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1998 Annual Meeting

October 19-20

— and —

State of the Lakes
Ecosystem Conference

October 21-23

Guest editorial

GIS Online: New tools for protecting our Great Lakes

By Dr. Jeffrey Busch, Executive Director of the Ohio Lake Erie Office, and member of the Ohio Delegation to the Great Lakes Commission

As befits its majestic nature, the amount of information available concerning the Great Lakes ecosystem is truly staggering. Most everything one could possibly want to know concerning the environment, economy and social science of this region has been published and is available somewhere through the many hundreds of organizations actively involved in Great Lakes issues. All too often though, the existence of this information is known to a limited group of people, access to it may be cumbersome and expensive, and the data itself may not be in a compatible format for the user.

Timely access to reliable information is particularly challenging for local officials, yet it is here that many land-use decisions are made that ultimately affect the quality of our lakes. The Great Lakes Commission's Great Lakes GIS Online initiative has accepted the challenge to publicize the existence of coastal resources data and to make this information readily accessible to as wide an audience as possible. This effort will increase the capacity for decisionmaking based on the best scientifically based information available.

Great Lakes GIS Online will be accessible through the Internet and will utilize geographic information system (GIS) software to display spatial data. The user will be able to retrieve geographically referenced maps from sources throughout the region and display them on their computer screens. Better yet, users can overlay combinations of data to seek answers to complex ecosystem questions. Still better, all this can be done without needing to purchase sophisticated GIS software or knowing anything about manipulating data files. Soon, even computer illiterates like me will be only a few mouse clicks away from retrieving customized maps that suit their specific informational needs.

Imagine being able to call up from your desktop a U.S. Geological Survey orthophoto, a scanned and corrected photo that provides a detailed, realistic depiction of an area of interest. Combine that with EPA information on the location of dumps and landfills, throw in a layer from your state DNR on groundwater flow, and finally add a layer from your local health department on drinking water sources to produce a map identifying areas of potential drinking water contamination. Cool.

Somewhere down this road we also will see the ability to create four-dimensional time series queries of Great Lakes information. For instance, a local township trustee could layer NOAA satellite images of vegetative cover, separated in time by 10 years, to precisely measure the changes in land use and encroachment of urbanization in a community. Really cool.

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Once again the Commission is assuming leadership in the development of new tools and programs that its member states can use to collectively protect our Great Lakes.

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The Great Lakes Commission is an eight-state compact agency established in 1955

"to promote the orderly, integrated and comprehensive development, use and conservation of the water resources of the Great Lakes basin."

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Great Lakes Commission

The Great Lakes Commission, an eight-state compact agency founded in state and federal law and dedicated to the use, management and protection of the water resources of the Great Lakes basin, provides leadership in the implementation of principles of sustainable development throughout the basin. In partnership with the Great Lakes states, the Commission addresses issues of resource management, environmental protection, transportation and economic development by serving as an accurate and objective source of information; an effective forum for the development and coordination of public policy; and an active and committed advocate of basin interests.

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Are the lakes getting cleaner?

Government, industry and citizen groups, as we all well know, seldom find themselves on the same side of the fence on any given environmental issue. In recent months, however, near unanimity seems to have emerged on one matter. For different reasons, there is almost universal reluctance to re-open—or even thoroughly review—the Great Lakes Water Quality Agreement. Some fear it could be weakened, some fear it could be strengthened and some fear that a review—and possible renegotiation—would only distract from current implementation efforts.

In my opinion, the argument against wholesale renegotiation is a compelling one; the agreement is fundamentally sound and we do need to focus on implementation. But the argument against a thorough review is at best ill-advised and, at worst, irresponsible.

All of us in the Great Lakes community—government, industry and citizen groups alike—have more in common than we think. We all want efficient and cost-effective government. We all want public programs that improve our environmental health, our economic well-being and our quality of life. And we all want benchmarks to measure our progress; we want to know if we are headed in the right direction.

A thorough, methodical and objective review of the Great Lakes Water Quality Agreement is the only way to get there from here. And there need not be paranoia about the outcome if the parameters for the review are agreed upon at the outset. The International Joint Commission's Science Advisory Board, in advocating this approach, said it best: "A decision as to whether the agreement needs to be modified should not be predetermined, but should be an objective outcome of the review process."

