



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

On the Web at:
www.epa.gov/glnpo

May 2002

IN THIS ISSUE:

- ***Lake Guardian on a Roll***
- ***GLNPO Web Site Big Hit***
- ***Preliminary Funding Decisions Announced***
- ***Michigan Sediment Cleanups Highlighted***
- ***Keeping the Critters Out***
- ***Pollution Prevention Road Show***
- ***Lake Erie Study Comes Together***
- ***Harbor Cleanup Moves Forward***
- ***Sharing Indicators Lessons***

Lake Guardian on a Roll

The Great Lakes National Program Office's 180-foot research vessel, the *R/V Lake Guardian* has continued its busy Spring schedule, supporting a number of research and monitoring activities on the Great Lakes.



R/V Lake Guardian Gets Underway

The Spring water quality survey of the five Great Lakes begun on March 28th, was com-

pleted on May 2nd. Generally good weather (low winds) contributed to an early completion of the monitoring. During the survey, samples were taken for investigation of water chemistry and biology. This is the latest survey in a long term monitoring program that began in 1983. The surveys have documented trends in nutrient and chlorophyll levels in the lakes, and changes in their plankton communities. Sampling locations in each lake ranged from eight stations in Lake Ontario to twenty stations in Lake Erie. Lake Erie was sampled twice this Spring because of very high turbidity levels in the lake on the first pass. The high turbidity levels remained in parts of the lake on the second pass, and these unusual circumstances will set the stage for upcoming research and monitoring on Lake Erie this Summer and Fall. (See "Lake Erie Study Comes Together" in this issue.)

In addition to carrying out the regular monitoring program, the *Lake Guardian* continued to support leading-edge research. In addition to the air toxics research on Lake Ontario (See the April 2002 Significant Activities Report), during and after the Spring water quality survey, the *Lake Guardian* provided support to researchers from the University of Illinois at Chicago in collecting sediment cores from Lakes Superior and Michigan. These cores, taken in deeper (depositional areas, where sediments accumulate over time) portions of the lakes, are to be analyzed for a history of polybrominated diphenyl ethers (PBDEs) in the Great Lakes. The sediment cores will be sliced into layers. The age of the sediments in the layers will be determined using knowledge



Sampling Goes On Around-the-Clock
(Sediment Core Sample Being Taken)

about the decay of naturally occurring radioactive elements. When these same layers are analyzed for PBDEs, a history can be built to show how PBDEs were deposited over time. Dr. William Mills from the University of Illinois at Chicago, the principal investigator for the PBDE study, personally supervised the sampling. (Contact: Glenn Warren, 312-886-2405, warren.glenn@epa.gov)

A satellite for data communications and video programming was installed on the *Lake Guardian* in May. Antennas and supporting structures were installed on the ship and the system was connected to the local



Satellite Keeps *Lake Guardian* Connected

area network on the *Guardian*. (Contact: Barry Manne, 312-353-8015, manne.barry@epa.gov; Pranas Pranckevicius, 312-353-3437, pranckevicius.pranas@epa.gov)

More information about the *R/V Lake Guardian*, including it's schedule for the year can be found on the Web at: <http://www.epa.gov/glnpo/guard/ship.html>

GLNPO Web Site Big Hit

The GLNPO web site (<http://www.epa.gov/glnpo>) had a banner month in April. The site is once again in the top twenty list of the most visited web sites in USEPA. During the month, the site was the 15th most-visited place within USEPA's web site. A total of 37.1 Gigabytes of data were served out to over 100,000 distinct computers. (Contact: Pranas Pranckevicius, 312-353-3437, pranckevicius.pranas@epa.gov)



Green Landscaping Web Page Graphic

Green Landscaping with Native Plants (<http://www.epa.gov/greenacres>) was the most visited part of GLNPO's Web Site in April, tallying over 60,000 visits. (Contact: Danielle Green 312-886-7594, green.danielle@epa.gov)

Other popular parts of GLNPO's Web Site were:

