
International Joint Commission
Canada and United States



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IJC Science Advisory Board

Hilton Garden Inn Washington DC Downtown (Cleveland Park Room)
815 14th Street NW, Washington DC

April 19, 2016 – 12:30pm – 4pm

Meeting Record

Attendees:

RCC: Norman Grannemann, Gavin Christie, Christopher Winslow, Christine Mayer, Deborah Lee, Ian Campbell, Kyle McCue, Michael Twiss, Patricia Chambers, Tareq Al-Zabet, Thomas Speth, Val Klump, Yves Michaud

SPC: Carol Miller, Jeff Ridal, John Livernois, Bob Hecky, Dale Phenicie, Andrea Kirkwood, Lucinda Johnson, Scott Sowa, Dave Allan, Michael Murray

Guest: Tim McHale (USGS Midwest Region)

IJC Staff: Lizhu Wang, Matthew Child, Glenn Benoy, Vic Serveiss, Mark Burrows, Ankita Madelia

1. Introduction: welcome, round table introduction, and review the agenda

The SAB Co-Chairs made welcoming remarks. Three new SAB members were introduced. The meeting agenda was reviewed, and no change was suggested.

2. Overview of current RCC and SPC activities and discussion of joint/collaborative opportunities

a. SPC

i) Communication Indicator Project

The communication indicator workgroup leaders provided an overview of the work that has been done. The workgroup focused on assessing the

communicability of the 6 ecosystem indicators. Indicators were assessed based on both scientific significance and communicability with the public. Biological indicators present the biggest challenge for data collection and developing information, though they are the ones that resonate the most with the public.

There is extensive collaboration with the RCC on this project. RCC provided data availability assessment on the six communication indicators that SPC worked on. A RCC-SPC combined workgroup is currently assessing Aquatic Invasive Species and Chemicals of Mutual Concern indicators. For each of these indicators, metric filter analysis is complete, information and reports have been compiled into a first draft, and hopefully will be reviewed within a couple of weeks. The report for the two indicators will be used as an appendix to the SPC's report - An Assessment of the Communicability of the International Joint Commission Ecosystem Indicators and Metrics.

The SPC members asked on how the communication indicator work will be used. It was explained that the eight communication indicators could be used in the Triennial Assessment of Progress (TAP) report. It is mentioned that fewer, high-impact recommendations are better than many, low-impact recommendations.

ii) Information Coordination and Flow (ICF) Project

The ICF workgroup co-chairs gave an overview of the work that is being done. The objective of the project is to examine how data and information is shared and integrated and made available for decision-making. The contractor of the workgroup recently hosted an expert workshop to understand and identify the current status of information sharing and how information flows in the Great lakes region. It was clear from the workshop that discoverability is a huge issue. There were other recommendations as well that did not need discussion at the joint SAB meeting.

Open-data policies were discussed. Everyone in the room, especially those who had to deal with Canadian data policy, was grateful for accessibility, especially for use of spatial data. There are lots of data sources that might appear to be open source but in reality they are not accessible. We have a long way to go to implement steps between data collection and decision-making, and we are currently at the data-sharing step.

Some ICF workgroup members participated in the Annex 10 subcommittee call last week. The Annex 10 subcommittee is looking for programs and platforms, while the ICF workgroup is looking at the data itself.

iii) Fertilizer Application Project

The Fertilizer Application workgroup co-chairs provided an overview of current work. This study originated from Commissioners who are interested in manure vs. commercial fertilizer application. The project will include several objective, including an assessment of the relative contribution of each major fertilizer type, an assessment of the capacity of watershed models to address the issue of the contribution of commercial fertilizers versus manure to Lake Erie, a review of the capacity of current Lake Erie monitoring programs, and an assessment of nutrient management approaches related to each major fertilizer type. Each objective will identify knowledge gaps. The workgroup is currently focused on the first objective. There is a lot of particular interest in Concentrated Animal Feeding Operations (CAFOs).

Two members of the RCC offered help by participating in the workgroup because they are already looking at phosphorus fingerprinting and removal, and agricultural BMPs. It was also mentioned that when the workgroup was formed, a number of external experts were identified and they will be contacted soon now that there has been a full SAB discussion about the project.

iv) Energy Project

This workgroup is considering four different topics including to: 1) assess water quality impacts of power generation; 2) assess water quality impacts of fossil fuel transportation (in particular oil) including analysis of potential changes in modes in near-term; 3) assess water quality impacts of fossil fuels more broadly; and 4) conduct a scoping workshop to identify priorities and gaps. By June, the workgroup may have some thoughts from the Commission on what they can move forward with.

The breadth of energy issues as it relates to the lakes was acknowledged, with other examples of other energy-related efforts were mentioned.

b. RCC

i) Emerging Monitoring Technology Project

A survey went out to 48 operators of emerging technologies throughout the basin. The majority of the survey participants are academic. The project using an on-line survey of 33 questions for identifying emerging monitoring technologies is progressing well. Since the survey started in March 2015, 93 respondents have described 48 emerging technology systems. A draft version of the report has been produced and is in the process of being reviewed by the SAB-RCC members. The SAB-RCC is also organizing a symposium session at the 2016 International Association for Great Lakes Research annual conference. A draft report is complete, which will be modified into a journal manuscript for publication. The final form of publication will be submitted to the Commission as a final report.

