

**Great Lakes Water Quality Board
213th Meeting**

Summary of Discussion

July 21, 2021
Virtual

U.S. Member Participants

Jon Allan (Co-Chair)
Sandy Bihn
George Elmaraghy
Frank Ettawageshik
Stephen Galarneau
Brandon Hofmeister
Sara Hudson
Elizabeth Kirkwood
Chris Korleski
Kelsey Leonard
Monica Lewis-Partick
Eileen Murphy
Joe Tomandl III

Canadian Member Participants

Gayle Wood (Co-Chair)
Niharika Bandaru
Mark Fisher
Michael Goffin
François Houde
John Jackson
Carolyn Johns
Irving Leblanc
Mark Mattson
Chris McLaughlin
Chris Paci
Mark Wales
Chloe Stuart

U.S. Members Regrets

George Heartwell

Observers

Ash Kumar - Environment and Climate Change Canada
James Schardt – U.S. Environmental Protection Agency
Carla Torchia - Environment and Climate Change Canada

Commission Staff

Mark Burrows – Acting Director, Great Lakes Regional Office
Raj Bejankiwar – Great Lakes Regional Office
Jennifer Boehme – Great Lakes Regional Office
Mark Burrows – Great Lakes Regional Office
Matthew Child – Great Lakes Regional Office
Allison Voglesong Zejnati – Great Lakes Regional Office

Commission Liaisons

Carole Smith (for Paul Allen) – Canadian Section Office
Victor Serveiss – U.S. Section Office

Secretariat

Antonette Arvai – Great Lakes Regional Office

Summary of Action Items

- Regional Poll Work Group members will explore if there are potential options for sharing/releasing poll results earlier and communicate these to the WQB Co-Chairs.
- Members to identify interest in participating on a Climate Change Work Group, which will develop a short paper on possible areas of exploration, to be considered by the Board at the October 2021 meeting.
- Board Secretary will send an updated calendar meeting notice for the, now virtual, October 7, 2021 WQB meeting.

1. Welcome, Introduction and Indigenous Acknowledgement (Co-Chairs)

The Co-Chairs welcomed everyone to the 213th meeting of the board. The co-chairs acknowledged the traditional First Nations, Tribal and Métis territories on which the meeting was conducted that day, given the virtual gathering of participants from various locations. Co-Chairs also expressed sympathy and condolences to Indigenous colleagues and communities regarding the recent discovery of the remains of children in unmarked grave sites from former residential schools in British Columbia and Saskatchewan. Board members Mark Mattson, Mark Fisher, Steve Galarneau, George Heartwell, Monica Lewis-Patrick, and Liz Kirkwood were congratulated on their reappointments to the board. WQB Co-Chairs Jon Allan and Gayle Wood have also been reappointed for another term as the board co-chairs until December 2024 and February 2023, respectively.

2. Co-Chairs' Update (Co-Chairs)

The co-chairs provide monthly written updates to members to ensure timely communication of co-chair activities relevant to board operations. An update of activities that occurred in June was provided:

- A triennial assessment of progress (TAP) terms of reference was approved by Commissioners at the end of April, which outlines an approach to conducting an assessment of progress under the Great Lakes Water Quality Agreement and developing the IJC's TAP 2023 report. This includes the creation of a work group, led by the WQB Co-Chairs and comprised of the Co-Chairs of the Science Advisory Board and the Health Professional Advisory Board or their designates. The TAP Work Group has met twice since mid-June.
- Call with IJC staff regarding the Commission's priority on climate change and adaptive management and the WQB's potential role/support in advancing work in this area.
- Recognition that WQB projects continue to advance and are track as well as continued WQB member participation on several cross-board projects (see agenda item #3 and #4).

3. Project Updates (G. Wood)

WQB members were provided an opportunity to ask questions on written project updates provided in advance of the meeting. A summary of the project updates and related discussion is provided below.

Great Lakes Horizons

The goal of the project is to understand the forces that will have a material effect on the Great Lakes (ecologically, economically, socially and culturally) over the next 30+ years. The contractor has submitted drafts of an annotated bibliography, a spreadsheet summary, and a brief report about literature reviewed. A half-day symposium was held June 15 with approximately 20 regional experts to discuss priority drivers, positive/negative trends, and potential threats to future Great Lakes water quality.

Manure Management

A Project Oversight Work Group was created comprised of WQB members and external experts that work in agriculture and manure/nutrient management. The Work Group has been meeting since early June and has developed a terms of reference to guide the work of the project and has identified persons to invite to join a larger Collaborative. A facilitator was hired in early July to assist with the start-up and organization of the Collaborative.

