



**IJC Science Advisory Board – Science Priority Committee
Thirty Seventh Meeting
Videoconference Meeting Summary**

June 17, 2021 – 1:30-3:00pm

U.S. Members	Canadian Members	Commission Staff
Mike Murray	Gail Krantzberg (Co-Chair)	Matthew Child (Secretary)
Mic Isham	Karen Kidd	Victor Serveiss
Joe DePinto	Jerome Marty	Rob Phillips
Mike Slimak	Mike McKay	Li Wang
	Maggie Xenopoulos	Mark Burrows
	John Livernois	Raj Bejankiwar
	Nandita Basu	

Regrets: Carol Miller, Lucinda Johnson, Drew Gronewold

Guest: Jen Vanator

1. Welcome and Introductions, and Approval of Draft Agenda

The Canadian Co-Chair welcomed members to the videoconference. A request was made to add an information item on a new NSF-NSERC collaboration to agenda item #4 (Other Business). The meeting agenda was approved as amended.

2. Ongoing Project Updates

Great Lakes Early Warning System – Phase 2 (Staff on behalf of Lucinda Johnson)

A Work Group meeting will be held in July to review and discuss five suspected stressors for case study analysis. Initial discussions on the process for identifying an unknown stressor will also be addressed.

Nutrients Synthesis (John Livernois & Mike Murray)

Relevant recommendations from IJC reports and the literature have been synthesized. An initial assessment of progress under Lake Erie Domestic Action Plans (and the degree to which earlier recommendations are being taken into account) has also been completed. An initial draft report is expected in July, which will inform a virtual workshop being planned for October.

Great Lakes Science Plan (Gail Krantzberg)

Two virtual workshops were held in April, one on a disciplinary basis and one on a lake-by-lake basis. A draft workshop proceedings has been prepared and will be circulated to the Work Group for

review and input. The Work Group will also discuss opportunities to promote and advance the Science Plan to ensure it gets operationalized.

Traditional Ecological Knowledge (Mic Isham and Jerome Marty)

The work plan was approved by Commissioners in the spring, and since then a request-for-proposals has been developed and sent to numerous qualified contractors. Several proposals have already been received and all proposals will be evaluated following the submission deadline. The project team has begun making Indigenous communities aware of the project, and an Advisory Committee comprised exclusively of Indigenous members will be formed to provide counsel and advice to the Work Group as the project unfolds. It was noted that the Lac Courte Oreilles, Bad River, and Lac Du Flambeau tribes are interested in hosting a listening session.

HPAB's Fish Consumption Project (Karen Kidd)

This project will review relevant fish consumption advisories and summarize relevant data, including the health benefits of fish consumption. The Akwesasne Indigenous community will be considered through a case study approach. In the discussion that followed the following points were made:

- It may be helpful to contrast the health benefits of fish versus other foods, which will put things into perspective.
- Although the case study will focus on Akwesasne, it is recognized that there are a range of other vulnerable communities and the study findings may be transferable or relatable to them.

Note: at this point in the meeting the SAB's draft Winter Science work plan was discussed; for the purposes of the meeting record that discussion is included in item #4 (Future Work Plans).

RCC's Hydrological Model (update emailed by staff following meeting)

The Great Lakes hydrological conceptual model project started in September 2020 and seeks to develop a hydrological conceptual model that incorporates stakeholder input for the Great Lakes basin. The Work Group has completed virtual interviews of key stakeholders representing the main agencies most likely to have essential resources to support the development, implementation and maintenance of a basin-wide hydrologic model. An online survey was completed to better understand stakeholders' perspectives, priorities, and potential contributions to the basin-scale model. The contractor has developed an initial graphical conceptual model and drafted a report outline.

RCC's Nutrients Adaptive Management (Phase 2) (Mike Murray & John Livernois)

The project was approved in spring, 2021 and is just getting underway. The purpose of the project is to assess Annex 4's progress towards establishing the Lake Erie Adaptive Management Framework, and the extent it has achieved coordinated planning and implementation, and sustainable institutional arrangements for calculating nutrient loads and relevant research and monitoring. The RCC project is linked to the SPC's Nutrient Synthesis project.

RCC's Community Science (Mike Murray)

The project was approved in spring, 2021 and is just getting underway. The project will establish guidance and a framework for the development of a user-friendly community science handbook that summarizes best practices and provides a roadmap to develop and deploy a reliable monitoring network, that could proceed as a subsequent phase. A contractor scope of work is currently under development. In the discussion that followed the following points were raised:

- it was suggested that the project consider a link to school curricula.
- the reason the project was renamed 'community science' instead of 'citizen science' was clarified.
- Jerome Marty volunteered to participate on the Work Group if that would be helpful.

