Comments on the Draft Work Plan of the Lake Champlain-Richelieu River Study Board

International Joint Commission
www.participateijc.org

Name: Charen Fegard

Location: Berkshire, VT

Date of Comment: July 13, 2017

Comment: Man has a checkered history of trying to protect his ill-placed developments from the natural fluctuations of waters using engineered structures, from unintended consequences to outright failures. To name only a few of the better known: the Nile's imprisonment has led to soil degradation as the eliminated seasonal floods fail to enrich farmlands and the agricultural economy is driven to more expensive, less effective measures while silt deposits where it is not wanted, causing economic and environmental problems; levee breaches in New Orleans, LA during Hurricane Katrina resulted in thousands of lost homes and businesses; the ongoing battle to keep the bulk of water flowing down the Mississippi from jumping into the Atchafalaya and destroying multiple population centers, which hide behind ramparts of levee's that provide false security; and continuous failure to protect barrier island construction from storms surges and high waves through sea walls, or revetments.

In every one of these scenarios, the common factor is denying reality. The Nile needs to flood seasonally, New Orleans and the Atchafalaya flood-plain communities are doomed to future flood disasters and eventually complete failure, and barrier islands need to be dynamic and should be valued for protecting the mainland, instead of developed with permanent buildings. Instead of proactively working toward long-term, cost effective solutions, people continue to try to delay the inevitable while causing latent consequences for themselves or others.

Using artificial control structures may provide immediate solutions but will lead to both unintended consequences and ultimately failure.

1) Global climate change will continue to increase flooding pressures in Lake Champlain and the Richelieu River as time passes. This makes success impossible as the pressures alter in unpredictable ways. Some models predict Vermont East of the Green Mountains will become arid, others, that is will flood both more frequently and severely.

2) Improper development within the flood plains of Lake Champlain & the Richelieu River is the problem. The false sense of security created by installing a damn or levees will allow continued building and zoning practices of putting expensive buildings where they are at risk.

3) The short-term economic savings will result in greater expenses and possibly lost lives in the future, when failure occurs or the unintended consequences develop.

4) Lake Champlain is a valuable natural wonder to those native species inhabiting it, to the people who live here, and to those who visit and spend millions of dollars annually, tourism being indispensable to the Vermont economy. Using artificial structures to inhibit the natural fluctuation of water levels of the lake will harm biotic communities and processes and negatively impact our economy.

5) Almost any artificial structures would create sediment issues, requiring dredging. Dredging is complicated. It disturbs sediment thus releasing temporarily static phosphorus, which contributes to toxic algae blooms. Dredged materials can be used to build up land levels farther away from the river's natural corridor, helping to prevent inundation flooding, but those artificially laid down strata are likely more susceptible to erosion flooding during large events. One would have to be very careful about how and where the dredged materials were used.

Long-term, more effective solutions:

1) Develop an improved flood inundation and mapping system to allow more time for preparation and, if needed, evacuation and to lead to better community development planning.

2) Allow the river to move within its corridor, as they do in Amsterdam and other communities that have learned the hard lessons over millennia. Use those funds to do the following instead on both sides of the border:

a. Improve building codes. Just as all new construction and changes to existing structures must meet current safety codes, including electrical, plumbing, snow-bearing roofs, etc.; include requirements for flood resiliency. Examples of such building practices already exist on all continents.

For example, in the Outer Banks of the Intracoastal Waterway where buildings are on piers; or the Philippines for monsoon season, where the first floor is often solid concrete.

b. Improve development zoning so that areas at risk are used for golf courses (as in Bradford, VT along the Connecticut River), parks, agriculture that can benefit from the sediment deposits inherent to river flood.

c. Install more riparian buffer zones (require those with lake/river-front property to comply with best practices on all but either 10% or 20 feet, whichever is smaller) and wetlands to absorb and slow the motion of the flood waters. (Enosburg Falls, VT has a restored riparian zone by the elementary school that is show-worthy. County forester, Nancy Patch, did the project for a private citizen.)

d. Restrict the uninhibited installation of drainage tile in the water shed. Drainage tile both increases the volume of water quickly leaching into streams and rivers instead of allowing the clay-rich soil to act as a sponge, and it brings more phosphorus into surface water.

