

The SOLEC *Indicator*

Day 3 Edition: Friday, October 23, 1998

Dear SOLEC Delegates:

GOOD MORNING! What a day we had yesterday! After a series of excellent presentations on approaches to identifying Biodiversity Investment Areas, some of the best minds in the Basin undertook the task of relating SOLEC indicators to each Lake and the connecting channels. As usual in our dynamic Great Lakes community, the workshops ranged in their views – from our most northern Lake, Superior which identified a “nesting” relationship between their existing indicators and the basin-wide view; to southern most Lake, Erie, which struggled at first with the question “Indicators for What?” - key forcing questions which the Parties need to consider.

The BIAs breakouts held vigorous discussions, generating a firm consensus: “YES, WE NEED TO INVEST IN BIAs”.

On this, our last day, we will consider the cross cutting issues, and perhaps most importantly, consider the integration of all of the work in the past two days. At this SOLEC, we asked you the question: is there a need for Great Lakes Indicators, and if so, what should they be. You have confirmed the need and we have to make sure that this process enhances and complements existing processes so that we can all become more accountable, as we move into the next century...and beyond.

Sincerely,

Paul Horvatin,
Co-Chair

Harvey Shear,
Co-Chair

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EMERGING THEMES: DAY 2

- General acceptance of the BIA concept.
- Good ideas on how to refine the identification process through data collection protocols, and how to move the BIA concept forward, through partnerships, stakeholder involvement and communications.
- Recognition of the different roles indicators play: basin-wide indicators are needed to measure health of the system; lake wide indicators are needed to measure progress towards ecosystem objectives. Within this difference also lies the potential to have different indicators for different audiences – what the public may need will differ from the scientists’ needs.
- Indicators for **Connecting Channels** and rivers have been omitted from the SOLEC list – the **St. Lawrence River** needs to be included for an integrated basin-wide perspective.
- **Lake Erie** needs to identify ecosystem objectives before indicators can be determined – the second session challenged the SOLEC Steering Committee to establish a mechanism to achieve consistency between the SOLEC basin-wide objectives and those of the LaMPs.
- **Lake Ontario** tested their ecosystem objectives, and underlined the need for public involvement.
- **Lake Superior** identified a link between Superior and SOLEC indicators, while recognizing the importance of lake-specific indicators.
- **Lake Huron** called for a collaborative approach for addressing lakewide issues, which builds in stakeholder participation, recognizes the uniqueness of sub-basins, and features a core set of indicators.
- **Lake Michigan** identified the opportunity to use SOLEC Indicators where appropriate, as well as the need for more consistency, standardization, linkages and now indicators for taste and odor problems



News and Views News and Views

THOUGHTS FROM THE PODIUM

David Bennett, with the Canadian Labour Congress gave an insight into the essential role of labour in environmental pollution prevention programs. Labour has worked “long and hard to get *Just Transition* onto the environmental agenda”, and Mr. Bennett stressed that work force impacts need to be assessed for every transition alternative considered.

Hays Bell from Eastman Kodak Company closed Day 2 of SOLEC 98 with a look into Kodak’s perspectives on “Environmental Responsibility in the New Millenium”. Referencing examples of activities which Kodak undertakes as part of their environmental program, Dr. Bell emphasized the importance of partnerships. Environmentally responsible activities that move us forward include:

- Academic research
- Substance substitution
- Design for environment
- Sustainable development
- Leadership in EH management
- Open dialogue among all publics

“I would like SOLEC 2000 to be the first SOLEC where we report out on some of our agreed upon indicators, the data for them having been generated by our monitoring, surveillance and research programs. I look to our LaMP and RAP programs in particular to be a key component in that process”.

*John Mills, Regional Director General
Environment Canada – Ontario Region*



Photo courtesy of Bob Beltran, USEPA

SPOTLIGHT ON CROSS-CUTTING ISSUES WORKSHOPS

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Note Room Change



CALLING ALL BASIN-WIDE THINKERS...

Join Paul Bertram and Nancy Stadler-Salt in a final SOLEC 98 look at the SOLEC Indicators. How does the list “fit” together? Where to from here?

