

**155th Meeting of the International Joint Commission
Science Advisory Board
July 22-23, 2010
URS Corporation Conference Room
27777 Franklin Road
Southfield, MI**

Meeting Record

Members Present

Michael J. Donahue (U.S. Co-chair) URS Corporation, Farmington Hills, MI
William Bowerman Clemson University, Pendleton, SC
Miriam Diamond University of Toronto, ON
Gary Klecka Dow Chemical Co., Midland, MI
Joseph Koonce Case Western Reserve University, OH
Jeffrey Ridal St. Lawrence River Institute, Cornwall, ON
Susan Schantz University of Illinois at Urbana Champaign, IL
Deborah Swackhamer University of Minnesota, Minneapolis, MN
William Taylor University of Waterloo, ON
Richard Whitman USGS, Porter, IN

Members Absent

John Carey (Canadian Co-chair) NWRI, Burlington, ON
David Carpenter University at Albany, Rensselaer, NY
Pierre Filion University of Waterloo, ON
C. Scott Findlay University of Ottawa, ON
Hugh MacIsaac University of Windsor, ON
Donna Mergler University of Quebec, Montreal, PQ
Marcia Valiante University of Windsor, ON

Liaisons and IJC Staff

Douglas Alley International Joint Commission, GLRO
Nicolas Hotz International Joint Commission, GLRO
Bruce Kirschner (Secretariat) International Joint Commission, GLRO
Joel Weiner International Joint Commission, Ottawa
Victor Serveiss International Joint Commission, Washington

1. Welcome and Introductions: Mike Donahue, U.S. Co-Chair of the Science Advisory Board (SAB) called the meeting to order at 12:15 pm and welcomed members to the offices of the URS Corporation. Introductions were made around the table, including board members and IJC personnel.
2. Approval of Agenda: The distributed agenda was modified to include phosphorus loading via the Maumee River, SAB/WQB relationship, SAB/IJC relationship, and SAB Co-Chair of the AIS Workgroup.
3. GLRO/IJC Update – Saad Jasim: Dr. Jasim described his goals for the Great Lakes Regional Office including recruitment of new staff members as well as reestablishment of a post-doctorate program and enhancement of public outreach.
4. Membership: Vacancies and projected vacancies on the SAB were discussed with the view of following a rational process based on skills required by the current and expected priorities. It is clarified that membership decisions are made by Commissioners, often following the recommendations of the SAB Co-Chairs. Bruce Kirschner provided terms and attendance information to members on July 29, 2010.
5. Update on Work Group Activities: see Attachment A
6. Effectiveness of White Papers: Members expressed a desire to more fully explore this issue when Scott Findlay is available to participate. The pursuit of Second Order Science has been suggested in lieu of white papers. Vic Serveiss agreed to provide information about U.S. EPA's Causal Analysis Diagnosis Decision Information System. Bruce Kirschner forwarded this information to SAB members on July 26, 2010. This issue is to be addressed more fully at an upcoming face-to-face meeting.
7. Other Business: SAB/WQB relationship-a problem was identified with joint meetings taking time away from the discussion of emerging concerns and SAB-only agenda items. The SAB should be focused on science, not policy. Adequate time needs to be devoted to a focus on science, and the issue is not only joint meetings.

SAB/IJC relationship-the SAB needs to package its scientific advice so that it is highly useful for Commissioners. It is important to focus on emerging issues and expand Workgroups, as needed, to optimize productivity. Issues have changed for the current Commissioners and the SAB should inquire into their needs.

Phosphorus Loading and Monitoring-the increases in dissolved reactive phosphorus loading to Lake Erie from the Maumee River (as measured Waterville, Ohio station) and the expected September 30, 2010 cutoff of funding for monitoring of phosphorus loading by Heidelberg University were discussed and Bruce Kirschner was directed to draft a letters to the IJC and to Heidelberg University for signature by the SAB Co-Chairs. These letters were transmitted to the IJC and Heidelberg University on August 13, 2010.

8. Future Meetings: arrangements for the next meeting are to be made via a Doodle poll.
9. Adjournment: 11 am on July 23, 2010.

