



## **U.S. Environmental Protection Agency Great Lakes National Program Office Significant Activities Report**

**On the Web at:  
[www.epa.gov/glnpo](http://www.epa.gov/glnpo)**

**January - March 2004**

### ***IN THIS ISSUE:***

- **Spill Planning for Sensitive Areas**
- **New Mercury and PCB Posters**
- **Watershed Academy: Milwaukee**
- **MDEQ Dioxin Study**
- **Evaluating Wetland Habitat**
- **FY2004-2005 Funding Competition**
- **Coordinated Binational Monitoring**
- **Response to Medical Emergencies**
- **SOLEC Indicators Review**
- **Lake Erie Studies**
- **U.S. Lake Huron Partners Meet**
- **Legacy Act Projects Sought**
- **FET Conference**
- **Mussels Cleaning Lakes?**
- **New York State Wetlands Forum**

### **Spill Planning for Sensitive Areas**

Staff from the Great Lakes National Program Office attended the “Net Environmental Benefit Analysis of Isle Royale National Park” meeting held in Duluth, Minnesota on January 6<sup>th</sup> to 8<sup>th</sup>. Also in attendance were National Park Superintendent and staff Phyllis Green and Jean Battle; Atlantic Strike Team Commanding Officer Roger Laferriere and other U.S. Coast Guard representatives, all with Exxon Valdez experience; staff from the Apostle Islands National Lakeshore and the Minnesota Pollution Control Agency; and USEPA Regions 5 and 9 staff. The meeting was organized by USEPA with the Great Lakes Commission serving as Secretariat, to outline Isle

Royale’s priority areas and concerns, review oil spill response techniques, and evaluate the relative risks of response techniques in regard to the plants, animals and shorelines of Isle Royale. Although the risk to Isle Royale from spills is currently low, one spill could be catastrophic to a number of rare plants and animals. Both a scientific and an operational plan plus training in equipment use are necessary to protect the park in the event of an oil spill. A major Canadian shipping lane is a mile from the outer park islands. It is expected that USEPA will conduct similar meetings in other regions of the Great Lakes, beginning with the Apostle Islands and the other national parks. The results of these meetings are a clearer understanding by the Coast Guard of sensitive areas and by USEPA and park staff of the methods used to clean up after a spill and the potential damage to sensitive areas of the cleanup techniques.

Future analyses will be conducted in other sensitive areas of the Great Lakes basin over the next year and are part of a plan to map, conduct analyses, produce an spills/



An Isle Royale scene  
(Photo courtesy of National Park Service)

sensitive areas operations manual, and develop protection strategies for the Great Lakes and Upper Mississippi River coastal areas.

(Contact: Karen Rodriguez, 312-353-2690, [rodriguez.karen@epa.gov](mailto:rodriguez.karen@epa.gov))

### New Mercury and PCB Posters

The Minnesota Pollution Control Agency has produced poster-size versions of the mercury and PCB use trees found in the Lake Superior Lakewide Management Plan (LaMP) Stage 2. The posters have been updated and reformatted to resemble trees with a trunk and branches for the various uses and sources of mercury and PCBs. 370 mercury posters have been distributed to libraries across Minnesota and others were supplied to Lake Superior LaMP partners. A limited number of the mercury and PCB posters are available to other Great Lakes organizations.

(Contacts: Elizabeth LaPlante, 353-2694, [laplante.elizabeth@epa.gov](mailto:laplante.elizabeth@epa.gov); or Carri Lohse-Hanson, 651-296-9134, [carri.lohse-hanson@pca.state.mn.us](mailto:carri.lohse-hanson@pca.state.mn.us))

### Watershed Academy: Milwaukee

The latest in the Lake Michigan Watershed Academy Conference series drew 275 local officials to the Sheridan Four Points hotel in Brown Deer, Wisconsin (just north of Milwaukee) on February 10<sup>th</sup>. Co-sponsored by the Southeastern Wisconsin Regional Planning Commission and the Milwaukee Metropolitan Sewerage District. Following a historical perspective on the complex Milwaukee Rivers Watershed, recent progress and continuing challenges were outlined by the agencies along with Wisconsin DNR Division of Water Administrator Todd L. Ambs.



