



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

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Ashtabula Action

River Cleanup Begins

On September 8th, dredging activities began for the Ashtabula River remediation project. The \$50 million dredging project is jointly funded by USEPA's Great Lakes Legacy Act, Ohio EPA, and a contingent of local private companies. After 4 days of system shakedown activities the hydraulic cutterhead dredge commenced 24-hour operations on September 12th. Through September 28th, approximately 20,000 cubic yards of contaminated sediments have been out of a total of 550,000 cy. As the sediments are dredged, the dredge creates a mud and water slurry that is pumped approximately 2.5 miles to a TSCA permitted disposal cell for dewatering (using Geotubes) and water treatment. After dewatering the sediments will remain in the Geotubes as their final resting place. Dredging operations are expected to continue until



Cutterhead suction dredge removing contaminated sediments from the Ashtabula River turning basin

Fall 2007. USEPA Assistant Administrator Ben Grumbles visited the site on September 12th to celebrate the start of dredging.

(Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov)

Caged Fish Studies

During the first week of September, 2006, GLNPO Sediment Team members Dave Wethington and Susan Boehme traveled to Ashtabula, Ohio to aid Battelle contractors in the recovery of caged fish from the Ashtabula River. Deployed as part of the Ashtabula River pre-dredging assessment, the caged fish were placed near the river bottom for a 28-day exposure period, in an effort to assess in-situ contaminant uptake by aquatic organisms. The conclusion of this exposure period resulted in the successful culmination of a second effort to deploy and retrieve fish. Ending in mid-July 2006, the first attempt at recovering caged fish experienced a high mortality rate, bringing to question the fate of the doomed fish. Investigators surmised that significant precipitation events caused flow rates of sufficient magnitude to either physically traumatize or cause asphyxiation through reduced dissolved oxygen concentrations, resulting in the loss of the majority of

the fish. In an attempt to mitigate losses during the second deployment, cages were outfitted with baffles to disperse flow, and suspended approximately 1-2 feet above the sediment surface to minimize the effects of high-flow oxygen depletion observed near the sediment-water interface. Results of the second trial were largely successful, and data from the fish exposure is anticipated in early November.

(Contact: Dave Wethington, 312-886-1437, wethington.david@epa.gov)

2006 Great Lakes Watershed Restoration Grant Program

On September 1st, USEPA, in partnership with the National Fish and Wildlife Foundation, U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the U.S. Forest Service, and the Natural Resources Conservation Service, announced a request for proposals for the Great Lakes Watershed Restoration Grant Program. This second year of the Program will fund more than \$900,000 for projects that address ecological restoration needs identified by the Great Lakes Regional Collaboration. States, Tribes, local governments, not-for-profit organizations, conservation districts and universities are eligible to apply. The deadline for applications is November 15, 2006.

In the first year, 14 projects were funded with \$827,400 in federal dollars leveraged by another more than \$1.3 million in nonfederal contributions from grantees. The grant funds are being used to develop and implement local watershed plans that address water quality and living resource needs in Great Lakes watersheds, restore critical sand dune, wetland, forest, and stream habitats for fish and wildlife as well as control invasive plant species. Four projects are located in Areas of Concern, severely degraded geographic areas within the Great Lakes basin. Eight projects are located in areas identified by The Nature

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Great Lakes Watershed Restoration Program
Request for Proposals

Grant Application

Eligible Projects
To be eligible for consideration, projects must be located within U.S. portions of the Great Lakes watershed. Canadian projects may also be eligible if the project has implications for the entire basin or directly affects trust species such as migratory birds. In addition, where applicable, projects should be coordinated with local and regional watershed management plans that address the water quality and living resource needs in the Great Lakes. Finally, projects must also directly address at least one of the priority areas identified by the Great Lakes Regional Collaboration's Habitat/Species Strategy Team:

- Restore, enhance, and protect near shore and off shore native fish communities and other living resources and their habitats, to provide for a balanced ecosystem.
- Restore, enhance and protect the wetlands that are vital to the survival and diversity of the living resources of the Great Lakes.
- Restore, enhance and protect the tributaries and their watersheds that support the living resources of the Great Lakes ecosystem.
- Restore, enhance, and protect the Great Lakes shoreline and upland habitats.
- Address terrestrial and aquatic invasive species throughout the Great Lakes watershed.
- Promote individual stewardship and assist individuals, community-based organizations, businesses, local governments, and schools to undertake initiatives, including watershed planning, to achieve the above goals.

