Vermont Citizens Advisory Committee (VTCAC) on Lake Champlain's Future

Monday May 10th, 2021
5:00 pm – 7:00 pm

DRAFT MEETING SUMMARY

Committee Members Present: Mark Naud (Chair), Wayne Elliott, Bob Fischer, Lori Fisher, David Mears, Rep. Carol Ode Hilary Solomon

Committee Members Absent: Bill Howland (Vice-Chair), Eric Clifford, Jeff Wennberg, Sen. Ginny Lyons, Sen. Randy Brock, Rep. Leland Morgan

LCBP Staff in Attendance: Mae Kate Campbell, Sarah Coleman (VTANR), Katie Darr, Eric Howe, Lauren Jenness

Speakers: Mae Kate Campbell

Public Guests: Rick Laurin

Meeting summary by Katie Darr, Lake Champlain Basin Program (LCBP)

5:00 – 5:15 pm
Welcome and Introductions – Mark Naud

Mark welcomed everyone in attendance. Mark asked if VTCAC members would be interested in receiving an update on the sinking of the Lake Champlain Transportation (LCT) ferry, which is now under litigation and delay. Lori Fisher noted that the appeal has been made by the Vermont Natural Resources Council and the Lake Champlain Committee. Members expressed interest in receiving an update.

Public Comments
No public comments were made.

Review and vote on Draft March 8th and April 12th VTCAC Meeting Summaries – Mark Naud
Rep. Ode moved to approve the March 8th and April 12th meeting summaries. Wayne Elliot seconded. Bob Fischer abstained. The motion was approved unanimously.

5:15 – 6:15 pm
International Joint Commission (IJC) Flood Study Update – Mae Kate Campbell, US Study Manager

Mae Kate Campbell, LCBP Technical Associate and US Study Manager, provided an update on the International Joint Commission (IJC) Flood Study. Her full presentation is in the meeting materials, highlights are included below.

The study is investigating ways to reduce flooding impacts by reducing water levels and/or reducing vulnerability to floods by building resiliency in the Lake Champlain-Richelieu River Basin. The intent of the study is to recommend potential solutions to the governments of New York, Vermont, and Quebec. The Study will make recommendations about potential solutions to implement but will not implement any of the solutions. The Study is assessing the impact of climate variability and change on water supplies. The Study Board has considered six options for structural solutions to reduce high water levels during floods, using seven criteria to evaluate solutions to flooding. The Study Board identified the most promising option to be the removal of human placed objects from the St. Jean Shoal and restoration of the shoal to its natural state, combined with a low-volume flow diversion through the Chambly Canal. An investigation into reducing high water levels during floods by enhancing wetlands found that there is not enough land area available to reduce high water levels during

floods by creating additional wetlands alone. The Study is also assessing emergency response planning, new tools that can assist with flood forecasting, improvements to floodplain management and mitigation measures (flood risk mapping, flood risk communication, insurance programs, floodplain occupancy management), and social and political perceptions to proposed measures. Major deliverables are forthcoming between now and when final recommendations will be issued to the governments in March 2022.

