



Cooperative Science and Monitoring Initiative: Where are we now?

Lake Erie Millennium Conference
Windsor, Ontario

April 28, 2010

Vi Richardson – Environment Canada
Glenn Warren – USEPA-GLNPO

Binational Executive Committee



Basin-wide Programs

- State of the Lakes Ecosystem Conferences
- Cooperative Monitoring
- International Air Deposition Network
- Binational Toxics Strategy

Lakewide Programs

- Lakewide Management Plans (LaMPs)

Local Programs

- Remedial Action Plans for Areas of Concern

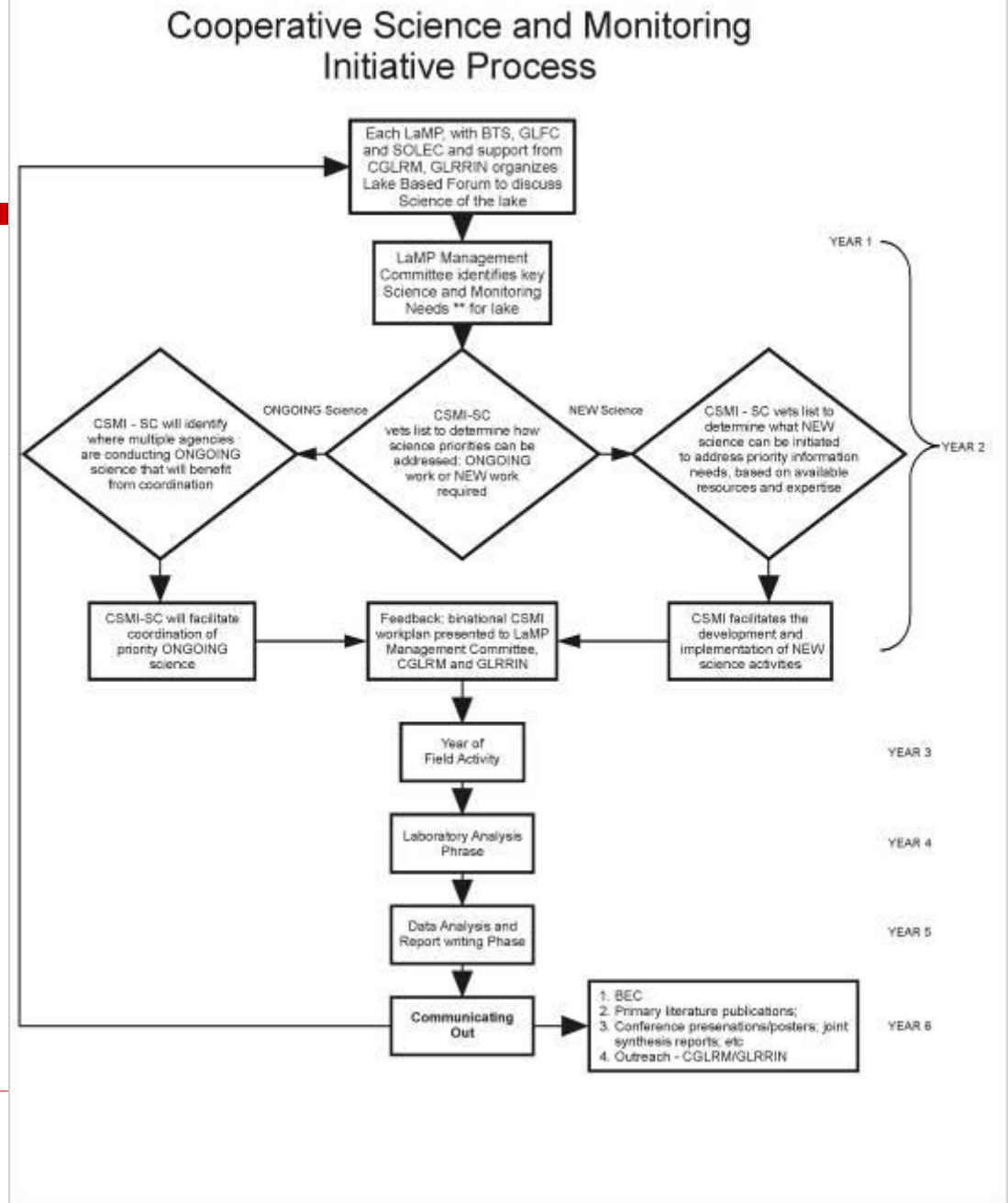


Background

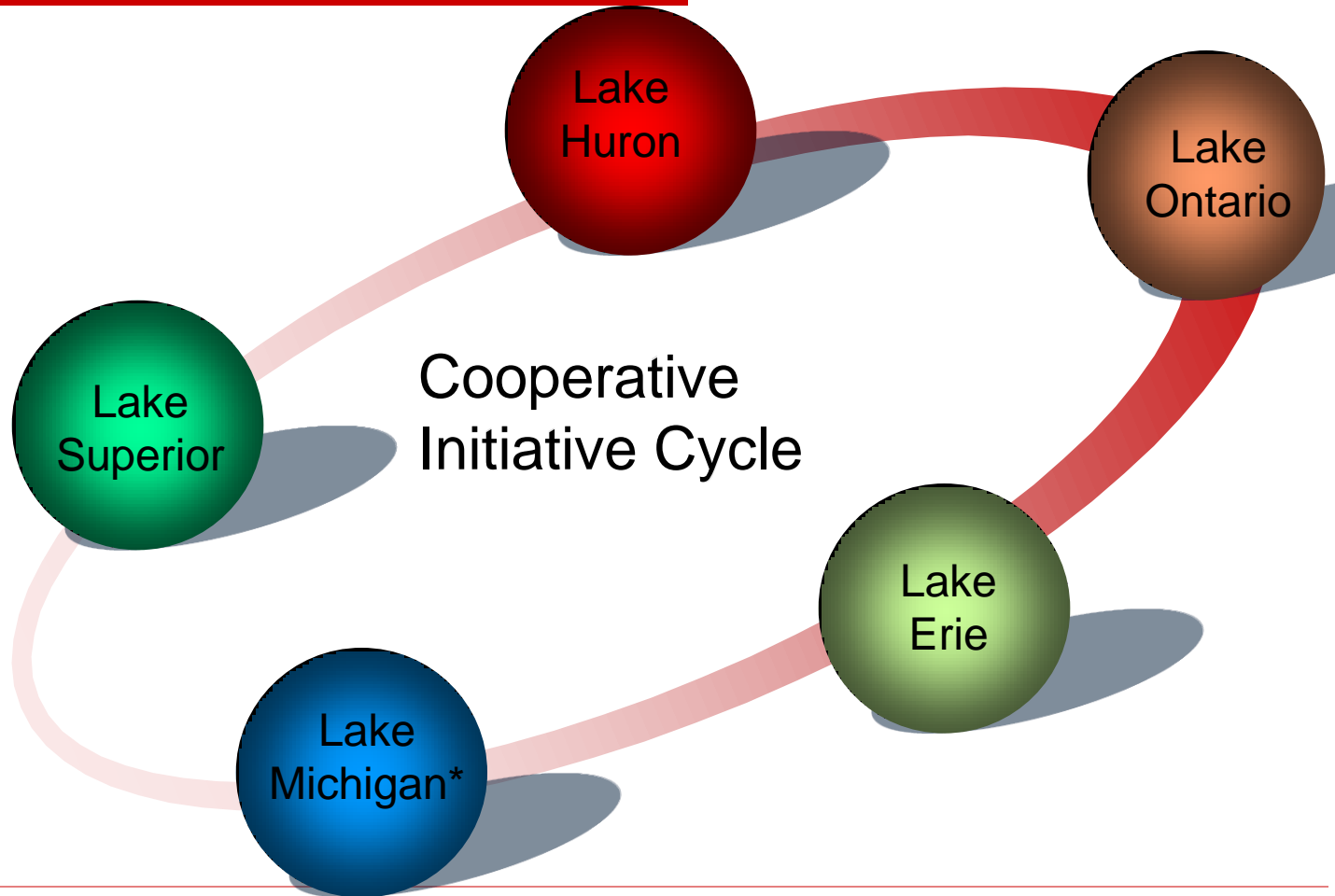
- ❑ Cooperative Monitoring Initiative (CMI) started in 2002 to coordinate monitoring
 - ❑ Expanded mandate of CMI to include research coordination resulted in CSMI in 2006
 - ❑ In 2009, connecting channels (including St. Lawrence) were added to CSMI process
 - ❑ CSMI follows a 5 year rotational cycle
 - ❑ CSMI does NOT set priorities
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CSMI Process:



Rotational Cycle





Roles of Partners

- Workshop facilitation
 - Communication in and out
 - Assist with synthesis report – how do results address LaMP management priorities?
 - Foster partnerships with academic community
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What is going on in 2010?

