



**International Lake Champlain -  
Richelieu River Study Board**

**Groupe d'étude international  
du lac Champlain et de la rivière Richelieu**

**Public Advisory Group (PAG) –Minutes from November 8<sup>th</sup>, 2021**

**Attendees**

Study Members:

Jean-François Cantin (Canadian Study Board Co-Chair), Mae Kate Campbell (US Study Manager), Bill Richmond and Katie Darr (US Outreach coordination), André Champoux (Canadian Outreach coordinator), Paul Allen (International Joint Commission - IJC Liaison Canada), Michael Laitta (US IJC Liaison), Christina Chiasson (Communication Advisor), Lauren Jenness (LCBP).

PAG Members:

Madeleine Papineau (Canadian PAG Co-Chair), Kris Stepenuck (US PAG Co-Chair), Eric Howe, Mark Malchoff, Phil Von Bargen, Marla Emery, Teresa Gagnon, Julie Robert for Jérémié Letellier, Lori Fisher, Renée Rouleau, Frédéric Chouinard, Harm Sloterdijk, Cynthia Gagnon.  
Regrets: Steve Peters

**1. Welcome, list of participants and how the meeting will work (PAG Co-Chairs)**

The Canadian PAG Co-Chair welcomed the attendees and listed the people that were on the call. The US PAG Co-Chair thanked attendees and was looking forward to hearing PAG input on the draft recommendations.

**2. Approval of minutes from the April 28<sup>th</sup>, 2021, PAG meeting**

Modifications to the minutes were received after the meeting in April. If no further corrections are received by Friday Nov 12, the minutes will be considered approved. The technical working group is still working on one action item from the last meeting. It is to provide a written document or a technical webinar (date still to be determined) that explains the structural alternatives 1 (excavation and submerged weir) and 3 (excavation, submerged weir and diversion using the Chambly Canal). A PAG member asked that the written document be available before public meetings. The Communication advisor also mentioned a possible short video to explain the proposed structural solution or a Q&A.

**3. Presentation of draft Study Recommendations – Structural Solutions**

The Canadian Study Co-Chair presented the structural solutions (see PowerPoint presentation) and the two draft recommendations.

Slide 11- Reductions in flood damages: There were several questions about this slide and it was generally felt that it needed work (do not use 3-D, make it easier for the public to interpret, could be two separate slides, indicate that the baseline is the 2011 flood)

- Why there is an increase in houses damaged with Alternative 3 vs. Alternative 1. Answer: the graph is showing the number of houses spared. It increases between alt1 and alt3.
- On # of homes spared from flooding, in US portion had greater % of homes spared than in Canada. Why? Answer: Since the last big flood, the US has protected houses in such a way that there will be much less damage on US side for a similar event. It may also have to do with slope of floodplain in the upper Richelieu River which is very flat. So, it relates in part to the geography of the floodplain, and in part to the policies put in place by the US government.

### **Discussion on Reducing high water levels using uplands storage: wetlands, natural infrastructures and various other solutions**

*The Study Board recommends that the IJC encourage the governments to continue protection of existing wetlands as they provide some level of flood relief at the basin scale*

