



IJC Science Advisory Board – Science Priority Committee Retreat Summary

July 9 (1-5:30pm) & July 10 (8:30-11:45am), 2018

| U.S. Members | Canadian Members | Commission Staff |
|----------------------------|-------------------------|---------------------------|
| Carol Miller (Co-Chair) | Jeff Ridal (Co-Chair) | Matthew Child (Secretary) |
| Dale Phenicie | Bob Hecky | Li Wang |
| Mike Murray | Andrea Kirkwood | Glenn Benoy |
| Dave Allan | | Victor Serveiss |
| Scott Sowa (phone) | | David Burden (July 9) |
| Lucinda Johnson (July 9) | | |
| Joe DePinto (phone July 9) | | |

Regrets: Henry Lickers, Clare Robinson, Christina Semeniuk, John Livernois

1. Welcome and Introductions, and Approval of Draft Agenda

The Co-Chairs welcomed all in attendance, and round table introductions were made. The draft agenda was reviewed, and approved by consensus.

2. Review of Work Plan Activities

Supporting materials included in the agenda were reviewed, and discussion ensued.

David Burden, GLRO Director provided remarks on the next Triennial Assessment of Progress (TAP, due 2020). The advisory boards should be considering how their current and planned projects can provide source material for the next TAP, but boards should also consider longer term projects that can inform subsequent TAP reports. Source material for TAP 2020 will be required by autumn, 2019.

The SPC Co-Chairs updated members on the establishment of a Study Board to guide advisory board input on TAP 2020. The Study Board will be made up of the advisory board co-chairs or their designates, and Indigenous representation. The Study Board will consider board activities and identify a small number of topics that could be included in TAP 2020. Through discussion, a number of points were raised:

- The primary audience for TAP is the Parties, although there is a large number of sectors that comprise a secondary audience e.g., NGOs, general public, other stakeholders.

- Advisory board input to the TAP should consider the six steps of information coordination and flow (ICF) discussed in the SPC's 2018 ICF report.
- The TAP report should consider the complexity of governance, as well as science. The board could consider a project to bring clarity to governance and decision-making the Great Lakes basin, and how all the parts fit together. The project could assess other regional efforts e.g., Chesapeake Bay, for best practices and other insights. It was noted that the SPC's information coordination and flow report included some related analysis for two Annexes although that did not include a gap analysis of where governance is not working.
- In addition to board contributions to the 2-3 topics that will be advanced by the Study Board, we need also to consider our involvement in other TAP-related activities.

The table of board projects included in the agenda packet was reviewed and discussed in some detail. As part of that discussion, the following issues were raised:

- Some of the board projects have struggled to attract meaningful participation from Indigenous peoples; it is essential those perspectives be represented.
- The RCC's research inventory project would benefit from wider promotion, including through funding programs and foundations.
- The WQB's wetland project will be promoted through a webinar in the near future. The report focuses on the regulatory framework and legislative mechanisms, with a focus on net gain and how programs advance that.
- The WQB's PBDE project included a recommendation on extended producer responsibility. EPR is a topic that could be considered further by the SPC for a potential work plan.
- There was general agreement that many of the recent SPC reports did a good job of identifying science gaps, and those gaps could form the basis of additional analysis by the SPC.

The 2014/15 internal SPC report summarizing candidate work plan topics was reviewed. The process to identify and rank the work plans was discussed. It was noted that chemicals of emerging concern is still a highly relevant topics given the link to Annex 3, and previous IJC chemicals-related work. A potential board project could assess whether there are chemicals that aren't being addressed that should be, and take a broad view e.g., consider nanoparticles.

Another topic that could be considered for an SPC work plan involves an economic valuation of ecosystem services. That assessment should be coordinated with other relevant initiatives e.g., Blue Accounting.

Since the 2014/15 work plan report was completed, five of the candidate topics have been advanced as SPC projects. Many members felt that those five topics could be further advanced, and that the SPC should build on the work we've already completed. The discussion highlighted:

- Energy transport project - it initially started out very broadly and was narrowed to an analysis of hazards to Great Lakes water quality and ecological processes. It was suggested that the work group report could assess gaps that need to be filled to undertake a thorough risk assessment of hydrocarbon transport, including hydrodynamic models, toxicity, vulnerable areas, etc. Energy transport project follow-on activities could include the risk analysis aspect including a focus on vulnerable areas. One challenge is that a sense of

where the management priorities lie is not well understood, nor have other key players developed a vision for where they're headed on this topic (e.g., Great Lakes Commission, Sea Grant Network).