Mercury Use Tree Poster  
(actual size is 17 inches by 24 inches)

(Contact: Judy Beck, 312-353-3849, [beck.judy@epa.gov](mailto:beck.judy@epa.gov))

### MDEQ Dioxin Study

The Michigan Department of Environmental Quality (MDEQ) was recently awarded a \$180,000 grant by the Great Lakes National Program Office to further characterize the nature and extent of dioxin-like toxicity in sediments from the Saginaw River and Saginaw Bay. While PCB contamination has been well documented in this area, dioxins and furans have not. While not as well studied, these compounds have been detected at levels exceeding human health-based regulatory criteria. This study has received strong support from the U.S. Fish and Wildlife Service, since it will complement their ecological risk assess-



Saginaw Bay shoreline  
(Photo courtesy of U.S. Fish and Wildlife Service)

ment for dioxin-like compounds in this watershed. The Service plans to ultimately use these study results to calculate congener-specific sediment to biota accumulation factors.

(Contact: Scott Ireland, 312-886-8121, [ireland.scott@epa.gov](mailto:ireland.scott@epa.gov))

### Evaluating Wetland Habitat

On February 26<sup>th</sup>, David Brakhage, Gildo Tori, and Tina Yerkes of the Great Lakes/Atlantic Regional Office of Ducks Unlimited updated Great Lakes National Program Office staff on their Habitat Evaluation Project (HEN), funded in part by a GLNPO grant. HEN is a basin-wide conservation tool that uses GIS/Internet technology to plan and target conservation activities within the Great Lakes states. The HEN decision support system, will allow Ducks Unlimited and its partners to enhance and refine inland wetland and upland habitat programs based on the most current information and technology available. To begin, HEN incorporates mallard research data, existing landscape features, and current habitat information to guide conservation activities to high priority areas. Eventually, this system will allow land use planners and managers to use limited conservation re-

sources efficiently and target hot spots for the benefit of waterfowl and other wetland species.

(Contact: Karen Rodriguez, 312-353-2690, [rodriguez.karen@epa.gov](mailto:rodriguez.karen@epa.gov))

### FY2004-2005 Funding Competition

Applicants competed for Great Lakes projects totaling up to \$4,180,000 in the Great Lakes National Program Office's FY2004-2005 Funding Guidance. GLNPO issued its annual "USEPA Great Lakes National Program Office FY2004-2005 Funding Guidance" on January 30<sup>th</sup>, requesting Initial Proposals for projects furthering protection and clean up of the Great Lakes ecosystem. Projects address Contaminated Sediments, Pollution Prevention and Toxics Reduction, Habitat (Ecological) Protection and Restoration, Invasive Species, Strategic or Emerging Issues, and Other Lakewide Management Plan or Remedial Action Plan (LaMP/RAP) Priorities. The competition closed on March 29<sup>th</sup>. The Funding Guidance again solicited paperless Initial Proposals for GLNPO and Region 2, 3, and 5 Lakewide Management Plan/Remedial Action Plan programs. Applicants responded by submitting 265 Initial Proposals totaling \$25 million. The initial proposals will undergo an extensive review process to narrow down the field to the final selections of projects. Successful applicants will be asked to submit full proposals for funding.

As part of its efforts to ensure a fair and open competition the Great Lakes National Program Office conducted its first-ever public conference call on March 1st. The call provided all applicants equal opportunity to have their questions asked and answered. As many as 68 lines were active at one time during the call, as GLNPO staff answered questions pertaining to their areas of the



GLNPO staff securing "patient" to back-board as part of Emergency Medical Response Training

Funding Guidance. Even with this large number of participants, the call was very orderly. Informal feedback from participants was positive. A recording of the call was also available from the GLNPO website through the end of the application period. In addition, several Questions and Answers from the call were also posted on the Funding Guidance website.

Additional information about this funding program and a listing of all Initial Proposals received can be found on the Internet at: <http://www.epa.gov/glnpo/fund/2004guid/index.html>.

