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

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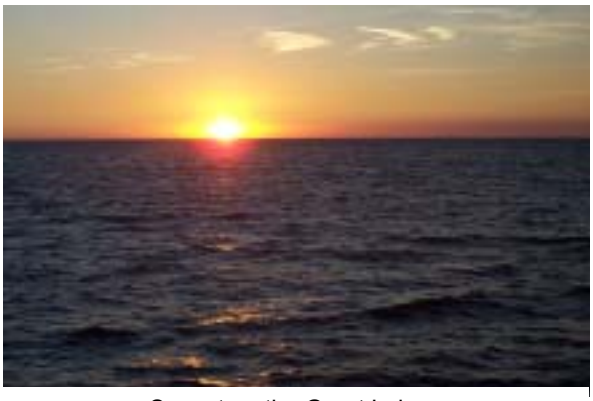
R/V Lake Guardian Back Home

GLNPO's 180-foot research vessel, the *R/V Lake Guardian*, concluded a very busy year of research and monitoring on the Great Lakes. In addition to its routine annual monitoring program on the Great Lakes, the *Guardian* conducted special studies on Lake Michigan, Lake Erie, and Lake Ontario.

USEPA's R/V Lake Guardian.
(Photo by Emil Groth, Michigan Technological U.)



Sunset on the Great Lakes.
"The hours are long but the views are breathtaking."

On September 2nd, the crew of the *Lake Guardian* completed the **2002 Summer Survey of the Great Lakes**. All five lakes were sampled to assess the chemical, physical, and biological condition of the lakes. In addition to this continuing work of looking for long-term trends in the lakes, samples were taken to assist in looking at the recent history of polybrominated diphenyl ethers (through sediment cores), and atmospheric deposition.

The USEPA's Chief Scientist on the Summer Cruise observed

> "While much of the work during these surveys is routine, one's sense of stewardship of the lakes is constantly renewed by their splendor and immensity."

(Contact: Glenn Warren, 312-886- 2405, warren.glenn@epa.gov)

On Southern Lake Michigan, from September 8th to 10th, the *Lake Guardian* conducted a special **survey to monitor the decline of the benthic invertebrate *Diporeia***. This

study was a continuation of a cooperative effort of GLNPO and the National Oceanic and Atmospheric Administration's Great Lakes Environmental Research Laboratory.

Diporeia

Approximately 50 stations were surveyed to collect trend data on the status of this organism, which is a very important food source for young fish in Lake Michigan. This is the fifth year GLNPO and NOAA have combined efforts to monitor for *Diporeia*. Results to date have demonstrated that *Diporeia* has disappeared from the southeastern corner of the lake at depths shallower than 70 meters — it does appear to be found at the deeper depths. The cause of the decline of *Diporeia* in the Great Lakes has not been found, although it is thought that zebra mussels may have a role. Results from this year's survey should be available by next Spring. Find out more about this important indicator of the health of the benthic (bottom) biological community on the Web at: http://www.epa.gov/glnpo/glindicators/biology/benthica.html. (Contact: Marc Tuchman, 312-353-1369, tuchman.marc@epa.gov)

The fourth Lake Erie Supplemental (**Dead Zone**) Survey, in support of GLNPO funded research into the anoxia problems in the central basin was conducted from September 14th to September 20th. There were 22 researchers aboard the *Lake Guardian* for this survey. As on previous surveys, a number of different measurements will be taken and experiments performed. This survey contains the sixth dissolved oxygen survey of the bottom waters of the central basin of Lake Erie. (Contact: Marvin Palmer, 312-353-1367, palmer.marvin@epa.gov)

GLNPO Chief Scientist, Glenn Warren explains Lake Erie "Dead Zone" Study to reporter.

A **press event** was held aboard the *R/V Lake Guardian* in Cleveland, Ohio on September 20th after the Lake Erie Supplemental Survey. The event was held in response to a number of requests from the press to learn more about the special studies on Lake Erie undertaken this Summer to investigate changes in the Lake Erie ecosystem. (Contact: Glenn Warren, 312-886-2405, warren.glenn@epa.gov)

Later, on Lake Ontario, the *Lake Guardian* conducted the Fall **Lake Ontario Atmospheric Deposition Study** (**LOADS**) Survey. LOADS is an intensive multi-year air toxic deposition monitoring project designed to better understand the deposition of

EPA Scientist checks LOADS air sampler.

mercury, PCBs, DDE, mirex, HCB, and dioxins/furans to Lake Ontario. The project's objectives are to:

1. Estimate loadings of these pollutants for use in the Lake Ontario Mass Balance Model,
2. Assess any differences in concentrations and deposition over land versus over water,
3. Determine the effect of urban areas on deposition to the Lake, and
4. Investigate the sources and source regions of deposition to Lake Ontario.

