

**Lake Champlain Basin Program
Technical Advisory Committee meeting
September 9, 2026, 9am-3pm
Held remotely**

Approved TAC meeting summary

TAC Members: Wade Bastian, Jennifer Callahan, Sarah Coleman, Laura DiPietro, Bryan Dore, Brian Duffy, Laurie Earley, Curt Gervich, Peter Isles, Neil Kamman, Steve Kramer, Ben Luskin, Margaret Murphy, Tony Prestigiacomo, Quinn Rufa, Andrew Schroth, Jamie Shanley, Daniel Tremblay, Theresa Vander Woude, Colette Ward

LCBP and Support Staff: Mae Kate Campbell, Sabrina Koetter, Meg Modley, Matthew Vaughan, Sonya Vogel, Erin Vennie-Vollrath, Kait Manley (VTDEC)

Guests: Breck Bowden (VTCAC), Ami Ricassi (USGS), Eric Howe (GLFC), Todd Chaudry (USGS), Justin Wolford (Adirondack Research), Ezra Schwartzberg (Adirondack Research), Chris Smith (USFWS)

1. Updates, announcements, public comments

- Neil welcomed the TAC to another season and provided an overview of the meeting agenda.
- New attendees Sabrina Koetter (LCBP), Ami Ricassi (USGS), and Kait Manley (VTDEC) introduced themselves.
- Peter (VTDEC): We officially have the new Lake Champlain and Cyanobacteria Monitoring on board - Lizzy Gallagher.
- Andrew (UVM): Sonya Vogel successfully defended her MS thesis! Unfortunately, Lake Carmi experienced a cyanobacteria bloom. Our team is continuing its work to characterize the effects of the alum treatment.
- Eric Howe (GLFC): Joining the TAC in my new role with the Great Lakes Fishery Commission.
- Laurie (USFWS): We are gearing up for an intensive lamprey season. We will be beginning treatments the week of September 21st with 6 river treatments and 2 delta treatments planned, focused on northern NY tributaries. On the salmon front, we've had 2 publications released this summer. One focused on [telemetry work in the Winooski](#), and the other on [experimental broodstock](#). On the habitat front, we are supporting 2 aquatic organism passage projects nearing completion on the Bouquet. As part of those efforts, we documented an adult salmon upstream of removed barriers.
- Neil (VTANR): I will be travelling out of the county in late September, and Laurie has agreed to represent the TAC at the September Steering Committee meeting and as Vice Chair at the October TAC meeting.
- Sarah (VTDEC): Our Clean Water budget for state fiscal year 2028 is beginning. The next Clean Water board meeting is 10/8/26 1-2:30pm. See upcoming dates here: [Clean Water Board Meetings | Department of Environmental Conservation](#)

- Matt (LCBP): Welcome to a new TAC season! LCBP has a new incoming Director, Mitzi Johnson, who will begin in mid-October. The following bio was shared with Steering Committee members: "Mitzi comes to us with over two decades of public service experience. Serving as a member of the Vermont House of Representatives, she held leadership roles on the agriculture and appropriations committees and served as speaker of the house. During that time, she also held leadership roles in other social non-profits: she was an advocacy specialist for Hunger Free Vermont, served as the executive director of the Adaptive Leadership Network, and the director of the Beacons of Democracy Project at the State Legislative Leaders Foundation. Most recently, she has been a leadership and strategy consultant and executive coach for KS-Insight. She currently serves as the chair of the board of directors for the Vermont Food Bank." LCBP team transitions - Anna Vold has moved on and Emma Janson has moved to the Healthy Ecosystems team, so we are hiring for the open role with the Clean Water team. Open requests for proposals are Clean Water Large, Small, and Planning, Aquatic Organism Passage restoration, Public Waterfront Access Improvement, and Land Conservation for Clean Water and Healthy Ecosystems. We will soon be releasing Aquatic Invasive Species Spread Prevention, Habitat and Native Species Conservation, and Education and Outreach grants.
- Laurie: One additional update. Thanks to our GLFC partners, the Lake Champlain Fish and Wildlife Management Cooperative is starting to work on an economic evaluation of Lake Champlain's fisheries. We should have the final product within 52 weeks. We are looking forward to having that information, and for it to be available for the US Army Corps of Engineers as they work on Phase 2 of the Champlain Canal Barrier Feasibility Study.
- Meg (LCBP): The Boat Launch Steward season is ongoing, we are working to staff decontamination stations especially over the weekend. We have been helping the State comply with the wakeboat decontamination rule. We've only seen a handful of wakeboats so far. We've intercepted hydrilla 6 times this season, mostly from boats coming from out-of-state for fishing tournaments. We've seen no new detections of round goby with recent surveillance sampling efforts. We are working to move forward with the Champlain Canal Phase 2 Barrier Feasibility Study.