Attachment A

Joint WQB/SAB Update on Work Group Activities (2pm-5pm Day 1)

Nearshore Framework

- “Victim” of success of US Great Lakes Restoration Initiative
 - o Staff and time are being lost to GLRI efforts
- There are some whitepapers for review
- Theme: Nearshore Condition Assessment
- Assess what a science and a governance perspective would be
 - o Science has developed well to accommodate this once neglected region
 - o Workshops could be coordinated to accomplish this
- There is a need to focus on coastal, wetland, etc. regions
- The impairment of the IJC’s progress could be an issue rooted in the scientific field in general
 - o Perhaps there is not enough science
 - o Can research (i.e. universities) be funded to maintain “the science of the Great Lakes?”
 - The scientific needs and knowledge gaps of “Nearshore” science may need to be better identified
- There is often a very biological focus – good additions might be drawn from physical limnology as well
- This cycle’s objectives/vision need to be determined
- Governance is a huge challenge
- Need to sort out how far up tributaries and coastal zones is necessary for inclusion

Harmful/Nuisance Algae

- Working at completing some projects from last cycle
 - o E.g. fuzzy cognitive map
 - o Literature reviews
 - o Wiki
- Looking to tie resident attitudes to environmental work
- Looking to get a list of priority “no regret actions”
- Not sure there’s enough evidence to back management recommendations
- Should be including climate and water quality considerations
- Have several white paper reviews
- Perhaps, like *Nearshore*, this subject also needs a bigger effort behind it
 - o E.g. more science, international focus, more funding
 - o This won’t immediately solve problems, though
- There is a distinct separation in the IJC’s focus between water quantity and quality
 - o See “International Watershed Initiative”
- There’s been a lack of effectiveness of the IJC “weight of evidence” approach; evidence is not fully utilized
- “No regrets” actions should be *focused* actions with planned outcomes
 - o Are we perhaps losing our ability to understand the science?
- Need to make sure to *evaluate* management practices
 - o Wiki site to gather data

Beaches and Recreational Water Quality

- Note: please view the accompanying slide presentation
- Discussed the work group’s efforts to pioneer second-order-science (SOS) methods
- The applicability of SOS to all disciplines (e.g. Beaches) is questioned
 - o Doubts exist regarding the population of bird research; is there enough to found this kind of study?
 - o Epidemiological studies don’t deal with the same *scale* that ecological topics do
 - E.g. humans vs. ecosystems
- It is easier to imagine that situations that could be “similar” to epidemiological studies would better facilitate the SOS studies, rather than more abstract fields

Fish Consumption

- Current actions:
 - o Dealing with whitepapers
 - o IAGLR symposium completed
 - o Developing manuscript on fish consumption risk/benefit for Environment Health
- Need to know more about omega-3 fatty acids and others
 - o Report still in numbers form
 - o Benefits/risk being compared to marine fish
 - o Interpretation is still required
- Aiming to counter negative views of Great Lakes fish

Chemicals of Emerging Concern

- Subject 1: Waste Water Treatment Plant Assessment
 - o Forming a database on the subject
 - It most likely does not exist yet
 - o Considerations on chemicals /WWTP/technologies report to be developed by Henryk Melcer
 - Suggestion: the report should be in a form that could be updated continuously
 - Focus on removal effectiveness, no loading
- Subject 2: Human and Ecosystem Health Effects
 - o Lots of work to do, not a lot of funding
 - o Projects are lengthy in duration – reports are not always available
 - o Can't just do one-by-one chemical studies
 - Biological effects-based monitoring instead
 - o Looking to have an IAGLR-timed consultation
 - Not as a part of the official IAGLR agenda, though
 - o Tree swallow study effectiveness is questioned
 - They're easy, but the swallows don't necessarily show any effects
 - o Trying to develop a study to *establish* effects criteria
 - o SOLEC discussions don't establish what monitoring is *definitely needed always*, so projects are folding over time
 - o The subject of human health is not covered much
 - The WG can only handle so much at once
 - The Human Health group could take on the focus using their greater time and money resources
 - o Don't want to overlap fish consumption and human projects in other WGs
 - Should there be *more* WG overlap instead to facilitate more thorough coverage?
 - o Combined Sewer Overflows aren't being touched on – although important, they are not explicitly in the work description
 - o The focus of drinking water is also considered

Aquatic Invasive Species

- Looking for a co-chair
 - o The group needs some direction
- GLRI funding hasn't arrived yet for their projects
- Operation Silver Screen – eradicate Asian Carp
 - o Analysis performed on framework, planning, operating – summaries to be presented in a report