MINUTES OF 48th MEETING
COUNCIL OF GREAT LAKES RESEARCH MANAGERS

Sheraton Fallsview Hotel and Conference Centre

Niagara Falls, Ontario, October 21, 2008

Canadian Members Present

John Lawrence (Canadian Co-chair)	Aquatic Ecosystem Management Branch, EC; CCIW;
Dan Bondy	Science and Innovation Partnerships, Health Canada, Tunney's Pasture, Ottawa, ON
Tim Fletcher (for Dale Henry)	Ontario Ministry of the Environment; Standards Development Branch
Chris Marvin	International Association for Great Lakes Research
Brian Grantham	Ontario Ministry of Natural Resources, Peterborough, ON

U.S. Members Present

Stephen Brandt (U.S. Co-chair)	Great Lakes Environmental Research Lab, NOAA, Ann Arbor, MI
Joe DePinto	Limnotech, Inc. Ann Arbor, MI, also representing the International Association for Great Lakes Research (IAGLR)
Paul Horvatin	U.S. EPA-Great Lakes National Program Office, Chicago, IL
Carl Richards	U.S. Environmental Protection Agency, Office of Research and Development, Duluth, MN
Jim Nicholas	USGS, Lansing, MI
Jeff Reutter	Ohio Sea Grant College Program; Ohio State University, Research Center, Columbus, OH
Jim Morris, for Leon Carl	USGS, Great Lakes Science Center, Ann Arbor, MI
Stephanie Guildford for Steve Colman	Large Lakes Observatory, University of Minnesota, Duluth

Other Invited Attendees

Vi Richardson	Environnent Canada
Glen Warren	U.S. Environmental Protection Agency
John Nevin	IJC Washington D.C. Liaison
Karen Vigmostad	IJC Great Lakes Regional Office
Commissioner Sam Speck	International Joint Commission

Secretary

Mr. Mark Burrows IJC Great Lakes Regional Office, Windsor, ON.

Introductions & Approval of Agenda

John Lawrence welcomed the CGLRM members and guests briefly took care of some logistical items, and the participants introduced themselves. The order of the agenda items was shifted to accommodate participant's schedules.

Council Members were briefed on the status on membership and the Commission's response to the Council's request for representation on the GLRO Operations and Advisory Board. Correspondence with the Commission was reviewed and discussed.

The CGLRM budget was discussed as it pertained to multi-board/council collaborative work groups and the Cooperative Science and Monitoring Initiative. It was agreed that CSMI would require some specific funding support for next fiscal year.

Overview of the 2008 Lake Ontario Cooperative Monitoring and Research

Council members received a presentation by Glen Warren, USEPA regarding the Lake Ontario Cooperative Monitoring Year 2008. The work was aimed at understanding nearshore and offshore processes in an ecosystem that includes a large number of zebra and quagga mussels. The information needs and goals set early in the process were key elements to establishing an effective sampling plan targeted at understanding the complex changes in the Lake Ontario food web. The CGLRM was involved early in the planning process in the fall of 2006 sponsoring collaborative workshops to identify information needs for 2008. These workshops were guided by the Lake Ontario LaMP Coordinators and the Great Lakes Fishery Commission's Lake Ontario Lake Committee. The monitoring was completed during the spring/summer of 2008 and the overall conclusion was that the process greatly benefitted from the support the Council provided in 2006. The Lake Ontario LaMP expressed its gratitude for the support and continued activity of this nature was recommended.

Discussion of the Great Lakes Cooperative Science and Monitoring Initiative (CSMI)

The Council was briefed on the revised CSMI process by John Lawrence. The new process reflects input received from the LaMP managers and Binational Executive Committee (BEC) and the CGLRM's input was requested prior to submitting the process to BEC for approval on October 24, 2008. Each step of the process diagram was discussed and the Council's input was captured in the

revised process document provided as enclosure (3) to the minutes. The Council approved the process as amended.

Action Item:

- John Lawrence and Vi Richardson revised the process diagram to include Council input prior to submission to BEC.

2007-09 IJC Priority Work Group Updates

Members briefly discussed the status of work group activities summarized in enclosure (2). The importance of incorporating discussions of research needs with work group activities from the Council's perspective was stressed and additional members of work groups were solicited. The following members volunteered to assist as indicated below:

Eutrophication: Joe DePinto, Jan Ciborowski, Paul Bertram (for Paul Horvatin) and Harvey Shear.
Great Lakes Beaches and Recreational Water Quality: Jim Nicholas and Tim Fletcher (for Dale Henry)
Benefits and Risk of Great Lakes Fish Consumption: Eugene Braig (for Jeff Reutter), Russ Kreis (for Paul Horvatin) and Carl Richards
Chemicals of Emerging Concern: Chris DeRosa, Saad Jasim and Chris Marvin
Aquatic Invasive Species Rapid Response Policy Framework: Ed Mills, John Dettmers and Mark Burrows (IJC staff support to work group)

Action Item:

- Mark Burrows will communicate names of volunteers to IJC GLRO staff supporting each collaborative work group.