Review and approve summary of previous TAC meeting

Motion: To approve the meeting summary from the June 2026 TAC meeting

By: Jenn

Second: Margaret

Vote: All in favor

2. Discussion: FY27 Clean Water and Healthy Ecosystems research priorities

- Matt provided an overview of the Research Request for Pre-Proposals (RFPP) process. The goal of today's discussion is to identify priorities for the fiscal year 2027 budget cycle. Over the summer, we solicited priority ideas from Steering Committee members and their teams to support and conduct research that informs management on Lake

Champlain. We start with these ideas that our management partners and stakeholders are in, the TAC reviews those ideas and forms a recommendation to the Steering Committee. Laurie and I will present this recommendation to the Steering Committee at their September meeting. The priorities will then be included in our Research Request for Pre-Proposals, along with a priority that is “General Opportunities for Action”, covering anything under LCBP’s management plan. Pre-proposals will be submitted and reviewed by the TAC, high-ranking proposals will be invited to submit full proposals.

- Neil: At our table we originate technical ideas for research or receive ideas from other entities. Some of what the Steering Committee may want to learn may be beyond research. Sometimes there is a tension between research priorities as we may see them, vs what the Steering Committee is looking for.
- Matt provided an overview of the compiled research priority document. Comments were recorded in that document: [TAC FY27 research priorities - for review.docx](#)

3. **Workplan review: *Evaluating Early Detection and Management Strategies for Hemlock Woolly Adelgid in the Lake Champlain Basin*** (Ezra Schwartzberg, Adirondack Research)

- Meg introduced the project and Ezra and Justin from Adirondack Research who shared a presentation. This project will evaluate strategies for early detection and rapid response to hemlock woolly adelgid (HWA) in areas where the invasive insect has recently been detected near Lake Champlain in Willsboro, NY. This project aims to close the gap between early detection and timely, effective treatment. The project will contact landowners, gain permission to complete surveys and treatments, assess sites, conduct two different types of treatments, and synthesize information on effort, costs, and effects of different treatments to determine whether early response is operationally feasible.

Discussion

- Matt: The TAC is not the body that makes QAPP determinations, LCBP staff will follow up to continue that discussion.
- Neil: Do you have a sense of what proportion of landowners say yes that you’d want to visit?
 - Ezra: We’ve dedicated two weeks to do surveys, so the number of properties will be constrained by the time we’ve allocated for that step. In our experience people are happy to get a free treatment - cost is often the limiting factor preventing landowners from pursuing these treatments. The number of properties we can survey depends on the size of the property.
 - Neil: How long would a 50-acre property take to survey?
 - Ezra: It would take two people a full day. We will treat fewer sites than we can survey.
- Chris: What type of information are you collecting around the permissions? We’ve seen folks being apprehensive of herbicide treatment. I’d like to know more than just a yes or no consent to treatment or not.
 - Ezra: We’ll first ask for permission to do surveys. If we find HWA, we’ll ask for consent to treat. We’ve had pretty good luck with asking for permission to

conduct free treatments. We have interacted with clients who are apprehensive about herbicides.