Projects that seek funding for land or easement acquisition, political advocacy, lobbying, or litigation are not eligible.

For the purposes of this program, the Great Lakes watershed will be defined by the Great Lakes Water Quality Agreement Article 1. (a) "Great Lakes System" means all of the streams, rivers, lakes and other bodies of water that are within the drainage basin on the St. Lawrence River at or upstream from the point at which this river becomes the international boundary between Canada and the United States.

Grant Guidelines
In making award decisions, the Foundation seeks to represent the geographic diversity and the variety of communities and organizations in the Great Lakes watershed. The following guidelines will be used by an advisory team of experts from the Great Lakes region to evaluate proposals requesting support under the Great Lakes Watershed Restoration Grants Program:

- Grants range between \$35,000 and \$100,000.
- A 1:1 match is required for this program. Matching funds must be non-federal and may be generated through contributions of funds, goods or services (including in-kind contributions) from project partners. In exceptional cases, the review committee may consider projects that have less than the required match. See application form for additional details.
- Projects should demonstrate broad partnerships, in particular demonstrating strong community and/or local government support, letters documenting the supportive contributions of project partners (including local, state and federal agency partners) are strongly encouraged.
- Projects must be ready to complete within approximately eighteen months upon receipt of grant.

Great Lakes Watershed Restoration Grant Program website for making grant applications

Conservancy's Conservation Blueprint for the Great Lakes as high priority landscapes and seascapes that, if conserved, promise to ensure biodiversity over the long term.

The RFP can be found at <http://www.nfwf.org/programs/greatlakes/>.

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EarthKeepers Initiative

On September 14th, Carl Lindquist of the Superior Watershed Partnership and Rev. Jon Magnuson of the Cedar Tree Institute traveled from Marquette, Michigan to USEPA in Chicago to present their work on the [EarthKeepers Initiative](#), which is funded through a GLNPO grant. EarthKeepers is a collaboration of 150 congregations from 9 faith groups working on pollution prevention, namely mercury reduction, in the Lake Superior basin. Hailing from each of Upper Peninsula's 15 counties, the group conducted a widely successful "Clean Sweep" on Earth Day 2006, during which they removed 300 tons of electronic waste, primarily household electronics, from their communities to be sent for recycling or proper disposal. The presentation of the EarthKeepers Initiative,

publicized in Region 5 and throughout greater Chicago, was attended by 50 people, including federal employees, church congregants, and community activists. Mr. Lindquist addressed how the long-term successes of the Superior Watershed Partnership laid the groundwork for the high level of local involvement in Earth Keepers, particularly in the creation of more than 18 new Watershed Councils. Rev. Magnuson followed with an inspiring presentation of "What the Faith Community Can Offer the Environmental Movement." A meeting was later held to discuss the incorporation of USEPA resources into future EarthKeepers pollution prevention projects, as well as the possibility of replicating the Clean Sweep in cities throughout the Great Lakes basin. Representatives from GLNPO; USEPA Region 5 Waste, Pesticides and Toxics Division and the Office of Science, Ecosystems and Communities; and the Great Lakes and St. Lawrence River Cities Initiative participated in the meeting. Earth Keepers has received a USEPA CARE Grant (Community Action for a Renewed Environment), to begin in October, 2006.