- A PAG member commented that the way the wetlands issue is posed is binary, posed as with wetlands/without wetlands. There was interest in knowing if there was any improvement in inflows if you have anything less than optimal amount of wetlands. There are policy implications for policymakers who are looking to implement policy to conserve wetlands or restore them.
- Answer: At the scale of tributaries themselves, there are concrete benefits in the dampening the arrival of water in the lake. It reduces the downstream flows from the upstream portion of the watershed. At that scale, it makes a difference. Given the size of Lake Champlain, the gain for the lake and river are difficult to obtain unless you create an extremely large amount of new wetlands. They do make a difference. This is important at the local scale, preservation and creation of new wetlands do make a difference at refined scales. The modeling tool used in the LCRR Study will be available to communities to analyze at their will, they can run different scenarios. This is a legacy tool we want to leave to communities. Wetland creation is not practical to reduce flooding significantly at the scale of the lake and river.
- Several PAG members agreed and emphasized that it would be great if communications to the public and stakeholders could include the more nuanced information about wetlands that was just provided by the Study Co-Chair.
- Another PAG member explained an issue that seems not to have been considered. Along the Richelieu River, there are lots of privately or municipally-owned areas that are forested and that can take up a lot of water when there is flooding. With erosion and flooding, the trees are being exposed and are going to die. Would it be possible to put something in place for example a small project to help protect and repair some of the damage that has been done to these forests, so we don't lose the land and the trees that help reduce flood waters? Could we include this idea in the LCRR report? It does reduce flooding. The recommendation could be: The government could put measures in place to help forested areas in small municipalities to help protect them and let people carry out repairs. If they are not repaired, the trees will die, and that land won't be viable to prevent flooding. If a small recommendation comes from IJC, there is a greater chance that governments will listen than if it comes only from locals/individuals.
- Answer: When the Study looked at structural/non-structural ways to reduce flooding, it

was not looking at the local level. The regulation in floodplains is managed by local governments. The benefit from this Study, on a local level, are the tools, models, and analysis made available to any level of government or organization to support their decision. It may be a positive thing to look at the local level, but this international study can't look at that level of granularity all along the shorelines. If there is something to be done, the tools are there.

- A third PAG member had similar comments to the first two. The issue of wetlands is critical. There needs to be a stronger statement than what is there now. It needs to focus on continuing to protect existing wetlands. Over time we have lost lots of acreage in the U.S., so we need solutions related to restoration/creation. The IJC will be making recommendations for solutions to be implemented and actions to be taken and some of those actions will have to be taken by local, state, and provincial governments. We should not shy away from making statements about investing in wetland restoration as well. It is an important message for the IJC to send on the value of wetlands. The story is also: there have been damages to wetlands in the past, we need resilience in the face of climate change, so we need to rebuild that capacity. Note: two other PAG members indicated later in the discussion that they agreed with this point of view.
- A PAG member wanted to know what happened to work and the recommendations that the US RR TWG was doing to review various natural infrastructure solutions and the GIS analysis. There was a presentation earlier on in the study but no follow-up. Seeing the results would be appreciated.
- Answer: The US study manager indicated that those analyses fed into the conclusion presented here. The results of that analysis were incorporated into the report about watershed storage solution (to come out before the end of this month).
- A PAG member wanted to know the status of recommendations focused more on natural infrastructure and what the outcomes were in terms of follow up on those.
- The Canadian Study Co-Chair indicated that when the Board is discussing recommendations, members need to always ask a question if it is a domestic responsibility or is it something that has a real binational impact. It has some impact binationally and the stronger language you have recommended will need to be discussed by the Board. For example, adding continued protection and investment in restoration.
- A PAG member reminded participants that we had these wetland discussions earlier in the Study. We received feedback from Study Board about small interventions being insignificant to the whole flooding problem. As the mandate is flooding of LCRR due to high water levels in Lake Champlain and the Richelieu River, their position is that there is no use in looking at small interventions because they will not contribute in any significant way to decreased flooding at the watershed scale. Wetland preservation and restoration has a different purpose than reducing flooding and the level of water. So, there is a contradictory opinion between the Study Board and wetland proponents.
- Another PAG member mentioned that level of scale is part of the conversation. One of the major causes of the 2011 flood was receiving the 3<sup>rd</sup> highest snowpack on record and maybe without the snowpack, rapid melt, and rainfall, the result would have been different. It is fortunate in the Lake Champlain Basin that we don't have a lot of urban development. The Study has not said anything about New York state stormwater management requirements to maintain and control outflow. They should also probably be saying something about reducing hard surfaces and replacing them with impervious

surfaces. As mentioned before, restoration of wetlands is an important piece as we have lost a lot and it is a valuable point that can be made in this report.

