

International Joint Commission
Canada and United States



Commission mixte internationale
Canada et États-Unis

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

February 4, 2022 – 12:30-2:00pm Eastern Time

U.S. Members	Canadian Members	Commission Staff
Carol Miller (Co-Chair)	Gail Krantzberg (Co-Chair)	Matthew Child (Secretary)
Lucinda Johnson	Karen Kidd	Rob Phillips
Mike Murray	Jerome Marty	Li Wang
Drew Gronewold	Mike McKay	Rajendra Poudel
Mike Slimak	Maggie Xenopoulos	Allison Voglesong Zejnati
	John Livernois	David Burden
	Nandita Basu	

Regrets: Mic Isham, Joe DePinto

Guests: John Jackson, Jon Allan

1. Welcome and Introductions, and Membership Update

The Canadian Co-Chair welcomed members to the videoconference. The meeting agenda was approved by consensus.

Members expressed their deep gratitude to Dr. Carol Miller as she concludes her service as U.S. Co-Chair. We look forward our paths crossing again!

Members were advised that Commissioners recently approved the appointment of Dr. Lucinda Johnson as U.S. Co-Chair of the SPC, and the appointment of Dr. Bob Sterner as a new member of the SPC. Existing members Dr. John Livernois and Dr. Jerome Marty were reappointed for an additional term, and Dr. Gail Krantzberg was reappointed for an additional term as Canadian Co-Chair. Congratulations all new and continuing members!

2. Ongoing Project Updates

Great Lakes Early Warning System – Phase 2 (Lucinda Johnson)

The contractor has prepared a draft report that examines five case studies, and the report was reviewed at a recent Work Group meeting. The next step is to plan and hold a project workshop. A GLEWS presentation is planned for the Joint Aquatic Sciences Meeting in May, 2022.

Nutrients Synthesis (Mike Murray & John Livernois)

A virtual workshop was held in the autumn, and the draft contractor report is being finalized. The report will identify and synthesize the large diversity of work that exists on the Lake Erie nutrient issue. Following receipt of the contractor report, a Work Group report will be prepared, with finalization anticipated by fall, 2022. In response to a question, it was acknowledged that the project output could provide good source material for a journal manuscript.

Great Lakes Science Plan (Gail Krantzberg)

The draft contractor report has been sent to the Work Group for review and input. The report proposes four areas for investment including improved human resources capacity, science vessel renewal with winter science capabilities, core monitoring arrays and data infrastructure, and centers of excellence. U.S. Commissioners recently engaged with U.S. legislators to raise awareness about the project, and more discussions will be needed in the U.S. and Canada. There are also ongoing discussions with other organizations to align and coordinate related activities e.g., USGS, Great Lakes Fishery Commission, Great Lakes Commission. The Joint Aquatic Sciences Meeting will include a full session on the Great Lakes Science Plan.

Traditional Ecological Knowledge (Jerome Marty)

The contractor has held a small virtual workshop with Indigenous knowledge keepers, and a survey tool is being developed to elicit further insights. Next steps include summarizing the workshop insights and completing the literature review. Interim reporting will be reviewed by Indigenous members from IJC's advisory boards. A face-to-face workshop is planned when it is safe to do so. In response to a question, it was clarified that in addition to the face-to-face workshop, six face-to-face listening sessions are planned. All in-person events are delayed due to the pandemic.

Other Advisory Board Projects

Members reviewed the table of WQB, HPAB and SAB-RCC projects, many of which include SPC membership on their respective Work Groups. It was noted that the HPAB large basin microbial study recently held a workshop focused on microbial source trackdown; another workshop on harmful algal blooms is planned.

3. Work Plans

Microplastics Monitoring & Risk Assessment (Karen Kidd)

The draft Work Plan circulated with the meeting packet was reviewed. The work plan envisions a project of the full SAB and has been structured to initially focus on the presence and risk of plastics to organisms in the Great Lakes basin. A subsequent phase could be undertaken to focus on human exposures to plastics and human health. Although the primary focus is on microplastics due to the availability of data and information, macroplastics and nanoplastics will also be considered.

The project deliverables included in the draft work plan were reviewed, and it was noted that deliverables and timelines in the draft require further refinement. In the discussion that followed it was clarified that the project will rely on existing studies, and a number of microplastics-related fora and initiatives exist to inform the study.

Members were encouraged to provide feedback to Karen, and they expressed support for the work plan, and its finalization.

