

# Conclusions and Recommendations

When the state of the Great Lakes is discussed, two questions are frequently asked: Are the lakes improving, and what progress are the Parties to the Agreement achieving through their programs? It is difficult to respond to these questions simply. Certainly the lakes are less polluted now than they were 25 years ago. However, with increased understanding of sources and pathways and of health effects associated with critical pollutants, it is apparent that pollution levels are still too high. Furthermore, acceptable levels will not be achieved in the near future given current programs and the resources dedicated to them.

In this report, the Commission has identified several key actions and remedies which, if adopted, can alter the otherwise inevitable maintenance of the *status quo*. These recommendations are feasible to implement and are sensible approaches from the point of view of both policy and management. Failure to address the challenge of restoration during this time of economic prosperity will result in future generations of Great Lakes citizens inheriting the consequences of our inaction.

## Remedial Action Plans

**Given the public's right to know the achievements in each AOC and what actions to expect in the future, the Parties should prepare a consolidated report on RAP progress that lists the accomplishments to date, funds expended, what remains to be done and the funds and timing required to finish the necessary work. Governments must clearly state what role they will be playing with each AOC and what resources they will be dedicating to restoring the impaired beneficial uses.**

## Threat to Human Health

**Governments should require that:**

- (i) sport fish consumption advisories state plainly that eating Great Lakes sport fish may lead to birth anomalies and other serious health problems for children and women of child-bearing age. These advisories should be addressed and distributed directly to women, in addition to their general distribution,**
- (ii) consumption advisories clearly identify fish to be totally avoided in light of the precautionary approach, and preparation methods for any that may be consumed, and**
- (iii) consumption advisories are supported by culturally appropriate community education programs directed to those who are likely to consume these fish.**

## Contaminated Sediment

**Governments should immediately develop a comprehensive, binational program to address the full scope of the contaminated sediments problem over the long term, setting appropriate priorities and**

defining the resources required for completion. As part of this comprehensive program, governments should ensure that:

- (i) programs and cost estimates are in place and made public for fully addressing contaminated sediments in Areas of Concern,
- (ii) timetables for fully implementing those programs are established and made public,
- (iii) resources are provided to fully implement the programs in accordance with the established timetables, and
- (iv) progress reports are issued at least biennially.

## **Airborne Toxic Substances**

The Parties should take the following measures to deal with airborne pollutants:

- (i) identify both in-basin and out-of-basin sources of atmospheric deposition of persistent toxic substances to the Great Lakes, quantify their contribution to the total burden of these substances to the lakes, and use this information to formulate and implement appropriate prevention and control measures; and
- (ii) adopt a source-receptor computer model, improve emissions inventory information, and add dioxin and mercury to the Integrated Atmospheric Deposition Network to improve the data bases for these two substances.

## **Great Lakes Binational Toxics Strategy**

The Parties should strengthen the Great Lakes Binational Toxics Strategy by fully addressing all sources of persistent toxic substances, such as atmospheric transport and deposition and *in situ* contaminants in sediments. In order to include the air pathway the Parties should:

- i) establish an inventory of baseline air emissions for toxics for all of the United States and Canada
- ii) undertake a complete analysis of emission reduction scenarios for key source regions and determine their effectiveness in reducing contamination of the Great Lakes from the air.

The Parties should ensure that the Strategy is truly both strategic and binational by strengthening the integration and priority-setting component and establishing a full-time binational secretariat.

## **Land Use**

The Governments should provide for a binational study of the effects of changes in land use on Great Lakes water quality to determine the measures that should be taken to address these changes, including:

- (i) the effects of urban and residential growth,
- (ii) the effectiveness of existing policies and programs in controlling pollution from land use in all sectors, and
- (iii) the identification of measures that should be taken by provincial and state governments, with appropriate assistance from the Parties, to prevent adverse effects.

**Governments should proceed with implementation of the SOLEC work on Biodiversity Investment Areas, emphasizing the preservation and rehabilitation of wetlands.**

## **Alien Invasive Species**

**The Parties should take the following measures to deal with alien invasive species:**

**(i) adopt and implement the binational ballast water research strategy and plan described in the 1996-1997 Binational Progress Report on Protection of Great Lakes Water Quality,**

**(ii) give a Reference to the Commission to develop:**

**(a) binational standards that should be applied to discharges of ballast water, and**

**(b) recommendations on the most appropriate methods for implementing those standards including, for example, the possibility of on-board treatment of ballast water and residual ballast sediment and the possibility of establishing ballast water and residual ballast sediment treatment facilities in the lower St. Lawrence River.**

## **Information and Data Management**

**The Parties should develop and maintain the full range of monitoring and surveillance programs necessary to enable them to fulfill their commitments under the Great Lakes Water Quality Agreement.**

**The Parties should provide adequate access to data while protecting confidentiality agreements and waiving cost recovery policies that contradict the intent of Article IX of the Great Lakes Water Quality Agreement.**

**The Parties should correct existing problems with the collection, analyses and reporting of data, including establishing sampling protocols, filling data gaps and ensuring the quality of data.**

**The Parties should, within two years, develop and implement a binational information policy employing advanced technology to support implementation of the Great Lakes Water Quality Agreement. This policy should include provision for:**

**(i) accessibility of data and information,**

**(ii) organization and management of data bases,**

**(iii) protocols to ensure compatibility and comparability of data for weight of evidence and ecosystem integrity analysis,**

**(iv) support of indicator development, and particularly indicators that support the goals of drinkability, swimmability, and edibility of fish, and**

**(v) principles for evaluating information for decision-making.**

## **SOLEC and Indicators**

**The Parties should report on indicators for the three Desired Outcomes of drinkability, swimmability and fish edibility beginning with the SOLEC 2000 conference and biennially thereafter.**

**The Parties should report on indicators for the Desired Outcome of virtual elimination of inputs of persistent toxic substances beginning with the SOLEC 2002 conference and biennially thereafter.**

**The Parties should develop and report on three specific indicators for the Desired Outcome of physical environment integrity beginning with the SOLEC 2002 conference and biennially thereafter.**