(Contact: Mike Russ, 312-886-4013, [russ.michael@epa.gov](mailto:russ.michael@epa.gov))

### Coordinated Binational Monitoring

Great Lakes National Program Office scientists and managers met with their Environment Canada counterparts on February 9<sup>th</sup> to 11<sup>th</sup> to coordinate Great Lakes monitoring efforts. Among the topics discussed

were schedules of current and future monitoring, methods comparisons, and possible cooperative monitoring efforts. While there has always been a minimal level of cooperation between the two groups, this is the first recent initiative to explore cooperation and comparability of information gathered by the programs. While still tentative, the GLNPO is exploring use of the Canadian research ship, the *R/V Limnos*, to support USEPA's program to monitor the dissolved oxygen levels in Lake Erie's Central Basin.

(Contacts: Paul Horvatin, 312-353-3612, [horvatin.paul@epa.gov](mailto:horvatin.paul@epa.gov); or Glenn Warren, 312-886-2405, [warren.glenn@epa.gov](mailto:warren.glenn@epa.gov))

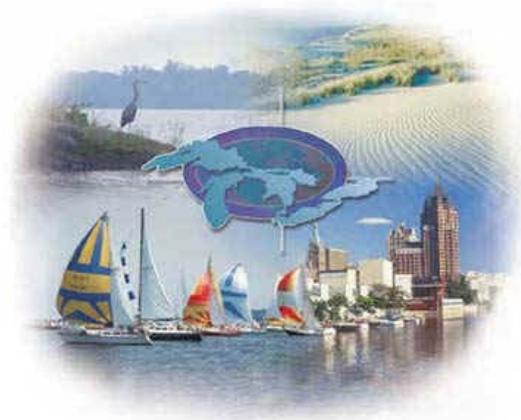
### Response to Medical Emergencies

In preparation for the upcoming monitoring season, scientists who will serve aboard GLNPO's 180-foot research ship, the *R/V Lake Guardian*, underwent intensive Emergency Medical Response Training from February 1<sup>st</sup> to 4<sup>th</sup>. The training is needed because the *Lake Guardian* can be hours away from the nearest medical facility when it is underway on a monitoring cruise and even minutes can be critical in emergency injury or illness situations. Instructors from the George Washington University Hospital did the training using real-life scenarios requiring assessment and treatment of injuries and medical emergencies. Everyone was trained to start an IV (intravenous) needle, administer medication and oxygen, etc. The most physically taxing portion of the training was carrying a full-sized adult, on a backboard, up from the ship's engine room. All of this training is preparation for any shipboard emergency, which, we hope, will never happen.

(Contact: Paul Horvatin, [horvatin.paul@epa.gov](mailto:horvatin.paul@epa.gov), 312-353-3612)

### SOLEC Indicators Review

The indicators of Great Lakes ecosystem health that are reported through the binational State of the Lakes Ecosystem Conference (SOLEC) process are continually under review and refinement. On January 27<sup>th</sup> and 28<sup>th</sup>, a workshop was held in Detroit, Michigan, to get comments and suggestions from federal, state, provincial and local management organizations regarding the usefulness of the information SOLEC provides for influencing management decision-making. A review and evaluation of the suite of Great Lakes basin indicators was also undertaken by the participants, who rep-



Cover graphic from  
State of the Great Lakes Report 2001,  
a product of the SOLEC process

### Lake Erie Studies

GLNPO's Paul Horvatin and Glenn Warren participated in a planning meeting for the National Oceanic and Atmospheric Administration's Great Lakes Environmental Research Laboratory to discuss how the Laboratory's personnel could benefit the current Lake Erie work. Beginning in 2004, the Laboratory scientists are beginning to extend their work to Lake Erie. The topics covered in separate breakout sessions were: Hypoxia and the Dead Zone, Hazardous Algal Blooms, and Fish and Physics. Numerous other Lake Erie scientists attended the meeting and provided a wide-ranging discussion of past efforts and recommendations for the Laboratory.