Status of the St. Clair River portion of the International Upper Great Lakes Study (IUGLS)

The Council received a briefing by Jim Nicholas concerning the status of work being done by the International Upper Great Lakes Study on the St. Clair River area. The IUGLS plans to release the results of this portion of work in 2009.

CGLRM Advice to the IJC from the Groundwater Report, VHS Workshop and Land Loadings to Nearshore Workshop

The Council received a short status report on the products of each activity. Work continues on the groundwater report and the results of the Land Loadings to Nearshore workshop. The final report of the VHS workshop was discussed and the summary of Council recommendations from the VHS workshop was approved.

Action Item:

- Mark Burrows to draft a forwarding letter from the CGLRM to the Commission communicating the VHS workshop recommendations and requesting that they be publicized and brought to the attention of the governments

Next Meeting

The next CGLRM was scheduled for March 17-18, 2009 at the NOAA GLERL in Ann Arbor, Michigan

Enclosures: (1) Council Meeting Agenda, October 21, 2008

(2) Update on Collaborative Work Group Activities, fall 2008

(3) Revised Collaborative Science and Monitoring Initiative Process diagram and description.

Enclosure (1) to CGLRM meeting minutes

Agenda

48th Meeting of the
Council of Great Lakes Research Managers

Sheraton Fallsview Hotel and Conference Centre
3rd Floor, Ontario Room
Niagara Falls, Ontario, October 21, 2008

Time	Item	Topic
9:00 am	1	Welcome to CGLRM Meeting Participants
	2	Introductions & Approval of Agenda
	3	Membership and Budget
	4	Overview of 2008 Lake Ontario Cooperative Monitoring and Research - *Glenn Warren, USEPA, GLNPO*
	5	Cooperative Science and Monitoring Initiative Process (CSMI) - *John Lawrence & Paul Horvatin*
	6	Discuss implications of CSMI with 2009 field year on Lake Erie, 2010 field year on Lake Michigan, the Great Lakes Regional Research Information Network (GLRRIN) and the 2008 Revision to the CGLRM Great Lakes Research Coordination Strategy
12:30 pm		Lunch
	7	Briefing: Status of the St. Clair River portion of the International Upper Great Lakes Study (IUGLS) - *Jim Nicholas, USGS Michigan Water Science Center*
	8	2007-2009 Priority Work Group Updates - Eutrophication - Beach Closures and Postings - Fish Consumption - Chemicals of Emerging Concern - Aquatic Invasive Species
	9	Council Roles/Responsibilities with respect to the IJC GLRO
	10	CGLRM Advice to the IJC from the Groundwater Report, VHS Workshop, Land Loadings to Nearshore Workshop

	11	New Business
4:30 PM		Adjourn

Enclosure (2) to CGLRM meeting minutes

IJC Advisory Bodies at work on 2007–09 Great Lakes Water Quality Agreement Priorities

Every two years the Commission asks its Great Lakes Water Quality Agreement (GLWQA) advisory bodies to investigate a set of GLWQA Priorities. The pressing issues in the nearshore waters of the Great Lakes (see Focus Summer 2008) provide the framework for the current five Priorities which are being addressed through multi–board workgroups co–chaired by members of the Great Lakes Water Quality and Science Advisory boards. Draft reports on the nearshore framework and priorities will be available to the public in June 2009 in advance of discussions at the 14th Biennial Meeting October 6–7, 2009 in Windsor, Ontario.

The **Eutrophication** Priority workgroup has developed a model framework for taking a weight–of–evidence approach to determining the cause(s) of the resurgence of eutrophication in the nearshore waters of the Great Lakes. The effects of eutrophication include the return of blue–green algae (cyanobacteria) blooms and rotting masses of the green macro–alga, Cladophora, in shallow waters and on beaches in all of the Great Lakes except Lake Superior. Effects may also include the persistence and possible expansion of hypoxia (dissolved–oxygen depletion) in the bottom waters of Lake Erie's central basin (the so–called "dead zone"). Information for the model is being compiled by conducting a literature review on eutrophication research since the early 1990s when this issue reemerged in the Great Lakes with adverse environmental and economic consequences. A review is also being done of current research on eutrophication from the Commission's Great Lakes Research Inventory. In addition, the overall management goals and specific eutrophication objectives are being gathered from the Lakewide Management Plans (LaMPs) and the Lake Huron Partnership to ensure the workgroup's final report is relevant to resource managers responsible for protecting and restoring the waters of the Great Lakes basin ecosystem. The workgroup will be holding a workshop in February 2009 to refine and validate the weight–of–evidence model and develop draft recommendations to the Commission following the 14th Biennial Meeting.