Water Quality Board's Nuclear Decommissioning Project Recommendation

John Jackson, WQB Work Group Chair joined the SPC call. John noted that the WQB report *Decommissioning Practices of Nuclear Power Facilities in the Great Lakes Basin* was recently approved by Commissioners. The report included a recommendation that "...the IJC direct its Science Advisory Board or its Health Professionals Advisory Board to update the IJC Nuclear Task Force's 1997 inventory of radionuclides for the Great Lakes and its accompanying report on bioaccumulation of radionuclides to improve the understanding of radionuclides in the Great Lakes and their effects on the basin's living communities."

The WQB project included three invited participant meetings, during which several reasons to update the Task Force reports were discussed:

- The Task Force reports are ~25 years old and there is a lot of new information and knowledge to consider;
- The nuclear regulatory agencies in the U.S. and Canada have different regulatory standards, and there is unevenness in the approach and standards related to risk characterization between federal agencies;
- Cumulative impacts are not considered in the regulatory regime;
- A primary conclusion of the Task Force report ("...that monitoring of radionuclides in the Great Lakes primarily meets the need for compliance by users of radioactive materials with the conditions of the licenses for discharge") may no longer be valid.

In the discussion that followed it was noted that since both environmental and human health are affected by radionuclides, any follow-up should be done jointly by SAB and HPAB. It was acknowledged that additional, external expertise would be needed to inform an IJC advisory board review. It was also noted that movement towards a low carbon economy may have implications for the nuclear sector.

The Co-Chairs thanked John for his attendance and alerting the SAB-SPC to the WQB recommendation. The WQB recommendation will be considered further by the SPC and during Advisory Board Co-Chair calls.

Winter Science (Maggie Xenopoulos)

The Work Plan has been finalized and was recently endorsed by the Advisory Board Co-Chairs for submission to the Commission.

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

The Work Plan has been finalized and was recently endorsed by the Advisory Board Co-Chairs for submission to the Commission. Assuming that the work plan is approved, a Work Group made up of advisory board members and external representatives will be established; suggestions are welcomed.

In response to question about timing, staff clarified that the intent is to have approval decisions from Commissioners on the Winter Science and Valuation of Ecosystem Services work plans by the end of March, 2022.

4. Strategic Positioning

Triennial Assessment of Progress Report - Update

The TAP Work Group (which consists of the Advisory Board Co-Chairs or their designates) is awaiting Commission input on the Work Group's proposed topical focus areas for the 2023 TAP report; those areas include climate change adaptation, science priorities, and emerging contaminants. In response to a question, it was clarified that 'science priorities' refers to recent SAB reports, and additional refinement of that theme will be required.

Report-out on SAB Co-Chair call with Lead Commissioners

The Science Advisory Board Co-Chairs held a virtual meeting with SAB Lead Commissioner Sisson on December 16, 2021. The SAB's Great Lakes Science Plan was the focus of discussion. U.S. Commissioners met in early December with several U.S. legislators to brief them on the project; those meetings were productive, and legislators were provided with a deeper understanding of how the IJC Science Plan and USGS Science Forum Report are aligned.

Report-out on Advisory Board Co-Chairs Call

The WQB, SAB and HPAB Co-Chairs held a virtual meeting on January 21, 2022. At that meeting, the following Work Plans were endorsed for submission to the Commission:

- Climate Change Adaptation for Community Resilience Across the Great Lakes Region (WQB)
- Follow-up and Critical Analyses of the Third Great Lakes Regional Poll Data (WQB)
- Great Lakes Winter Science (SAB)
- Valuation of Great Lakes Ecosystem Services (Phase 1) (SAB-SPC)
- Climate Change Influence on Human Health Indicators in the Great Lakes (HPAB)

In their transmittal note, the Co-Chairs will also advise Commissioners that the SAB is developing a microplastics Work Plan which will be submitted subsequently.

5. Upcoming Meetings

Members reviewed the 2022 Meeting Schedule that was included in the meeting packet. There was general support for the schedule which includes six SPC meetings and two SAB meetings in 2022.

Members discussed the format of the SPC meeting, SAB meeting and SPC Appearance associated with the IJC Spring Semi-Annual meeting. There was general agreement that virtual attendance should be available, and that staff should investigate opportunities for a hybrid approach to permit in-person attendance too. In the meantime, members will be polled regarding their interest in travelling to Washington DC for meetings the week of April 4-8, 2022.

Regardless of how the Spring Semi-Annual meetings play out, there was general agreement that we should strive for in-person attendance at the IJC Fall Semi-Annual meeting if it is safe to do so.

6. Other Business & Adjournment

There being no other business, the meeting was adjourned at 2:05 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*