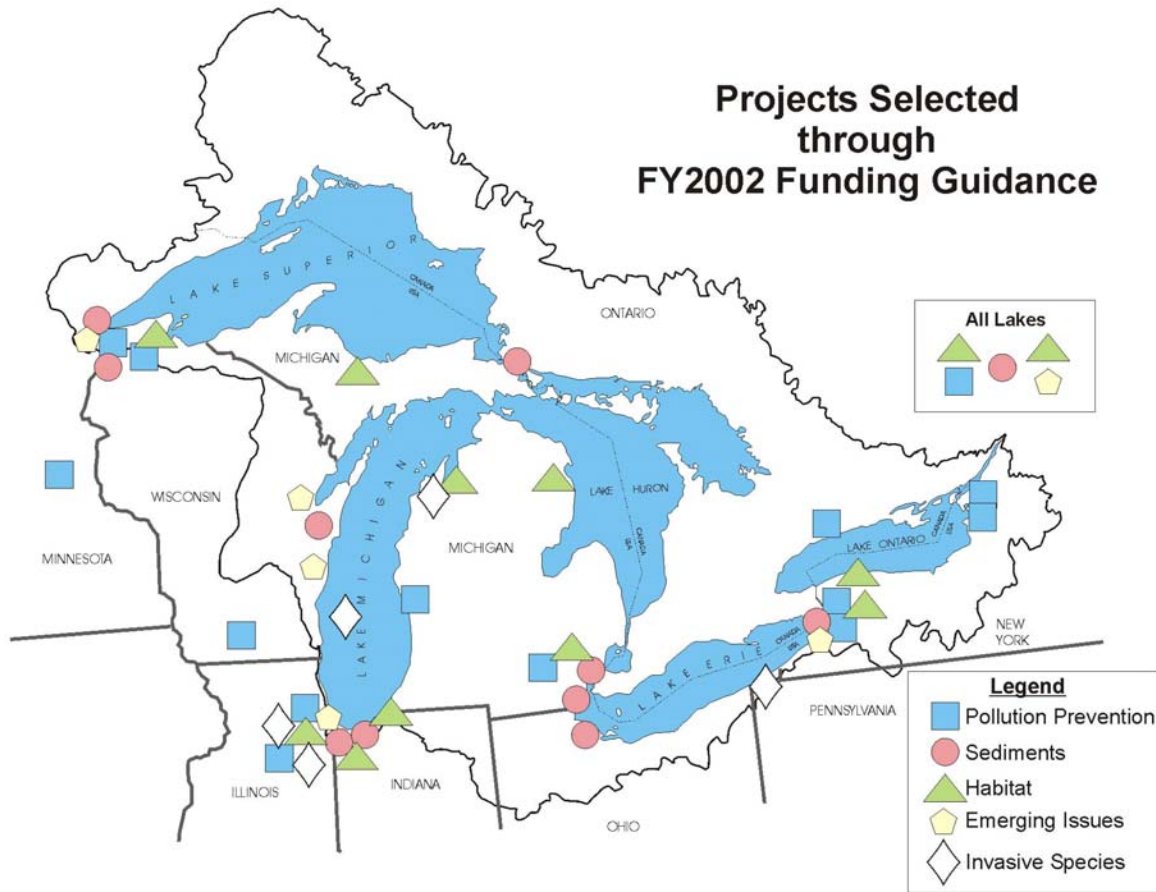
The Home Page (<http://www.epa.gov/glnpo>)

The Atlas (<http://www.epa.gov/glnpo/atlas/intro.html>)

The Image Collection, Visualizing the Great Lakes (<http://www.epa.gov/glnpo/image>)