- Information coordination and flow – the project links to the earlier communication indicators project. Both projects highlight the knowledge gaps that exist between ecosystem health and socio-economic drivers. It is difficult to distill the ICF report recommendations down into another potential SPC work plan.
- Declining lake productivity – the project rationale, tasks and findings were reviewed in some detail. The project's link to a complementary, parallel project being completed by the Great Lakes Fishery Commission was highlighted. The project provides a good example of IJC and GLFC collaboration.
- Fertilizer application – a brief update on the supplemental analysis (2007-2012 Canadian data) was described. The February 2018 IJC report included an examination of other factors driving eutrophication in the western basin of Lake Erie e.g., climate change, tile drainage, changing farm practices, legacy phosphorus, etc. An analysis of one or more of these other factors could form the basis of a subsequent SPC work plan. Also, the SPC has completed a number of nutrient/fertilizer related projects in recent years; another potential SPC project could be to synthesize the projects, and consider how they can inform the Domestic Action Plans.

The draft proposal prepared by RCC members Val Klump and Michael Twiss for implementing a series of IJC supported workshops for the development of a comprehensive science plan for a decadal scale, binational program of Great Lakes research was reviewed and discussed. There was general agreement that the science plan proposal should be advanced as a work plan for the Fall 2018 IJC Semi-Annual meeting and include the following considerations:

- IJC is well suited to be the patron of a binational science plan.
- Should be a project of the full SAB.
- The components of information coordination and flow (as described in the SPC report) should be considered.
- Should state some of the properties of the research that would go into the plan.
- Should include a retrospective analysis of gaps identified in IJC board reports.
- Should include a consideration of all the Agreement Annexes.
- Should take a long-term view, and include the capacity to monitor adherence to/progress against the science plan over time.
- Should include analysis of the science plans of other large regional initiatives to gain insights and emulate best practices.
- Should provide some examples of successful lakewide research efforts that have been successful in translating research into best management actions.
- Should include information on costing, and potential sources of required funds.
- Involving multiple sectors and organizations in development of the science plan will be vital.
- Ensure that the tone and content of the science plan is sensitive to ongoing agency science programs; RCC members can help with this.
- At the appropriate time the other advisory boards (WQB and HPAB) should be brought into the process.

Action: Co-chairs and Secretary to prepare written input on the science plan proposal for review by SPC members, and forwarding to RCC co-chairs.

There was general agreement that the SPC should identify an additional, specific topic for development as a work plan for the Fall Semi-Annual meeting. Since the work plan nomination process used in 2014/15 worked well, the group agreed that replicating this process was appropriate to (i) provide more time to confirm potential work plan topics, (ii) provide all SPC members to contribute to work plan topic identification, and (iii) generate a refreshed list of important topics that could guide work plan topic identification beyond the immediate short-term.

The following process was identified:

- i. Invite SPC members to provide a one-pager on a work plan topic they would like to see advanced.
- ii. Secretary to compile and distribute all work plan topics.
- iii. Convene an SPC call to review and discuss submitted topics.
- iv. Online poll for SPC members to identify three priority topics (by mid-late August)
- v. Based on poll results, develop one (or more) topic as a work plan for the Fall 2018 Semi-Annual meeting.

Action: Advance the work plan topic nomination process in accordance with the process described above.

3. Operational Review

Input received through the pre-retreat survey was reviewed. The input included a number of positive comments e.g., improved communication and collaboration with RCC.

A number of areas where improvements could also be made were discussed. Suggestions are listed below, including those that are immediately applicable, and others that will require additional time and/or resources to accomplish.

Applicable now

- Carefully structure work groups to encourage mentoring of newer board members i.e., pair more and less experienced board members as work group co-chairs.
- Structure work group calls so that input from work group members is solicited/encouraged.
- Involve other advisory board members in SPC work groups as early as possible.
- Ensure managers, representatives of the Parties, and other appropriate stakeholders are represented on SPC work groups.
- Maximize presentations and manuscript preparation related to SPC projects.
- Make effective use of visually appealing presentations and publications to promote SPC outputs.

Investigate

- Improve engagement with Indigenous peoples by developing a First Nations/Tribal mentoring program. Examples of mentoring programs were identified.
- Enlarge the SPC to expand our expertise in the economic and social science realms (or ensure that expertise is represented on the other IJC advisory boards).
- Increase the budget available for SPC projects to permit a deeper analysis of work plan topics.
- Incent SPC member leadership in projects e.g., course release for faculty.

4. **Other Business & Adjournment**

Members were thanks for their participation in the retreat. There being no other business, the meeting was adjourned.

*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*