IJC Science Advisory Board – Science Priority Committee
Twenty Eighth Meeting Summary

October 23, 2019 – 8:30am-12:00pm

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<th>U.S. Members</th>
<th>Canadian Members</th>
<th>Commission Staff</th>
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<tr>
<td>Carol Miller (Co-Chair)</td>
<td>Jeff Ridal (Co-Chair)</td>
<td>Matthew Child (Secretary)</td>
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<td>Lucinda Johnson</td>
<td>Gail Krantzberg</td>
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<td>Scott Sowa</td>
<td>John Livernois</td>
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<td>Mic Isham</td>
<td>Karen Kidd</td>
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<td>Mike Murray (phone)</td>
<td>Jerome Marty</td>
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Regrets: Joe DePinto, Dave Allan, Bob Hecky, Christina Semeniuk
Guest: Jen Vanator

1. Welcome and Introductions, and Approval of Draft Agenda

The U.S. co-chair called the meeting to order, and welcomed all in attendance especially the new members. The draft agenda was reviewed and approved by consensus.

There was a brief discussion on the importance of SPC report roll-out, and the role that individual members can play in socializing and disseminating board reports with their communities-of-practice. The importance of knowledge co-production, and carefully constructed recommendations, was also acknowledged.

2. Work Group Updates

Stressor Interactions (Mike Murray)
The project objectives were presented. A preliminary draft contractor report has been reviewed by the work group co-chair and a revised draft will be circulated to the work group soon. In the discussion that followed several clarifications and points were raised:

- A separate work group report is planned which will be circulated to the SPC for review at the appropriate time.
- Cumulative impact analysis is increasingly being considered by Canadian federal agencies, among others. Given the rapidly evolving nature of this area of research it may be appropriate to revisit the SPC’s findings every ~five years. The work group report could reference this.
- Interacting stressors is also a priority for the EPA’s Board of Scientific Advisors.
Great Lakes Science Plan (Lucinda Johnson)
This is a project of the full SAB, and the contractor scope of work is included in the SAB meeting packet. An analysis of existing research and monitoring investments is planned, along with two workshops. A contract is being finalized with LimnoTech and work will be getting underway soon. The project will be coordinated with the Congressionally-mandated USGS Science Plan project. In the discussion that followed a number of points were discussed:

- The work group should be expanded to include external members. The Annex 10 co-chairs (or their designates) should be invited to participate, among others.
- The purpose of documenting existing investments is to highlight and contrast existing spending versus what is required to implement the Science Plan identified through this project. The analysis should consider what’s missing from existing investments including the socio-economic investments identified in the SPC’s Communication Indicators report.

HPAB’s Harmonized Fish Consumption Advisory (Jeff Ridal)
This project is being led by the Health Professionals Advisory Board, in cooperation with the SPC. The project was approved by the Commission in July, 2019 and a contract is going to be facilitated through the Great Lakes Fishery Commission. A call was held on October 22, 2019 to refine the work plan and discuss Akwesasne involvement. In the discussion that followed a number of points were raised:

- The existing work plan’s focus on the factors driving decisions on fish consumption (nutritional value versus long term health implications) is highly relevant. It was clarified that the related focus on chemical mixtures will be limited to a literature review.
- The project’s recommendations are going to be key, and they should find the right balance between being too vague to be useful, and too specific to limit the governments’ flexibility for implementation. The recommendations should be politically acceptable and collaborative in tone.
- For Tribes and First Nations, fish consumption not only relates to traditional uses but also ceremonial value.
- The project will also help advance the ‘fishability’ objective of the Agreement.

RCC’s Connecting Channels (Jeff Ridal)
The contractor report is almost complete, and once the final draft is prepared it will be circulated to the SPC for courtesy review. A separate work group report is not planned.

3. Great Lakes Early Warning System (GLEWS)

Lucinda Johnson led the discussion and review of the draft GLEWS report that was distributed prior to the meeting. The project goals and objectives were reviewed, and it was noted that managers of existing early warning systems were underrepresented at the workshop due to availability issues. Each of the six organizational options were reviewed, and it was noted that at the workshop the majority view was that the middle options were preferred (GLEWS as a subcommittee of the SPC, with dedicated staff support). The work group has concerns that this option is only a small adjustment to the status quo an is not consistent with the Agreement, which vests the early warning system function with the Water Quality Board.

In its report the work group proposes a GLEWS committee be established that is modelled after the Great Lakes Adaptive Management committee. The GLEWS committee would be comprised
primarily of agency personnel and report to the WQB. The IJC would serve an oversight role by convening experts to evaluate the effectiveness of the GLEWS. The work group has also identified that an additional Agreement Annex could be established at the appropriate time to formalize the GLEWS.