Preliminary Funding Decisions Announced

Decisions on Proposals submitted to the USEPA's Great Lakes National Program Office FY2002 competitive grants process have been made. Earlier this year, in response to GLNPO's solicitation for \$2.9 million in projects, applicants submitted 192 proposals, seeking \$20.2 million in funding. GLNPO is now requesting that applicants formally apply for funding for 48 projects totaling \$3 million. One or more of these projects is located in each of the Great Lakes states (see figure). Projects will assess and remediate contaminated sediments, prevent and reduce pollution, restore and protect important habitats, develop a habitat indicator, prevent and control invasive species, and address emerging or strategic issues. The selected projects will support Basin-wide priorities, as well as priorities of Lake Management Plans and Remedial Action Plans. The list of successful proposals can be viewed on the Web at: <http://www.epa.gov/glnpo/fund/2002fund/yeslist.html>

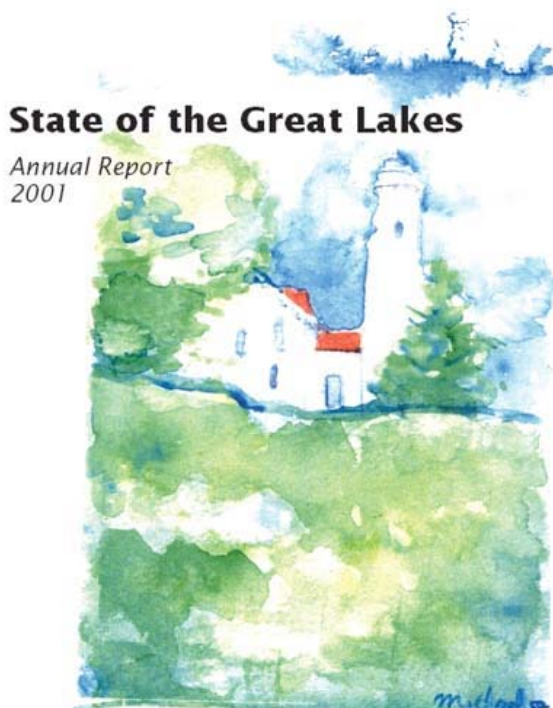


Geographic Distribution of Projects Selected through the FY2002 Funding Guidance Process

Of course, the final decisions on whether to fund particular projects will only be made after evaluation of the full federal application packages. Additional information about GLNPO's competitive grants process, including projects funded in past competitions, can be found at: <http://www.epa.gov/glnpo/fund/glef.html>
 (Contact: Mike Russ, 312-886-4013, russ.michael@epa.gov)

Michigan Sediment Cleanups Highlighted

The State of the Great Lakes - Annual Report 2001 was released in April 2002 by the Michigan Department of Environmental Quality (MDEQ).



MDEQ State of the Great Lakes 2001 Cover Art

In this report the Director of the MDEQ, Russell Harding, wrote an article outlining the numerous sediment cleanups that are taking place in the state of Michigan. Specific projects mentioned in the article include: Pine River; South Branch of the Black River; Black Lagoon; Connors Creek; Wolf Creek; and White Lake/Tannery Bay. GLNPO has actively worked with MDEQ by providing technical and financial assistance to support the sediment assessment and remediation efforts on both Tannery Bay/White Lake and Black Lagoon/Trenton Channel. The Tannery Bay site is slated for remediation in the Summer of 2002; and the

Black Lagoon treatment technology project is scheduled for early 2003. (Contact: Demaree Collier, 312-886-0214, collier.demaree@epa.gov)

Michigan's 2001 State of the Great Lakes report is available on the Web at: <http://www.deq.state.mi.us/documents/deq-oglsogl01.pdf>

Keeping the Critters Out

On April 9th, the U.S. Army Corps of Engineers (Corps), Chicago District began full time operation of the aquatic nuisance species dispersal barrier in the Chicago Sanitary and Ship Canal near Romeoville, Illinois. This demonstration project as proposed in the National Invasive Species Act, authorized the U.S. Army Corps of Engineers to identify methods for preventing and reducing the dispersal of aquatic nuisance species between the Great Lakes basin and the Mississippi River system. An electrical barrier was selected as the best option for such a barrier and construction of the barrier was completed in December 2001.



