

State of the Lakes Ecosystem Conference

Report to BEC on a Proposed 10 Year Plan

Introduction

This paper sets out a proposal for continuing science-based binational reporting under the Great Lakes Water Quality Agreement, on behalf of the Parties to the Agreement (Canada and the United States). The report proposes a long-term plan for reporting.

The SOLEC Approach

The most efficient data collection efforts will be those that are cost-effective and relevant to multiple users. A consensus by multiple stakeholders about what information is necessary and sufficient to characterize the state of Great Lakes ecosystem health and to measure progress toward ecosystem goals would facilitate efficient monitoring and reporting programs.

The management of any environmental issue consists of at least three steps in a feedback loop:

- 1) problem identification;
- 2) societal action; and
- 3) monitoring to assess the success of the action.

Depending on the results from 3) there may need to be additional or different action taken. 1) and 3) are highly science dependent, whereas 2) is less so, although scientific advice is often provided to develop management actions. There is a need in the Great Lakes program to report on both science and management actions. Indeed the GLWQA is set up in this way. For example, Articles III and IV could be considered as science driven, whereas Articles V and VI are clearly management oriented.

Great Lakes United has called for a detailed accounting of each commitment in the Agreement. Furthermore, the International Joint Commission has reported to governments in its 10th biennial report in a format that closely follows the Agreement. How can the Parties meet their obligations to report out on progress on the Agreement, given the need for both science-based and management-based reporting? This report examines the science-based aspects of this obligation

The Parties have directed that SOLEC be a science-based reporting forum. SOLEC has not presented information on programs, because the Parties firmly believe that a forum devoted to program achievements could lead to the presentation of information that would not be particularly useful in assessing progress. Comparison of jurisdictional approaches, dollars spent, reports issued, fines levied etc. would not, in and of itself, be very useful. Rather, by keeping the discussions to science-based assessments of the state of the Lakes, and the stresses on the Lakes, participants at SOLEC have participated in an open process where the “playing field” was level, and where any view was acceptable, provided it was based in science, and backed by verifiable data.

SOLEC also provided an opportunity to look at the “big picture”, by starting to integrate science issues. Air, land water, biota, economics, and human health were examined in a broad context, with the linkages between and amongst these issues being drawn. SOLEC provides information on the state of the Lakes and the stresses on the Lakes to decision-makers in the basin. There is no other forum for this type of scientific debate. Scientific conferences such as the International Association for Great Lakes Research (IAGLR) do not provide this opportunity for debate on such a broad range of issues, nor do the IJC biennial meetings.

The indicator list is an umbrella or over-arching set of indicators into which other indicators of a narrower spatial or time scale fit. Basin-wide indicators provide a general overview of conditions in the Lakes. For more local areas, indicators from LaMPs, RAPs, GLFC, IJC, etc. form the basis of the indicator list. The core set of indicators that the Parties will report on regularly, in no way compromises other groups from developing their own indicators. The SOLEC organizers recognize that there are local or issue-specific needs with respect to indicators, and that use of indicators developed for other programs fits well under the umbrella concept. SOLEC is looking for broad, system wide indicators, using whatever indicators are appropriate at the local, Lake or basin-wide level.

SOLEC Future Directions

With the delivery of SOLEC 2000, the Parties have demonstrated that it is possible to report out on a suite (albeit partial) of indicators of ecosystem health. The consensus at SOLEC 2000 was that the indicator reports, and lake-by-lake reports based on indicators provided very valuable information to decision makers. In a sense, SOLEC came of age with science-based indicators that will be reported in a predictable way every 2 years. In their closing remarks, the co-chairs of BEC stated that:

- SOLEC had come of age, but is a ‘work in progress’

- BEC would discuss the future direction of SOLEC at its December 2000 meeting
- The possibilities of a beneficial relationship between SOLEC and LaMPs was demonstrated
- The Parties were committed to the Great Lakes
- The Parties will incorporate what they heard at SOLEC into their programs, and will encourage others to do the same
- First Nations / Tribes were significant players in SOLEC 2000 and that we will use their knowledge as well as western science in future reports

Proposal for a Path Forward

With the completion of the State of the Lakes Ecosystem Conference (SOLEC 2000), several challenges lie ahead for the Parties, including:

- Adding additional indicators (e.g. non-native species; contaminants in whole fish) that were missed at SOLEC 98 to the indicator list;
- Adoption of Tier 1 indicators appropriate to federal, state, provincial, local, aboriginal industrial partners who can monitor these indicators. This includes groups that have not traditionally provided monitoring data. This could include building appropriate monitoring and reporting activities into Great Lakes programs at the federal, provincial, state, Tribes / First Nations, and industry levels, including management agreements such as a new Canada-Ontario Agreement and a new U.S. 5 year / multi-year partnership.
 - Of the 41 Tier 1 indicators, 31 were reported at SOLEC 2000. These reports were developed through the diligent work of a few people on a personal contact basis. With some exceptions (e.g. USFWS), there is no agency or other commitment to repeat the process for 2002.
- Implementation of tier 2 indicators, and initial reports at SOLEC 2002 where feasible;
- Funding research and development for Tier 3 indicators
- These activities may come at an additional cost to the agencies providing data, but also come at a cost to the agencies coordinating the overall Parties' reporting effort (USEPA and EC). Without a commitment of adequate resources to the SOLEC process, it will fail.

