

**Lake Champlain Basin Program
Technical Advisory Committee meeting
Wednesday, June 6, 2018, 10:00 AM – 3:00 PM**

Approved TAC meeting summary

Attendees: Neil Kamman, Andrew Schroth, Fred Dunlap, Angela Shambaugh, Jennifer Callahan, Mark Malchoff, Leigh Walrath (in for Ed Snizek), Eric Perkins, Bernie Pientka, Eric Young, Ryan Davies

Phone: Bernie Pientka, Dennis DeWeese

Staff: Matthew Vaughan, Eric Howe, Ellen Kujawa, Jane Ceraso (NEIWPC), Bethany Sargent (VTDEC), Ryan Mitchell, James Plummer (NEIWPC)

Guests: Kari Dolan (VTDEC), David Borthwick-Leslie, Mark Gabriel (IJC), Glenn Benoy (IJC),

10:00 AM Updates, announcements, and public comments

- Angela: Lakes and Ponds Program recently held their annual Lakes Seminar. It was a basic introduction to limnology, followed by a deeper dive into data applications and management. Modeling information from contractors on the Lake Carmi project is now available. A radio hour segment aired last week and the podcast will be released soon.
- Mark: Lake Champlain Sea Grant has received Institute status. This means a larger amount of funding for research. Proposal for additional funds will be submitted in the next two weeks. There will be a research RFP released in the fall.
- Eric Perkins: Interviews have been conducted for the new EPA Lake Champlain coordinator. This role will be filled by the September meeting.
- Dennis: State of New York is exploring the possibility of additional EQUIP funds to use in the Lake Champlain watershed. Dennis will have more information by the September meeting.
- Neil: Legislature adjourned on May 12th and then reconvened for a budget dialog. There are several bills relevant to water quality remediation. Capital bill contains 25 million for clean water funding. H777 Clean Water state revolving fund opens up types of projects eligible to natural resources S260 clean water omnibus bill – designated Lake Carmi as a lake in crisis and sets forth actions for VT ANR. H564 sets new dam safety requirements for the state of Vermont. 2018 wastewater permits will be issued by the end of the month, to be in place by August 1. Two new class 1 wetlands were designated: Peacham Bog and Laplatte River Marsh. A segment of Little Otter Creek has been removed from the impaired waters list.
- This will be the last TAC Meeting for Eric Young - He has accepted a position with USDA ARS in Wisconsin. Thank you for your service to the TAC, Eric!

LCBP updates, FY18 budget summary, *Matthew Vaughan and Eric Howe (LCBP)*

- Senator Leahy held a press conference to announce increases in Lake Champlain FY18 funding
- Watershed Consulting Associates tile drain project requires a project advisory committee. We will be soliciting volunteers.
- State of the Lake will be released on June 15th with a press conference event at the LCBP office.

- Two IJC projects are underway: Lake Champlain – Richelieu River flood study and the water quality reference.
- MJ Engineering Wastewater Treatment Asset Management project is closing this summer – before the September, 2018 meeting.
 - Final report review sub-committee: Fred, Jim, Neil, Jessica Bulova (VTDEC), Terisa Thomas (VTDEC), Jeff Fehrs (VTDEC), Dan Arsenault (EPA region 1, nominated by Eric Perkins)
 - Fred suggests that if this project is ever brought back, consider the collection system in addition to the facility itself.
 - Jenn moves to form subcommittee to approve final report. Angela seconds. All in favor; motion is carried.
- FY18 approved budget has been finalized. Eric presented the technical projects that will be funded in this budget cycle.
 - Bethany Sargent and Kari Dolan discussed projects that will be funded with Lake Champlain FY18 VT TMDL implementation funds. Kari will present these projects at the next Executive Committee meeting.

Review and approve summary of previous TAC meeting

Angela moves to approve the summary of the May TAC meeting as written. Andrew seconds. All in favor. Mark and Leigh abstain.

