

**133<sup>rd</sup> Meeting of the International Joint Commission Science  
Advisory Board  
International Joint Commission Great Lakes Regional  
Office Board Room**

**100 Ouellette Avenue, 8<sup>th</sup> Floor  
8:30 AM - 11:30PM  
May 13<sup>th</sup>, 2004**

**1. Welcome and Introductions**

Dr. Heathcote called the meeting to order and brief self introductions followed.

**2. Approval of Agenda**

- A discussion of the Semi-Annual meeting (Washington 2004) was added to the agenda.
- Detailed discussion of the Science Advisory Board Workshop on Science and the Great Lakes Water Quality Agreement was postponed.

**3. Invited Scientific Presentation: Dr. Chris D. Metcalfe**

"Restoring and Maintaining Chemical Integrity of the Waters of the Great Lakes Basin Ecosystem - Past Problems and Future Challenges".

**Comments and discussion followed:**

- Research and regulatory agenda driven by the European Union: The European Union is able to "foresee" and act on emerging chemical concerns much faster than in North America. It was discussed how the European Union adopts a weight-of-evidence approach (different than in North America). European Union considers risk management options, and operates on the best, credible, available science. It does not wait until "all the evidence" is in before it acts.
- Their monitoring (especially Swedish) focuses on human health. They have more funding and more people. The market force (to phase out chemicals of concern) is also very strong in the European Union.
  - The review of the agreement could be an opportunity to enable the Parties to adopt a more anticipatory approach when dealing with chemicals of concern.

- Science Advisory Board may (pending further investigation) want to consider making a recommendation to the International Joint Commission that pharmaceutical companies adopt a cradle-to-grave philosophy and provide pre treatment or assist with the cost of sewage treatment. Suggestions were made for future presentations on:
  - the monitoring programs in the European Union;
  - Monitoring programs in the Great Lakes Basin (what is lacking? What exists?), Bill Bowerman was suggested as a presenter; and
  - Technological opportunities in monitoring equipment (i.e. liquid chromatographs).

Dr. Metcalfe was thanked for his presentation.

#### **4.Old Business**

- Science Advisory Board Workshop on Science and the Great Lakes Water Quality Agreement – postponed; The Work Group on Emerging Issues indicated that they will be developing recommendations and compiling a written record on behalf of the Board and will present their findings to the Board at a future meeting, by conference call, or by email.
- Science Advisory Board Review of the International Joint Commission 12th Biennial Report – it was noted that Science Advisory Board comments were compiled by the secretary and submitted to the Commission and individual staff authors on May 4. Copies of the submission were distributed to the members.
- Discussion of the Semi-annual; During the Spring Semi-annual meeting in Washington, International Joint Commission Commissioners were briefed by Dr. Heathcote on Work Group on Parties Implementation progress under the International Joint Commission 2003-05 priority on Urban Land Use affects on Great Lakes Water Quality. Dr. Heathcote requested guidance from the Commission and suggested that they direct the Work Group to address one topic from among the several topics that are most relevant:
  - Structural technologies, including urban form;
  - Non structural approaches;
  - Applicable laws and policies;
  - Appropriate institutional structures; and
  - Data availability and data management.

Dr. Heathcote suggested that further study on non structural approaches be considered; however, the Commissioners endorsed a more comprehensive

approach and gave approval for the Work Group to raise supplementary funding for the priority.

Science Advisory Board presentations were also made with respect to the Science and the Agreement Workshop.

## **5. 2003-2005 Science Advisory Board Priorities and Work Plans: Work Group on Ecosystem Health**

On May 12, 2004, the Work Group conducted a consultation entitled Selected New Chemical Issues in the Great Lakes. Presentations included:

- an overview of concentrations of "new chemicals" in humans, wildlife and the Great Lakes ecosystem by Derek Muir, National Water Research Institute;
- a discussion of perfluorinated compounds by Kristina Thayer, National Institute of Health Sciences;
- a discussion of phthalates by John Brock, Warren Wilson College; and
- an overview of pharmaceuticals and personal care products by Chris Metcalfe, Trent University.

The Work Group made its background paper on new chemical issues available to consultation participants.

The Work Group has continued its preliminary planning for a colloquium which would focus on the transboundary management of waterborne microbial pathogens. The colloquium would concentrate on sources, fate, and management of health risks. The American Academy of Microbiology has approved the concept and additional sponsors and funding are needed. The Workgroup desires Science Advisory Board input and approval in regard to expected agenda and timing of the planned colloquium.

- Additional funding sources are being sought. (National Oceanic and Atmospheric Administration, Environmental Protection Agency, Environment Canada, National Water Research Institute)
- At least one health and one environmental representative from each province and state will be present.
- Dr. Rose indicated that she will provide the secretary with a list of questions for Science Advisory Board members regarding the colloquium, particularly, who should be invited.
- The cost of the colloquium is approximately US\$200,000.
- The National Academy will provide funding and coordinate the release of the findings.

- Date: possibility early spring 2005.
- There is a need to confirm the Commission will provide \$15,000 in support. The suggestion was made to revisit the declaration the Commission made in Ann Arbor.

### **Work Group on Parties Implementation**

The workgroup has established three elements to future activity on land use:

- Evaluating structural approaches to storm water infrastructure and the effectiveness of the structure.
- Development of a model to evaluate the impacts of land use and mitigation opportunities and apply it to two differently developed watersheds. Information collected from the Water Quality Board report of Climate Change should be incorporated into this modeling exercise.
- Complete a survey of laws and intuitions that pertain to land use with the purpose of determining what the role of the Federal governments should be in land use.
- Need to secure International Joint Commission funding. The group will work to gain supplemental funding from outside sources. Estimated financial requirements \$75,000.

The Work Group has also committed to proceed with the planning and implementation of two workshops on "Urbanization and Great Lakes Water Quality."

The first of these will take place during State of the Lakes Ecosystem Conference in Toronto in October, 2004 and the second will be part of the Great Lakes Conference "Post-Pollution from Land Use Activities Reference Group" workshop to be held in Ann Arbor in November, 2004.

### **Work Group on Emerging Issues**

Please refer to the Science and Agreement reference above; item 4, first bullet.

### **6. Liaison Reports**

A request was made for the role of the Board liaison to be reviewed at the next meeting.

- Water Quality Board - Dr. Heathcote/Mr. Unwin - no report
- Council of Great Lakes Research Managers - Drs Donahue/Swackhamer – no report

- International Air Quality Advisory Board - Dr. Perlinger – report provided under separate cover

## **7. Other Business**

Board members requested a copy of the compact disc produced by the Agency for Toxic Substances and Disease Registry titled Public Health in the United States. Areas of Concern-Public Health Implications of Hazardous Substances in the 26 United States Great Lakes Areas of Concern.

## **8. Next Meeting**

#134, September 29 - 30, 2004, Approved, Location to be determined

## **9. Future Meetings**

#135, November 18 - 19, 2004 PROPOSED, Location to be determined. Because of meeting conflicts with the Society of Environmental Toxicology and Chemistry involving several members, it was suggested that a secretary explore other dates in December through email consultation with the Board.

#136, February 23 - 24, 2005, PROPOSED, Location to be determined

#137, May 4 - 5, 2005, PROPOSED, Location to be determined

## **10. Adjournment**

There being no further business of the Board at 11:30 a.m., Dr. Clark MOVED that the meeting be adjourned with SECONDING by Mr. Fox. The motion was approved by all those who were present.