The window of opportunity for establishing a rigorous, science-based review process is now open wide. Article X requires the parties to conduct a "comprehensive review" of the "operation and effectiveness" of the agreement following the recently released Ninth Biennial Report. An

IJC task force developed (in 1996) a set of nine "desired outcomes" and associated indicators by which to measure progress under the

agreement. A follow-up task force is exploring opportunities to apply them. And the upcoming State of the Lakes Ecosystem Conference (SOLEC) will feature the release of what is likely the most comprehensive set of indicators of ecosystem health ever assembled for the Great Lakes or any other basin ecosystem in the world.

I believe it's time to put all these pieces together. We must

- assign a set of indicators to each and every relevant provision in the agreement;
- establish a process whereby these indicators are periodically assessed and analyzed to gauge progress, identify problems and allocate resources; and
- ensure that the indicators selected are applied uniformly and consistently over time to allow for longitudinal analysis and reporting period comparisons.

Establishing the process should be an inclusive exercise to ensure that all sectors of the Great Lakes community can contribute. In so doing, we can establish a true benchmark that rises above the subjectivity and "selective science" that all too often characterize ecosystem assessments. And, best of all, we can finally answer the age old, elusive question: "Are the lakes getting cleaner?"

Commission News and Views



By Michael J. Donahue, Ph.D.
Executive Director

Premier Harris endorses provincial membership

Great Lakes Commission efforts to secure full voting membership for the governments of Ontario and Québec have taken a major leap forward, thanks to two recent developments. In a Sept. 1 letter to Chair Donald Vonnahme, Premier Mike Harris of Ontario expressed his formal support for the initiative, stating that "We look forward to a continued and strengthened partnership with our Great Lakes neighbors through full membership in the Commission."

In the U.S. Congress, the initiative gained additional momentum when Sen. Mike DeWine (R-OH) announced his intention to introduce legislation amending the Great Lakes Basin Compact (PL 90-419) to grant congressional consent to provincial membership. The legislation will be identical to H.R. 3458, introduced by Rep. James Oberstar (D-MN) earlier this year. Rep. Lynn Rivers (D-MI) signed on as a co-sponsor of that legislation in early September.

"I applaud Premier Harris for his endorsement, and look forward to the day when provincial representatives can officially join their state counterparts as full members," said Vonnahme. "Managing a binational resource demands a true state/provincial partnership. The premier's support and Senator DeWine's leadership in the U.S. Senate are very welcome developments."

The governments of Ontario and Québec have been Commission Observers since the late 1980s and, since that time, have been extensively involved in all aspects of Commission operations with the exception of voting privileges. Legislation in every Great Lakes state currently provides for provincial membership; an amendment to federal legislation (i.e., 1955 Basin Compact) is needed to secure congressional consent for such membership. Contact: Mike Donahue, mdonahue@glc.org.

First inventory of toxic air emissions in the Great Lakes basin released

August marked completion of the initial Great Lakes Regional Air Toxic Emissions Inventory, undertaken by the air agencies in the Great Lakes states and the province of Ontario working cooperatively through the Great Lakes Commission. They have conducted the first practical test of processes, procedures and systems development to ensure that future basinwide inventories will be accurate and consistent. This inventory, using data from 1993, represents the first regional effort to manage and quantify the toxic air emissions that impact the waters and communities of the entire Great Lakes basin.

"We have successfully assembled the framework and mechanisms that will allow the Great Lakes states and Ontario to share resources and work cooperatively together to address air pollution at a basinwide level," says Steering Committee Chair Orlando Cabrera-Rivera of the Wisconsin Department of Natural Resources' Bureau of Air Management.

For the initial inventory, 49 compounds were targeted as significant contaminants. The pollutant totals were derived from 1993 point and area source emissions

data. Results from the report indicated that Methylene Chloride, 1,1,1-Trichloroethane, Tetrachloroethylene, Manganese and Lead contributed the greatest amount of emissions to the region (see table).

The inventory effort encountered many challenges in terms of data availability, quality, breadth and consistency between jurisdictions. Thus, steering committee members caution that this inventory should not be used to compare one state or province's emissions against another's, but rather to demonstrate the potential of such a comprehensive inven-

tory as a decision support tool.

"Release of this initial emissions inventory is a beginning, not an end," explains Mike Donahue, executive director of the Commission. "The inventory will be expanded and refined in the future to provide a truly comprehensive assessment of toxic contaminant emissions from point, area and mobile sources throughout the Great Lakes basin."

To accommodate the addition of mobile source emissions into the next inventory, the list of 49 toxic pollutants has been expanded to 79 and the Regional Air Pollutant Inventory Development System (RAPIDS), the emissions inventory tool, has been updated with a mobile sources module.