The workgroup addressing the **Chemicals of Emerging Concern** Priority has developed a database of new chemicals being released into Great Lakes waters from the U.S. and Canada. The workgroup has also reviewed policies and programs of the regulatory and management framework for these new chemicals. An expert consultation will be held in

early 2009 to discuss these findings with a view toward making recommendations to the Commission that are protective of the Great Lakes.

The **Binational Aquatic Invasive Species Rapid–Response Policy Framework** Priority workgroup is coordinating its activities with the Great Lakes Regional Collaboration, Great Lakes Fishery Commission, Great Lakes Commission, and other organizations that are concerned with this issue. This priority is designed to identify and address any policy gaps to effective binational rapid response to aquatic invasive species. Of specific concern is ensuring the rapid scientific assessment and binational response to new discoveries of aquatic invasive species in the Great Lakes. The workgroup is examining a range of options, lessons learned, roles and responsibilities of potential responders at all levels of government, and the legal and regulatory actions that must occur prior to the implementation of any rapid–response plan. The workgroup will provide strategic advice to the Commission and governments to help develop and implement binational rapid–response policies and plans.

The workgroup on the **Benefits and Risks of Great Lakes Fish Consumption** Priority is assembling information by lake and by fish species on the levels of omega–3 fatty acids and contaminants in Great Lakes fish. The workgroup is also compiling information on seafood and Great Lakes fish consumption by basin subpopulations including vulnerable groups such as pregnant women, children, subsistence anglers, and urban poor. Research on the health effects of omega–3 fatty acids and fish protein is also being gathered. The workgroup plans to conduct a technical session in the spring of 2009 and, along with the other priority workgroups, host a public session at the Commission's October 6–7, 2009 Biennial Meeting.

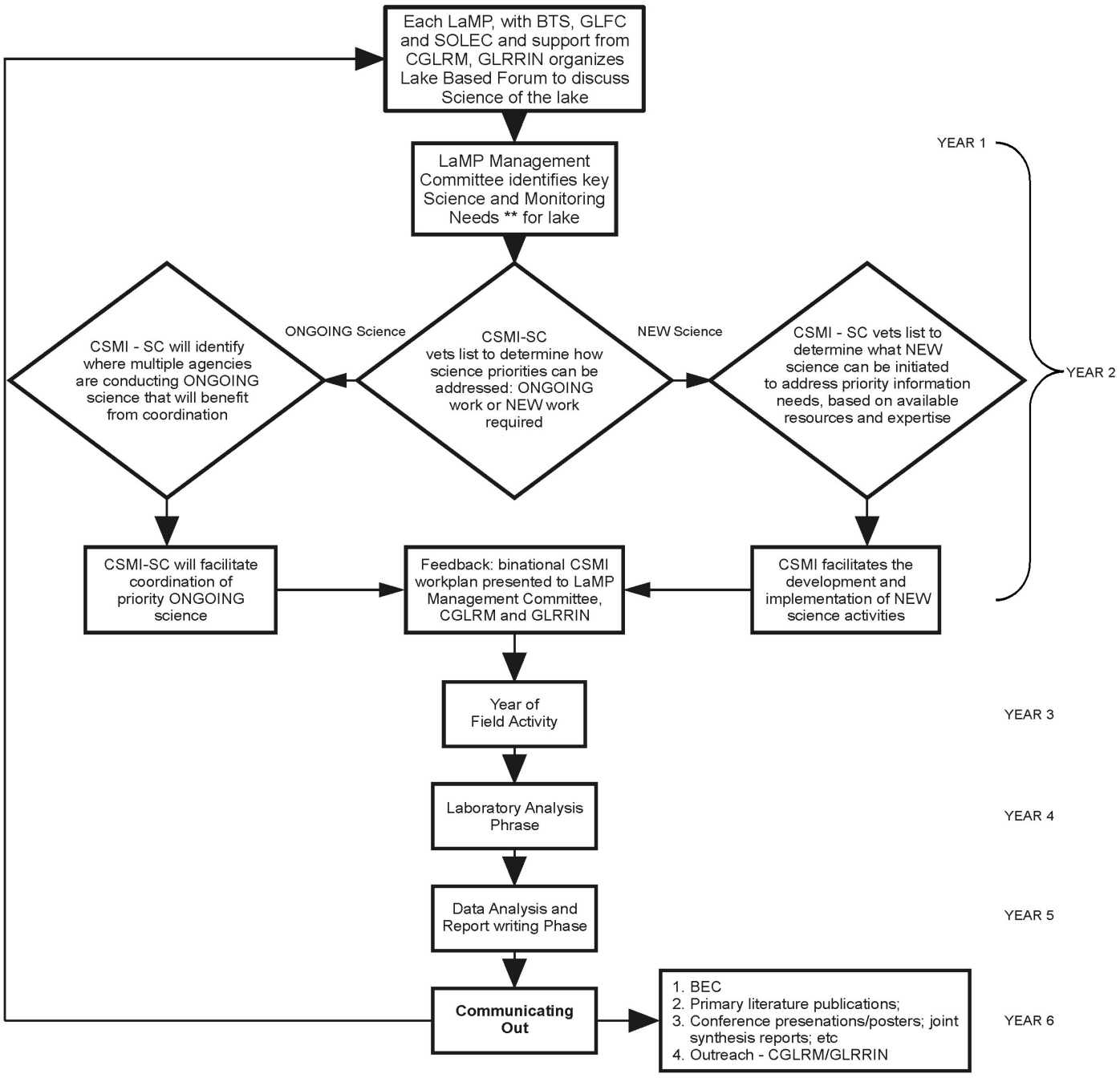
Through a series of white papers and Basin activities, the workgroup on the **Great Lakes Beaches and Recreational Water Quality** Priority is assessing innovative methods in rapid detection, source tracking, and best management practices for beaches. Currently the workgroup is reviewing the first set of white papers:

* Fecal Indicator Monitoring: Advantages, Disadvantages, and Steps Toward Refinement;
* Issues Related to Inconsistent Water Quality Criteria Applications at Great Lakes Beaches; and,
* Local Economic Effects of Impaired Recreation Water Quality: Summary Report on Great Lakes Beaches for the International Joint Commission.

Upcoming is a white paper on the Human Health Effects of Impaired Recreational Water Quality, a review of recommendations in the May 2007 GAO report Implementing the Beach Act in the Great Lakes, and an update of the 2004 Nevers & Whitman report Protecting Visitor Health in Beach Waters of Lake Michigan: Problems and Opportunities. The workgroup participated in the recent Great Lakes Beach Association Conference in Indiana and will be contributing to SOLEC 2008 in Niagara Falls, Ontario. The workgroup will provide a final synthesis report with key findings, actionable advice

and recommendations to Commissioners, governments, and the public on improving recreational water quality in the Basin.

Cooperative Science and Monitoring Initiative Process



Coordinated Science and Monitoring Initiative (CSMI)

This plan follows the five year rotational cycle currently used for Coordinated Monitoring Initiative, and will be used by Coordinated Science and Monitoring Initiative (CSMI) in the future. The accompanying flow chart explains the sequence of events.

Year 1: This is the LaMP reporting year. Each LaMP, with BTS, GLFC and SOLEC input, and support from the Council of Great Lakes Research Managers and Great Lakes Regional Research Information Network holds a Lake Based Forum to discuss science on the lake and will be based on data generated by the previous years Coordinated Science and Monitoring field year. It is the first of two planning years for the next coordinated science and monitoring exercise. During the planning years, the LaMP update document will be published.

Following this, the LaMP Management Committee identifies and prioritizes key Science and Monitoring needs for the lake. This list is passed to the Coordinated Science and Monitoring Initiative Steering Committee (CSMI-SC).

Year 2: During this year, the CSMI-SC determines if the science and monitoring priorities can be addressed with ongoing work or whether new science and monitoring are required. The CSMI-SC facilitates the development of a workplan which will bring together ongoing and new science. This workplan will be presented to the LaMP Management Committee to inform them of the issues that will be addressed by CSMI. For those items agreed to, resources are brought together and if necessary, RFP's are issued.

Year 3: Year of field activity. This is the year of sample collection through a multi-agency, coordinated program. The new science sampling needs are addressed through both ongoing, scheduled surveys and/or additional lake-specific field work.

Year 4: Laboratory analysis phase, initial data management. Samples collected during the year of field activity are analyzed and data are brought together into databases for analysis and report writing.

Year 5: Data analysis and Report writing. Data are analyzed and reports are developed, including interpretation of results. These analyses and reports are handed off to the LaMP Management Committee for reporting during the next year. Other reporting venues, including BEC, publications in the primary literature and conference presentations begins.