Basin-Wide Overview – ROOM 104



LAKE BY LAKE WORKSHOPS

LAKE ONTARIO I & II

Vicki Barron & Tija Luste, Facilitators

1. The session focused on presentations of current status of data collection and analysis, as well as presentation of the proposed LaMP objectives. The limited workshop discussion (due to time limitations) focused on the completeness of LaMP objectives. There was general agreement with the objectives however, it was felt that effort will be required to develop the indicators that will be used to measure the LaMP objectives.
2. Comments about the LaMP process were provided in Session II – suggesting that more effort is needed to involve residents and share the lessons learned from the other LaMPs that are further along.

LAKE SUPERIOR I

Adele Freeman, Facilitator

1. There is a key gap – SOLEC doesn't have indicators for tributary watersheds. Taking this point further: SOLEC indicators are not cross-cutting for the whole basin.
2. Selecting basin-wide indicators does not mean that lake-specific indicators are unimportant.
3. SOLEC needs to clarify its role in the nesting of indicators: basin/LaMPs/RAPs.
4. We need to recognize that there will be different endpoints for each lake.

LAKE SUPERIOR II

Adele Freeman, Facilitator

1. Clarity is needed on who will use the indicators (i.e. audience) and to what end.
2. We need a process for finalization of the indicators. SOLEC is just a beginning, not an end.
3. Indicators will need to be peer reviewed; collaboration with stakeholders is needed

LAKE ERIE I

Helen Domske, Facilitator

1. Land use conversion is an important factor to consider. However, different types of land uses have different conversions and ecological consequences. For example, nearshore conversions may have greater impact than upstream in the watershed.
2. Ecosystem objectives are different from indicators. SOLEC reports on the state of the Great Lakes, while LaMPs are oriented to the progression toward ecosystem objectives.
3. The public (including elected officials) is an important partner and end user of indicator data. The public will use a subset of the indicator list which may be different from that used by managers, and different from that used by scientists.

LAKE ERIE II

Tom Hersey, Facilitator

1. There is a need to clearly define the ecosystem objectives before appropriate indicators can be determined.
2. While the process continues in selecting objectives and indicators, there are known problems and causes that can be dealt with. The focus of ongoing implementation must not be lost.
3. As individual LaMPs go through their processes, there needs to be more communication among all of the existing LaMPs.
4. This session challenged the SOLEC Committee to establish a mechanism for achieving consistency between the objectives of SOLEC and the individual LaMPs.



LAKE MICHIGAN II*Sheila Greene, Facilitator*

1. We need an accurate link between the current LaMP activity and condition indicators. The stressor is the link.
2. Taste and odor problems in water and fish should be added as indicators.
3. More specificity is needed for the condition indicators.
4. Consistency of measures by indicator will enhance uniformity.

LAKE MICHIGAN III*Sheila Greene, Facilitator*

1. Use the SOLEC indicators where appropriate; also draw on the work done by the IJC's Task Force.
2. There is a need for standardization between local/state/tribal on: fish advisories, beach closing criteria, and analytical methods for fish contaminant monitoring.
3. We need creative ideas on indicators for drinking water and swimming (beach closures).

ST. LAWRENCE I & II*Anne Kerr, Facilitator*

Both workshops expressed strong support for common steps, processes and indicators that will more fully integrate the St. Lawrence as an integral part of the Great Lakes ecosystem. Highlights:

1. SOLEC indicators should be extended to the St. Lawrence where feasible (although the unique river environment may not allow this for all indicators). SOLEC can be an instrumental mechanism for developing common indicators. For the next SOLEC, add River Management Plans (RMPs) to the lake by lake discussions.
2. There are 4 major issues that would benefit from a combined St. Lawrence – Great Lakes focus: i) water levels and flows; ii) persistent toxic contaminants; iii) introduction of exotic species; and iv) effects of climate change (which will exacerbate flow and water level conflicts among users and uses).
3. Four institutional mechanisms suggested were: i) Environment Canada; ii) an unnamed overall research body; iii) IJC (with an expanded terms of reference); iv) SOLEC as a first step for information exchange.