The current emissions inventory effort began in January 1996 with primary funding provided by the Great Waters Program (U.S. EPA). Prior to starting the project, the Great Lakes states, with support from the U.S. EPA and the

Great Lakes Protection Fund, developed and tested (through a South-west Lake Michigan pilot study), the regional infrastructure and tools for emissions inventory compilation including RAPIDS and the

Pollutants with the highest emissions levels in the Great Lakes region (based on 1993 sample data)

Compound	Pounds/year
Methylene Chloride	24,519,798.10
1,1,1-Trichloroethane	18,778,760.00
Tetrachloroethylene	13,172,297.00
Manganese	2,059,516.76
Lead	827,744.42

Air Toxic Emissions Inventory Protocol for the Great Lakes States.

The Great Lakes states and Ontario, with support from the Commission, are continuing their ongoing partnership with the U.S. EPA by beginning work on the next basinwide inventory using data from 1996.

The initial inventory can be viewed and downloaded from <http://www.glc.org/projects/air/final93/93report.html>.

Contact: Orlando Cabrera-Rivera, 618-267-2466, cabreo@mail01.dnr.state.wi.us; or Julie Wagemakers, juliew@glc.org.

Commission Briefs

New Commission projects

The Great Lakes Commission has initiated 10 new projects, nine of which are funded over the next two years by the U.S. Environmental Protection Agency, Great Lakes National Program Office. The Great Lakes Brownfields Regional Information Development and Greenfields System (BRIDGES) project is funded by the C.S. Mott Foundation.

Great Lakes GIS Online

Overview: Builds upon an Internet mapping application, enhances the spatial data library of consistent spatial data layers covering the Great Lakes basin and expands previously established partnerships.

Product(s): A spatial data library, intergovernmental partnerships, and enhancements to Internet GIS and mapping applications.

Collaborators: U.S. Army Corps of Engineers; NOAA's Great Lakes Environmental Research Laboratory; Environment Canada; Ohio Lake Erie Commission; Ohio EPA; Ohio DNR; and Eastern Michigan University's Center for Environmental Information (contractor).

National overview of aquatic nuisance species

Overview: Production of a 30-minute video documentary to heighten the regional and national profile of the issue; document economic and ecological impacts; and emphasize the role and responsibilities of relevant levels of government, the private sector, user groups and the public.

Product(s): *National Overview of Aquatic Nuisance Species: Issues and Answers*, a 30-minute documentary produced by the Information Television Network that will reach more than 50 million households.

Collaborators: Great Lakes Panel on Aquatic Nuisance Species.

Areas of Concern information online

Overview: Continue working with public agency and private sector partners to update, enhance and promote the AOC web pages (<http://www.epa.gov/glnpo/aoc/>).

Product(s): Review and updating of U.S. AOC material presently on the U.S. EPA, GLNPO web site; development of enhanced features of this site to further promote RAP development and implementation; and publicizing these efforts among both the public and private sectors.

Collaborators: Representatives from U.S. EPA-GLNPO, U.S. EPA Region 5-Water Division and the water quality agencies in each of the Great Lakes states, with guidance from RAP coordinators and members of Michigan's State-wide Public Advisory Council.

Ballast water management and aquatic nuisance species: Setting the research agenda

Overview: A January 1999 workshop to discuss the current status and needs associated with research on preventing the spread of aquatic nuisance species through ballast water.

Product(s): A highly focused, application-oriented research agenda designed to guide ANS-related ballast water research over a three-to five-year time frame; a summary document presenting research recommendations and providing abstracts of existing ballast water research efforts; a journal article reviewing the role of ballast water in introducing and spreading aquatic nuisance species; and widespread distribution of the workshop results.

Collaborators: The agencies and organizations represented on the Great Lakes Panel on Aquatic Nuisance Species, in particular the U.S. Coast Guard, U.S. Fish and Wildlife Service, Great Lakes Sea Grant Network, Great Lakes Fishery Commission, Lake Carriers' Association, Department of Fisheries and Oceans Canada and Transport Canada.

Soil erosion/nonpoint source pollution conference

Overview: A fall 1998 conference to review current initiatives related to soil erosion and sedimentation and other forms of nonpoint source pollution and to present case studies of successful management efforts in the Great Lakes basin.

Product(s): Plenary and concurrent sessions on key nonpoint source pollution issues; case study presentations; partnership building; and regional priority setting.

Collaborators: Numerous regional agencies and organizations, assisting with conference planning and development as project partners.

