

**Loading from landscapes and coastal margin effects:  
Developing a framework to evaluate consequences of land management strategies**  
a Research Needs Workshop convened by the  
Council of Great Lakes Research Managers of the International Joint Commission

March 17-19, 2008  
Lake Erie Center, University of Toledo  
Oregon, OH  
**AGENDA (9 March 2008)**

Monday 17 March 2008

1:00 Welcome, introductions, introduction to the problem

1:30 - 5:00 Presentations: Who's doing what?: Loadings & nearshore responses

	<u>Speaker</u>	<u>Presentation Title</u>
1:30	<b>John Gannon (IJC)</b>	<b>Findings of IJC nearshore workshops</b>
1:45	<b>Craig Drury (Ag Can)</b>	<b>Development of the indicator of risk of water contamination by nitrate-N in Canadian agricultural soils</b>
2:00	<b>Pete Richards (Heidelberg)</b>	<b>Total phosphorus loadings to the Great Lakes</b>
2:15	<b>Lucinda Johnson (NRRI Duluth)</b>	<b>Multivariate summary of loadings &amp; watershed weightings</b>
2:30	<b>John Morrice (EPA Duluth)</b>	<b>Nonpoint water quality effects on coastal wetlands</b>
2:45	<b>Jack Kelly (EPA Duluth)</b>	<b>Land-based signals and nearshore records</b>
3:00	BREAK	
3:30	<b>Sairah Malkin (Univ. Waterloo)</b>	<b>Evaluating nonpoint loadings and the nearshore shunt</b>
3 45	<b>Todd Howell (ON MOE)</b>	<b>Grand River (ON) discharges and nearshore <i>Cladophora</i></b>
4:00	<b>Tom Bridgeman (Univ Toledo)</b>	<b>Correlation between Maumee River Flow &amp; <i>Microcystis</i> blooms</b>
4:15	Stephanie Guildford (UMN)	<b>Cyanobacteria and HAB in Great Lakes bays (proxy)</b>
4:30	<b>Bob Heath (Kent State Univ.)</b>	<b>Regulation of microbial production by carbon</b>
4:45	<b>Joe DePinto (LimnoTech)</b>	<b>What variables are needed for modeling nearshore processes?</b>

5:00 Discussion & Questions

Charge to the breakout groups:

What variables are needed? When? Where? How?

Do we need to study the same variables in each lake?

What drives production? Is it the same in each lake?

What are the most pressing research questions in each lake?

5:30 Close for the day

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Tuesday 18 March 2008

8:30 a.m. Summarize Monday and review breakout questions

8:45 **Steve Davis (USDA NRCS)** **N and P loadings - Augliese R. model**

9:00 – 10:00 Breakout

10:00:-10:15 Break

10:15 – 11:00 Reporting

11:00 – 3:00 Presentations Part II. Who's doing what? : Materials from the land

	<u>Speaker</u>	<u>Presentation Title</u>
11:15	Stewart Sweeney (OMAF)	<b>Agricultural land management practices in SW Ontario</b>
11:30	<b>Ivan O'Halloran (Univ. Guelph)</b>	<b>Manure Management research needs in Ontario</b>
11:45	Sandra Cooke (Grand R. CA)	Nutrient loadings trends in the Grand R (ON)
12:00 - 1:00	Lunch	
1:00	<b>Nathan Bosch (Univ. MI)</b>	<b>An analysis of catchment nutrient inputs compared to riverine exports</b>
1:15	<b>Cynthia Sellinger (GLERL)</b>	<b>Climate-altered hydrology &amp; implications for nonpoint runoff</b>
1:30	<b>Maggie Xenopoulos (Trent Univ)</b>	<b>Land use factors regulating tributary loadings of materials</b>
1:45	<b>Pete Richards (Heidelberg)</b>	<b>Trends in SRP in Lake Erie tributaries</b>
2:00	<b>Seth Hothem (NEORS)</b>	<b>Nutrient loads from NE OH Regional Sewer District WWTPS/CSOs</b>
2:15	<b>Russ Kreis (EPA-MED)</b>	<b>Linking watershed atrazine and PCB loads to L. Michigan</b>
2:30	<b>Saad Jasim (Walkerton CWC)</b>	<b>Contaminants (pharmaceuticals, etc.) from nonpoint sources</b>
2:45	<b>Mike McKay/George Bullerjahn</b>	<b>Roundup: A potential P source for cyanobacteria?</b>
3:00	<b>Vi Richardson (Envir Cda)</b>	<b>Contaminants from tributaries</b>

3:15- 3:30 Break

3:30 - 5:30 Breakout discussion

5:00 Close for the day

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Wednesday 19 March 2008

8:30 a.m.          Summarize Tuesday activities

8:45 - 9:30        Reporting out and discussion

9:30-11:00        Charge to attendees for final breakout session:

propose the most effective and practical means available to  
synchronize the location and timing of monitoring  
best assess those loadings components in a coordinated framework using available  
technology, and  
predict the system response to control alternatives

The guiding questions that will be asked include:

What model and data inputs are needed to properly summarize the delivery of materials:

nutrients  
biological contaminants  
chemical contaminants  
sediments  
hydrological pulses  
thermal changes

11:00    Reporting out

11:30    Final discussion, summary recommendations, next steps

12:00    Close workshop

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