

**Great Lakes Water Quality Board  
219<sup>th</sup> Meeting**

**Summary of Discussion**

January 25, 2023 @ 10:00 AM – 12:00 PM ET  
Virtual

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**U.S. Member Participants**

Jon Allan (Co-Chair)  
Sandy Bihn  
George Elmaraghy  
Frank Ettawageshik  
Brandon Hofmeister  
Sara Hudson  
Elizabeth Kirkwood  
Kelsey Leonard  
Monica Lewis-Partick  
Shaili Pfeifer  
Joe Tomandl III

**Canadian Member Participants**

Chris McLaughlin (Co-Chair)  
Niharika Bandaru  
Mark Fisher  
Bonnie Fox  
Michael Goffin  
François Houde  
John Jackson  
Carolyn Johns  
Jamie Lavigne  
Mark Mattson  
Chloe Stuart  
Brian Tucker  
Mark Wales

**U.S. Member Regrets**

George Heartwell  
Chris Korleski  
Eileen Murphy

**Canadian Member Regrets**

Chris Paci

**Observers**

Leo Luong - Ontario Ministry of the Environment, Conservation and Parks  
Carla Torchia - Environment and Climate Change Canada  
Melanie Ward – Ontario Ministry of the Environment, Conservation and Parks

**Invited Guests**

Thomas Edge (IJC Health Professionals Advisory Board) – McMaster University  
Shaun Nethercott - Great Lakes Odyssey Radio Hour  
Joan Rose (IJC Health Professionals Advisory Board) – Michigan State University  
Paul Seelbach – University of Michigan  
Sebastian Paczuski US Environmental Protection Agency  
Katie Williams – US Environmental Protection Agency  
Adrian Vilaca – Great Lakes Odyssey Radio Hour

**Commission Staff**

Heather Stirratt – Director, Great Lakes Regional Office  
Jennifer Boehme – Great Lakes Regional Office  
Mark Burrows – Great Lakes Regional Office  
Matthew Child – Great Lakes Regional Office

Rajendra Poudel – Great Lakes Regional Office  
Allison Voglesong Zejnati – Great Lakes Regional Office  
John Wilson – Great Lakes Regional Office  
Rachel Wyatt – Great Lakes Regional Office

**Commission Liaisons**

Oliver Dumville – Canadian Section Office  
Victor Serveiss – U.S. Section Office

**Secretariat**

Antonette Arvai – Great Lakes Regional Office

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**Summary of Action Items**

**1. Work groups are to develop work plans using the brief project descriptions as a basis and consider any feedback received during the meeting.**

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

The Co-Chairs welcomed everyone to the 219<sup>th</sup> 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. New members Shaili Pfeiffer and Bonnie Fox were welcomed to their first meeting of the board. Current members Kelsey Leonard, Monica Lewis-Patrick and George Elmaraghy were congratulated on their reappointments. Outgoing members John Jackson, Mark Mattson, and Sandy Bihn were recognized and thanked for their nine years of service on the board. Chris Paci and Steve Galarneau, also completing terms on the board, were also recognized and thanked for their service and contributions to the board over the past three to four years.

**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. A verbal update was provided during the meeting:

- IJC Triennial Assessment of Progress (TAP) Report - IJC staff have completed research and writing of various sections of the TAP report. Report sections will draw on the work/reports of the various advisory boards. A technical writer was hired and is working with staff to draft the report. A draft of the report is expected to be ready for review by the advisory boards in mid-March 2023.

**3. Project Updates (C. McLaughlin)**

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 is provided below.

**Follow-up and Critical Analyses of the Third Great Lakes Regional Poll**

The analyses includes, trend analysis of the past three polls (2021, 2018, 2015); additional analysis in the context of other related polls and scholarly research; analyzing poll results and public perceptions on the Great Lakes ecosystem issues related to SOGL and PROP; and deepening understanding of poll results through focus group study and other demographic analyses. A consultant was hired in September 2022 to conduct the analyses. A contractor report to the work group is expected at the end of February 2023.

**Climate Change Adaptation for Community Resilience Across the Great Lakes Region**

Commissioners approved the WQB's Climate Change Adaptation work plan in April 2022. The project will define and deliver a package of learning opportunities and planning tools that addresses climate change issues that create common challenges, or opportunities, for communities across the Great Lakes, particularly small to medium-sized communities. The work group has continued to build its membership with new external members added. A contractor kick-off call was held in November 2022.

#### Great Lakes Horizons

The goal of the project is to understand the drivers that will have a significant effect on the Great Lakes (ecologically, economically, socially and culturally) over the next 30+ years. Four draft scenarios have been developed including positive, status quo, and negative or degraded futures. These scenario narratives, along with accompanying graphics underwent review by the work group. A draft report for work group review is expected in early February 2023.