- Chris: Anything that would notate whether the consent was based on herbicide or not would be great. I know this proposal focused on riparian areas originally, are you focused on the lake and streams?
- Ezra: To add, some folks are apprehensive of spray application, especially near waterbodies. If clients prefer us to do stem injection, we can build that into their treatment plan.
- Chris: My point was less about the near-water application, and more on that since hemlock is a keystone riparian species, I don't know how much we see it in non-riparian areas across the LCB.
- Erin: When you talk about contacting landowners, what will your approach be? Letters, phone calls, knocking on doors?
 - Ezra: We have a lot of experience with contacting landowners. We use property data as a way to access property information and then do door hangers, phone calls, etc.
 - Erin: Will you document that? Thinking about if a state agency were to continue these efforts, it would be useful to know what's most effective.
 - Ezra: Let me think about that. I see it could also be useful to break down the time/effort that needs to be put into each method of contact.

Motion: To approve the workplan following the incorporation of TAC comments and the QAPP evaluation

By: Jenn

Second: Laurie

Vote: All in favor

4. **Workplan review: *Contaminants in fish: local and lake-wide drivers in Lake Champlain***

(Dr. Vivien Taylor, Dartmouth College)

- Matt introduced Dr. Vivien Taylor's new round of work on contaminants in fish, Vivien shared a presentation. This work will conduct an opportunistic fish survey (collecting muscle plug sample, length, weight, and catch location) in all seven segments of lake. Project work will include:
 - Task 2:
 - Goals: Gap fill Lake Trout mercury concentrations. Mercury total maximum daily loads (TMDLs) are set based on Hg concentrations in smallmouth bass, study will investigate if fish are in compliance with TMDL.
 - Questions: The project will seek to understand how much Hg a system can receive to keep fish Hg below 300 ng/g? In addition to emissions, what could other drivers of Hg in lakes be (previous work identifies lake levels, discharge, soil saturation/drought indices)?
 - Task 3: Littoral zone contamination from PFAS. This study will consider: What are the dispersion and food web pathways of PFAS from point sources into the

lake? Will do this looking at walleye, smallmouth bass, yellow perch, white perch, bluegill, pumpkinseed, zooplankton/ seston, sediment, and other small littoral fish near the mouth of the Salmon River/Cumberland Bay. Will conduct analyses of PFAS, Hg, and stable isotopes of C/N to analyze trophic level

- Task 4: Dragonfly larvae are indicators of Hg in fish and amphibians in the same systems. Integrated impairment index helps determine the impairment of a stream based on concentrations in the dragonfly larvae. Using community engagement in the project, collect nymph samples in ~10 sites focused on smaller rivers (e.g. Englesby, LaPlatte, Lewis, etc.).
- Task 5: Workshop and outreach. The workshop will focus on how to incorporate PFAS into fish consumption advisories with stakeholders (NY, VT, QC Departments of Health, researchers, outreach managers).
- Expected project outcomes: information on Hg concentrations in Lake Champlain fish, regional Hg TMDL endpoints, Hg emissions and deposition information, regional climate-drivers of Hg concentrations in fish, community involvement in monitoring, outreach and education opportunities

Discussion

- Neil: 2023-2025 contributed a lot of information on lake fluctuation effect on nutrients in the lake. This could bring a lot of information about contaminants in the lake, and be an interesting part of this work as well. Your workplan includes PFAS littoral testing near Plattsburgh/Cumberland Bay, but also references Converse Bay in VT. I didn't realize there was more in this area. Is the idea that Aqueous Film Forming Foam (AFFF) was used in this location?
 - Vivien: Our work has found high concentrations in eels and bluegills at the Converse Bay site. Typically, they spray AFFF foam when a jet lands. It seems unlikely that they would do spray testing there. I suspect that septic systems are a point source.
 - Neil: I believe there is a small community wastewater system in that area. Not sure about the details of that leach field. You know some of the VT folks who are plugged into PFAS data who could be helpful here.
- Tony: Great presentation. Could you let us know how this work will inform the regional Hg TMDL?
 - Vivien: We have smallmouth bass data which is what the TMDL is based on going back to the late 1980's. We will calculate compliance with the TMDL to see if it has changed over time.
- Jamie: Curious about the dragonfly work. You describe it as a tedious process to make sure that it aligns with USGS. I'm curious how species of dragonfly influence this.
 - Vivien: There are 6 species of dragonfly we commonly find, but we can normalize to the most common species
 - Jamie: You often find different species dependent on the site, but you normalize to a single common species?
 - Vivien: It depends on substrate, but we get different species in different sites.
 - Jamie: Are you working to extend what you find with dragonflies in streams to different parts of the lake?

