

**MEETING RECORD FOR THE 143rd MEETING OF THE
GREAT LAKES SCIENCE ADVISORY BOARD**

January 5th 2007

MEMBERS PRESENT

Michael J. Donahue (United States Co-chair)	URS Corporation, Farmington Hills, MI
William Bowerman	Clemson University, Pendleton, SC
David Carpenter	University at Albany, Rensselaer, NY
Pierre Fillion	Ottawa, ON
Glen Fox	University of Waterloo, Waterloo, ON
Allan Jones	Burlington, ON
Judith Perlinger	Michigan Technological University, Houghton, MI
Deborah Swackhamer	University of Minnesota, Minneapolis, MN via conference call
Jay Unwin	National Council for Air and Stream Improvement, Inc., Kalamazoo, MI

MEMBERS ABSENT

John Braden	University of Illinois, Urbana- Champaign, IL
Milton Clark	United States Environmental Protection Agency, Chicago, IL
C. Scott Findlay	University of Ottawa, ON
David Lean	University of Ottawa, ON
Donna Mergler	University of Quebec, Montreal, PQ
Joan Rose	Michigan State University, East Lansing, MI
Marcia Valiante	University of Windsor, ON

INVITEES/OBSERVERS

Brian Gibson (HPTF)	LAMP Community Health Centre- via conference call
John Dellinger (HPTF)	University of Wisconsin, WI
Linda Mortsch	Environment Canada

COMMISSIONERS & IJC STAFF

Commissioner Schnornack	International Joint Commission, Washington DC
Commissioner Gray	International Joint Commission, Ottawa, ON
Douglas Alley	International Joint Commission, GLRO
Kay Austin	International Joint Commission, Washington DC
Peter Boyer	International Joint Commission, GLRO
Mark Burrows	International Joint Commission, GLRO
John Gannon	International Joint Commission, GLRO
Bruce Kirschner	International Joint Commission, GLRO
John McDonald	International Joint Commission, GLRO
John Nevin	International Joint Commission, Washington DC
Karen Vigmostad	International Joint Commission, GLRO
Joel Weiner	International Joint Commission, Ottawa ON

143rd Meeting of the IJC Science Advisory Board

Draft Minutes

1. Welcome and Introductions

Dr. Donahue called the meeting to order and welcomed all of those in attendance and attending by conference phone. He acknowledged Dr. Filion as a new member of the SAB, and welcomed the Commission Co Chairs Gray and Schornack.

2. Approval of the Agenda

It was requested that Dr. Carpenter comment on the recent findings with respect to the linkage between

diabetes and persistent toxic substances. Dr. Carpenter said that he would be pleased to do so during his work group report.

The agenda was then accepted as presented.

3. **Invited Scientific Presentation: "*Emerging Climate Change Science, Impacts and Adaptation Knowledge - Relevance to the Great Lakes Region*" Ms. Linda Mortsch, Adaptation and Impacts Research Division, Atmospheric Science and Technology.**

Ms. Mortsch provided an overview of the latest science and information being used in the upcoming report on the Intergovernmental Panel on Climate Change assessment. Ms. Mortsch's presentation will be made available to Board members on request. More information on the IPCC can be obtained from www.ipcc.org.

4. **IJC Update**

○ 13th Biennial Report

Mr. Weiner provided a short update on the report. Dr. Donahue queried whether a Co Chairs conference call would be arranged in order to brief Board Co Chairs in advance of the release of the report. The Commission Co Chairs responded that the report did not contain any scientific facts per se, and that it was primarily addressing a management issue. Since it was a Commission report it would not require intervention from the Board Co Chairs. However, both Commission Co Chairs indicated that it would be possible to arrange such a briefing call if it was desired by the Board Co Chairs.