#### Manure Management

A Collaborative has been created consisting of ~30 people including farmers, members of local government, agricultural organizations, watershed organizations, academics and corporate representatives has held 12 meetings since forming in Oct. 2021. A consultant was hired in June 2022 to collect and assess information on manure/nutrient inputs, policies/programs and management practices. A draft contractor report was developed and reviewed by the Collaborative between December 2022 and January 2023. A draft final report will be submitted to the Collaborative in early February 2023.

#### Nuclear Decommissioning

The WQB' *Decommissioning of Nuclear Power Facilities in the Great Lakes Basin* report was released in early 2022. The work group held a series of webinars with nuclear regulators and industry representatives between July and October 2022 to understand the agencies' perspectives on the feasibility of, and challenges to, implementing the report recommendations. Based on the outcomes of the webinars, a letter to Commissioners on follow-up actions the IJC can take to move forward the WQB's 2021 report was developed. The letter was circulated to members for comment and is currently being revised by the work group in response.

#### Watching Briefs

The board develops and maintains watching briefs to summarize significant developments, events and information in a factual manner on specific, defined topic areas. They are periodically updated and serve to keep the board informed on issues which have or could impact the waters of the Great Lakes.

#### ***Fossil Fuel Development and Transportation***

Recent developments were highlighted that included, updates on economic drivers (i.e., oil prices, transportation) and on-going litigation around Line 5.

#### ***Great Lakes Nuclear***

Recent developments included the Palisades nuclear plant in Michigan potentially seeking U.S. federal support to invest in recommissioning the plant.

#### ***Microplastics in the Great Lakes***

Recent developments were highlighted that included, the Government of Canada's ban on single-use plastics coming into effect; journal publication on environmental, health and socioeconomic implications of microplastics in the Great Lakes; and the launch of the SAB's 2-year project to advance a coordinated framework for microplastic monitoring and risk assessment in the Great Lakes.

#### **4. Presentation: Great Lakes Odyssey Project**

The board received a presentation on the Great Lakes Odyssey Project from Dr. Shaun Nethercott and Adrian Vilaca. The Great Lakes Odyssey Project was inspired by the 50<sup>th</sup> anniversary of the signing of the Great Lakes

Water Quality Agreement in an effort to explore and strengthen relationships with the lakes. A key element of the project is the [Great Lakes Radio Odyssey Hour](#), a multi-part audio series that explores the Great Lakes and its issues via artistic expression (artists, writers, musicians) and interviews with those who work to protect the lakes. The radio series [began with a pilot in September 2022](#) and the most recent episode in January 2023. The episodes will explore a range of topics including, how the lakes build basin-wide identity and connectivity across communities; how rivers shape identity and culture; importance of forests; sturgeon and fisheries; the lakes as a means of transportation; and impacts of a changing climate on the lakes and culture. The radio hour is a means by which to communicate about the lakes via the arts, in an effort to make people feel more connected to the lakes and in turn inspire people to take action to protect and care for the lakes.

#### **5. Presentation: Social Dimensions of Great Lakes Remediation, Restoration and Revitalization**

The board received a presentation from Katie Williams (US Environmental Protection Agency) and Paul Seelbach (University of Michigan) on a research paper published in the Journal of Great Lakes Research on social and organizational dimensions of Great Lakes remediation, restoration, and revitalization (RRR). Little attention has been paid to the local-level human, social and organizational dimensions to fully implement Great Lakes remediation and ecological restoration. Need to understand how RRR can both improve ecological conditions as well as restore community vibrancy and spirit. Resources and well-being are likely valued differently among agencies, organizations, and communities. The relationship between RRR and community well-being goes beyond just economic returns and can be measured by case summaries that describe revitalization after clean-up; using integrated social and ecological indicators; and describing the renewed sense of place and identity. There are two key concepts for implementing RRR - translational ecology and community capacity. Translational ecology seeks to link ecological knowledge to decision making by integrating ecological science with social systems and ensuring researchers work with decision makers through the entire process. It supports the ecosystem-based management approach; the basis for the GLWQA and Area of Concern (AOC) program. Community capacity is the human, organizational and social assets that exist in a community that can be used to implement and sustain their own solutions to collective problems. There is a need to understand how this is happening in specific cases and how agencies can best support it.