The week-long Fall sampling cruise collected ambient air, precipitation and lake water samples in eastern and western Lake Ontario from September 22nd to October 2nd. Two new atmospheric samplers were installed aboard the *Lake Guardian* specially for the cruise. LOADS is being managed by USEPA Region 2 and Clarkson University, with assistance from SUNY Oswego, SUNY Fredonia, Environment Canada, University of Michigan, USEPA Region 5 and the Great Lakes National Program Office.

For more information on LOADS, see the April 2002 issue of the Significant Activities Report. (Contact: Barbara Belasco, 212-637-3848, belasco.barbara@epa.gov, or Todd Nettesheim, 312- 353-9153, nettesheim.todd@epa.gov)

A **press event** was held aboard the *Lake Guardian* at Oswego, New York on September 25th to give radio, television, and press reporters a close-up look at the LOADS study. Mike Basile and Erika Clark of USEPA's Region 2 Office hosted the press tour. Bob Kelly, the lead USEPA scientist for the study, briefed the press on the study's technical aspects, including sampling equipment and methods.

Mike Basile, Erika Clark, and Bob Kelly from EPA's Region 2 aboard the *Lake Guardian* at LOADS press event off Oswego, New York.

The LOADS study is being funded through grants from Region 2. Media representatives were first provided a tour of the ship and then were taken on a brief cruise on Lake Ontario to demonstrate the various equipment and techniques used for the LOADS study. The event resulted in widespread news coverage of LOADS. (Contact: Barbara Belasco, 212-637-3848, belasco.barbara@epa.gov)

On its trip to home port in Milwaukee, Wisconsin, the *Lake Guardian* was hit by the aftermath of Hurricane Lili, as it encountered gale-force sustained winds of 40 knots

and wind gusts of up to 70 knots with 8 to 12-foot waves. The ship and its crew made it safely to port on October 6th, completing one of the busiest sampling years yet.

Zapping Toxics

On October 25th, a Visitor's Day was held to introduce a new contaminated sediment treatment technology in Duluth, Minnesota. Congressman James Oberstar was among those who attended the roll-out of the demonstration of the Electro-Chemical Geo-Oxidation (ECGOx) Sediment Treatment Technology.

The approximately $550,000 sediment treatment demonstration is a collaborative effort between GLNPO, the U.S. Army Corps of Engineers (USACE) Detroit District, the Natural Resource Research Institute, the Minnesota Pollution Control Agency, and Weiss Consulting. A portion of the Corps of Engineers funding for this project came through legislation sponsored by Congressman Oberstar for the USACE to test alternative sediment treatment technologies. GLNPO provided $250,000 to the USACE

During Visitor's Day at the ECGOx sediment treatment demonstration in Duluth, Minnesota, Congressman Oberstar talks to Al Klein, U.S. Army Corps of Engineers as Steve Hopkins, U.S. EPA looks on.

Technicians collect sediment core sample from ECGOx treatment area for PAH analysis. Note the ECGOx electrode (inside circled area).

to evaluate the performance of the technology. This is the first U.S. test of the ECGOx technology.

In this demonstration, ECGOx was used to treat polycyclic aromatic hydrocarbon (PAH) contamination in approximately 700 cubic yards of sediments in the Erie Pier Confined Disposal Facility. The material had been dredged from Duluth Harbor. (PAHs are a class of semi-volatile, organic compounds that are known carcinogens.) Preliminary results from a 30-day sample are promising, and the demonstration is expected to continue until November 2002. If the technology proves to be effective on the PAH contamination, additional studies may be performed to test the technology's ability to also treat metals contamination in the sediments.

ECGOx works by imposing a low amperage/low voltage coupled AC/DC field across the sediments via electrodes, causing reduction/oxidation reactions that destroy certain non-chlorinated organic contaminants and make metals mobile. Organics are

reduced to carbon dioxide and water, while the metals that are mobilized plate out (attach to) the electrodes.