Great Lakes Dredging Team support

Overview: Expansion of the Great Lakes Dredging Team's web site to improve access to data and information to resolve contaminated sediment and related dredging issues. An assessment of Dredging Team outreach efforts to date and recommendations for new or modified communications/outreach products also will be undertaken.

Product(s): A collaboratively developed and maintained Great Lakes Dredging Team web site that links to high quality resources and information throughout the Great Lakes region.

Collaborators: Members of the Great Lakes Dredging Team (state and federal agency personnel).

SOLEC '98 conference support

Overview: The State of the Lakes Ecosystem Conference is a biennial conference sponsored by U.S. EPA and Environment Canada, convened in support of U.S. and Canadian efforts under the Great Lakes Water Quality Agreement.

Product(s): Commission participation on SOLEC '98 Steering Committee through the Land-Use Indicators working group, a joint reception for SOLEC attendees and Commission Annual Meeting participants, a compilation of SOLEC "success stories," and assistance with conference follow-up.

Collaborators: U.S. EPA, Environment Canada and members of the SOLEC '98 Steering Committee.

Great Lakes beach closures: Water quality monitoring and advisories

Overview: A Great Lakes pilot project—in support of U.S. EPA's national Beaches Environmental Assessment, Closure and Health (BEACH) Program—to promote consistency and enhance efforts in beach water quality monitoring, analysis, advisory implementation, publicity and interjurisdictional reporting.

Product(s): An online Great Lakes beach advisory system that will complement and enhance U.S. EPA's plans for a national beach database.

Collaborators: U.S. EPA-GLNPO, U.S. EPA-Water Division, and a Commission-led multijurisdictional team comprised of public health and water quality experts from the Great Lakes states, Ontario and other relevant agencies and jurisdictions.

Web-based Spills Information Center for the Great Lakes region

Overview: Development of a Great Lakes Spills Information Center to provide prompt, easy access to needed data and information, enhancing partnerships and communication between the regulated and response communities.

Product(s): A web-based Great Lakes Spills Information Center; an oil spill research inventory; and introduction of these services to the regulated and responder communities.

Collaborators: U.S. EPA-GLNPO and other public agency and private sector members of the Great Lakes Spill Protection Initiative. In addition to providing in-kind support to the project, four of the oil companies (Amoco, BP, Marathon and Sun) and one state (New York) will provide financial support.

Brownfields redevelopment and greenfields protection

Overview: Supports the need for brownfields redevelopment and greenfields protection policies and practices that are flexible, cost-effective, sensitive to community development needs and transferable among Great Lakes states, provinces and localities.

Product(s): An online Great Lakes Brownfields Regional Information Development and Greenfields System (BRIDGES); summaries of local workshops that include community-level recommendations for brownfields redevelopment; a series of broader strategic actions on brownfields redevelopment and greenfields protection for adoption/implementation by decisionmakers throughout the basin; and a final report incorporating the recommendations, strategic actions, summaries of case studies, and techniques for brownfields redevelopment and greenfields protection.

Collaborators: The Commission is the principal investigator and fiscal agent for the BRIDGES project. Work products will be the result of a two-year collaborative effort among the Commission, the Council of Great Lakes Industries and the National Wildlife Federation-Great Lakes Natural Resource Center.

For more information on any of these projects, contact Mike Donahue, mdonahue@glc.org.

New faces at the Commission

The Commission's Resource Management and Environmental Quality Program is pleased to welcome three new staff members.

Peter Murchie joins the Commission on a six-month rotation from the U.S. EPA Region 5. He is assisting with the Great Lakes Panel on Aquatic Nuisance Species, the Lakewide Management Plan Monitoring Project for Lake Michigan and the Statewide Public Advisory Council. Previously, Murchie worked for the U.S. EPA in the Pollution Prevention and Program Initiatives Section and participated in the LaMP processes for lakes Erie, Superior and Michigan. Murchie has master's degrees from both the School of Natural Resources and Environment and the School of Public Health at the University of Michigan. Contact: pmurchie@glc.org.

As a program specialist, Richard Garcia is collecting and mapping data and developing databases for environmentally and economically sensitive areas. He has a bachelor's degree in urban and environmental geography from the University of Illinois at Chicago. Previously, Garcia worked on a quality control project with the city of Chicago, where he corrected digital parcel maps. Contact: rgarcia@glc.org.

Jennifer Read, who was hosted by the Commission as a Fulbright scholar, is now a program specialist, assisting with the Great Lakes Basin Program and the SPAC. Read is a doctoral student in environmental studies at the University of Western Ontario. Her research focuses on the evolution of Ontario's pollution control policy between the 1909 Boundary Waters Treaty and the 1972 Great Lakes Water Quality Agreement. Contact: jread@glc.org.