Contacts: Paul Horvatin, 312-353-3612, [horvatin.paul@epa.gov](mailto:horvatin.paul@epa.gov); or Glenn Warren, 312-886-2405, [warren.glenn@epa.gov](mailto:warren.glenn@epa.gov))



Lake Erie from OrbView-2 satellite  
(Original image courtesy of NASA)

resented data generators and information users from the Great Lakes basin. Many of the indicators were suggested to be combined or set aside. SOLEC organizers are currently in the process of assimilating the results of the workshop and other suggestions to revise the suite of active Great Lakes indicators for the SOLEC 2004 Conference coming up in Toronto, Canada on October 6<sup>th</sup> to 8<sup>th</sup>.

To learn more about the State of the Lakes Ecosystem Conference, go to: <http://www.epa.gov/glnpo/solec/index.html> on the Internet.

(Contact: Paul Bertram (312-353-0153, [bertram.paul@epa.gov](mailto:bertram.paul@epa.gov))

### **U.S. Lake Huron Partners Meet**

On March 9<sup>th</sup>, USEPA's Great Lakes National Program Office and the Michigan Department of Environmental Quality's Office of the Great Lakes and Water Division sponsored a Lake Huron U.S. Agency Coordination Meeting. Held in Bay City, Michigan, the meeting provided an opportunity for environmental agencies to share program priorities and help coordinate future efforts on Lake Huron. Staff from over 20 organizations – including Federal, State, Tribal, Industry, and Nonprofit Agencies – described their ongoing work and proposed ideas on how to refine the domestic management of the Lake Huron watershed. This meeting will help provide a U.S. perspective on issues being addressed through the Lake Huron Binational Partnership Forum, which is co-chaired by GLNPO and Environment Canada.

(Contacts: Vicki Thomas, 312-886-6942, [thomas.vicki@epa.gov](mailto:thomas.vicki@epa.gov); or James Schardt, 312-353-5085, [schardt.james@epa.gov](mailto:schardt.james@epa.gov))



Sunrise at Hammond Bay on Lake Huron

### **Legacy Act Projects Sought**

Ten million dollars was made available by Congress for Fiscal Year 2004 under the Great Lakes Legacy Act to further cleanup of contaminated sediments in Great Lakes Areas of Concern. The Great Lakes National Program Office issued an invitation seeking potential projects on January 29<sup>th</sup>. The competition closed on March 31<sup>st</sup>. As of the deadline, GLNPO received 14 submissions for funding consideration under the Great Lakes Legacy Act. The 14 projects represent proposed work in 12 separate Areas of Concern across six of the eight Great Lakes states with total cost estimates in excess of \$80 Million. Twelve of the project submittals call for implementation of remedial actions for contaminated sediments.

The projects are being evaluated using a two-stage review process. In the first stage, projects are given an initial review for completeness (i.e., does the proposal contain all the necessary components?). Remediation projects passing the Stage 1 review are then forwarded to the Technical Review Committee (TRC) for full technical review and projects will be selected for giving oral presentations. The TRC is made up of representatives from the GLNPO sediment team, USEPA's Office of Regional Coun-

sel, USEPA Headquarters and Regions 2 and 5; the U.S. Army Corps of Engineers; the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration. To date, three proposals have been presented to the TRC with four more scheduled for early May.

For more information about the Great Lakes Legacy Act, the call for Projects, go to: <http://www.epa.gov/glnpo/sediment/legacy/index.html>.

For information about the contaminated sediments issue and GLNPO's sediment monitoring and remediation program, visit: <http://www.epa.gov/glnpo/sediments.html>

(Contacts: Scott Ireland, 312-886-8121, [ireland.scott@epa.gov](mailto:ireland.scott@epa.gov); Scott Cieniawski, 312-353-9184, [cieniawski.scott@epa.gov](mailto:cieniawski.scott@epa.gov); Marc Tuchman, 312-353-1369, [tuchman.marc@epa.gov](mailto:tuchman.marc@epa.gov); or Mary Beth Ross, 312-886-2253, [ross.marybeth@epa.gov](mailto:ross.marybeth@epa.gov)).

### FET Conference

On March 9<sup>th</sup>, Marc Tuchman attended and gave a presentation at the 19th Annual Conference of the Federation of Environmental Technologists (FET) in Milwaukee, Wisconsin. The FET is a nonprofit organization formed to assist industry in interpretation of and compliance with environmental regulations. Over 200 environmental professionals from throughout the Midwest attended the conference. The presentation given by Marc was titled "Updates on Great Lakes Contaminated Sediment Remedial Activities and Great Lakes Legacy Act Update." This presentation was part of a joint presentation with Eric Stern of USEPA Region 2 who gave a presentation on innovative sediment decontamination technologies.