Nuclear Decommissioning

The work group completed a draft report that was submitted for WQB member review in April. Comments from board members were submitted May 14th. A revised report is expected to be submitted for WQB approval at the end of July. A communications plan is also being developed.

Great Lakes Water Quality Agreement 50th Anniversary Review

The project is to assess the impacts of Great Lakes Water Quality Agreement (GLWQA) over the years and identify opportunities for improvement. A consultant has been hired to conduct research and outreach to stakeholders and an introductory call held. The project is on track to complete work within work plan timeline.

Watching Briefs

Fossil Fuel Development and Transportation

Recent developments were highlighted that included, the Biden Administration's defense of a USACE permit for Enbridge Line 3 and that USACE will conduct an Environmental Impact Statement for the Enbridge Line 5 pipeline tunnel project.

Great Lakes Nuclear

Recent developments were highlighted that included the closure of New York's Indian Point nuclear power plant, after 59 years of operation.

Microplastics in the Great Lakes

Recent developments were highlighted that included, a journal paper published on microplastic contamination in fish sampled from Lake Superior and Lake Ontario and the signing of the 2021 Canada Ontario Agreement by the Governments of Canada and Ontario, which addresses plastic pollution in the Great Lakes through Annex 2 (Harmful Pollutants).

Third Great Lakes Regional Poll

A phone survey was conducted from January to February 2021. An on-line poll is currently running until August 15th, with 1500 people completing the poll to date. The online poll is helping to fill gaps from the phone poll in reaching specific audiences (e.g., youth). Geospatial analysis of the phone survey data is being conducted and digital media communication products are being developed. The goal is to release both the phone and on-line poll results in fall 2021.

A WQB member noted that the Canadian federal budget will likely be established by October 2021 and releasing the poll results prior to that could help influence the funding discussions related to the Great Lakes. Work group members noted that their planning has been based on a full package release in the late fall of both the phone and on-line results. The work group will discuss if there are potential options for sharing/releasing information earlier.

Action Item: Regional Poll Work Group members will explore if there are potential options for sharing/releasing poll results earlier and communicate these to the WQB Co-Chairs.

Great Lakes Coastal Assembly

The WQB continues to be apprised of the work of the Great Lakes Coastal Assembly (GLCA). The board's 2019 work on wetlands served as a catalyst for the GLCA to think more broadly about how to advance and accelerate coastal wetland efforts. The GLCA has developed a draft Coastal Wetland framework to help establish a baseline extent of coastal wetlands, determine targets for coastal wetland conservation, and identify where to focus coastal wetland conservation efforts to achieve targets. This framework has been shared with Annex 7 for their input. A Great Lakes Coastal Wetland Symposium is being planned for fall 2022.

4. Cross-board Project Updates (J. Allan)

Several WQB members serve on other advisory board project work groups. Members were provided an opportunity to ask questions on written status updates provided in advance of the meeting.

Science Advisory Board (SAB) Great Lakes Science Plan

The project seeks to institute a research plan to ensure restoration dollars are spent with the greatest return on investment. Two virtual workshops were held in April, one on a disciplinary basis and one on a lake-by-lake basis. A draft workshop proceedings report has been prepared for work group review.

SAB Great Lakes Early Warning System Phase 2 (GLEWS)

The project seeks an approach to identify a stressor or threat early, before it becomes a crisis. Five suspected stressors are being reviewed for case study analysis. Initial discussions on the process for identifying an unknown stressor will also be addressed.

Joint WQB and SAB-SPC Nutrient Synthesis

A project that will assess implementation of federal Domestic Action Plans and the degree to which past IJC nutrient-related recommendations have been used. The consultant has produced a draft report, which will inform a virtual workshop being planned for October.

SAB-RCC Hydrological Conceptual Model

The project seeks to develop a hydrological conceptual model that incorporates stakeholder input for the Great Lakes basin. Virtual interviews were conducted with key stakeholders likely to have resources to support the development, implementation and maintenance of a basin-wide model. An online survey was completed to 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.

SAB-SPC Traditional Ecological Knowledge (TEK)

The project will provide recommendations to the IJC on the inclusion of TEK into its scientific processes. A contracting process is currently underway to hire a consultant. An Advisory Committee comprised exclusively of Indigenous members will be formed to provide advice to the work group as the project progresses.

SAB-RCC Ecosystem Management through Adaptive Management

The purpose of the project is to assess the progress Annex 4 has made in establishing the Lake Erie Adaptive Management Framework. A consultant is anticipated to be hired by late September, at which time a project kick-off call will be scheduled.

