



IJC Science Advisory Board Meeting Summary

October 17, 2023 1:00pm-4:30pm

U.S. Members	Canadian Members	Binational Members
Lucinda Johnson (SPC Co-Chair)	Gail Krantzberg (SPC Co-Chair)	Rebecca Rooney (RCC Co-Chair)
Chris Winslow (RCC Co-Chair)	Karen Kidd	Michael Twiss
Donna Kashian	Jerome Marty	
Drew Gronewold	Mike McKay	
Laura Johnson	John Livernois	
Debbie Lee	Nandita Basu	
Sandra Eberts	Maggie Xenopoulos	
Val Klump	Ram Yerubandi	
Carl Platz	Eric Boisvert	
	Commission Staff	
	Matthew Child (SPC Secretary)	
	Li Wang (RCC Secretary)	
	Lyne Sabourin	
	Jo Werba	
	Sandi Svoboda	

1. Welcome and Introductions, and Approval of Draft Agenda

The SAB Co-Chairs welcomed everyone to the hybrid meeting, and round table introductions were made. The April 26, 2023 SAB meeting was acknowledged. The draft agenda was approved by consensus.

2. SAB Project Updates

Great Lakes Science Plan (Gail Krantzberg & Val Klump)

The Science Plan work plan was approved by Commissioners during the Spring 2023 Semi-Annual meeting. Since that time a contractor has been retained and a Collaborative (i.e., work group) has been formed. A session abstract to IAGLR 2024 will be submitted prior to the October 20, 2023 deadline. Efforts will be made to align engagements with Tribes and First Nations which are occurring as part of the SPC's TEK project.

A significant focus of the project will be to develop a sustainable governance arrangement to implement the Science Plan. Existing models of transnational science programs will be considered for further discussion at one or more of the project workshops.

Congressional legislation (accessible [here](#)) to establish a Great Lakes Authority was discussed. The bill focuses primarily on advancing economic objectives and job creation and is complementary to the workforce development priority outlined in the SAB's Science Strategy. It was noted that the Science Plan needs to consider progress being made to establish a Canada Water Agency. Linking to the Great Lakes Restoration Initiative's Focus Area 5 (Foundations for Future Restoration Actions) will be required.

Great Lakes Early Warning System (Lucinda Johnson & Michael Twiss)

The Great Lakes Early Warning System (GLEWS) work group report is nearly finalized and will be circulated to the SAB and WQB for 'red flag' review soon. The report recommends an organizational approach and decision framework, and that a pilot project be undertaken. An informal working session to begin development of the pilot project work plan is planned for October 18, 2023.

Great Lakes Winter Science (Maggie Xenopoulos & Michael Twiss)

Two virtual project workshops have been held (May and September 2023) which assessed winter science gaps/needs and research coordination. The workshops were supported by contractor reporting that included a literature review, description of publicly available winter science databases, and several subject matter specialist interviews. A third workshop is planned for early 2024 that will be held in-person and will synthesize and expand on the findings of the first two workshops, including identifying what agencies can do to support science gaps.

Microplastics Monitoring & Risk Assessment (Karen Kidd & Rebecca Rooney)

The project was initiated in September 2022, and since that time the contractor has completed a literature review and the first of two workshops has been held which focused on the development of a coordinated monitoring framework. The workshop included participants from the Great Lakes, Chesapeake Bay, the Pacific Northwest and southern California. A second workshop focused on risk assessment is being planned for January 2024. The project is expected to produce management and policy-relevant advice.

Great Lakes Atlas - Scoping (Lucinda Johnson)

This is a scoping project to develop the content and format of the Atlas considering its end users. A work group is being formed which includes SAB and WQB members; additional members are invited to self-identify. The contracting process is expected to proceed during autumn, 2023, and suggestions for suitable contractors are welcomed. In response to questions, it was clarified that the Atlas is inspired by the Parties Great Lakes Atlas and Resource Book (1995) and will provide a modern and interactive representation of a breadth of topics and content. The audience for the Atlas is expected to be governments and their agencies as well as Tribes and First Nations, non-government organizations, universities, and members of the public.

3. Other Advisory Board Project Updates

HPAB Microbial Study (Mike McKay)

The Phase 1 project concluded recently which assessed approaches to apply modern molecular and genomics methods including microbial source tracking, harmful algal blooms and metagenomics.

The Phase 2 project is currently getting underway which will include a pilot study for Lake St. Clair. A project work group has been struck and its associated technical committee is currently being formed. The three-year project will develop a network of labs and standardize analytical approaches and sample processing.

HPAB Fish Consumption (Karen Kidd)

The project focuses on fish consumption advisories in the St. Lawrence River Area of Concern, and the Mohawk Council of Akwesasne in particular. Two workshops have been held and workshop reporting is complete. A final project report is in preparation. In response to a question, it was noted that the method being used could be transferred to other AOCs.