10:30 AM Agricultural practice monitoring and evaluation (grassed waterway) interim report, Dave Braun (Stone Environmental)

- Dave Braun presented an update to the agricultural practice monitoring and evaluation project. This project looks at five types of practices: soil aeration, reduced tillage, cover cropping on corn, water and sediment control basin, and a grassed waterway. There have been several complications in this study, but preliminary results are available. Some potential concerns for the 2018 grassed waterway season include: landowners may not fulfill study commitments, and since the monitoring is scheduled to be finished in 2018, there may be too few runoff events to study.
- TAC Action: since the interim report was submitted late, TAC has not had time to review it for this meeting. Mark moves to form a subcommittee to review and approve this interim report. Subcommittee will include Angela, Eric Young, Laura DiPietro. Angela seconds. All in favor. Motion is carried. Reviewers will get comments to Matt in one week.

11:15 AM Lake Champlain Basin land cover mapping final report, Jarlath O'Neil-Dunne (UVM Spatial Analysis Laboratory)

- Jarlath O'Neil-Dunne presented on the high-resolution land use-land cover mapping project for the US portion of the Lake Champlain Basin. This project yielded two principal output datasets with 900-times higher resolution than any previous effort. The first is a 1-meter resolution land-cover dataset. The second is a 10-meter land cover layer in which the 1-meter classes were aggregated to the National Land Cover Database (NCLD) classification schema. A detailed accuracy assessment showed that the overall accuracy was 91%
- There was discussion regarding aggregating impervious surface and agricultural categories. Accuracy was reasonable for aggregate categories, but at times was below acceptable for specific sub-categories.

- Jenn moves for Neil, Matt, and Ryan to form subcommittee to review data and approve final report. Dennis. Angela seconds. All in favor; motion is carried. As chair, Neil is not voting, but abstains.
- The subcommittee formed shortly after the meeting included: Fred Dunlap, Kevin Behm, Reed Simms, Emily Shelly, Ryan Knox, Laura Lapierre, Reed Sims, Caroline Alves, Eileen Allen, Sean Regalado, Phillip Jones, and Katie Duncan

12:00 PM Lunch

12:45 PM International Joint Commission Lake Champlain-Missisquoi Bay water quality reference discussion, LCBP/NEIWPC staff

LCBP, NEIWPC, and IJC staff reviewed the outline for the water quality reference study. The TAC will serve as a review committee for the project, and the project team will ask for a list of references to help with the review.

Andrew noted that it will be important to look at exchange between Bay and rest of the lake. Summer weather, climate change, and weather considerations will be important factor in determining cyano blooms.

Angela Shambaugh was the only one who specifically affirmed that she was interested in serving on the review team, but others are likely to be involved.

- TAC Suggested research resources:
- 2012 Special Issue: Lake Champlain featured in VT Law Journal,
- Chris Koliba's work
- David Mears' work
- Aubert Michaud's work in QC
- IJC funded Richelieu Flooding research
- 2012 American Geophysical Union's compilation
- LC Basin Program publications
- Tom and Pat Manley's hydrodynamics research
- MS/PhD theses

In the next week, Matt will request TAC feedback on important resources to use for the Missisquoi lit review (expand research resources list above). During the September TAC meeting, the Missisquoi subgroup will plan to review the draft summary report.

1:45 Rock River project update, Angela Shambaugh (VTDEC)

Angela provided an update on the Rock River BMP monitoring study. The project aims to document water quality changes from agricultural BMP implementation in a small watershed with high phosphorus loading. Angela explained that the original experiment design has been compromised because BMP practices were installed in the control watershed. The monitoring will continue, but with the new purpose of measuring the extent of phosphorus and TSS reduction with on-the-ground BMP implementation, rather than an upstream/downstream experimental design. Preliminary results show no significant long-term trends in TSS, TP, DP, or PP. The number of high flow events does seem to have decreased over the study period, however.

2:15 PM FY19 technical priorities discussion

The LCBP team presented several suggestions for potential FY19 technical project priorities.

The TAC recommended that the language of the request for pre-proposals clarify that any projects that meet the goals of Opportunities for Action will be considered.

TAC recommended that LCBP use the four priorities from last year, but specify which contaminants we are interested in investigating. These will be presented to the Executive Committee for review at their next meeting.

3:00 PM Adjourn