



December 14, 2019

Champlain Study Advisory Group (CSAG)

Sébastien Bourget, *Quebec Ministry of Sustainable Dev., the Env. and the Fight Against Climate Change*

Ryan Davies, *Clinton County Department of Health*

Gerardo Goll Gil, *Quebec Ministry of Agriculture, Fisheries and Food*

Laura DiPietro, *Vermont Agency of Agriculture*

Simon Lajeunesse, *Regional Municipal Council Brome-Missisquoi*

Fred Dunlap, *New York State Department of Environmental Conservation*

Daniel Leblanc, *Quebec Ministry of Sustainable Dev., the Env. and the Fight Against Climate Change*

Neil Kamman, *Vermont Department of Environmental Conservation*

Pierre Leduc, *Organisme de bassin versant de la baie Missisquoi*

Eric Perkins, *Environmental Protection Agency*

Aubert Michaud, *Institut de Recherche et de Développement en Agroenvironnement*

Andrew Schroth, *University of Vermont*

Angela Shambaugh, *Vermont Department of Environmental Conservation*

Re: Draft Study Report on Nutrient Loading and Impacts in Lake Champlain, Missisquoi Bay, and the Richelieu River

Dear CSAG Members:

The Lake Champlain Committee (LCC) submits the following public comments in regard to the Draft Study Report on Nutrient Loading and Impacts in Lake Champlain, Missisquoi Bay, and the Richelieu River. Our comments are laid out in the framework of your six “Priority Recommendations.” We encourage the CSAG Members to recommend a total phosphorus target load reduction from the Missisquoi Bay watershed that is greater than 97.2 metric tons per year, as the average phosphorus concentration is 0.050 mg/L, double the 2016 target concentration of 0.025 mg/L.¹ In all of your work, we encourage the incorporation of a clear structure for tasks and deadlines, as well as a coordinated public outreach campaign, that reflect the urgency of the reduction goals.

1. Create and coordinate a Bi-national Phosphorus Reduction Task Force to strengthen cooperation and accountability between the Parties in order to achieve mutually agreed goals.

We agree that this is a logical step and recommend that the Task Force include Missisquoi Bay Watershed science experts, a human geographer, a visual communicator, and representatives from identified underserved populations to strengthen cooperation and accountability between stakeholders.

The state and provincial agencies need to work in partnership to provide incentives, as well as regulations for reductions. When resource users—for example, farmers—are brought into the problem-solving process, the results are better.^{2,3} We recommend the Task Force engage with agriculturalists to understand their stories. Farmers are the experts on their own practices, why they do them, and what options they have to engage in on-farm changes to contribute to the health of the lake. A trained social scientist knows how to apply a socio-ecological approach to problem solving; results from this type of work can help state and provincial agencies to work with one another, alongside Missisquoi Bay Watershed communities, to meet reduction goals.

¹ [Nutrient Loading and Impacts in Lake Champlain, Missisquoi Bay, and the Richelieu River](#), International Joint Commission (2019).

² [Canada-Ontario Environmental Farm Plan](#), Ontario Ministry of Agriculture, Food and Rural Affairs.

³ “A global scan of how the issue of nutrient loading and harmful algal blooms is being addressed by governments, non-governmental organizations, and volunteers,” *Water Quality Research Journal, Lake Simcoe Phosphorus Offset Program*, pg. 11 (2019).

2. Develop a binational mass balance analysis for phosphorus imports and exports in the Missisquoi Bay watershed

We support this recommendation and think the Task Force should proactively explore options for how to lower imports of fertilizer and feed in both Vermont and Quebec.

3. Reduce phosphorus application to land in the Missisquoi Bay watershed

We support this recommendation. A way this effort might be improved is through a formalized framework where farmers learn from other farmers. Are there farms with exemplary Nutrient Management Plans that other farmers can learn from? These farmers could be paid to act as resources for how to implement effective phosphorus mitigation practices.

The Task Force should recommend more research on how to address legacy phosphorus however, we stress that the issue of phosphorus entering Missisquoi Bay needs to be addressed first.

4. Increase the proportion of crop systems that contribute less phosphorus

This is critical and needs to be addressed. State and provincial agencies need to play a leadership role in helping farms transition to crops that contribute significantly less phosphorus, as well as to connect farmers to new markets.

5. Increase the protection and enhancement of floodplains, wetlands, and forest and ensure their reconnection for nutrient storage

It is important to pair regulations with non-regulatory projects to reach nutrient reduction goals. Vermont's Act 76 restructures the current clean water grant programs into a block grant system that will expand the opportunity for such non-regulatory projects; this allows for nutrient reduction goals that couldn't be achieved through regulation alone. Further, these projects will offer a variety of co-benefits and help protect and maintain high quality waters.

The current policy of the state of Vermont is no net loss of wetlands. This policy should be modernized with a goal of a net gain of wetlands by encouraging both protection and restoration efforts. Rather than expanding exemptions to fill or drain wetlands, policies should focus on the restoration and enhancement of wetlands to reap the ecosystem services they provide. Additionally, we suggest that the value and wetland restoration potential of Class III wetlands not be underestimated.

We also suggest that opportunities be explored to utilize state funds as a non-federal match for other federal grant programs that can support floodplain restoration, such as the Pre-Disaster Mitigation Grant Program and the Hazard Mitigation Grant Program, administered through state emergency management agencies.

6. Engage with public stakeholders to commit to clean water and healthy ecosystem goals

We recommend that the Task Force identify and engage critical public stakeholder groups; a socio-ecological approach would be beneficial. For example, the use of focus groups or surveys could inform ecological recommendations and decisions.

We encourage the IJC and CSAG to expand public outreach efforts to citizens and groups like ours about the study. We did not receive a press release or copy of the draft report, though we read about it in the press. We'd be happy to provide a list of organizations that could be contacted if there is another opportunity to provide comments before release of the final report in 2020.

Thank you for your consideration of our comments. We welcome the opportunity to further discuss them with you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Lauren Sopher', with a long horizontal flourish extending to the right.

Lauren Sopher
Director of Science & Water Programs
Lake Champlain Committee

A handwritten signature in blue ink, appearing to read 'Lori Fisher', with a complex, scribbled design.

Lori Fisher
Executive Director
Lake Champlain Committee