Earlier tests on other projects with electrokinetic remediation technologies using a DC field alone were effective at destroying phenols and removing other contaminants including lead, chromium, cadmium, and uranium. ECGOx uses a coupled AC/DC field, which is claimed to be more effective. This demonstration will test that claim. ECGOx, has been used for years in Europe with promising results, but this is the first time it's been tried on a pilot-scale in the United States. (Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov).

Tannery Bay Cleanup Underway

The sediment cleanup of Tannery Bay in White Lake, Michigan began in early August. This site, located adjacent to an abandoned tannery, is heavily contaminated with chromium, arsenic and mercury. About 75,000 cubic yards of sediment are slated for removal. The cost of the project is expected to be approximately $5 million, with the costs shared between Genesco, GLNPO and Michigan Clean Michigan Initiative funds. GLNPO awarded a half-million dollar grant to the Michigan Department of Environmental Quality to help jump-start the cleanup. Dredging is expected to be completed by early December 2002, with some wetland restoration work to be conducted next Spring. (Contact: Marc Tuchman; 312-353-1369, tuchman.marc@epa.gov).

Shoreline at Tannery Bay, White Lake, Michigan.

For the Birds

The warbler, “Northern Parula”.
(Photo courtesy of C.S. Robbins, USGS.)

Scientists at the University of Wisconsin at Green Bay recently completed a GLNPO-funded project to map conservation priority areas for breeding birds in the Western Great Lakes Basin. This region is particularly important for populations of neotropical migratory birds, including a number of species that have experienced steady declines during the past 20 years. Utilizing data from thousands of point-centered bird counts, along with data on land cover and climate, predictive models were developed for 82 species of birds. Maps were then generated to indicate places of high conservation priority. The resolution of these maps is better than any maps available from breeding bird atlases or the North American Breeding Bird Survey, which do not take into account habitat in different geographic areas. “Hotspots” of bird conservation emerge by combining maps of sensitive species. An interactive, web-based application makes this information available to local governments, land trusts, private conser-

vation organizations, state and federal agencies, environmental consulting firms, scientific researchers, and others who make decisions that affect the quality of habitats for breeding bird populations.

Additional information on the project is available on the Web at: http://www.uwgb.edu/birds/greatlakes/. (Duane Heaton, 312-886-6399, heaton.duane@epa.gov)

New Sediment Publications

Several new sediment reports were published recently.

An In Situ Laser-Induced Fluorescence (LIF) System for Polycyclic Aromatic Hydrocarbon-Contaminated Sediments describes the results of a field-scale demonstration of an innovative sediment assessment technology that quantitatively measures polyaromatic hydrocarbons (PAHs) in-place. The method uses real-time laser-induced fluorescence. This real-time measurement method allows much faster and efficient sampling for PAHs compared to the usual method of first collecting a sample of sediment and then analyzing it in the laboratory. The report documents excellent results of this system in quantifying the vertical and horizontal extent of PAH contamination at a site in the Milwaukee Area of Concern. (Contact: Demaree Collier, 312-886-0214, collier.demaree@epa.gov)

Screening Level Risk Assessment for the Ottawa River, Ohio: Ecological and Human Health summarizes the results of a screening-level risk assessment for the lower portion (8.8 miles) of the Ottawa River, Ohio (near Toledo). The assessment used all of the existing data and some supplemental data collected specially for this study. The report evaluates the ecological and human health risks posed by the contaminants in Ottawa River biota, sediments, and water to provide a basis for prioritizing areas for remediation. (Contact: Demaree Collier, 312-886-0214, collier.demaree@epa.gov)

Wastewater discharge on Ottawa River, Ohio.

June 2000 Survey of Sediment Contamination on the Manitowoc River, Manitowoc, Wisconsin documents the results of sediment chemistry and whole-sediment toxicity testing conducted by GLNPO and the U. S. Army Corps of Engineers in the lower Manitowoc River near Manitowoc, Wisconsin. Results indicate extremely elevated concentrations of polycyclic aromatic hydrocarbons (>4,000 ppm) and Oil & Grease (>15,000 ppm) in an area of the river near a former manufactured-gas plant. The report has been provided to the Wisconsin Department of Natural Resources and a consultant working for the current owner of the property who is planning further investigations later this Fall. (Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov).

Playing in the Mud

GLNPO's sediment team kept very busy as Summer was coming to a close.