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Name: Eleanor G. Berger

Location: Plattsburgh, NY

Date of Comment: July 13, 2017

Comment: I oppose structural control of Lake Champlain. I oppose artificial control of lake level. Please say "no" to gated structures that determine the natural rising and lowering of the Lake. Thank you.

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International Joint Commission
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Name: William Ford

Location: Durango, CO

Date of Comment: July 19, 2017

Comment: Sirs, As you evaluate studies of public perception of flood mitigation techniques, I would like to state my opposition to engineered structures intended to constrain floodwaters. A byproduct of these seems to be encroaching development, and a false sense of security. Proven better are planning tools that allow for natural dissipation, and as a side benefit provide public access and use of the coastline. Thanks for the opportunity to comment. William Kent Ford about the author: Kent Ford's highly acclaimed books, videos and instruction have made him one of the most influential paddlers in whitewater sport worldwide, resulting in his Induction in the International Whitewater Hall of Fame. Kent has worked as public address announcer at Slalom events of 5 Olympic Games.

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Name: Patricia Bentley

Organization: Retired (SUNY Plattsburgh); Rouses Point Resident

Location: Rouses Point, NY

Date of Comment: July 13, 2017

Comment: We need models that [weigh] rural areas and small populations to assure the inundation and salting issues are addressed; A more detailed map as a handout would be useful.

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International Joint Commission
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Name: Bonnie Waninger

Organization: Central Vermont Regional Planning Commission

Location: Montpelier, VT

Date of Comment: July 27, 2017

Comment: As part of this effort, we request the Study Board consider engaging upper Basin stakeholders. Upper Basin stakeholders more readily identify with the river with which they are familiar than Lake Champlain or the Richelieu River. Outreach efforts that describe major rivers associated with the Basin and relate this effort to upper watershed interest is more likely to foster Basin identity. It would also be helpful to consider holding some engagement events in rural areas of the watershed. Much of the Basin is undeveloped; the Study may determine that maintaining forest cover in the upper Basin is critical to flood prevention and management. Having the model consider this potential mitigation measure and its cost-benefit is essential to understanding upstream impacts and its feasibility as a mitigation measure.

Comments on the Draft Work Plan of the Lake Champlain-Richelieu River Study Board

International Joint Commission
www.participateijc.org

Name: Russ Ford

Location: Berkshire, Vermont

Date of Comment: July 28, 2017

Comment: Thank-you for this opportunity to comment on the IJC Lake Champlain-Richelieu River Draft Work Plan. I oppose any dam or control structure or any other action on the Richelieu River that would control or alter water levels in Lake Champlain. The complex wetland and lake floodplain communities around Lake Champlain are products of the natural range of variation in the lake's water level, season to season, year to year, and decade to decade. Native fish spawning areas rely on high water conditions during the spring. Natural fluctuation of water levels increases the productivity of wetlands, and is particularly important for the plants such as wild rice that sustain migratory waterfowl. The biological integrity of the lake requires naturally fluctuating water levels. I encourage the IJC to concentrate on flood prediction modeling, floodplain mapping, and above all else on supporting community planning that reduces flood impacts by moving and maintaining infrastructure above and out of the reach of flood waters. It is smarter (and cheaper) to minimize flood damage by staying out of the way of flood waters than it is to try to control them. Respectfully submitted Russ Ford.