- Another PAG member would like to see the recommendation from the IJC to go with a global point of view. The actions that are proposed are very effective, but if we do not take care of the way we use our land it will bring more water into the Lake and River. Recommendation should touch on land uses. Wetlands should be maintained. New developments can change the water levels going to streams and lakes. This aspect is important to include in the report so the governments, not just local decision makers, can make decisions and take this into account when they issue permits. The Commission should acknowledge there is an impact of how land is developed and if we don't use land correctly, the structural solutions may not be as effective.
- The Canadian Co-Chair concluded that he was hearing that if it is possible to use stronger language about preservation and restoration, that groups would like that. He needs to bring this to the Board first. Recommendations are strong and have a bi-national impact, so the wording of recommendations needs to be carefully crafted.

*The Study Board recommends the IJC advise governments that a modest level of flood and drought relief can be achieved by returning the Saint-Jean-sur-Richelieu shoal and the hydraulic regime to a more naturalized state, through the removal of some flow-impeding human artifacts and the installation of a submerged weir (Alternative 1). Additional flood relief can be gained through combining this with a modest diversion through the Chambly Canal (Alternative 3). The Study Board has determined that both these alternatives present a viable, moderate structural solution.*

- A PAG member summarized his comments on the structural solutions as follows: the structural solutions look helpful (submerged weir, combination of submerged weir and a diversion through the Chambly Canal). There are modest flood reductions BUT a very good Cost/Benefit ratio. It is a tangible project therefore there will be very good public perception and it will be a good sell with the public. There are few negative environmental impacts and there are some positive ones. It is important not to oversell the benefits of structural solutions. The flood reduction impacts are well noted in slide 7. These are real numbers, but that's "all you're going to get". Another PAG member agreed to all of the above.
- The US Study manager mentioned that the information on homes in the US is preliminary still, will be finalized before the public meetings.
- A PAG member would like to obtain more information on downstream impacts. This has been requested often and no real details have been provided. Using the canal as a means of speeding up the water to prevent flooding in St. Jean area could mean that a solution upstream can become a problem downstream. The way information is presented gives the impression that the Richelieu River ends at the canal. I live near the Basin du Chambly and have seen the impact of the 2011 flood on the Old Fort which was completely inundated. If you get much more water coming from the south and the shoals and obstacles are removed, where will the water go? I never got an answer about this.
- Answer: We will organize a discussion with the Canadian HHM Co-Lead to discuss the hydraulics of the system. Other PAG members will be informed of this technical meeting.

The PAG member will send a note to the other PAG members about what he learned. If required, the note will be translated.

#### 4. **Presentation of draft Study Recommendations – Resilience**

The Canadian Study Co-Chair presented the climate change work, the non-structural solutions (see PowerPoint presentation) and the 4 draft recommendations.