- Lori Fisher noted that flooding is a natural part of the ecosystem and asked Mae Kate to put that in the context of this study.
    - Mae Kate shared that a big part of the study is to consider ways not only that water levels can be reduced but ways human communities can live more in balance with nature if and when flooding occurs.
- Mark asked if any of the analysis of the fluctuations in the Great Lakes is being considered in what is happening in the lowest portion of the St. Lawrence watershed and whether the Study offers any insight on the lack of correlation between the weather and lake level changes in the Great Lakes and Lake Champlain given that they share similar weather patterns.
    - Mae Kate noted that lots of the work in the study builds off the work that has been done in the Great Lakes. She could not speak to the lack of correlation between weather patterns and lake level but offered to follow up.
- Lori asked what the land acreage of wetlands the Study was originally looking at, noting that it is important to put that in context for the wetlands we have lost over time. Some of the flooding that has occurred is due to the development patterns that have come at the loss of wetland acreage.
    - Mae Kate shared that the Study undertook a cost-benefit analysis and it quickly became clear that wetland restoration would not be economically feasible because of the magnitude of the acreage and monetary requirements. Approximately 850 km2 of land area would need to be converted to wetlands to have a similar impact on water levels during floods as the structural solutions being considered.
- David Mears echoed that the study did not do any serious cost-benefit analysis for wetland restoration. It seemed the authors assumed it was cost-prohibitive and did not take the dual impact of wetlands and floodplains into account. The more we develop on floodplains and wetlands, the more we increase the damage and vice versa. He also shared his sense that for all the studies, the scientists and modelers have to use existing databases and make assumptions given the expanse of the system they are looking at. There seems to be a fairly high level of uncertainty. These studies have not been fully vetted and evaluated by peers or subjected to advocacy on either side. There are strong advocacy issues involved, that do not entirely break down to Canadian versus American, but that is part of it. Some of the databases that look at wetlands are known to be incomplete, and the acreage of wetlands is routinely underestimated. The Study distinguishes between wetlands and floodplains but does not distinguish between the different kinds of wetlands and storage values within them. Even just for the attenuation of flows, we should be thinking more intently about how to invest in the restoration of floodplains and wetlands.
    - Mae Kate clarified that this is primarily a feasibility study, it is supposed to investigate a variety of options to then make recommendations to the governments. If the governments consider implementing any of these recommendations, there needs to be significant follow-up. With wetlands, there is a degree of uncertainty around the analysis. There are many benefits that wetlands can provide in low to moderate floods and there are a number of additional benefits that can come from enhancing wetlands. Those points are highlighted in the report. A potential legacy of study is passing on a modeling tool to identify areas where adding wetlands can have the most impact in terms of flood reduction. The Study only focuses on reducing lake flooding, but the tool covers the whole Lake Champlain and Richelieu River basin. This tool could be used to assess the impacts of wetlands on flood reduction in tributaries.
- Sarah Coleman asked how households were surveyed about the actions they took to reduce risk.
    - Mae Kate noted it was a random phone survey in which participants were asked if they took actions to reduce risk from flooding. Some targeted interviews and follow-up with the public occurred to find out what specific actions people were taking.
- Rick Laurin asked how much of the disappearance of floodplains is manmade.
    - Mae Kate did not have an exact answer to that question but noted this is a consideration when thinking about floodplain occupancy and management. The question of how to better manage our use of floodplain resources so that communities are not vulnerable to floods when they do occur is part of the investigation.

- Wayne Elliot noted that the focus in Quebec seems to be on structural solutions and the focus in Vermont and New York is on wetlands and floodplains.
    - Mae Kate affirmed this. Natural solutions would need to be implemented in the U.S. and structural solutions would be more effective closer to the natural hydraulic control point in Canada. The assumption is if there is a structural solution implemented, Canada would fund that and New York and Vermont would have to consider where funding would come from for natural solutions.
- Wayne asked about the current status of wetland loss and conservation.
    - Mae Kate's understanding is that there is good incentive to maintain wetlands and Vermont is doing a good job of restoring wetlands on an annual basis.
    - Wayne added that we are trying to balance wetlands impacts with stormwater mitigation improvements. In some cases, it's necessary to lose some to meet some of those other benefits and requirements.
    - David added that the VT DEC wetlands group has done some analysis to look at historic trends of wetlands loss. There is a tremendous amount of wetland loss due to historic straightening and draining of rivers. While wetland loss is not as dramatic as it was during the early settlement of Vermont that does not mean there has not been continued loss or harm to wetlands.
- Mark asked for context about the upcoming watershed storage report, noting that it seemed like another study for upstream, upland storage and it seemed odd that the structural report came out before an in-depth report on watershed storage.
    - Mae Kate clarified that that is the shorthand that is being used for the wetland enhancement option. The structural solutions report is coming out soon and the report on wetlands just went through independent review and will then be on the fast track to be translated and published fairly soon.
- Mark asked if the information and data from the watershed storage study were considered as part of the review of the structural solutions report review and if there was coordination between those two parts of the study. They seem very connected but are being shared with the public far apart from one another.
    - Mae Kate noted that the different options are currently being considered in isolation but a large part of the final year of the study is to synthesize the different options to understand the impact of combining options. For example, if we put effort into enhancing wetlands and combine that with a structural solution, what is the ultimate impact in reducing water levels during floods.
- Wayne discussed the topography of the area and noted that the weirs and other structural measures need to be sensitive to maintain minimum water levels. Low water levels can be worse than high water. There is a need to balance the flooding issues and be sensitive to the impacts of low water levels.
    - Mae Kate agreed, adding that the study is only looking into solutions that do not cause even lower levels than we are already experiencing. This is one of the benefits of the crump weir.