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Cleanups Pay Dividends

Dr. John Braden of the University of Illinois presented the preliminary findings of a two-year study on the potential economic benefits to Buffalo and Sheboygan area homeowners that may result after cleanup activities in the respective Areas of Concern. This study was funded in part by GLNPO via a grant awarded to the Northeast-Midwest Institute in 2004. The results of the study may provide an additional reason for communities to support restoration, and the incentive for local, state, and federal partners to invest in cleanups. On September 15th, Mary Beth G. Ross provided opening remarks at the Buffalo River public forum in Buffalo, New York. Other speakers included Buffalo Mayor Byron Brown, State Senator Mark Schroeder,

Abby Snyder of the New York State Department of Environmental Conservation, Jill Spisiak Jedlicka of the Buffalo Niagara Riverkeeper, Helen Domske of New York Sea Grant and University at Buffalo, and Nicole Mays of the Northeast-Midwest Institute. On September 21st, Marc Tuchman gave opening remarks at the Sheboygan River forum. More information on the studies will be available at: <http://www.nemw.org/greatlakes.htm>.

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Riverview Site Cleanup Project Initiated

On September 19th, a Great Lakes Legacy Act Project Agreement was signed, structuring a partnership between the Michigan Department of Environmental Quality (MDEQ) and USEPA GLNPO. The Agreement outlines the Remedial Investigation and Feasibility Study of contaminated sediments at the Riverview Site, which is located on the Trenton Channel of the Detroit River, situated within the Detroit River Area of Concern (AOC). The project area spans approximately 2.5 miles of the western shoreline of the Upper Trenton Channel, adjacent to the cities of Riverview and Wyandotte, Michigan. The goal of the Riverview project is to develop and select the most appropriate option to remediate contaminated sediments within the boundaries of the site. Previous studies have demonstrated that portions of the Riverview



Industry along the Trenton Channel, Detroit River



Milwaukee River passing under the I-794 bridge

site contain significant volumes of non-native sediment, contaminated with a variety of pollutants, including mercury and polychlorinated biphenyls (PCBs). The purpose of the Remedial Investigation is to evaluate the magnitude and extent of contamination throughout the entire project area, and identify potential risks to human health and the environment. Based upon this information, a Feasibility Study will be performed to establish remedial goals, identify and evaluate remedial options, and recommend a remedial alternative, in accordance with the objectives of the Great Lakes Legacy Act.

(Contact: Dave Wethington, 312-886-1437, wethington.david@epa.gov)

***Mudpuppy* Looks for Metals in Milwaukee Mud**

The *R/V Mudpuppy* and crew, joined by GLNPO Sediment Team member Dave

Wethington, traveled to Milwaukee, Wisconsin during the last week of September 2006. The purpose of the trip was to support field work conducted by Dr. Tim Grundl of the University of Wisconsin-Milwaukee and Dr. Tim Elam of the University of Washington. The *Mudpuppy* was utilized to conduct the final field demonstration of an innovative sampling apparatus that employs x-ray spectroscopy to assess and quantify in-situ metals concentrations in sediment. X-ray probe pushes were performed at multiple locations within Milwaukee Harbor, at areas that were expected to contain both high and low levels of metals contamination. Vibracore samples were then collected in the same locations as the X-ray probe to verify the accuracy of the X-ray technique.

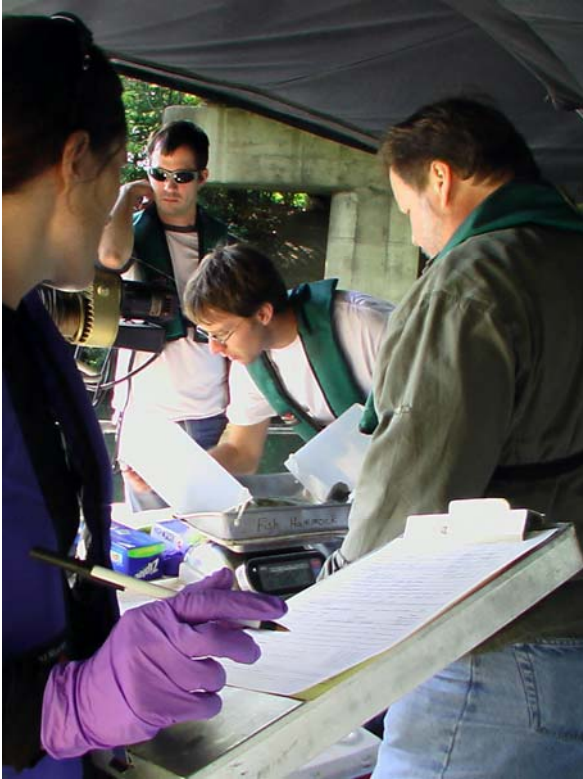
(Contact: Dave Wethington, 312-886-1437, wethington.david@epa.gov)