WQB's Great Lakes Horizons (Gail Krantzberg)

The project is examining drivers of future Great Lakes conditions, including a characterization of their uncertainty. A virtual workshop was held recently to preliminarily identify drivers and conditions, which will be summarized as part of the workshop report.

WQB's Manure Management (Phase 2) (Mike Murray)

The project was approved in spring, 2021 and is just getting underway. The goal is to create a Collaborative to pilot a process to develop a framework for manure management. A draft scope of work has been developed that includes an initial phase focused on retaining a facilitator help form and shape the Collaborative, and a second phase focused on retaining a contractor to assemble data and examine two watersheds (one in each of the U.S. and Canada) as case studies.

3. Strategic Positioning

2023 Triennial Assessment of Progress

The Commission-approved TAP 2023 Work Group Terms of Reference was reviewed, with particular emphasis on the first task which is to develop a TAP Assessment Framework. Through discussion, the following points were raised:

- Indigenous interests want to be involved in the TAP process, and the process should accommodate that.
- The SPC should play a key role in the TAP, recognizing that as a volunteer board the focus should be on providing guidance and direction, and to review the draft report using a science lens.
- The TAP should build off Board projects, but it could also address other topics beyond those that the Board(s) is working on.
- There will need to be a balancing act in terms of how many recommendations are developed; sometimes more recommendations are better because the governments can select and prioritize among them.
- The SPC should expect to provide input on relevant topics that the TAP report should address.
- The difficulty in assessing progress is recognized; for example, regulatory limits may not exist for applicable environmental endpoints that the SPC and IJC may be interested in.
- The Water Quality Board is uniquely positioned to ensure that TAP recommendations are presented with a focus on relevance to the Parties.

Commission Engagement

The SPC continued its discussion about regular and meaningful engagement with the Commission that was initiated previously. There was general agreement that given the evolved structure of IJC's advisory boards, it is appropriate for the Board Co-Chairs to engage with Lead Commissioners about SPC and SAB progress, opportunities, challenges, etc. There was also general agreement that opportunities for Board members to interact informally with Commissioners are very valuable e.g., at events associated with in-person Semi-Annual meetings.

Action: Co-Chairs to approach Lead Commissioners to discuss SPC progress.

4. Future Work Plans

Winter Science (Maggie Xenopoulos)

The draft Work Plan circulated with the meeting agenda was reviewed. The Work Plan links to several of the Great Lakes Water Quality Agreement Annexes, and envisions a series of interviews and workshops to identify priorities, and opportunities for coordination and integration. It was noted that winter sampling is slowly being incorporated into programs. Several Indigenous representatives have been contacted about the draft Work Plan, with a goal of ensuring early involvement. The draft Work Plan timeline may be adjusted to reflect an early 2022 approval decision.

In the discussion that followed it was clarified that the project will seek to incorporate Indigenous Knowledge as complementary and mutually reinforcing to western science.

Economic Valuation of Ecosystem Services (Phase 1) (John Livernois)

This project was proposed for the last work plan cycle, but was deferred pending the completion of a related project by the Michigan Department of Environment, Great Lakes and Energy. That study has wrapped up, and challenges with operationalizing the study by EGLE staff was discussed during a recent call.

A literature review has been completed which highlights that although there have been several large-scale ecosystem valuation studies that utilized the benefits transfer method (using benefit measures that have been estimated elsewhere and applying them to the Great Lakes), very few studies have done an original valuation analysis anywhere in the Great Lakes. To maximize the impact and usefulness of a full-scale valuation study, an initial step to scope the project is appropriate. A draft work plan will be developed for autumn, 2021 and that draft will need to include an education component about why the topic is important, and why it is useful to put a value on incremental changes to environmental condition.

5. Other Business & Adjournment

Members were advised that the National Science Foundation and National Sciences and Engineering Research Council recently announced a U.S.-Canada partnership for collaboration in research and innovation. More information can be accessed [here](#). Members were asked to share any insights they have about the nascent partnership, including opportunities to advocate for the partnership to include the Great Lakes.

There being no other business, the meeting was adjourned at 3:00 p.m.

*Meeting record prepared by Matthew Child and reviewed by Gail Krantzberg and Carol Miller.
Please forward any errors or omissions to matthew.child@ijc.org*