(Contact: Marc Tuchman, 312-353-1369,

[tuchman.marc@epa.gov](mailto:tuchman.marc@epa.gov))

### Mussels Cleaning Lakes?

Recent work by EPA scientists, presented to the Great Lakes National Program Office on March 8<sup>th</sup>, shows that dreissenid mussels (zebra and quagga mussels) are having significant impacts in lakes Erie and Ontario, but not always in expected ways. In an examination of monitoring data stretching back to the early 1980's, dreissenids have been shown to have had surprisingly little effect on the water clarity of the shallow western basin of Lake Erie, contrary to popular belief. Instead, effects have been more pronounced in the deep eastern basin. What is more surprising is that during the summer, levels of turbidity in the offshore waters of Lake Ontario have decreased dramatically — up to six-fold — since the dreissenid invasion. This effect was unexpected both because of the great depth of the offshore waters — close to 200 m in



Zebra mussel (top) and quagga mussel (actual size of zebra mussel is around  $\frac{3}{4}$  inch) (Photo courtesy of U.S. Geological Survey)

places — and also because during the summer the lake stratifies thermally, which cuts off the upper water column from the bottom-dwelling mussels. The key to this puzzle appears to be calcium. Concentrations of calcium are high enough in Lake Ontario to become super-saturated when the lake warms up during the summer (calcium, unlike most other elements, becomes less soluble at higher temperatures), and this causes the element to precipitate out in milky clouds called whiting events. Zebra and quagga mussels, however, need large amounts of calcium to produce their shells, and since their invasion, alkalinity levels, which are related to calcium concentrations, have dropped dramatically. So it appears that uptake of calcium by the mussels has reduced the concentration of calcium in Lake Ontario enough to prevent whiting events, and hence to keep the water clear during the summer. What consequences this change in the light environment in the lake might have had on other organisms is currently being investigated.

For additional information about zebra mussels, visit the U.S. Geological Survey's Zebra Mussel Web page: <http://nas.er.usgs.gov/zebra.mussel/>

(Contact: Marc Tuchman, 312-353-1369, [tuchman.marc@epa.gov](mailto:tuchman.marc@epa.gov))

### **New York State Wetlands Forum**

USEPA Region 2 and GLNPO staff attended the March 31<sup>st</sup> to April 1<sup>st</sup>, "Restoring and Protecting the Health of Great Lakes Wetlands" Conference and Annual Meeting in Rochester, New York. Ric Lawson of the Great Lakes Commission and the secretariat for the Great Lakes Coastal Wetlands Consortium, gave a keynote address about the Consortium's progress in developing indicators and a long-



East Bay Marshes on southern Lake Ontario

term monitoring program. Mario DelVicario and Barbara Belasco from USEPA's Region 2 office updated attendees on Lakewide Management Plan and Remedial Action Plan activities. Several Consortium members presented Consortium pilot project findings at a symposium about Great Lakes coastal wetlands.

In addition, a meeting was held with the New York Department of Environmental Conservation, Ducks Unlimited, and New York State Department of Transportation staff to further inform them of Consortium pilot projects, classification system, and indicator development.

(Contacts: Karen Rodriguez, 312-353-2690, [rodriguez.karen@epa.gov](mailto:rodriguez.karen@epa.gov); John Schneider, 312-886-0880, [schneider.john@epa.gov](mailto:schneider.john@epa.gov); Barbara Belasco, 212-637-3848, [belasco.barbara@epa.gov](mailto:belasco.barbara@epa.gov); or Mario DelVicario, 212-637-3779, [delvicario.mario@epa.gov](mailto:delvicario.mario@epa.gov))

We welcome your questions, comments or suggestions about this month's Significant Activities Report. To be added to or removed from the Email distribution of the Significant Activities Report, please contact Tony Kizlauskas, 312-353-8773, [kizlauskas.anthony@epa.gov](mailto:kizlauskas.anthony@epa.gov).