Bass as Contaminant Monitors

On September 26th and 27th, USEPA, Tetra Tech, St. Cloud State, and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) collected stream samples and large mouth bass from the North Shore Channel of the Chicago River and Monroe Harbor in Lake Michigan. Over 35 large mouth bass were collected from the North Shore Channel and over 10 large mouth bass were collected from Monroe Harbor. This collaborative sampling effort will enhance and supplement a national pilot project led



Scientists collect largemouth bass from Monroe Harbor on Chicago's Lake Michigan lakefront



GLNPO's Todd Nettesheim (center) examines a largemouth bass collected from the North Shore Channel of the Chicago River

by USEPA's Office of Water. The national pilot project will investigate the occurrence of 39 pharmaceuticals and personal care products (PPCPs) in fish fillets and liver samples from 5 sites, where waters are dominated by wastewater treatment plant effluents.

The supplemental study on the North Shore Channel is a collaborative partnership between GLNPO; USEPA Region 5's Central Regional Laboratory (CRL), Water Division and Waste, Pesticides and Toxics Division; USEPA Headquarter's Office of Water; the U.S. Geological Survey (USGS); the U.S. Department of Agriculture (USDA); and MWRDGC. The three main objectives of the supplemental study are to:

1. Determine if there is reproductive impairment to resident fish;

2. Estimate effluent and stream concentrations of PPCPs, Alkylphenol Ethoxylates (APEs) which are used as surfactants in soaps and detergents, and hormones; and
3. Document seasonal differences in concentrations of these compounds in effluent, stream, and fish.

Reproductive impairment will be assessed by St. Cloud State's Dr. Heiko Schoenfuss. USDA and USGS will estimate the concentrations of APEs, hormones, and over 100 additional PPCPs in whole fish. USGS and CRL will estimate the concentrations of these substances in effluent of the Northside Water Reclamation Plant and 5 miles downstream of the plant in the North Shore Channel. The second effluent, fish and stream sampling event will occur in early Spring 2007.

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Water Quality Monitoring How-To

GLNPO scientists Jacqueline Adams and Elizabeth Hinchey Malloy were invited to the Great Lakes Science Center in Cleveland, Ohio on September 27th to conduct a workshop on water quality monitoring techniques for Great Lakes Science Center staff and volunteers. The workshop was organized by Louise Palermo, Manager of Visitor Experience at the Center. The participants were shown how to use a secchi disk to measure water transparency, how to measure dissolved oxygen in the water, and how to collect and identify zooplankton. Palermo, inspired by the limnology sampling techniques she learned as a participant in last summer's *R/V Lake Guardian* COSEE cruise on Lake Erie (See June issue of the Significant Ac-



Louise Palermo provides an introduction to using the secchi disk to measure water clarity at the Great Lakes Science Center on Cleveland's lakefront

tivities Report), is creating new programming at the Great lakes Science Center to bring hands-on, scientifically sound and protocol rich Great Lakes experiences to thousands of weekend visitors and high school groups who visit the Center each year.

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Upcoming Events

2006

- September 12-14 Second International Symposium on the Lake Huron Ecosystem, Honey Harbor, Ontario Canada
- November 1-3 [State of the Lakes Ecosystem Conference \(SOLEC\) 2006](#)
Milwaukee, Wisconsin

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.