Chicago Sanitary and Ship Canal in the Vicinity of the Dispersal Barrier Site at Romeoville, Illinois

Of particular significance to the Great Lakes, are the movements of the bighead, silver, and other Asian carp upriver. Either one of these fish, if successful in reaching the Great Lakes, could have significant im-

pacts on native fish and shellfish habitats. The barrier was constructed by the Corps for approximately \$1.3 million. GLNPO supported some early developmental work on barrier design. Monitoring of the effectiveness of the barrier will be conducted for two years by the Illinois Natural History Survey.



U.S. Fish and Wildlife Biologist Holds Bighead Carp

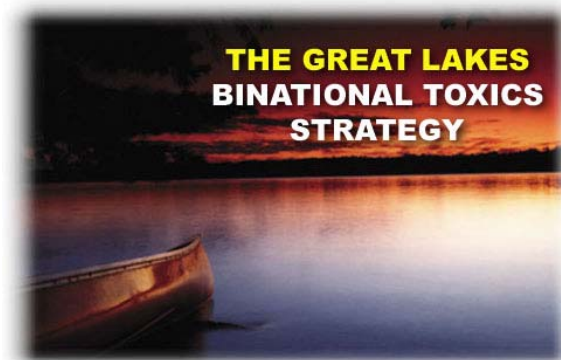
On April 18th, the Corps held a dedication ceremony to formally announce the activation of the barrier. David Ullrich, Deputy Regional Administrator of USEPA Region 5 made a presentation on the importance and significance of this project. (Contact: Marc Tuchman, 312-353-1369, tuchman.marc@epa.gov)

Additional information about the dispersal barrier project is available from the U.S. Army Corps of Engineers (<http://www.usace.army.mil/lrc/pd-s>) and from Wisconsin Sea Grant (<http://www.seagrant.wisc.edu/outreach/nis/Barrier/Barrier.asp>)

Pollution Prevention Road Show

Great Lakes National Program Office staff shared successful experiences from the Great Lakes Binational Toxics Strategy (GLBTS) in several pollution prevention venues recently. The GLBTS is a groundbreaking agreement between the United States and Canada setting forth specific goals for reducing the use and release of a set of targeted persistent toxic substances impacting the Great Lakes. GLBTS has been recognized as a very successful example of achieving environmental progress through the mostly voluntary efforts of stakeholder partners. Stakeholders involved in the GLBTS process include representatives from governmental (State, Federal, Provincial, Tribes, First Nations) and non-governmental (citizens groups, industry, academia, non-profit organizations, trade groups) organizations.

E. Marie Phillips and Ted Smith along with their Canadian counterparts, participated in the annual National Pollution Prevention Roundtable Conference in Portland, Oregon, the week of April 1st. They fielded a GLBTS information booth, answering questions and distributing posters; fact sheets; and CD's containing last year's and this year's annual reports.



Great Lakes Binational Toxics Strategy Logo Graphic

Later in the month, E. Marie Phillips along with her Canadian counterparts, participated in the Canadian Pollution Prevention Roundtable in Quebec City on April 25th and 26th. They set up a GLBTS display and were on hand to answer questions and distribute outreach materials.

(Contact: Ted Smith, 312-353-6571, smith.edwin@epa.gov; E. Marie Phillips, 312-886-6034, phillips.emarie@epa.gov)

Additional information on the Great Lakes Binational Toxics Strategy is available on the Web at: <http://binational.net/bns/index-e.html> and <http://www.epa.gov/glnpo/bns>

Lake Erie Study Comes Together

On May 2nd, David Rockwell and Lou Blume from the Great Lakes National Program Office met with 25 principal investigators and cooperators involved with a special study of Lake Erie. The study came about because of concerns by Great Lake scientists over the increase in Lake Erie's so-called "dead zone", an area essentially devoid of oxygen in the Summer (See March 2002 Significant Activities Report). This GLNPO-initiated study has gained momentum due to the strong support of Environment Canada, the University of Windsor, the Ohio State University, and USEPA's Office of Research and Development's



