



STATE OF THE STRAIT MONITORING FOR SOUND MANAGEMENT



A BINATIONAL CONFERENCE ON THE DETROIT RIVER ECOSYSTEM

Convened December 2004 by Great Lakes Institute for Environmental Research, University of Windsor, The Greater Detroit American Heritage River Initiative of Metropolitan Affairs Coalition, The Detroit River Canadian Cleanup, The Detroit River International Wildlife Refuge, The Detroit Water and Sewerage Department, and other organizations.

Cover photos: photos left and center (upper and lower): Recreational fishing in the Huron-Erie Corridor (lower center photo by Kurt Byers, Michigan Sea Grant Extension, courtesy of United States Environmental Protection Agency, Great Lakes National Program Office; other photos courtesy of OMNR); upper right: Scientist sampling water, benthic invertebrates and sediment in Lake Erie (photo courtesy of Environment Canada and University of Windsor); lower right: Longear sunfish (*Lepomis megalotis*) (photo courtesy of Nicolas Lapointe)

STATE OF THE STRAIT
MONITORING FOR SOUND MANAGEMENT

2004 Conference Proceedings

Edited by:

Rachael Eedy, University of Windsor
John Hartig, U.S. Fish and Wildlife Service
Charlie Bristol, Bristol Technical Services, Inc.
Melanie Coulter, Detroit River Canadian Cleanup
Tracy Mabee, University of Windsor
Jan Ciborowski, University of Windsor

Based on a binational conference convened by
The Great Lakes Institute for Environmental Research, University of Windsor, Greater
Detroit American Heritage River Initiative of Metropolitan Affairs Coalition Detroit
River Canadian Cleanup, Detroit River International Wildlife Refuge, Detroit Water
and Sewerage Department, and other organizations.

Suggested citation: Eedy, R., J. Hartig, C. Bristol, M. Coulter, T. Mabee and J.
Ciborowski eds. (2005). *State of the Strait: Monitoring for Sound Management*. Great Lakes
Institute for Environmental Research, Occasional Publication No. 4, University of
Windsor, Windsor, Ontario.



EXECUTIVE SUMMARY

The State of the Strait Conference is held every two years to bring together government managers, researchers, environmental and conservation organizations, students and concerned citizens from Canada and the U.S. to assess ecosystem status and provide advice to improve research, monitoring, and management programs for the Detroit River and western Lake Erie. The theme of the 2004 conference was “Monitoring for Sound Management.”

Clearly, monitoring is essential for effective and defensible management. Management agencies will not know what actions to take to restore or protect the health of the river and lake without a fundamental understanding of their condition. Monitoring is given a much lower priority today than in the 1970s and 1980s. Hundreds of millions of dollars have been spent to upgrade sewage treatment plants and clean up contaminated sediments. Tens of thousands of dollars are spent each year to measure the quality of the Detroit River’s and western Lake Erie’s water, sediments, and biota. However, managers still don’t really understand whether the ecosystem is improving or not. Stakeholders frequently ask for indicator data to evaluate the effectiveness of programs. Indeed, a 2004 report, “Flying Blind: Water Quality Monitoring and Assessment in the Great Lakes States,” concluded that in the 30 years following the signing of the U.S. Clean Water Act there is simply no way to state with confidence whether the waters of the Great Lakes are safe for public use (Environmental Integrity Project 2004).

To be able to measure progress, future monitoring programs must evaluate ecological conditions against quantitative ecosystem targets. Evaluating progress toward restoring impaired beneficial uses should be a priority. Management actions taken on the Detroit River and western Lake Erie should be treated as experiments: monitoring documents conditions prior to intervention, guides predictions/hypotheses, and measures the outcomes and effectiveness of actions taken.

Volunteer monitoring programs offer a wealth of valuable data and information that can supplement traditional monitoring activities. Good examples of “citizen science” discussed at the conference included Christmas Bird Count programs, “Hawk Watch” programs like the Holiday Beach Festival of Hawks and the HawkFest at Lake Erie Metro Park, frog and toad surveys, and the Stream Team.

Volunteer monitoring programs are underappreciated and underutilized. Greater emphasis must be placed on ensuring that volunteer monitoring data have sufficient quality controls, that management agencies sanction these efforts and agree to use the data for management purposes, and that the data are broadly disseminated and actually used. A unique partnership announced at the conference between the Stream Team and Wayne County Department of Environment is a good example of effective use of volunteer monitoring data by government for environmental management.

Recommendations from the conference steering committee include:

- A single, central directory of past and present monitoring data and programs is needed to permit managers, researchers, and the public to find the key information necessary to understand the historical and current state of the Detroit River and western Lake Erie.
- All agencies and organizations must coordinate their monitoring efforts. There is a need to better coordinate monitoring for the corridor and sustain a central repository for databases supportive of ecosystem modeling, research, and management. Good examples include Data Retrieval, Exchange, Archival, and Management System (DREAMS), Monitoring Upper Great Lakes Connecting Channels Committee (MUGLCCC), and the Rouge River National Wet Weather Demonstration Project.
- The science-management linkage must be strengthened. More effort must be expended on integrating recent scientific knowledge with management for the Detroit River and western Lake Erie. This strengthened linkage can be accomplished, in part, by:
 - Identifying quantitative objectives and targets to help managers evaluate and select the most appropriate rehabilitation/conservation techniques
 - Increasing cooperative monitoring and research efforts to quantify problems, establish cause-and-effect relationships, and determine effectiveness relative to ecosystem health, performance, and function
 - Committing resources to follow-up assessment of the effectiveness of remediation and restoration projects
- Greater emphasis must be given to ensuring timely reporting of data in a clear and understandable fashion. Monitoring data must be made more accessible. The data must be summarized and objectively interpreted in ways that are meaningful to non-experts and informative to decision-makers. These findings must be broadly communicated. Perhaps an electronic, binational indicator report should be prepared and routinely updated to improve accessibility, translation, and communication. This could be the focus of the next State of the Strait Conference.

The State of the Strait Conference continues to be an effective tool for synthesizing and communicating such knowledge, and transferring lessons learned and practical experiences from data collectors to information users.

MAP OF HURON-ERIE CORRIDOR