Reporting Relationships

Although the State of the Great Lakes reports are aimed at Great Lakes decision makers, there are many audiences for Great Lakes' information. A schematic showing the relationships amongst different kinds of information for these audiences can be found in Appendix A. Clearly, as one moves up the triangle, the level of detail becomes lower, and the aggregation of information higher. This approach allows maximum flexibility for the Parties in terms of how and to whom they report. The LaMP / RAP section of the triangle feeds into the basin-wide and synthesis section, but nothing here prevents an independent report by any RAP or LaMP program from being issued. The data base on which the Parties depend for generation of information is very large, and will require management across the basin, likely through Internet sites.

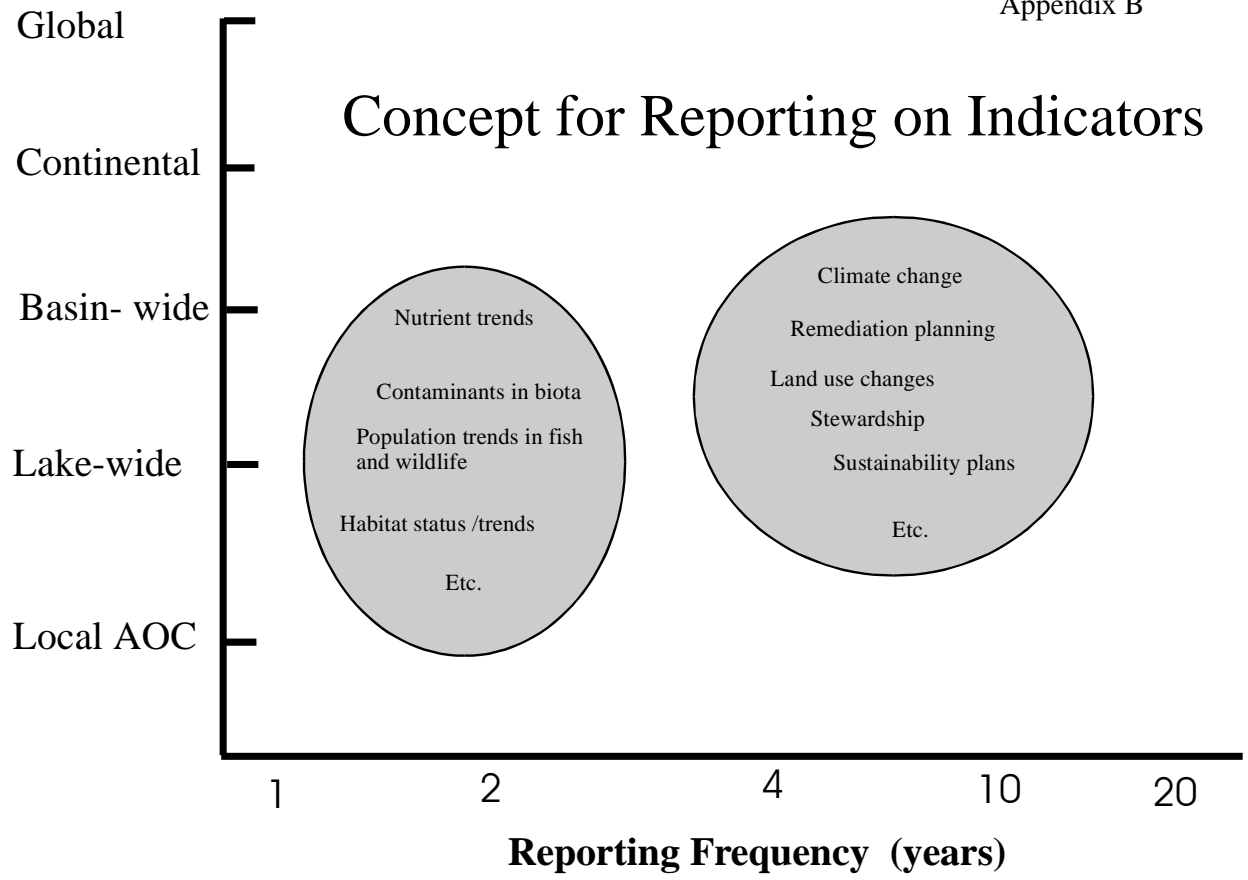
The reporting on indicators must be viewed in two scales- temporal and spatial. The Parties will report on basin-wide trends in the state of the ecosystem and its stresses, but will not necessarily report on every indicator every two years. Some indicators lend themselves to reporting on a 4, 6, 8, or 10 year time scale. Appendix B gives examples of potential time / space scales.

Scientific information on the state of a Lake or Area of Concern, or on the stresses on those ecosystems, generated through LaMP or RAP monitoring, could be used as a component of basin-wide indicators, to report on at SOLEC. This would not preclude the independent reporting of area-specific information generated by those same programs.

Ten Year Plan

We have presented in Appendix C, a 10 year plan for Parties' science-based reporting, including what we believe to be the necessary steps to have some degree of closure to the Parties' indicator list. This plan is based on the elements of the Purpose of the Great Lakes Water Quality Agreement- chemical, physical and biological integrity, and is also premised on a significant degree of buy-in by Great Lakes' stakeholders.

The plan proposes alternate year scoping workshops that will prepare issue papers for special attention at the subsequent SOLEC. Most of the Conference will continue to consist of reports on the State of the Lakes, by indicators group and by geographic area; however, there will be a special focus on the subject matter scoped out the previous year.



Scale of Reporting Relationships

(Not a hierarchy)

