

## Twelfth Biennial Report

*Prepared pursuant to the Great Lakes Water Quality Agreement of 1978 for submission to the Governments of the United States and Canada and the State and Provincial Governments of the Great Lakes Basin*

### Commissioners

Herb Gray

Dennis L. Schornack

Robert Gourd

Jack P. Blaney

Irene B. Brooks

Allen I. Olson

# International Joint Commission

September 2004

## Twelfth Biennial Report on Great Lakes Water Quality

ISBN 1-894280-45-8

### Contributors

Doug Alley, Kay Austin, Doug Bondy, Lisa Bourget, Peter Boyer, Marty Bratzel, Mark Burrows, Jim Chandler, Murray Clamen, Joel Fisher, John Gannon, Nick Heisler, Jim Houston, Bruce Jamieson, Bruce Kirschner, Gail Krantzberg, Ann MacKenzie, John McDonald, John Nevin

### Illustration Credits

Front cover, National Aeronautics and Space Administration (NASA); back cover (top), Josh Ingersoll, Lake Michigan Federation and (bottom), Lauren Gordon, Morgan Edwards, Kyle Chandler, Environment Canada; Figure 1, Adrian Melnyk and Don Boyes, Department of Geography, University of Toronto; page 17, NASA; Figure 2, Barry H. Rosen, Natural Resources Conservation Service, Watershed Science Institute, University of Vermont, Burlington; page 26, NASA; Figure 3, Jane C. Thapa, New York State Department of Health, Bureau of Water Supply Protection; Figure 4, Anne Pope, U.S. Environmental Protection Agency; Figure 5, Marc Deslauriers, Pollution Data Branch, Environment Canada; Figure 6, (a), OhioLINK Digital Media Center; (b), Thomas Bridgeman, University of Toledo; (c), Scott Higgins, University of Waterloo; (d), Jeff Robinson, Canadian Wildlife Service; (e), National Oceanic and Atmospheric Administration (NOAA) Great Lakes Environmental Research Laboratory; (f), David Jude, University of Michigan; Figure 7, (a), (b) and (d), Fred Snyder, Ohio Sea Grant Program; (c), David Moore, University of Syracuse at Utica.