SAB-RCC Community Science

The project will establish a framework for the development of a community science handbook that summarizes best practices and provides guidance to develop and implement a reliable monitoring network. A contractor scope of work is currently under development.

5. Update on Canada Water Agency

Michael Goffin, WQB member and Regional Director General for Environment and Climate Change Canada in Ontario, provided an update on the Government of Canada's initiative to create a Canada Water Agency (CWA). In December 2019 Prime Minister Trudeau directed the Minister of the Environment and Climate

Change to create a new CWA to work with the provinces, territories, Indigenous communities, local authorities, scientists and others to find the best ways to keep water safe and well-managed. In June 2021 the government released a [*Toward the Creation of a Canada Water Agency: What We Heard*](#) report that summarizes the outcomes of public engagement on how freshwater management could be improved through the creation of a CWA. A separate and on-going engagement process is continuing with First Nations, Métis, and Inuit. Some of the high-level themes that emerged from the public consultation included:

- The importance of **reconciliation with Indigenous peoples** and working with First Nations, Métis and Inuit to include Indigenous science and knowledge in decision-making and involving Indigenous peoples in freshwater governance.
- **Impacts of climate change** on freshwater quality and quantity and the need for improved forecasting and prediction tools, freshwater monitoring, and development of adaptive management approaches.
- Importance of holistic approaches to freshwater management by advancing **watershed approaches**.
- Enhance **coordination and collaboration** between federal and provincial and territorial governments to better align policies and actions
- Actively **engaging Canadians** in freshwater management and protection.
- Enhance sharing of and **access to freshwater data** and information to inform decision-making.

6. Climate Change Adaptation and Resiliency in the Great Lakes

In 2017 and 2019 the WQB completed reports on climate change adaptation and resiliency. The IJC, as part of their 2019-2023 Priorities, have identified Climate Change and Adaptive Management as a priority area. During the WQB's April 2021 meeting a panel presentation was held to frame a set of thoughtful discussions around the issue and as an opportunity for the Board to re-visit and explore the issue of climate change, its consequences and response to its impacts on the Great Lakes region. These conversations were continued in this current meeting. Based on the previous body of work and informed by the April WQB meeting panel presentations, members shared their perspectives on items they found compelling or noteworthy for further exploration by the Board:

- Recognize that climate change has two separate issues (1) reduction of carbon emissions to prevent further impacts and (2) adaptation and resiliency to the already changed climate, which have two very different strategies in addressing them
- In moving toward carbon neutrality and green energy, ensure we are not creating a new toxic legacy with the production of new technologies (e.g. heavy metals in batteries of electric vehicles; waste generated from the replacement of outdated solar panels/equipment); life-cycle assessment.
- Consider the nexus of climate, nature and water – integrated systems, rather than in silos; need greater understanding of regional, cross-border vulnerabilities and trends; view impacts at three levels – in-lake dynamics, land-to-lake and on-land.
- Increased frequency of intense storms can cause silting of rivers where fish spawn; increased runoff carries pollutants to the water impacting water quality; movement of species.
- In addition to the environmental impacts, there is a social/mental health aspect with people having to adjust to sudden changes that should be factored into decisions.
- The conversation around climate change should be reframed as a water issue; much focus is on emissions but there is an urgent need to re-imagine urban development, food systems, transportation, etc. – what happens on land affects water quality.
- Climate change impacts on AIS, forestry (important for carbon capture), newly emerging energy intensive businesses (e.g., bitcoin mining).
- Need to make cities and structures more resilient to climate change impacts, regardless of what is done on the carbon emissions side.

These are starting points to frame further conversation on the issue. The board agreed that a small work group should be created to examine the issue of climate change and the Great Lakes as it relates to the mandate of the WQB and potential advice to the Commission. Members are to identify their interest in participating on the work group.

Action Item: Members to identify interest in participating on a Climate Change Work Group, which will develop a short paper on possible areas of exploration, to be considered by the Board at the October 2021 meeting.

7. Next WQB Meetings (*G. Wood*)

There is one remaining Board meeting for 2021. A tentative in-person meeting was scheduled for October 6-7, 2021 in Niagara Falls, ON. However, given the continued uncertainty of the COVID-19 situation and potential travel limitations, the meeting will be rescheduled as a 1-day virtual meeting on October 7, 2021.

Action Item: Board Secretary will send an updated calendar meeting notice for a now virtual October 7, 2021 WQB meeting.

8. Public Comments and Closing Remarks (*Co-Chairs*)

No members of the public were present. The co-chairs thanked members and others for their participation.