

The Current January 2020

In 2016, as a result of catastrophic flooding along Lake Champlain and the Richelieu River in spring 2011, the governments of Canada and the United States instructed the International Joint Commission (IJC) to “fully explore the causes, impacts, risks and solutions to flooding in the Lake Champlain-Richelieu River basin.” The IJC established a Study Board to oversee the Study and to provide recommendations. The IJC also established a Public Advisory Group to assist the Study Board with engaging the public over the course of the Study. The Public Advisory Group publishes this bimonthly newsletter to help keep the public informed about the Lake Champlain Richelieu River (LCRR) flooding study.

Letter from the Public Advisory Group Co-Chairs

In this issue of The Current, we begin a feature of profiling a member of the Study Board’s Technical Working Groups. The TWGs, in English, we call them “twigs,” provide deep technical and scientific expertise for Study Board members as we move forward with our work on the complex Lake Champlain – Richelieu River flood study.

There are four TWGs assisting Study Board members: Hydrology, Hydraulics and Mapping (HHM); Flood Management and Mitigation Measures (FMMM); Resource Response (RR); and Social Political and Economic (SPE). Each TWG has technical experts and includes members from both Canada and the United States.

Below, we profile Bill Werick, the U.S. co-chair of the Flood Management and Mitigation Measures TWG. The substance of the Study Board’s final report will be based on the depth of experience of our consultants and members, and we are grateful to be working with some of the best people in their fields.

We are also preparing for two upcoming technical workshops. These will bring together technical experts from a broad geography to share experiences and expertise that will help the TWGs develop Study recommendations that can ultimately help local, provincial and state governments improve flood response planning and floodplain management practices.

Also in this issue, we begin another feature by introducing one of more than 40 performance indicators that are being developed to help the TWGs assess how possible mitigation measures that may be recommended by the Study Board may impact society, the environment, cultures, and/or economies within the basin. In this issue, we introduce the spiny softshell turtle performance indicator.

Finally, the Study Board is planning to host a series of public meetings May 5-7, 2020. We will provide more details in the coming months on locations and timing for those meetings to be held in Quebec, New York and Vermont.

Madeleine Papineau, Canadian Co-Chair

Kristine Stepenuck, US Co-Chair

Study News

Study Board and Technical Working Group Expertise

The Study Board is comprised of 10 highly-qualified leaders from both the United States and Canada. These men and women come from a broad range of government, academic and scientific entities, and are well-versed in flooding issues facing the Lake Champlain – Richelieu River today.

To assist the board members, four Technical Working Groups (TWGs) were created — comprised of experts in a variety of fields that address the critical components of the study. Areas of expertise of TWG members include, though are not limited to:

- Hydrology – the study of how water moves over the land;
- Hydrodynamics – the study of how forces impact fluids; an example of hydrodynamics is how wind may impact wave formation and thus flooding along the shores of Lake Champlain;
- Floodplain management – such as identifying how governments can take action (e.g., through policies) to minimize flood damages by managing how land alongside the lake and river is developed;
- Social science – our social scientists strive to understand how possible mitigation measures may impact people at the individual, business and community level;
- Fisheries and wildlife – while expertise within the Resource Response group is broad, one area of expertise relates to fisheries and wildlife to understand how potential mitigation measures may impact, for instance, fish or breeding bird habitats.

Expert Advisors Support LCRR Study

Bill Werick is the U.S. co-chair of the Flood Management and Mitigation Measures TWG. A water resources planner, Bill has advised the U.S. Army Corps of Engineers, California water management agencies, and worked with other water experts on projects around the world, including in Israel and with the World Bank. Bill has 50 years of experience in the field, and is helping the LCRR study by identifying and developing alternatives to the current flood management approach.



Bill Werick, U.S. co-chair, Flood Management and Mitigation Measures TWG

Bill sees his role as “working to understand and integrate the many perspectives involved when considering difficult watershed issues, so decision makers can make good, well-formed decisions.”

The Study Board’s technical advisors will be meeting with subject matter experts and Study Board members in early 2020 for an in-depth discussion about flood response plans and floodplain management. These technical sessions will help inform the Study Board’s discussions going forward as they look to define potential recommendations for the Canadian and US governments.

Performance Indicator: spiny softshell turtle

One of the nearly 40 performance indicators that TWGs are studying relates to the spiny softshell turtle. This species lives and nests along the shores of Lake Champlain and some of its tributaries. It is listed as endangered in Canada, and is protected as a threatened species in Quebec as its population in this basin is small, and the next closest population of this type of turtle is in Lake Ontario. Vermont listed it as a state-threatened species in 1987. Flooding can impact nesting success of this type of turtle, as nesting habitat can become inundated at critical times in its life cycle. To understand how potential mitigation measures that may be recommended in the study may impact the nesting success of this type of turtle, TWG scientists are developing a model in which water levels can be modified under different conditions and nesting success assessed.



Spiny Softshell Turtle (photo: Ken Sturm/USFWS)

People

Alexis-Nicolas Brabant, a member of the Social Political Economic Technical Working Group in Canada, is stepping down as he moves to a new position with the Canadian government. Julie-Maude Normandin, co-director of Cite-ID Living-Lab at ENAP (a branch of the Université du Québec network) has been appointed to replace Alexis-Nicolas in working with the LCRR Study.

On the Web

Stay updated on the Study Board's work and upcoming public meetings and publications by signing up to receive electronic updates via our email distribution. Click on our home page (<https://www.ijc.org/en/lcrr>) and scroll to the bottom to join.

On a Bulletin Board Near You

Members of the Public Advisory Group are working to post each issue of The Current in local communities to help spread the word to a broader audience about the study. Please contact us if you know of a business, library or other public venue that hosts a public bulletin board that would be a good place to post these news updates, or if you are willing to print and post The Current at a bulletin board near you.

Public participation is an important part of the study process. Want to know how you can be part of the conversation? Send us an email at lcrr@ottawa.ijc.org.