During the week of July 16th, scientists from the University of Wisconsin and GLNPO conducted a sediment sampling survey in **Deer Lake**, Michigan. Deer Lake is an Area of Concern located outside of Mar-

quette, Michigan and is severely impacted by mercury contamination. Aside from the sediments, the fish are so heavily contaminated that a "no fish-consumption advisory" is currently in effect for the entire lake. The sampling work, supported by a GLNPO grant, will assist the Michigan Department of Environmental Quality in its attempt to determine which sediments in the lake are the major sources of methyl mercury production. (Contact: Marc Tuchman; 312-353-1369, tuchman.marc@epa.gov).

Later, on August 28th, GLNPO, in conjunction with USEPA Superfund's FIELDS group and the U.S. Army Corps of Engineers, conducted sediment sampling on the **Chicago River**, Illinois using the FIELDS sampling vessel. The sediment data was collected to document current, baseline sediment quality conditions within the Chicago River. Sampling on the river originally took place in October 2000, but laboratory errors resulted in the loss of data at several sampling locations. During this resampling survey, surficial samples were collected at five stations on the Chicago River. The samples will undergo chemical analysis and whole sediment toxicity testing. A summary of the results from the October 2000 and August 2002 surveys is expected to be available in November 2002. (Contact: Scott Cieniawski, 312-353-9184, cieniawski.scott@epa.gov).

From September 16th to 20th, scientists from GLNPO and Michigan Department of Environmental Quality (MDEQ) probed the sediments of the canals near the **Ten-Mile Drain** at St. Clair Shores on Lake St. Clair, Michigan. Using GLNPO's specially-outfitted sediment sampling boat, the *R/V Mudpuppy*, the researchers took samples to test for levels of polychlorinated biphenyls (PCBs). These canals are the location of a $2 million Superfund emergency removal action to remove PCB-contaminated sediments. The goal of the MDEQ study is to determine the existence and levels of PCB contamination outside of the removal area.

Scientists remove sediment core from vibracorer sampler's tube onboard the *R/V Mudpuppy*.

Previous sampling in the canal outside the removal area was conducted to a sediment depth of only approximately 3 feet. Utilizing the vibracorer on the *Mudpuppy*, the field team was able to collect several sediment cores over 8-feet in length. A total of 6 cores were collected in the canals. Additionally, two cores and four surficial ponar samples were taken in Lake St. Clair near the mouth of the canal to determine if any significant amounts of PCB contamination entered the lake. (Contact: Scott

Cieniawski, 312-353-9184, cieniawski.scott@epa.gov).

Then, on September 9th to 13th, scientists from GLNPO, the U.S. Army Corps of Engineers (USACE) and the Wisconsin Department of Natural Resources (WDNR) teamed up to investigate the extent of sediment contamination in a stretch of the **Kinnickinnic River** located in the Milwaukee, Wisconsin Estuary, Wisconsin Area of Concern. Sixteen locations were sampled using a barge with a mounted drill rig that collected samples via a split-spoon core sampler. Sediment samples were collected at two-foot intervals down to native (clean) material. Sediments were analyzed for polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), total organic carbon (TOC), toxicity characterization leaching procedure (TCLP, a test to determine "hazardous waste" under the Resource Conservation and Recovery Act), and other physical and chemical properties. The USACE, WDNR, and USEPA will utilize the data from this study to develop remedial alternatives and cost estimates for a potential sediment cleanup project in the river. Funding for the samplE collection and analysis was provided by GLNPO. (Demaree Collier, 312-886-0214, collier.demaree@epa.gov).

Reeling in Asian Carp

Two species of Asian carp, the bighead and silver, were imported by catfish farmers in the 1970's to remove algae and suspended matter out of the water column. During the flood of 1993, many of the catfish farm ponds overflowed their banks and got released into the local waterways in the Mississippi River basin. These carp directly compete with native fish for food and can grow to over 80 pounds. The fish are currently found in the Illinois River near Morris, Illinois, about 55 miles from Lake Michigan. They seem to prefer temperature ranges similar to those preferred by perch, salmon and trout and appear to be well suited to invade the Great Lakes. If the big carp were to enter the Great Lakes, it is feared they would wreak irreversible havoc within the Great Lakes ecosystem. The one mechanism in place to stop their movement toward Lake Michigan is an experimental electrical barrier currently in place in the Chicago Sanitary and Ship Canal near Romeoville, Illinois.

Bighead carp.
(Photo from USDA Agricultural Research Service Sci4Kids Web Site.)

