. Breck suggested a separate topic on winter dynamics. Laura DiPietro suggested being specific in this priority in what the TAC actually wants to know. Matt noted that the TAC could instead add a scoring criterion about understanding winter dynamics, rather than a priority.
- Breck wondered if innovative practices for BMP development is in OFA; if so, it doesn't need to be identified as a priority. Eric Perkins clarified that often in the past we have called out particular OFA priorities in the RFPP.
- Bill wanted to make sure that the second priority focused on native species rather than nutrients. Make native species priority over water quality and flood resilience.
- The TAC asked LCBP staff to revise the draft priorities based on their discussion and present to the Lake Champlain Steering Committee on their behalf.

Update: McKenzie Brook flow and water quality study, *Blaine Hastings (VTDEC)*

- Blaine Hastings presented initial results from the McKenzie Brook study. This project will conclude in September, 2019 and the TAC will need to approve a final report, either as a full body or as a subcommittee. The TAC will plan to see this project in final form at their September meeting.
- Neil Kamman noted that the original intent of this project was to set up permanent gage stations in the south lake subwatershed; this was a \$50k grant with significant match with the intent of determining what's going on in the area. Blaine agreed that this drainage area was a difficult one to monitor; low flow conditions were prohibitive of sampling. Eric Perkins added that this area was selected because the SWAT model suggested that it was one of the highest loading sub-watersheds, and has been targeted by NRCS and other partners for BMP installation. Blaine noted that there is no pre-implementation dataset, making comparison difficult.
- Laura asked whether VTDEC had connected with UVM Crop and Soils to investigate why the TP readings were so high.
- Matt suggested that the composite method might be an analysis well-suited to improving the accuracy of data observed, though it will not allow for future predictions.

Final report: Grassed waterway edge of field study, *David Braun and Don Meals (Stone Environmental)*

- Dave Braun and Don Meals presented the final report findings for the grassed waterway edge of field monitoring project.
- Eric Perkins: Did the late treatment period ever include a manure application? Dave Braun clarified that no manure was applied; perhaps the difference is in the application of nutrients. Eric noted that the purpose of these grassed waterway studies is to determine their usefulness in typical agricultural conditions; this project unfortunately missed that possibility due to outside factors.

- Breck stated that the lack of statistical significance here suggests that grassed waterways have no effect on phosphorus concentration and load, at least not without agricultural practice implementation. Don clarified that there is an effect on concentration.
- Laura asked about the history of cover cropping in the study sites. When were they planted and left fallow? Dave clarified that the field was cover cropped in fall 2015, planted in corn summer 2016, cover cropped fall 2016, planted in corn summer 2017, no cover crops in fall 2017 and 2018. Laura wondered whether there was an effect on nitrogen due to this cover cropping regime. Don noted that this is possible, but that this cover cropping schedule took place in both watersheds so doesn't account for the difference between them.
- Eric Perkins asked to what extent dilution might be affecting concentrations. Were there comparable flows between the two watersheds? Don responded that he wasn't sure how this question could be answered with the data available.
- Steve Kramer asked for clarification in the report on chloride: two diverging statements on p 2 fifth bullet, p 3 second bullet second sub-bullet.
- Breck noted his concern that the report needs more information on total phosphorus, the purpose of this study: grassed waterways did not reduce total phosphorus loading. Don agreed that this should be emphasized.
- Motion to approve report provisionally with revisions (TAC members will get any additional feedback to Matt Vaughan by June 12th, 2019) by Breck Bowden, second by Angela Shambaugh. Motion is carried; no abstentions.

Review: International Joint Commission water quality recommendations, *Ellen Kujawa (LCBP) and Christina Stringer (NEIWPC)*

Ellen provided overview of water quality reference and handed out draft recommendations for water quality improvement in Missisquoi Bay. The TAC discussed the effects of milk pricing structure on the dairy industry, recommendations for land conservation, soil legacy phosphorus, and engineering solutions to reduce phosphorus loading. This helpful feedback will be incorporated into the draft recommendations.