4. New SAB Work Plans

Several potential work plan topics for the next funding cycle were discussed.

The GLEWS co-chairs propose that a GLEWS pilot project work plan be developed to test the organizational approach and decision framework developed in earlier phases of the project. Known, suspected and unknown stressors could be assessed through the case study. Through discussion it was noted that a good example of the utility of an early warning system would have been predicting the reappearance of HABs in Lake Erie in 1990s. It was also noted that properly functioning early warning systems rely on successfully transitioning from understanding the problem to implementing appropriate management and policy responses.

The RCC Co-chairs reported that a number of topics have been identified for further discussion including horizon scanning about human population migration and demographics, toxin mobilization associated with wildfires, antimicrobial resistance, and salinization of the Great Lakes. Through discussion it was noted that the WQB has included some consideration of human migration as part of its Great Lakes Horizons project, and the wildfire topic could be considered as part of the proposed GLEWS pilot project.

Project ideas under discussion by the SPC were identified and include establishing a Collaborative to focus science and management in connecting waters, exploring landscape level solutions to water quality issues, and advancing water quality and water quantity linkages. An update was also provided on the SPC's TEK project, which will complete several additional listening sessions with Indigenous communities. It was noted that these engagements will be iterative and will require building trust with those communities.

5. Strategic Priorities

Triennial Assessment of Progress report

The IJC's TAP report will be publicly released on November 9, 2023. A registration link to the associated webinar will be forwarded to SAB members soon.

Cultural Competency Training

The SPC's TEK project as well as staff activities being completed by the IJC's Indigenous Collaboration Team have highlighted the importance of cultural competence when engaging with Indigenous communities. There was general agreement that the SAB would benefit from cultural competency training, and several suggestions were provided:

- Training should provide information on the context of injustice and colonialism, differences between stakeholders and rightsholders, and learning about Ceremony.
- Canada’s Truth and Reconciliation Commission report provides helpful context, particularly for engaging with First Nations.
- Relevant online videos and publications should be considered; an example of a relevant publication can be accessed [here](#).
- Training should emphasize that each community is different, and therefore understanding individual communities will be needed.
- The USGS Climate Center has a training program that emphasizes a co-production approach and includes very practical insights on customs and approaches related to the process of engagement.
- The Blanket participatory group exercise could be considered as one of a series of training opportunities.
- In addition to provide competency training for existing members, training should be provided as part of onboarding new members.

There was general agreement that these suggestions should be provided to the staff Indigenous Collaboration Team who can explore opportunities for board member cultural competency training.

IAGLR 2024 Session Abstracts

The draft Great Lakes Science Plan session abstract was reviewed. There was general agreement that the session should feature presentations on SAB projects and how they support and relate to the Science Plan. The abstract will be submitted prior to the deadline.

It was announced that a session abstract will also be submitted by NOAA-GLERL that features GLERL projects and activities in the past, present and future.

6. SPC & RCC Appearances

There was general agreement that the project update assignments for the SPC and RCC appearances were appropriate. Work group leads from both committees will join the discussion for their respective project updates.

7. Other Business

It was reported that Annex 3 (Chemicals of Mutual Concern) has received an application to designate microplastics as a CMC.

Both NOAA-GLERL and Algoma University have job postings which can be accessed at their websites.

Over the summer the Government of Canada announced funding for the Great Lakes as part of its Freshwater Action Plan. A National Freshwater Science Agenda is also being prepared.

8. Guest Presentation

Mike Goffin, Director General, Freshwater Policy & Engagement, Environment and Climate Change Canada gave a presentation on the Canada Water Agency. The presentation addressed the purpose and functions of the Agency, its commitment to action, engagements and consultations held so far, and anticipated modernization of the Canada Water Act.

In the discussion that followed, several topics were addressed:

- The Agency will be non-regulatory and engagements with various sectors are ongoing to inform the functions of the Agency.
- The Agency's budget is not confirmed yet; the budget will be resolved through the Treasury Board process.
- A National Freshwater Science Agenda will be prepared collaboratively by ECCC's Science & Technology Directorate and the Canada Water Agency, based on input from various working groups.
- Changes to the Canada Water Act have yet to be determined through the legislative process. It is likely that changes will reflect climate change and Indigenous rights with a focus on transboundary waters.
- Data harmonization will be a focus of the Agency, with emphasis on data interoperability.
- Great Lakes Action Plan investments, Canada-Ontario Agreement commitments and Great Lakes Executive Committee activities will be through the Canada Water Agency.

9. Adjournment

The meeting was adjourned at 4:30 p.m.