Resources:

- International Lake Champlain-Richelieu River Study Board: https://ijc.org/en/lcrr
- Fact sheets: https://ijc.org/en/lcrr/fact-sheets
    - ***Potential Structural Solutions to Mitigate Flooding in the Lake Champlain-Richelieu River Basin:*** https://ijc.org/sites/default/files/2021-05/Potential%20Structural%20Solutions%20Fact%20Sheet%20-%20EN_0.pdf
- Publications: https://ijc.org/en/lcrr/library/publications
    - ***Potential Structural Solutions to Mitigate Flooding in the Lake Champlain-Richelieu River Basin:*** https://ijc.org/sites/default/files/2021-05/Potential%20Structural%20Solutions%20Report%20-%20EN.pdf
- Lake Champlain Nowcast/Forecast System: https://www.glerl.noaa.gov/res/champlain/
- Understanding the Lake Champlain-Richelieu River Basin and Flooding: ***Structural Mitigation Measures in the Richelieu River:*** https://vimeo.com/460591581
- Understanding the Lake Champlain-Richelieu River Basin and Flooding: ***Storing Flood Waters*****:** https://vimeo.com/460592781
- Technical Webinar- ***Watershed Storage*****:** https://vimeo.com/476424585

6:15 – 6:30 pm
Committee Membership and Governance – Mark Naud, Sarah Coleman, Katie Darr

None of the members have received any updates on their membership status from the Governor's office. Mark explained that he had provided Commissioner Walke with a list of the current and continuing members to start the process, but no further action is required by members. Sarah Coleman has been in contact with staff from the Governor's office and confirmed that reappointments are actively being worked on.
The VTCAC member manual indicates the appointment of the Chair and Vice-chair will occur in April. Mark suggested waiting until reappointments have been confirmed and holding the election at the June meeting or July Retreat.

6:30 – 6:45 pm
Discussion of VTCAC Priorities for LCBP – Mark Naud

In preparation for the June Summit, this discussion focused on the high-level areas that the VTCAC is interested in seeing focused support from the LCBP.

- David offered two issues to consider. The governmental funding, including funding from the LCBP, spent on paying for some of the restoration and water quality improvements on the lake tends to focus on Phosphorus and exclude all the other co-benefits that are associated with a variety of other strategies, like natural systems strategies. Recognizing that different people have different perspectives, he would like to see the group consider this more in the 2021 timeframe. The second issue pertains to match requirements or encouragements and the emphasis that most funds be used for on the ground implementation as opposed to building the capacity of watershed groups, nonprofits, or community-based groups to do the work. This is a tough issue for public agencies and entities to work through, but he would like the LCBP to think about that considering what we know now, different sources of funding, and the evolution of the Lake Champlain TMDL.
- Eric agreed with these points and understands there is some frustration on the LCBP's tendency to focus on Phosphorus. The EPA and Steering Committee have been focused on dedicating resources to Phosphorus and, to a lesser extent, invasive species management. Occasionally, the LCBP can support programs beyond those two topic areas, but not to the extent that it should. More than 30% of the LCBP's budget is appropriated to implement the TMDL. $6 million out of the $15 million budget for this year is going directly to implementation. Most of these projects have other co-benefits.

6:45 – 7:00 pm
Meeting Wrap-Up Discussion – Mark Naud

The next VTCAC meeting is on June 14th. The June meeting will feature a wrap-up on legislative activities and the State budget, July Retreat planning, Committee governance, follow-up from the LCBP June Summit, and potentially an update on the LCT ferry. Lori noted that the June meeting may not be the best time for this update given several pressing June deadlines.

Dates have not yet been selected for the July retreat. Mark will follow up about potential dates via email.
Bob Fischer moved to adjourn the meeting. Lori Fisher seconded.