LAKE HURON I*Leslie Demal, Facilitator*

1. We need a core set of indicators for Lake Huron and all other lakes. This core list can be added to or amended by each lake. The core list will represent the minimum set of indicator suites and could be used to prioritize identification of indicators from the SOLEC list.
2. There is a need to create a forum to define and initiate a collaborative approach for Lake Huron, recognizing the importance of stakeholder involvement.
3. There is strong support for taking a regional approach, recognizing the uniqueness of the 4 Lake Huron sub-basins (Georgian Bay, Moun Basin, North Channel, Saginaw Bay).

LAKE HURON II*Leslie Demal, Facilitator*

1. We need to consult with stakeholders on the current issues that need to be addressed for Lake Huron. Then, we can develop goals and objectives from this process – specific indicators can then be developed.
2. We should look at alternative ways of addressing Lake Huron needs at the right scale (some issues will be at basin scale, and some local).
3. SOLEC should look at a smaller suite of indicators that address fishability, swimability, drinkability. Also, the indicators need to reflect the driving stressor.



CONNECTING CHANNELS I & II

E. Marie Phillips, Facilitator

Workshop participants concluded that connecting channels (CCs) are different than the lakes in many ways (“they flow more rapidly”) and need to be treated as such. Specific suggestions included:

1. There needs to be a specialized suite of indicators for the CCs. For example, we need to develop an index of biological integrity for “non-wadeable” streams. The CC indicators need to be consistent with the RAPs. We also need to link CC SOLEC indicators to regulatory measures to maximize implementation. (For example, we can catalogue those regulations and programs that can make use of the indicators).
2. More R&D is needed for the aquatic and nearshore groups to evaluate applicability to the CCs.
3. The measures for connecting channels need to be applicable to CC conditions, as well as the lakes.
4. Once we decide on what we are going to monitor, we have to agree on protocols for data collection, analysis, reporting and sharing.
5. Lake St. Clair needs coordinated management.



Duane Heaton and Dennis Albert in the Coastal Wetlands Workshop.

Photo courtesy of Bob Beltran, USEPA

BIODIVERSITY INVESTMENT AREA WORKSHOPS

COASTAL WETLANDS BIA I & III

Eric Carlson & Joanna Kidd, Facilitators

Both sessions were supportive of the approach and framework taken by the authors in identifying eco-reaches as an information framework/prototype. Other session highlights included:

1. Some refinement will be needed – on eco-reaches, wetlands, faunal inventories. This will best be done on a local, lake-by-lake basis.
2. The database for this project should be:
 - Centralized and housed in an agency that has a basin-wide focus for continuity (this could be a partnership, e.g. U.S. GLNPO, CCIW, ACDE, USFW, NOAA-GLERL, GLC or IJC);
 - Accessible (e.g. on the internet);
 - In a GIS compatible format;
 - Use standardized protocols; and
 - Incorporate long-term data sets, where available.
3. It will be important to communicate to regulators, partnerships and organizations involved in habitat protection, as well as the public. Education should be a focus, and the aim should be to foster stewardship.
4. It will be vital to communicate that the areas of lesser biodiversity are still important and need to be protected.
5. New data (and where possible old data) should be geo-referenced.



AQUATICS BIA I*Suzanne Barrett, Facilitator*

1. Complete the identification process by:
 - Completing habitat supply analyses, including whole system (including tributaries) and focusing on function;
 - Continuing the nomination process, but increasing the information content, quality and analysis.
2. Decide how to use the aquatic BIA information, including: access to information; relationship between the BIAs and non-BIAs; use of BIAs in the decision-making process.
3. Parasites – we need to consider whether parasites are an important component of biodiversity. Parasites in fish can tell us about ecosystem health and balance.

AQUATICS BIA IV*Marcia Damato, Facilitator*

1. Aquatic BIAs should not be exclusively for the benefit of fish, but also consider and allow for the needs of other species. (It was recognized that the focus on fish emerged because: i) information on fish is available; and ii) often when you protect fish, you protect other species.)
2. A survey should identify criteria for the aquatic BIAs, so respondents can provide input: e.g. Is warm water discharge a BIA candidate? Do historically important, currently non-productive spawning reefs qualify?
3. Aquatic BIAs should be designed and conveyed to influence local decision-makers, and to build local support.