ii) Data Accessibility and Gaps of Great Lakes Indicator Project

The workgroup has been working closely with the Parties on the evaluation of data accessibility and data gaps of Great Lakes ecosystem and human health indicators. This work was approved by Commissioners in 2015 and has progressed as planned. This work provides additional information about indicators that the IJC recommended to the Parties to be used for the State of the Great Lakes reporting but were not adopted by the Parties because of a lack of data. The data accessibility and gaps analysis will identify what data synthesis is needed and what additional data need to be collected. The final draft report is complete and RCC comments have been incorporated. This project also provides data evaluation for the communication indicator project of the SPC.

iii) Future improvement on Great Lakes indicators

This project identifies future improvement on Great Lakes ecosystem and human health indicators, which will provide recommendations for improving future State of the Great Lakes reports and contribute to the IJC Triennial Report. This work will make recommendations about which indicators and measures that the RCC feels the Parties should include in the future State of the Great Lakes reports. As part of this project, the RCC has been on the agenda of Annex 10 Indicator Task Team monthly conference call to report

progress and seek input from the Task Team. The draft of report is complete and submitted to the workgroup and RCC for review.

iv) Coordination on Cooperative Science and Monitoring Initiative

This is a normal commitment under Annex 10 and RCC has been working closely with the Parties on the binational CSMI. Through SAB secretaries and other IJC staff, and RCC Co-Chairs are in the process of communicating with the Co-chairs of Annexes 2 and 10 sub-committees to develop a strategy on how IJC can assist on CSMI information synthesis and delivery for 2016. It was mentioned that the LAMPs must now include the upstream connecting channels.

v) Research Inventory

IJC staff provided the scope of work for this project, and explains that the Research Inventory System is not a data warehouse. This effort is not trying to create anything, but just trying to gain access to what already exists. IJC has compiled and published the Great Lakes research inventory on paper copies during 1970s and electronic reports on the internet since 1990s. The current research inventory is an interactive, searchable web database. There is a broad need for such a system and the current system needs substantial improvement as it does not account for changes made to government programs and updated technology. This effort is trying to keep good elements of the existing system, but many aspects need to be improved. The RCC received notional approval from the Commission in October 2015 to move forward with the project.

c. Discussion of relevant current issues and events that present joint/collaborative opportunities

It was brought up there currently appears to be some overlaps between the two committees. It was suggested that there could be a scorecard or matrix with priorities. IJC staff pointed out that the mandate of SAB is stated in the Great Lakes Water Quality Agreement and the responsibilities of SAB are stated in the board directive.

Several ideas of projects were brought up, for which RCC and SPC could potentially jointly work on in future.

- The current SPC's Lake Erie Fertilizer project could use help from RCC on the monitoring portion of the project. Chris Winslow and Ian Campbell volunteered to join the effort.
- RCC and SPC could potentially take on a project to assess Great Lakes priorities and science-management transfer. This could potentially include that SPC leads an effort to identify high priority science needs and gaps for meeting the need of GL GLWQA; RCC leads an effort to identify how the current science has been transferred to management/policy and identifies gaps; and RCC and SPC jointly propose/recommend an effective operational future science priority and science-management transfer.
- IJC staff brought up a potential RCC and SPC joint project related to Great Lakes early sign warning system. It is often that foreseeable problems affecting the Great Lakes have been forecast or detected but not addressed until they become crises. The need for increased emphasis on prevention has been noted before. For example, the U.S. EPA Science Advisory Board in 1995 issued a report, *Beyond the Horizon: Using Foresight to Protect the Environmental Future*, which recommended, among other things, that the agency create a "look-out panel" with members from both inside and outside government to provide EPA and the nation with an early warning of environmental issues that may emerge in the future. A question is if the board is interested in taking on such an initiative. It was noted that SPC members have volunteered as advisors to the TAP chapter (Chapter 5 'other advice') where this will be considered. No decision was made during the meeting respecting the early warning system, and additional details may be discussed at a later time with a conference call.

3. Discussion of process for providing advice on Science Priorities, per Annex 10 of GLWQA

RCC Co-Chair Gavin Christie provided an overview on the Agreement and the activities and structure of the annexes. Several points were discussed:

- A large amount of water of the Great Lakes comes from groundwater base flow and upwelling.
- For Annex 4, it was brought up that nitrate is not mentioned in the Agreement, only nutrients and phosphorus.
- A big gap is the lack of links between ecosystem indicators and socio-economic indicators, which limits the broader application of the ecosystem indicators to aspects affecting everyday lives. IJC staff pointed out that Article 7 does allow the IJC to comment on social considerations.

The SAB Co-Chairs and Secretaries will communicate with the Annex 10 Co-Chairs to discuss how SAB input on the science priorities can be advanced.

4. IJC Communications Plan and Great Lakes Newsletter

IJC communications staff provided an overview of the IJC Communications Strategy, which includes: 1) Story Corps or Watermarks – short filmed interviews or written submissions that tell people why you are devoting your life to the Great Lakes; 2) Great Lakes Public Forum and PROP/TAP review process – going to communities with Great Lakes research universities to discuss TAP and PROP, and would like to come to universities and research centers represented by the SAB and WQB members; and 3) “Great Lakes Connection” – a new newsletter on the Great Lakes will be launched in May 2016. Would like to have at least 51% of articles from SAB members or about Agreement science.

Questions were asked regarding the target audience and methods for reaching them. The primary target audiences for the newsletter are the public and scientists. The newsletter will be announced on social media and will be placed on a public spot on the IJC website. The IJC communication team is interested in agency science as well.

5. Other business

There was no other business.

6. Adjourn

The meeting adjourned at 5:00 p.m.