Stormy Skies Over Lake Erie

Laboratory in Grosse Ile, Michigan. The study will invest over \$1,000,000 in direct expenditures from all levels of Government including United States and Canadian Federal, State and Provincial Agencies and Universities. The meeting was held to develop a coordinated plan to effectively utilize eight research vessels, including the two largest research vessels on the Great Lakes (The Canadian research ship, *C/S Limnos* and GLNPO's *R/V Lake Guardian*). Sampling



Environment Canada's Research Ship, *C/S Limnos*

station patterns were developed to integrate with the existing fixed networks and to provide nearshore to offshore transects needed to provide sufficient information for mathematical modeling. The model will be used to help understand the complex dynamics of Lake Erie. (Contact: David Rockwell, 312-353-1373, rockwell.david@epa.gov)

Harbor Cleanup Moves Forward

The project to restore navigation depths and remove some of the most grossly contaminated sediments in any U.S. waterway continues to move forward. The Indiana Harbor Canal in Northwest Indiana was last dredged in 1972 and extensive contaminated sediment deposits have built up from past discharges from heavy industry in the area. The proposed Confined Disposal Site (CDF), where sediments dredged from the



Barge Navigates the Indiana Harbor Canal

Indiana Harbor Canal will be placed for disposal, is located adjacent to the Canal on the site of the former Energy Cooperative, Inc. (ECI) refinery. The ECI site is in the process of being cleaned up under strict Resource Conservation and Recovery Act (RCRA) requirements for long-term environmental security. The CDF is being designed to hold the million cubic yards of contaminated sediments that are to be dredged from the Canal over the next 30 years.

Several hundred people attended an Environmental Justice Forum on the Indiana Harbor CDF at Indiana University Northwest in Gary, Indiana on Saturday, April 20th. The agenda included technical presentations regarding the project by the U.S. Army Corps of Engineer, USEPA, the East Chicago Waterways Management District, and the Indiana Department of Environmental management. A second set of panelists consisted primarily of local citizens and environmental groups who voiced their displeasure over the location of the CDF at the ECI site within East Chicago and potential negative impacts of the dredged material. Agency representatives focused on the beneficial aspects of the project which include remediation of the contaminated wa-

terway, closure of the ECI site which is currently an open RCRA site, and enhanced economic opportunities in the region. The forum highlighted the need for continued public outreach and public involvement in this important project. (Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov)

Additional information on the Indiana Harbor Canal CDF and Dredging Project can be found at: <http://www.lrc.usace.army.mil/topics/ihc.htm>

Sharing Indicators Lessons

GLNPO's Duane Heaton attended the Western Great Lakes Research Conference at Northern Michigan University on April 2nd and 3rd, and gave a presentation on "Binational Assessment of the Great Lakes – A Look at SOLEC." The Conference was sponsored by the National Park Service (NPS) which is undertaking an effort to conduct biological inventories and long-term monitoring of park ecosystems. The inventories of nine NPS units in the Great Lakes area began last year, and the two to three-year process of designing a long-term monitoring program is beginning this year. The NPS is looking at similar processes for assessing ecological condition, and asked GLNPO to provide an overview of work conducted for the State of the Lakes Ecosystem Conferences (SOLEC), especially the development and reporting on indicators of ecosystem health. (Contact: Duane Heaton, 312-886-6399, heaton.duane@epa.gov)

SOLEC is a binational (U.S. and Canada) process, culminating in a conference held every two years to exchange scientific information about the



SOLEC 2000 Logo

condition of and issues facing the Great Lakes. SOLEC 2002 will be held in Cleveland, Ohio from October 16th to 18th. SOLEC is currently developing and beginning to report on a suite of indicators of ecosystem conditions. Indicators are being developed for physical, chemical, biological, habitat, and societal conditions. Using the information obtained through the SOLEC process, a State of the Great Lakes report is issued every other year. The most recent report can be obtained from Larry Brail, 312-886-7474, brail.lawrence@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.