- The Canadian PAG Co-Chair invited the PAG member that was speaking earlier about land development to continue expressing their concerns. The PAG member indicated that it is very important that municipalities around the lake and in the basin know the impacts of development, integrate the information as well as stated orientations and government orientation in their master plans that they have to follow, some is about agriculture, economic development, flooding, etc., It is very important that governments integrate these considerations in the planning process. Whatever we do has impacts on the watershed. If the IJC has a recommendation that has impacts on water levels, it is important to talk about it. For example, parking lots for shopping center or integrated wetland zoning. Small actions, every action counts. We need a top to bottom approach. You are doing good work however some corrections are required in presentation for the public meeting, and you need to be clear about your message.
- Another PAG member commented on the paper presenting the integrated flood risk management strategy. There was not much information in the paper on the structural solutions for example, the weir. There were serious concerns that the focus of this risk management was putting responsibility on owners of houses and insurance. Richelieu River flooding is unique that it's mainly due to interventions by the government in the river that has caused flooding and erosion. I don't think 3,000 citizens would bring up insurance as a solution, many don't have any, it would be costly. Municipalities didn't bring it up either. It's the governments' way to make us pay and be responsible for actions the government put in that caused the flooding. The 1980s houses were set back from the river. If insurance is the main solution, we would have a big problem as residents, would want to fight, if told that it's part of my responsibility to share cost. I have no idea where this idea came from. It sounds like the government has shipped it down to us. Adaption for those whose houses are already built would be much more acceptable.
- Answer: I appreciate your angle on that. This is part of the ongoing discussion. This issue can't be solved by this Study, but the notion of bringing compensation stems from the idea that we have to get out of this situation where there are risks taken and those risks are not coming with self-responsibility. People choose to build new houses, and when risk occurs and they are not bearing the responsibility, that is where we see problems. The idea is to have community management and responsibility. The experts are currently reviewing a few models. We don't know how it would be implemented in reality; multiple approaches are being explored.
- The Canadian PAG Co-Chair pointed out that there are many other floodplain occupancy ideas provided in the Study's white papers. We have not yet gotten the okay to share this paper with this group but she is hoping to get the okay from Study Board soon. The paper gives international examples of what to do with developed infrastructure, such as houses that already exist.
- The US PAG Co-Chair thinks that part of the discussion sounds like a recommendation to

suggest to governments that education to home/land buyers be mandated for any purchases or new building - as related to floodplain risks. Two PAG member agreed.

- With respect to emergency preparedness, a PAG member mentioned that when there is flooding, towns take pallets of sandbags and deliver them to all houses at risk of flooding and this greatly helps the house owners. There is now a new type of bag that you put down and it inflates as flood water comes in. The governments might be able to split the costs. I think there are a lot of prevention things that can help reduce damages to homes.
- Answer: we also have new tools that can simulate flood scenarios. They can look at impacted areas, associated risks, then prepare for such an event (# sandbags, etc.). The technology exists. The usability of the available tools is something that is pertinent.

## **5. Public meetings, Outreach and Communication**

- The Communication advisor presented the public meetings and stakeholder outreach proposal. Over the next few weeks, there will be several meetings with federal and provincial agencies, local interest groups, state, provincial, and tribal entities interested in reducing the impacts of flooding.
- In Canada, the Outreach coordinator will carry out meetings with stakeholder groups similar to what he did in two earlier sets of informational meetings (January 2019 and December 2019). He is now organizing this third set of meetings on the draft recommendations and they will likely be in December. Stakeholders include environmental groups, MRCs and municipalities. These meetings will have simultaneous translation.
- In the US, the Outreach coordinator is working to set up stakeholder meetings with federal elected officials, state officials, state agencies, municipalities, and interested citizens groups. They developed a working group to have information flowing out and flowing in from them and are working with the SPE group. They will be doing mailing outreach to inform about public meetings (property owners mailing address).
- A last series of PAG member profile will be written for the next issue of the Current and remaining PAG members will be contacted soon.
- In the case of the public meetings, the plan is to hold virtual and in-person events in each of the jurisdictions, planned for the last week of January or first week of February. There will be one virtual public meeting for everyone in the basin, translated in both French and English. These meetings will be advertised via postal drops and targeted social media advertising. We would appreciate PAG members sharing notices with their networks. Meetings are likely to take the format of a 30-minute presentation of key findings and recommendations followed by 60 minutes or more of public comment.
- Typically, in last stage of a Board's mandate, they will open up 30-day public consultation period. Within this window, the public meetings will be held as well.
- The US PAG Co-Chair inquired about what role PAG members would like to play during the public meetings. In the past, PAG members have been observers and facilitators of conversation and feedback. Several PAG members were interested in participating if they have no prior commitments.
- One PAG member mentioned that is important to tap into lots of community groups and

that the PAG had already identified a list. There was a request to see the contacts (environmental organizations) on the mailing list as well as the names on the stakeholder meeting list so PAG members can ID additional people to include.