- Vivien: Once we have a map and can relate watershed land use, that will help. I'm curious about the difference between the Adirondacks versus the Greens.
 - Neil: That's interesting but different from what Jamie is asking.
 - Vivien: Hg is so uniform within the lake.
 - Jamie: I was mostly curious how those parts of the projects tie together. Re: PFAS, you say that most PFAS in our lake are PFOS. Is that true nationally?
 - Vivien: Yes, normally in fish. Other shorter chain PFAS do not bioaccumulate. You get very different profiles in water, sediment, and fish. So, we wonder where it is coming from.
 - Jamie: You're focusing on Cumberland Bay for PFAS, understandably.
 - Vivien: The data I showed is from our previous survey, and they were pretty low.
 - Jamie: Ami and I are looking at PFAS in smaller streams like you, we wonder if the forever chemical is also the everywhere chemical?
 - Vivien: The other problem is what are we comparing to? Advisories are different from state to state.
- Colette: For the stable isotope food web component, what are the baseline organisms that your team will be using?
 - Vivien: I think we'll be using benthic invertebrates like an amphipod.
 - Colette: Are you planning to get multiple samples throughout the years to avoid seasonal spikes?
 - Vivien: Great question, but yes that is a good point. The other potential would be to use zooplankton, but they are so variable.
 - Colette: Zooplankton can be so variable and require so much dry weight to get even one replicate. It sounds like the fish are feeding from benthic and pelagic chains. It would be great if you included freshwater mussels for a pelagic baseline. Freshwater mussels, if you can find them, are a great stable baseline and avoid the zooplankton struggles.
- Neil: I'm curious about the assumption that dragonfly Hg = fish Hg in Lake = Hg in sediment. My understanding is that fish move all over the place in Lake Champlain, and that movement is exacerbated by fishing derbies. It makes me wonder if there is value in targeting smallmouth in tributaries in the spring during spawning runs. You could have a significant sample size and potentially a more local sample. For PFAS, I'm thinking the conversation about a risk assessment threshold is valuable, but should be disconnected from the questions of Hg concentration in fish. Perhaps the project considers what is happening with those fish, and then the risk assessment conversation is informed by this data.
- Vivien: Is it Laurie who I should ask about spawning smallmouth bass?
 - Laurie: Bernie or Shawn Good at VT Fish and Wildlife Department.
- Vivien: Thank you! The difficulty is how we communicate with people about Hg and PFAS in fish. We also want to highlight the importance of eating fish.
- Mae Kate: We are looking for approval for this workplan. Would folks like extra time to review this workplan? Also would anyone like to volunteer to be on the PAC (or volunteer other folks in their office)?

- Neil: Perhaps Anna Gallagher or Sarah Coleman should be added to PAC? I am inclined to get conditional approval and give folks extra time to provide feedback on the workplan.
- Jamie: Ami would be a great addition to the PAC (assuming she is formally added to TAC)!