On July 18th, GLNPO scientists participated in a meeting of the Aquatic Nuisance Species Dispersal Barrier Advisory Panel held in Chicago, Illinois. The electrical dispersal barrier on the Chicago Sanitary and Ship Canal near Romeoville, Illinois was energized in April 2002 to help reduce the spread of aquatic nuisance species between the Great Lakes and the Mississippi River systems. Among the topics discussed at the meeting were the need for a back-up generator and a second barrier site with a secondary control zone between the barriers. Bighead carp have been found as far north as Morris, Illinois. Preliminary reports on the response of bighead carp to a simulated electrical barrier in a fish hatchery, with an

electrical field much lower than the barrier itself, showed that 99 percent were repelled. Field monitoring of tagged fish will also take place to track movements of individual carp near the barrier. (Contact: Duane Heaton, 312-886-6399, heaton.duane@epa.gov; or James Schardt, 312-353-5085, schardt.james@epa.gov)

On August 16th, Asian carp were the subject of a focus group meeting hosted by the International Joint Commission to discuss the immediate actions that should be advocated to ensure that Asian carp are kept from entering the Great Lakes. (The Commission is responsible for issues that come up in the boundary waters between the U.S. and Canada, including the Great Lakes.) Much of the discussion focused on the need to augment the electrical barrier both with backup power, and with a second barrier, possibly incorporating an acoustic/bubble screen. The cost of a second barrier is estimated at approximately $7 million, (Contact: Marc Tuchman; 312-353-1369, tuchman.marc@epa.gov).

Floating Classroom

This Summer, GLNPO's research ship, the *R/V Lake Guardian* was turned into a floating classroom. The ship hosted three groups of students during June and July. From June 23rd to 29th, classes were held onboard the Lake Guardian on Lake Erie with ports of call including Put-In Bay, South Bass Island, and Cleveland.. Students included ten graduate students and five high school science teachers. Subjects taught by GLNPO and Ohio State instructors included the dynamics of the Lake Erie ecosystem, including the interactions of water quality, biology, and physical properties (temperature, currents). The students were also informed about current problems and research on Lake Erie.

The next course was taught on Lake Superior from July 7th to 13th. Ports of call included Houghton, Michigan; Isle Royale; Duluth, Minnesota; the Apostle Islands; and Washburn, Wisconsin. Instructors from Michigan Technological University taught sixteen middle school and high school teachers about many facets of Lake Superior, including geology and shoreline erosion, the importance of the atmosphere as a source of chemical loadings to the lake, as well as the many natural and archaeological features of this great water body.

R/V Lake Guardian arrives at Houghton, Michigan. (Photo by Emil Groth, Michigan Technological U.)

The last course of the Summer was held from July 26th to 30th on Lake Michigan. GLNPO and Grand Valley State University instructors taught 38 elementary school, middle school, and high school teachers about water quality monitoring techniques, and the unique features of Lake Michigan. This course also included some live video imaging of a shipwreck from the early 1900's. Port of call on this course included the Port of Indiana, Indiana; St. Joseph, Michigan; and Chicago, Illinois.

Each of these courses included both classroom instruction and hands-on field sampling and laboratory analysis in order to reinforce the lessons learned. Feedback from

Students get some hands-on experience in collecting sediment samples using a box-corer sampler aboard the *R/V Lake Guardian*. (Photo by Dean Woodbeck, Michigan Tech. U.)

the students was very positive, with many of them not wanting to leave the *Lake Guardian* at the end of the courses.

GLNPO's George Ison, Todd Nettesheim, and David Rockwell provided classroom lectures on GLNPO research, monitoring, and mission. (Contact: David Rockwell, 312-353-1373, rockwell.david@epa.gov; or George Ison, 312-353-1669, ison.george@epa.gov)

Lessons Shared with World

GLNPO scientists worked with the USEPA's Office of International Activities to prepare a briefing document for staff attending an August 28th session titled "Trading Risks - How to Combat the Spread of Invasive Species?" at the World Conservation Union (IUCN) meeting in Johannesburg, South Africa. The paper provided a summary of major efforts in the Great Lakes to reduce the spread of aquatic invasive species, including the electric dispersal barrier (see previous story) and pilot-studies in ballast water treatment technologies. The paper also described national (Coast Guard) and international (International Maritime Organization) efforts to address ballast water. Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organizations in a unique world partnership that encourages and assists societies to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. (Contact: James Schardt, 312-353-5085, schardt.james@epa.gov)

Are the Fish Safe to Eat?