- The Communication advisor agreed to send the mailing list to PAG members. The Outreach coordinators will also send the list of stakeholders they will be meeting with and the dates of the meetings.
- Another PAG member mentioned that now, within six months of the end of the study, we cannot over communicate. The Study needs to ramp up messaging and get as many eyes on the outcome of this Study as we can. It might be worth scheduling a few more meetings to keep PAG members up to date especially as they bring the results of the study to their communities.
- The US PAG Co-Chair wanted to know if PAG members wished to join in outreach meetings that are being planned as observers to hear what is being shared by these interest groups. One PAG member indicated an interest particularly for meetings with environmental groups.
- The PAG member also noted it is important to engage underrepresented and BIPOC communities with the study. There is a responsibility to look more broadly about how we consider inclusivity and outreach. It's important that we reach out broadly and think about how to get the word out in a host of different ways through a variety of mediums.
- The Communication advisor also mentioned that they are working on series of videos (Themes 3 & 4, study recommendations, description of structural alternatives) as well as the release of major reports that support findings and recommendations and the final report. They are developing factsheets for the reports and updating the FAQ page on the LCRR website.
- The Canadian PAG Co-Chair asked that if PAG members had any comments on the draft Theme 3 video to send them to her by the next week.

## **6. Next steps**

A PAG meeting could be planned for early January. It would allow the conversation to continue about recommendations and PAG advice to the LCRR Study Board, the PAG section in the final report, the PAG role in public meetings and the review of the presentation that will be going out to the public. The US Study Manager will poll people for a date in January.

- Our advice on recommendations is still a work in progress. There were several comments and suggestions on the need to include some of the solutions that have local benefits rather than staying only at the strictly international level. The report is not only for the governments. This broader view of solutions was obvious with wetlands and other nature-based solutions.
- Currently, some of the draft LCRR recommendations did not seem to have the flavor of what PAG members consider important to them. Working on resiliency is important to people and some language should be added to that effect. If something is written in an IJC report, it exists, and people can refer to it.
- A PAG member recapped today's comments in terms of scale. The excellent recommendations we've looked at today are scaled for federal, provincial, and state governments. They are less attentive to actions and consequences at the level at which the public experiences the Lake Champlain – Richelieu River Basin.

- The Study Co-Chairs asked the PAG to craft a recommendation on flood risk communication. A short paper was drafted using input during the April PAG meeting. Recommendations still need to be re-formatted using the SMART criteria. The Board will consider all feedback from stakeholder outreach meetings when preparing the next version of the recommendations.
- In the final report there is a section on PAG considerations. We need to figure out what messages we want to include.
- The meetings' notes will be shared with PAG members as soon as possible. Once PAG members see them, they can go from there to produce a document on recommendations or PAG position. At the January meeting, we could use half of the time to talk through what recommendations would come from the PAG, and agree on what content should be included in that section.

## **7. Summary of main decisions and actions items**

- Once produced, PAG Co-Chairs will send the document that explains alternatives 1 and 3 to PAG members (before public meetings).
- PAG members can send comments on the April meeting minutes or the Theme 3 video to the Canadian PAG Co-Chair by Friday Nov 12.
- The Canadian Study Manager will organize a technical meeting about downstream impacts of structural solutions between a PAG member and the Canadian HHM Co-Lead.
- In the presentation for the public meetings, Study managers should add information to the upland storage section and changes should be made to slide 11 (reduction in damages).
- The PAG Co-Chairs will share the comments and advice from today's meetings with LCRR Study Board members.
- A PAG meeting will be planned in January.
- The Communication advisor and the Outreach coordinators will share their lists of contacts and stakeholders invited to outreach meeting with PAG members. They will also inform the PAG of outreach meeting dates.

Approved by PAG members January 21 2022