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July 28, 2017

Keith Robinson
International Lake Champlain Richelieu River Study Board U.S. Co-Chair
U.S. Geological Survey
New England Water Science Center
Pembroke, New Hampshire

The Northwest Regional Planning Commission (NRPC) appreciates this opportunity to comment on the International Lake Champlain Richelieu River Study Board's Work Plan as released on June 27, 2017. The NRPC has a long history of working with the communities in the northern lake watershed and has been involved in a number of different water quality and hazard mitigation projects throughout the region. These projects include the individual watershed plans and implementation activities, fluvial geomorphic assessments, shoreline stabilization outreach and implementation, natural hazard mitigation projects, and municipal planning and zoning. NRPC often serves as technical staff in support of municipal planning and mitigation efforts.

As you further develop and refine your work plan, we offer the following comments and suggestions:

- We are encouraged by the Study Board's efforts to collect public input on the process before it gets underway and incorporate feedback. It should be noted however that the current work plan is a very technical document and is not formatted for the general public and many stakeholders to review. It is advisable to develop a one-page document that explains the overall intent and deliverables of the project as well as point to key areas where local knowledge and input into the process are anticipated. We encourage regular updates on the project via the project website in formats that can be easily digested and shared on social media as well as maintaining a place on the webpage for submitting comments throughout the study. We also support the inclusion of public participation activities or meetings conducted at strategic junctions in study.
- The NRPC serves as a regional hub and works to support our communities by providing technical assistance, information, and training on a variety of issues of regional importance including water quality. NRPC is happy to discuss how we can assist the Study Board in engaging local government representation. We identified the following as tasks that outline the need to specifically interact with local elected officials, public servants, and technical experts (municipal staff in planning, public works, and emergency services).
    - Task SPE5 discusses the creation of an advisory group and workshop for discussion on adaptation strategies. NRPC staffs a Clean Water Advisory Committee, which aids the region in policy setting and regional project prioritization. This Committee has representation from Franklin County and Grand Isle County as well as local watershed groups and could be one avenue to engage these stakeholders as appropriate.
    - Task SPE9 and SPE10 discusses utilizing a survey to better understand current perceptions to flooding, how these stakeholders recognize and react to disaster risk and potential mitigation solutions.

    - Task FMMM1 develops a comprehensive list of the various strategies and approaches currently being employed for flood management practices and perceived effectiveness.
    - Task SPE2 discusses an analysis of governance networks, it should be noted that regional planning commissions work with municipalities and Vermont Emergency Management on communications and disaster response. NRPC staffs the Local Emergency Planning Committee for both Franklin County and Grand Isle County and can aid in communications with these stakeholders as appropriate.
- NRPC also can provide the status of local land use regulations and municipal digital data (GIS) as needed to support modeling and development of the collaborative decision support tool.
- The *Annex 3 Proposed Communications Plan* outlines that open house events will occur in July and August of 2017 targeting individual communities affected by flooding. To date we are not aware of these meetings being scheduled in either North Hero or Alburgh, VT. When do you anticipate these meetings will take place and how are you communicating them to the municipality and general public? Please let us know if NRPC can help with meeting logistics.
- Given that the purpose of the Public Advisory Group is to both engage the public in the study and provide feedback to the Study Board on reports and findings, we recommend this group be made up of federal, state, regional, and local representation. If this group is reviewing information that will be received by the public, there should be representatives that can interpret the technical information and those that can provide input on messaging for the lay-person.
    - We encourage the PAG to continue to develop different types of outreach for disseminating information about this study rather than relying on the website as the primary avenue for communicating with the public.
- As appropriate, we encourage you to communicate with regional planning commissions that serve other communities in this watershed as a part of your planning efforts. Contacts for the organizations can be found on the Vermont Association of Planning and Development Agencies website (https://www.vapda.org/).

If you have any questions or would like to further discuss how the NRPC and the Study Board can work together in these efforts, please do not hesitate to contact me or Catherine Dimitruk at the NRPC office.

Sincerely,

Amanda Holland

CC: Catherine Dimitruk, Executive Director