Motion: To conditionally approve the workplan once TAC comments are received and incorporated (~1 week of additional information/comment period)

By: Laurie

Second: Jenn

Vote: All in favor

5. **Informational presentation: *Multi-Year Habitat Monitoring at Johnsons Mill Dam***

Removal (Lauren Weston, Franklin County Natural Resources Conservation District)

- Matt introduced the project and Lauren shared a presentation. Lauren provided background on the number of dams in Vermont that no longer serve a useful purpose and the difficulties inherent in identifying many of these barriers. She then shared the timeline and details of the Johnson Mill Dam removal, post-removal monitoring, and adaptive management as the area around the dam removal adapts. This was a unique removal, as it left much of the impounded sediment in place. Franklin County NRCD and monitoring partners collected data including stream geometry and habitat information prior to and following dam removal. Data collected during this monitoring project include plant survival and coverage, topobathy + aerial imagery, channel adjustment, net gain/loss of sediment, and macroinvertebrate and algal characterizations. Lessons learned include:
 - Future monitoring efforts at this site should continue plant community observations of the abandoned floodplain, particularly the wetland on river right.
 - The establishment of in-channel vegetation on point bars and river banks should also be monitored to track if native species are able to regenerate or if invasives take advantage of the exposed soils.
 - It is also recommended that any future monitoring efforts include established monitoring locations further downstream and upstream of the former dam impoundment.
- Monitoring allowed for the identification and removal of remaining concrete in the channel from the original dam that was not known about at the time of the initial removal.
- Since the removal has taken place, the channel has adjusted significantly and is encroaching on infrastructure on a privately owned parcel, as well as a nearby road. A new project is advancing a 30% design for channel restoration in light of these adjustments.

Discussion

- Margaret: What's the likelihood that this stream will create another oxbow?
 - Lauren: Excellent question.

- Neil: The videos you shared were excellent. Disconnecting them from the fact that this was a dam removal at first, this is interesting imagery of a river in adjustment. I wonder if Ryan could take these videos and using tools, illustrate for a municipal or road manager or other member of the public the impact of one-time events on rivers?
 - Lauren: These videos told such a good story to multiple audiences. Beyond the channel adjustment, we've captured wildlife, snowfall and melt dynamics, etc. We are happy to share raw footage.
- Neil: Is the whole property being encroached on under bedded by the same alluvium?
 - Lauren: From what we have seen so far, yes. That will be evaluated in the next phase of work at this site as we complete the 30% design.
- Brian: We are interested in being able to show removal success over time. Is there potential for collecting macroinvertebrate data at potential dam removals and then post-removal data once some dams are removed, to be able to have more breadth of data on dam removal success?
 - Lauren: I do think those data show a compelling and beneficial story. I think that kind of analysis would be strengthened by having multiple pre- and post- removal collections.
- Neil: Interesting case study. We don't have this kind of data in many places. If another removal was responding like this, we'd know it without this level of data, but it's really interesting to have the breadth of knowledge that we do at this site.
 - Lauren: This data will also be included in Stone's recently funded aquatic organism passage research work. One question that this removal has brought to light is - whose responsibility is this site now? What funding exists to come back to these sites? Once you intervene on a site, what does that mean? I think this has made for better projects since, and I expect this will happen at other sites also.
- Margaret: Curious about the sediment. I know there are often 2 camps in removals - leave the sediment or remove it. This site experienced 2 major flood events. I am curious your thoughts on sediment removal vs. leaving it in place. Should we be looking more about making sure there's floodplain connectivity at future removal sites?
 - Lauren: The downcutting at this site was unexpected. I don't know that we fully understood the flashiness and power of this stream. There's nowhere in this stretch of highly-erodible material that was accumulated due to the mill for the river to access its floodplain.
- Neil: Has this final report been presented to the dam task force?
 - Lauren: I presented this in February which is slightly before data analysis was fully complete at this site. I am happy to present to any interested audience on this project.
 - Neil: You've raised resonant questions - worth thinking about as we pursue future removals. Is Stephanie Smith from Vermont Emergency Management aware of this?
 - Lauren: I don't believe so.
 - Neil: Would be worth connecting about hazard mitigation or potential buyout funding.

- Sarah: Another suggestion - VTDEC is anticipating funds to work with Forest, Parks, and Recreation with 'after the buyout' resources. Will focus on projects like the creation of community forests, etc.

6. Discussion: FY27 Clean Water and Healthy Ecosystems research priorities, continued

- TAC returned to discussing research priorities outlined in [TAC FY27 research priorities - for review.docx](#)