Through discussion it was acknowledged that although initially the project sought to develop both an organizational structure and an analytical approach to GLEWS, the primary emphasis of the project ended up being on the former. A preliminary work plan for a second phase of GLEWS has been prepared that will focus on analytical approaches and techniques for the different classes of stressors and threats.

It was also clarified that the focus of this project is on emerging issues as described in the Agreement, stochastic events like natural disasters do not need to be included in the GLEWS framework.

**Action:** Members are invited to provide their written input on the draft report by November 6, 2019.

4. **Work Planning**

Members were reminded that typically the late summer/early autumn is the timeframe when new Board work plans are developed and submitted to the Commission for approval. Due to the arrival of six new Commissioners in May, this year the work planning process is delayed; Boards are encouraged to develop their work plans over the coming weeks and months.

Work plan-related materials circulated with the meeting packet were reviewed and discussed, and it was noted that:

- Although the June 3+4 advisory board priority-setting workshop reflects the input of workshop attendees only, all the boards were represented and there was strong consensus on the identified priorities.
- Commissioners have not yet formally provided a description of their priorities to the advisory boards, although based on their discussions with staff and the topics that have been consistently raised at the Triennial Assessment of Progress (TAP) consultations, nutrients, climate change and Indigenous Knowledge are possible candidates.

John Livernois reviewed the work plan topic on an economic valuation of ecosystem services, and reminded members that based on previous input there was more support for exploring Areas of Concern through the case studies than Lake Erie harmful algal blooms. In the discussion that followed several related studies were identified including the recent study of AOC restoration benefits completed by IAGLR, a recent International Institute for Sustainable Development report, an update on the economic valuation of fisheries recently initiated by the Great Lakes Fishery Commission, the Council of Great Lakes Industries/Great Lakes Commission study on the economic impacts of the Great Lakes Restoration Initiative, and an economic analysis of Randall Reef restoration (Hamilton Harbour AOC) completed by Peter Victor and Roger Hannah.

The work plan topic on climate change impacts on urbanization was reviewed by Carol Millar. Since the author of the work plan left the board earlier in 2019 the project will need a strong work group lead to advance the concept. Through discussion a number of points were raised:
• The current focus of the work plan on climate change impacts could be broadened to include climate change resiliency. Municipalities have been asking for help with resiliency planning – witness the recent Great Lakes St. Lawrence Cities Initiative resolution on the topic – and an SAB report could be helpful to the Parties.
• It was acknowledged there is a lot of activity related to this topic, and the board would have to carefully consider the information need it could fill. A binational synthesis of approaches to resiliency that considers both water quantity and quality could be explored.

**Action:** Secretary to forward the WQB’s 2017 Climate Change report.

The work plan on GLEWS Phase 2 was reviewed by Lucinda Johnson. The focus of the project is to complement the organizational approach developed through the first phase, by developing an analytical approach to assess the different categories of stressors and threats. It was noted that Phase 2 could consider aquatic invasive species as a model – early detection techniques, watch lists, response approaches etc. have been developed for several species and groups of species. John Livernois volunteered to join the GLEWS Phase 2 work group.

Due to time limitations several other work plan topics were briefly discussed as follows:

• The Great Lakes Environmental Atlas and Resource Book published in 1995 by EPA and Environment Canada needs to be updated. It could be updated by the IJC, or the IJC could recommend that the Parties update it.
• Indigenous Knowledge could be investigated further, both in terms of summarizing available information and also describing how Indigenous Knowledge can be embedded in all SAB projects. The Great Lakes Indian Fish and Wildlife Commission is currently collecting information from elders and plans to enter that information into a searchable database and use it for management decisions. Annex 10 has a Traditional Ecological Knowledge Task Team, although it currently focuses on the U.S. side of the basin. It was noted that there are many useful existing resources, including but not limited to reports by the National Science Foundation and United Nations.
• A recent biodiversity symposium convened by the Lieutenant Governor of Ontario may have some follow-up activities that could inform SAB work planning.

There was general agreement that SPC members should (i) reflect on the work plan topics included in the meeting materials and discussed during the meeting, (ii) propose new work plan topics, and (iii) reconvene for a call to discuss further.

5. **Other Business & Adjournment**

There being no other business, the meeting was adjourned at 12:15 p.m.

*Meeting record prepared by Matthew Child and reviewed by Carol Miller and Jeff Ridal. Please forward any errors or omissions to childm@windsor.ijc.org*