NEARSHORE TERRESTRIAL BIA II*Cathy Keenan, Facilitator*

1. Use indicators to characterize the natural systems and refine the BIA identification process.
2. The nearshore BIAs are an excellent start. We must recognize the need for adaptive management, and refine the identification process through the involvement of local stakeholders, and consideration of human health components. Conservation strategies need to integrate ecological, economic, social and cultural considerations.
3. Strive to embed the concept of BIAs at multiple levels, including within local communities and binational structures.

NEARSHORE TERRESTRIAL BIA III*Cathy Keenan, Facilitator*

1. Session participants like the BIA concept and scale at which the nearshore terrestrial BIAs were developed.
2. There is a need for work to be done at the local level – with all available tools.

Nominations for additional areas were suggested, and advice was provided that these be integrated with the other BIAs.



Karen Rodriguez, Ron Reid and other Nearshore Terrestrial Workshop participants.

Photo courtesy of Bob Beltran, USEPA



THEY'RE JUST DOING IT! 5 New Organizations Join Our Honor Roll!

In 1994 the SOLEC Steering Committee began in 1994 what has now become a tradition ... the SOLEC SUCCESS STORIES. This year's recognition event adds six new projects to our Roster. Awards were handed out last night at the Hyatt Hotel's Banquet room. Master of Ceremonies, John Hartig introduced the Consuls General from the United States and Canada, - Mark Romoff and Gregory Johnson. The Consuls presented awards to:

- The City of Buffalo, for their extraordinary successes in brownfield redevelopment.
- The Waukegan Harbor Citizens Advisory Group for their model multi-stakeholder and citizen-based approach to cleaning up the Waukegan Harbour.
- Union Gas Limited – Brantford Division, Ontario. Sustainable development is implemented at the company's new building, including programs such as naturalized landscaping, green maintenance programs and marsh and trail programs.
- Citizens in the Chatham-based "Rondeau Bay Rehabilitation Program" conducted an effective campaign aimed at bay users to "take a little lead out" of shot and fishing sinkers. Citizens and the local radio station offered substitutes pointing out the benefits of alternative metals.
- Erie County's initiative in habitat restoration was rewarded last night. The Buffalo River Habitat Restoration Demonstration Project. This transformed over 10 acres of former brownfield property into a string of three pocket parks along the river.

CONGRATULATIONS TO YOU ALL!

QUOTES

"Use wetland eco-reaches to hang your data on – if you can recognize shared characteristics, you can save time developing management plans." Dennis Albert – in the Coastal Wetlands workshop

"With climate change and lowered water levels, hardened shorelines will be well inland! Maybe we should protect the new wetlands before they emerge." Participant in Coastal Wetlands workshop

"What we need is an index for Groppy Mudsuckers!" Kent Fuller in the Aquatic BIA workshop

"The bus is in the terminal and ready to go." Participant in Lake Huron workshop

On aquatic BIAs as a tool... "What are the other arrows in the quiver? Maybe you have hammers, arrows, tongs, and quivers?" Joe Koonce in the aquatic BIA workshop

"The indicators can be used the features, functions and stressors - thus the natural system – and to refine the identification (or delisting) of BIAs and AOCs." Lionel Normand in the Nearshore Terrestrial BIA workshop

"It is not one agency's responsibility to champion the follow up. We need to work with all agencies who have overlapping authorities, and share responsibilities in order to be more effective in achieving conservation." Heather Potter in the Nearshore Terrestrial BIA workshop



NEXT STEPS

Many of you have stressed that the input you have provided- over the last two days needs to be heard and implemented. As we said, SOLEC is a process – a forcing function which occurs over two year cycles. It is an important part of our reporting process under the Great Lakes Water Quality Agreement. Therefore, our next step is to prepare a revised list of indicators for further input and consideration by early Spring. This document will be widely consulted and will form the basis for our Final List of Indicators to be produced in the Summer of 1999.

In tandem with this Indicators development process is the Binational Executive Committee SOLEC evaluation process. With input from you, and a review of the detailed proceedings, we will be able to tell whether or not we are meeting our objectives.

Send your thoughts/comments to:

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NOTES