○ Biennial Meeting

A brief discussion ensued on the upcoming biennial meeting. It was suggested that the Board meet on Wednesday, June 6 prior to the opening of the meeting. The planned scientific and technical sessions were reviewed and Board members volunteered to assist as follows:

- a. RAPs and LaMPs: Industrial and Municipal Contributions to Restoration - **Dr. Braden, Jones and Bowerman**
- b. Effective Urban Policy: Lessons from Sustainable Cities - **Dr. Cormier and Braden**
- c. Deteriorating Sewer and Wastewater Treatment Infrastructure: A Challenge to Sustainability? - **Dr. Donahue**
- d. Sustainable Management of Groundwater Resources: Supply, Demand, and Aquifer Protection - **Mr. Unwin, Dr. Whitely**
- e. Green Building and Sustainable Development: Measuring Success - **Mr. Unwin and Ms. Beck**
- f. Protecting and Enhancing Human Health in Our Urban Environments - **Dr. Carpenter**

5. Work Group Work Plan Activities

- o WGEH

Dr. Carpenter said that the WG has identified 5 possible future activities for the Board to consider: (1) Negative Consequences of Remediation - remediation is not only a solution but a further problem as contaminant levels spike during clean up, especially volatilization (2) Risk Communication, a topic of interest for the entire Board (3) Review of SOLEC health indicators (4) The Impact of Global Warming on the Great Lakes Basin Ecosystem (5) Nano Particle toxicity [w/HPTF].

With respect to item 5, Dr. Jones noted that an upcoming EPA Symposium will be addressing the topic of nano particle toxicity and suggested that a future invited speaker address this topic to the Board. Dr. Jones suggested that another invited

speaker might be Dr. David Garabrant, from the University of Michigan, who has recently authored a report, entitled "Measuring Dioxin Exposure along the Tittawabasse River".

Dr. Carpenter concluded his remarks by highlighting some recent research that he has been involved in that suggests that organochlorines may be implicated in diabetes.

Mr. Fox presented an overview from the Omega 3 Consultation and distributed a summary of the findings from the meeting as follows:

- a. Fish and shellfish are nutrient-rich and make positive contributions to a healthful diet. They are a good source of protein, are low in saturated fats and high in healthy omega-3 fatty acids and selenium.
- b. Great Lakes fish also have these healthy omega-3 fatty acids, selenium, and protein. Some also contain high levels of a number of toxic contaminants, especially in the Areas of Concern. Furthermore some subpopulations, especially high-intake sport and subsistence fisherpersons, Asian immigrants and First Nations peoples, consume large amounts of Great Lakes fish.
- c. The recent report by the US National Academy of Sciences provides an excellent analysis of the current state of knowledge of the benefits and the risks of consumption of fish. While fish consumption appears to reduce the risk of sudden death following a heart attack, other possible benefits are less certain.
- d. The major health concern about fish consumption continues to be the number and concentration of contaminants, both those that are fat soluble, such as pesticides, dioxins and PCBs, and methyl mercury which binds to muscle. Each of

these chemicals can have adverse health effects and mixtures of these chemicals may have more than additive toxicity. Concentrations in both fish and humans of "new" chemicals, such as brominated flame retardants (PBDEs) and fluorinated organics (PFOS/PFOA) are a growing public health concern. Thus studies to date may underestimate total risk from consumption of contaminated fish.

- e. Current governmental monitoring of contaminants in sports and commercial fish should be continued and expanded. In addition, monitoring should be expanded to include emerging chemicals and a wider array of Great Lakes food fish especially those consumed in large quantities by subpopulations of concern. This is consistent with the recommendations of the Health Professionals Task Force in their 2004 report.
- f. We recommend that the issues of the health risks as well as the benefits of fish consumption, sustainability of fisheries, and health benefits derived from restoration of Areas of Concern be reviewed on a regular basis by the IJC as new information becomes available.
- g. The best advice is to maximize health benefits and reduce risks by choosing fish and shellfish with low levels of chemical contaminants.

Dr. Carpenter indicated that once the findings have been finalized by the WG they will be made available to the Commission in a timely manner.

The papers presented at the meeting may be accessed through the URL http://209.216.130.42/kirschner/3_Jan_2007/

- o WGPI

Mr. Unwin reported on the progress to date in completing the multi Board activity on Sustainable Cities. He indicated that the SAB, and the WG has the lead, and that the WG has prepared a draft list of key findings based on the "Drivers/Pressure/State/Response/Impact" model. This framework was initially presented by Dr. Foley at the 1st Multi Board Urban Land Use workshop held in Toronto in November 9 2005. Mr. Unwin added that the timeline commits the Multi Board Report Steering Committee to providing input by January 15, producing a draft report by January 30, a final draft report by the IJC Semi Annual Meeting and a final report by the Biennial Meeting.