#### **6. 2023 Work Planning (*J. Allan*)**

In August 2022 Board members were requested to provide suggestions for potential topics to be considered for advancing as work plans for the 2023 work cycle. These topics were discussed, and the list narrowed, during the WQB's September 26<sup>th</sup>-27<sup>th</sup>, 2022 meeting. Project topics and co-leads were confirmed in November 2022. The project co-leads were asked to provide a brief description of the project topic including, background and nature of the issue; alignment with the WQB's mandate and IJC priorities; and the objectives and scope of what would be studied/work to be undertaken. The topics included:

- Fourth Great Lakes Regional Poll and Data Analysis Follow-up
- Great Lakes Horizons II – Broadening the Engagement with Four Future Frontiers
- Social Dimensions of Great Lakes Restoration and Revitalization

Members were provided the project descriptions prior to the meeting. During the meeting members had an opportunity to provide feedback on the descriptions for the consideration of the work groups in developing the work plans. The timeline for completion of work plans was also reviewed. Final, board approved work plans are to be finalized by early April 2023, for submission to the Commission for approval decision.

**Action Item: Work groups are to develop work plans using the brief project descriptions as a basis and consider any feedback received during the meeting.**

## 7. Crossboard Project Updates (C. McLaughlin)

Several WQB members serve on project work groups of other advisory boards. In the interest of time, members were referred to the meeting package that included a summary table of the status of advisory board projects. Members were also encouraged to contact the relevant WQB member(s) for additional information on any crossboard project of interest.

## 8. Presentation: Large Basin Microbial Water Quality Study Plan (HPAB with WQB)

A presentation was provided by Dr. Joan Rose and Dr. Thomas Edge, Co-Leads on the Health Professionals Advisory Board's (HPAB) Large Basin Microbial Water Quality Study Plan. The WQB has worked in collaboration with the HPAB on this project since it began in the fall of 2021. The goal of the project was to seek approaches to advancing molecular and genomic technologies for source water quality assessment. The project is nearing completion and an overview of work to date was provided. The project convened a series of workshops in four areas:

- Microbial Source Tracking (MST) – review approaches to tracking human and animal fecal pollution; identify gaps in current policy to identify microbial source water quality issues; outline approach to developing health risk maps for each lake; scope feasibility of MST lab intercomparison effort
- Harmful Algal Blooms (HABs) – establish plan for a Great Lakes lab network for HABs assessment using molecular and genomics technologies; summarize existing HABs data to identify hotspots and associated threats to human health; plan for developing HAB health risk maps for each lake; identify information needs from beach manager and drinking water utility manager and gaps in policy
- Metagenomics – summarize genomics initiatives and datasets; review metagenomics methods for characterizing microbial communities in water samples; scope plan for applying metagenomics sequencing methods for inter-lab testing and possible lab network
- Synthesis - synthesize workshop results to build an implementation strategy to fund and advance use of molecular and genomics technologies to modernize microbial source water quality assessments.

The work group is currently finalizing their report and recommendations, with the goal of forwarding to the Commission in the coming months.

## 9. Next WQB Meetings (C. McLaughlin)

The WQB's schedule of meetings for 2023 was reviewed:

- 220<sup>th</sup> Meeting – May 3-4, 2023, Detroit, MI
- 221<sup>st</sup> Meeting – July 27, 2023 @ 1:00-3:00 PM ET
- 222<sup>nd</sup> Meeting – October 2023, Ottawa, ON [In conjunction with IJC Semi-Annual Meeting. Dates TBD]

## 10. Public Comments and Closing Remarks (Co-Chairs)

No members of the public were present. The co-chairs thanked members and others for their participation and their continued hard work on both WQB and cross-board projects.

### Links of Interest

During the meeting discussions several links were provided in the meeting chat for the information and interest of members. These links are provided below for information:

- [Unreconciled: Family, Truth, and Indigenous Resistance](#) – book authored by Jesse Wentz
- [Assigning agency: how communities, individuals, and organizations engage in environmental cleanup and revitalization](#) - special issue in Journal of Great Lakes Research

- [Setting an agenda to catalyze research in the social and organizational dimensions of Great Lakes remediation, restoration, and revitalization](#) – journal paper in the Journal of Great Lakes Research (Dec. 2022)
- [Microplastics in the Great Lakes: Environmental, Health, and Socioeconomic Implications and Future Directions](#) – journal paper in ACS Sustainable Chemistry & Engineering; referenced as part of the WQB’s microplastics watching brief written update
- [Flint Development Center](#) - first youth led water testing lab in the US
- [Lake Erie’s Failed Algae Strategy Hurts Poor Communities the Most](#) – Part four of a six-part series on algal blooms by Circle of Blue, highlights work on algae blooms by the [Junction Coalition](#)
- [Cleveland Water Equity Leader Recognized for Attracting More Attention to Environmentalism](#) – media article on Crystal Davis, Vice President, Alliance for the Great Lakes
- [Milwaukee Water Commons](#)
- [Indigenous Women Celebrate and Protect Water with the Water is Life Festival](#) – media article featuring the Water is Life festival and founder Jannan Cornstalk
- [Title Track pairs artists with activists to focus on Michigan issues](#) – media article on project Title Track