



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)

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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

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1. INTRODUCTION

The State of the Strait Conference is held every two years, bringing together government managers, researchers, environmental and conservation organizations, students, and concerned citizens from Canada and the United States. Conference participants work to understand historical ecosystem conditions and assess current ecosystem status in order to achieve a better future for the Detroit River and western Lake Erie. The goals of the Conference are to:

- Compile and synthesize knowledge from both research and monitoring programs
- Provide advice to improve research, monitoring, and management programs
- Promote ecosystem-based management to restore and maintain the physical, chemical, and biological integrity of the Detroit River-western Lake Erie ecosystem

In the 30 years following the signing of the Clean Water Act there is simply no way to state with confidence whether the waters of the Great Lakes are safe for public use.

More than 230 people attended the December 2, 2004 State of the Strait Conference at the University of Windsor (Appendix VI). Clearly, monitoring is essential for effective and defensible management. Management agencies will not know what actions to take to restore or protect the river's and lake's health unless there is a fundamental understanding of their condition. Monitoring is given a much lower priority today than in the 1970s and 1980s. 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, but managers still don't really understand whether the ecosystem is improving or not. Stakeholders frequently ask for indicators of whether these projects are really making a difference. Indeed, the 2004 report entitled "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).

The 2004 State of the Strait Conference took a new approach. The theme of the conference was "Monitoring for Sound Management." It was convened with the belief that, collectively, much more information is available on the state of the ecosystem than is commonly recognized. The goal was to highlight the diversity of monitoring data available, much of which is poorly known to the larger community. Presenters were invited from a broad range of agencies, non-government organizations, and the public. Rather than simply asking local experts to report on the amounts of chemicals present in water, sediments, and biota, the conveners organized the agenda into three categories: traditional monitoring, biomonitoring, and volunteer monitoring (Appendix I). Speakers in the first category reported on traditional monitoring programs that have been established to track conventional and toxic pollutants. Biomonitoring experts discussed novel programs that study the health of fish and diving duck populations, hawk migrations, and bald eagle populations. In the third category, volunteer monitoring, program coordinators described the wealth of valuable data and information collected



Participants and displays at the 2004 SOS conference.

by citizen scientists to assess and track the health of birds, frogs, and the biota of streams through volunteer monitoring programs such as the Christmas Bird Count, Marsh Monitoring Program, frog and toad surveys, and Stream Team. Slides from many of these presentations have been posted on the conference website, <http://www.uwindsor.ca/softs>.

In addition, all State of the Strait Conference attendees were invited to identify sampling locations of local monitoring projects on a computer (or virtual) map to help build an archive and monitoring repository for the Detroit River corridor.

This report presents a summary of all information presented at the 2004 State of the Strait Conference. It includes extended abstracts of all presentations and scientific posters (Section 6) and brief descriptions of displays (Appendix II). The key findings and recommendations (Section 5) were developed by the State of the Strait Conference Steering Committee.