On September 5th, GLNPO's Melissa Hulting met with the Delta Institute in Chicago, Illinois to discuss progress on the "Lake Erie Fish Consumption Advisory and Public Outreach" project. This project, funded by GLNPO under a cooperative agreement, was conducted under the guidance of the Lake Erie Forum.
The project included an outreach campaign that distributed an educational brochure and recipe cards that alerted at-risk families in

Fisherman with walleye, a prized Lake Erie sport fish.

the Lake Erie basin to the dangers of contaminated fish consumption and highlighted preventative behaviors, such as methods for cleaning and cooking fish, that will help to reduce risks. Brochures were distributed in Ohio, in the Buffalo, New York area, and in the Southeast Michigan/Detroit, Michigan vicinities. Brochures were also created for pregnant women (who, along with their unborn children, are especially at risk from eating contaminated fish) and physicians for distribution at WIC clinics, hospitals, etc. Nurses who conduct prenatal classes were taught how to educate pregnant women about fish consumption advisories. The Delta Institute and the Lake Erie Forum are going to pursue expanding the outreach to other areas and facilities, including a possible effort to convince local health departments to distribute the materials as a regular part of their efforts. (Contact Melissa Hulting , 312-886-2265, hulting.melissa@epa.gov)

Springfield Township Wins Awards

Springfield Township is located in north Oakland County, in southeast Michigan, at the headwaters of four rivers: the Huron, Shiawassee, Clinton and Flint. The Township has long had a strong commitment, through its evolving land use policies and practices, to protect and preserve its natural resources, which are highly valued by Township residents and add to their quality of life. This commitment led to the Shiawassee & Huron Headwaters Resource Preservation Project, which included developing a method to identify and rank natural resource systems; conducting field inventories of selected sites; reviewing land use planning documents of participating municipalities; and conducting a national literature search of natural resource protection tools and techniques. The result was the identification of the existence within the

Blazing star, a wildflower native to wet meadows.

Township of rare, high quality natural resource systems of global significance. Based on the findings of the Headwaters project, a second project developed a database consisting of photos, descriptions, and information on more than 230 plants native to the area. The database was intended to provide a good starting point for those interested in obtaining commercially available native plants in order to enhance the area's natural resources. The database was incorporated into an interactive CD-ROM and has been widely distributed. This product can be viewed on the Internet at: http://www.epa.gov/glnpo/ecopage/springfieldtwp/index.html.

Both projects also included a review of Township zoning ordinance requirements

Solomon-seal, a wildflower that can tolerate a variety of soil and moisture conditions.

on design and construction standards and the development of model ordinances. Policies relating to the use of native landscaping and retention of native vegetation were drafted and incorporated into a revised Master Plan. New Stormwater Management/ Impervious Surface Mitigation ordinance provisions were drafted to incorporate use of native vegetation and are now being implemented for all development site plans submitted.

Springfield Township's natural resource preservation planning tools and practices served as an example for development of open space planning legislation initiated by the State House Environment and Land Use Committee Chair and was recently enacted into law. The tools have also been models for actions elsewhere. For example, an environmental planner with the Mid-America Regional Council in Kansas City, Missouri saw the Internet version of the database and is preparing a proposal to create a similar CD for the Kansas City Metro region. And a Champaign County, Illinois planner is modeling her county's landscaping provisions on zoning language drafted by Springfield.

The Township has received several prestigious awards:

- In 2000, the Headwaters project received the Michigan Society of Planning "**Outstanding Planning Award**."
- The CD-ROM database received the "**Outstanding Planning Project for a Project/Program Tool**" Award from the Michigan Society of Planning in 2001.
- In 2002, the CD-ROM received the **Michigan Chapter of the American Society of Landscape Architects' "Honor Award**."
- The Township is also being awarded a "**SOLEC Success Story Award**" for its Great Lakes natural resource protection work at the 2002 State of the Lakes Ecosystem Conference in Cleveland, Ohio in October.

The Shiawassee & Huron Headwaters Resource Preservation Project was funded by Oakland County, Springfield Township and partnering communities, the Community Foundation for Southeastern Michigan, and a grant from Region 5 of USEPA. The Springfield Township Native Vegetation Enhancement Project was funded by Springfield Township and a grant from GLNPO. Additional information is available from the Charter Township of Springfield: 248-846-6510. USEPA Contacts: Thomas Glatzel, 312-886-6678, glatzel.thomas@epa.gov; and Danielle Green, 312-886-7594, green.danielle@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.