- ❑ **Lake Ontario** – Reporting out at Special Nearshore Session at IAGLR 2010
 - ❑ **Lake Erie** – Data being worked up from 2009 field year plus additional field work continued in 2010
 - ❑ **Lake Superior** – Planning year for field year 2011
 - ❑ **Lake Huron** – Workshop to scope out issues for 2012 field year including St. Mary's River
 - ❑ **Lake Michigan** – Field Year
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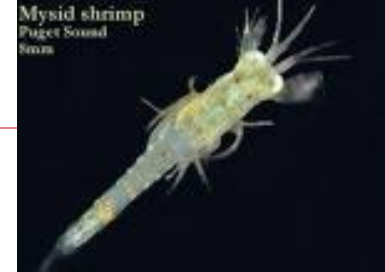


Lake Huron 2012 Status:

- Workshop scheduled this fall for determining priorities for 2012
- First lake to incorporate connecting channel issues into CSMI field year
- Field year will be 2012



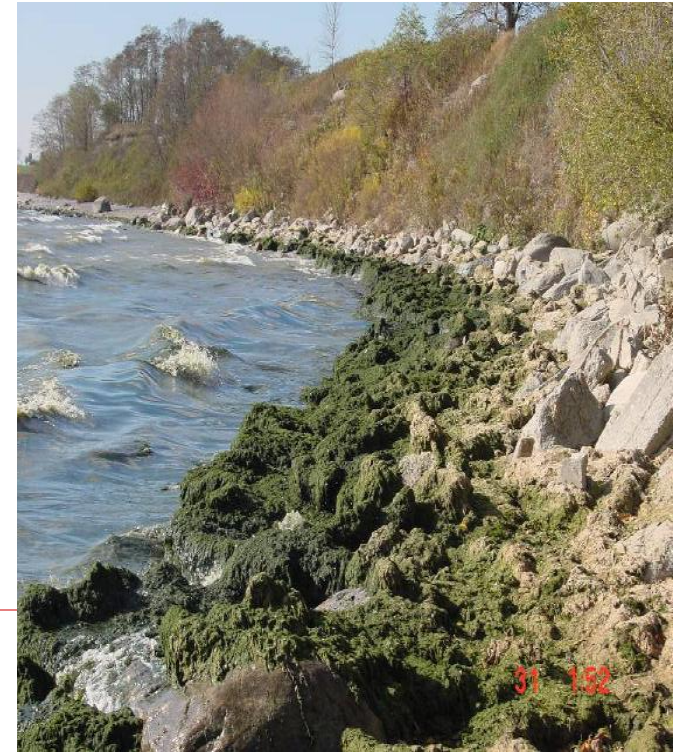
Mysid shrimp
Puget Sound
Summ





Lake Ontario 2008 Status:

- Field year completed in 2008
- 2008 Programs:
 - Understanding Nearshore-Offshore Nutrient Transport
 - Status of Offshore Lower Foodweb
 - Lakewide Fishery Assessment
 - Understanding Food Web Changes Using Biomarkers
- Data year in 2009
- Special IAGLR nearshore session in 2010
- Scoping out will start in 2011 for next field year (2013)



Lake Erie 2009 Status



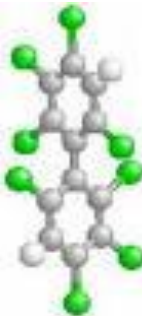
- Field year completed; some programs continue in to 2010
- Programs include:
 - **Central/Eastern Basin Nearshore-Offshore Nutrient Study**
 - Better understand the impact of invasives on nutrient transport from nearshore to offshore
 - **Bioavailable Phosphorus Study**
 - Investigate potential new sources of P; trends and tributary loadings of bioavailable P to nearshore; BAP from STPs
 - **Western Basin Algal Bloom Project**
 - study the impact of nutrient influx and timing of algal bloom appearance
 - **Farm Demonstration Practice/Tillage Practice Study**
 - Study the contribution of nutrients to the lake based on differing farming techniques
 - **Distribution, Abundance, and Biomass of Dreissenidae and other Zoobenthos (2010)**
 - **Dispersal of the Grand River Plume into the nearshore of the eastern basin of Lake Erie (2010)**
 - Effects of dreissenid mussel beds on nutrient cycling





Lake Michigan 2010 Status

- Field Year in 2010
- CSMI Programs:
 - Understanding nearshore issues:
 - role of nutrient inputs and/or cycling to cladophora growth
 - spatial variability in nutrient concentrations in the nearshore areas
 - Understanding the role of invasives on the decline of the lower food web
 - Status of contaminants in Lake Michigan waters, tributaries and sediment
- National Coastal Condition Assessment project





Lake Superior 2011 Progress

- Workshop to determine priorities/needs held on April 29-30, 2009 in Duluth, MN
 - Sponsored by IJC - CGLRM
 - Hosted by EPA-ORD
 - Facilitated by MN Sea Grant
 - Participants from 2005/2006 CMI year presented findings
 - Presentations/discussions helped formulate issues for 2011 field year
 - Science priorities given to CSMI-SC December 2009
 - CSMI determined priorities for 2011
 - Status of Lower Food Web
 - Status of Chemical concentrations in various media
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Thank you