Mr. Unwin reported that the 3rd consultation at SOLEC in support of Groundwater priority was held and that an outline of the report to be entitled "The State of Groundwater in the Great Lakes Basin" has been prepared. He indicated that it would include input from Dr. Rose on pathogens and microbes as well as address research needs identified by the CGLRM. Mr. Unwin stated that a briefing note would be presented at the February IJC Executive Meeting, and that a presentation was being planned for the IJC Semi Annual Meeting.

Mr. Unwin concluded his remarks by moving that Dr. Heathcote be appointed to the WG as a non Board member for a term to end at the conclusion of the biennial cycle, September 30, 2007. The motion was seconded by Dr. Filion and approved by all of those present. Mr. Unwin then moved that Ms. Valiante be appointed WG Canadian Co Chair, contingent on her willingness to serve if appointed. The motion was seconded by Dr. Filion and approved by all of those present. Mr. Unwin moved that a letter of acknowledgement be sent to Dr. Heathcote thanking her and recognizing her service to the Board as Canadian Co Chair. The motion was seconded by Dr. Jones and approved by all of those present.

- WGEI

Dr. Jones reported that the WG was continuing its work on the three activities that were identified in its work plan from the last meeting, i.e. climate change, weight of evidence and principles of precaution, robustness, and adaptive management. He indicated that these topics would continue to be scoped out through invited presentations and WG participation at future meetings, however at this time the WG was not ready to proceed to a further expert consultation or workshop. Dr. Jones indicated that such a consultation could still occur, but it was not envisioned until later in 2007.

6. Possible Inter Board Activities

The secretaries of the WQB and CGLRM presented information related to attachments 1 and 2 in the agenda. Dr. Findlay and Ms. Valiante were identified as possible SAB participants in the WQB activity, and Dr. Perlinger indicated that she would assist with the Lake Ontario workshop if her expertise was needed. Mr. Burrows said that he would provide the list of names and the workshop agenda as soon as it is available.

7. SAB Membership Review

Dr. Donahue provided introductory comments on the issue of Board membership and the process of appointment and renewal. He stated that the immediate concern is to fill two existing vacant Canadian positions, and in the near term to conduct a thorough review those reappointments that have recently been filled as 6 month extensions. He added that by December 31 2007, all of the positions on the Board will have been reviewed with the exception of two positions. There are two positions that don't expire until 2009. Dr. Donahue stated that in his role as Board Co Chair he will recommend candidates for IJC appointment based on a review framework in relation to multiple disciplinary needs of the Board as a whole, specific expertise in relation to IJC priorities, and Agreement responsibilities.

Commission Co Chair Schornack encouraged the Board to consider itself as an academy, and along with membership renewal to also consider any restructuring that might be desirable to improve its effectiveness. He

noted that there is considerable latitude under the Agreement for the Board to achieve its responsibilities, and noted that the current model being employed by the Board is at least 20 years old.

8. **2005 - 2007 IJC Priorities Report**

The SAB secretary distributed a hand out comparing the 2003 - 2005 report production time line, with a proposed time line for this cycle. (Below).

Priorities Production Time Line Used in 2003-2005

1. Meeting Time Line Established at 134th Meeting, Oct 8 2004
2. Table of Contents developed based on WG activities, 135th Meeting, Dec 16, 2004
3. May 31 2005 - First Draft
4. June 30 2005 - completion of Board review, revisions and comments and deadline for 2nd draft - draft 2 distributed
5. July 31 - deadline for final comment
6. July 31 - August 19 final report submitted to information services for inclusion in the 2003-2005 Priorities Report

Proposed Timeline for 2005-2007 Priorities Report

7. February 27 2007 ; 144th Meeting - Table of Contents and Draft Recommendations provided by WGs
8. April 13 2007; Draft 1 -for use at Semi Annual Meeting and circulated for review and comment by the SAB
9. May 31 2007; Draft 2 -- for review and comment at 145th Meeting at IJC Biennial Meeting June 6-8 2007, Approval in Principle
10. July 31 2007; Final Draft and Approval -; Submission to Information Services for publication

Following a brief discussion, the Board agreed to adopt the dates proposed as the steps forward in preparing its report and advice to the Commission in relation to the biennial reporting cycle.

9. Future Meetings

The next and future meetings were noted and the secretary was directed to consult the Board through email to confirm future proposed meeting dates.

10. Adjournment

There being no further business of the Board, Mr. Unwin moved that the meeting with adjourned, with seconding by Mr. Fox. The motion was approved by all of those present.