Tom Rayburn has been promoted to project manager in the program. He manages the area contingency planning project. Contact: tray@glc.org.

Commission Briefs

States share concerns over Corps restructuring, operations and maintenance policy

Ongoing Executive Committee discussions with regional U.S. Army Corps of Engineers officials have culminated in a policy position on two key issues. A Sept. 25 letter to Gen. Hans VanWinkle, commander of the Great Lakes and Ohio River Division, addressed collective state views on division restructuring and evolving operations and maintenance policy for recreational harbor dredging.

Signed by Commission Chair Don Vonnahme, the letter applauds the Corps' efforts to enhance the efficiency and effectiveness of service delivery, but emphasizes that further restructuring decisions must ensure a continuing basin presence and focus on matters of priority interest to the Great Lakes states.

Vonnahme noted that restructuring has removed the division headquarters and a great majority of staff from the basin, and raised concerns that the diminished office may be vulnerable to even further reductions. He identifies key areas where a Corps presence must be maintained, including "full and substantive support of all binational Great Lakes programs and initiatives where the active presence and contribution of the U.S. federal government is a matter of legal obligation or stated policy."

The Executive Committee also has closely tracked a Corps Cost Savings Task Force, which has been working to reduce the Civil Works Operations and Management Program budget by up to 15 percent. The task force report suggests that many shallow draft recreational harbors may ultimately lose Corps-provided periodic maintenance dredging.

"Many of these small harbors were built with a substantial federal commitment along with both state and local investment," explains Vonnahme. "Federal dredging and other harbor maintenance activities have been ongoing for years. To walk away from this longstanding commitment would impose a sudden and significant burden on all Great Lakes states and many Great Lakes communities."

The Commission is advocating a provision in the Water Resources Development Act of 1998 to address this concern. A meeting with Dr. Joseph Westphal, assistant secretary of the Army for Civil Works, has been requested to further convey Executive Committee viewpoints. Contact: Mike Donahue, mdonahue@glc.org.

Spill protection, control and countermeasures regulation concerns GLSPI

The U.S. Environmental Protection Agency's Spill Protection, Control and Countermeasures (SPCC) regulation is slated for publication in early 1999, and its potential content has members of the Great Lakes Spill Protection Initiative (GLSPI) concerned. The group, a Commission-staffed partnership between the Great Lakes states, federal agencies and several petroleum companies, met on Sept. 8 to review proposed revisions to the SPCC regulation, which will contain final language based on dated comments U.S. EPA received about the 1991 and 1993 versions of the document.

The GLSPI feels that these five- and seven-year-old comments do not accurately reflect current positions. For instance, the Oil Pollution Act of 1990 (OPA) regulations have since gone into effect, heightening preparedness and planning in response to potential oil spills to surface waters. The GLSPI hopes to meet with the SPCC Workgroup in October to present its concerns.

Facilities regulated by the SPCC include farms, electrical substations and refineries, among others. These facilities either have a tank of greater than 660 gallons or an onsite aggregate of more than 1,200 gallons in multiple tanks. It also can be reasonably expected that a spill from one of these facilities will reach navigable waters, including drainage ditches and seasonal wetlands.

Since publication of the proposed SPCC ruling and enactment of OPA, the GLSPI was formed to enhance cooperation and maintain lines of communication between industry and regulatory groups in an open forum. The GLSPI is in a unique position to develop unified language representing both a regulated and regulatory point of view.

Contact: Tom Rayburn, tray@glc.org.

Guest editorial, continued from page 1

This superhighway of Great Lakes information is not being built without a few potholes, however. Just getting the software up and running on the web has proven to be a significant challenge. The Commission, with Dr. Yichun Xie of Eastern Michigan University, is working hard to rid the software of bugs so it will display data in the most friendly and understandable fashion possible. A second problem has been in documenting and standardizing the metadata, which are the specifics as to how each database was created (scales, dates, precision, etc.). Although tedious, tight control and presentation of the metadata is essential for reliable and usable maps.

The Ohio Lake Erie Commission is proud to be a sponsor of the Great Lakes GIS Online project. We became aware of the effort soon after beginning Ohio's Coastal Resources Inventory initiative. We realized that joining this cooperative effort instead of going it alone was the correct path, saving us an enormous amount of time and money.

As a member of Ohio's delegation to the Great Lakes Commission, I also am pleased with the GIS Online project. Once again the Commission is assuming leadership in the development of new tools and programs that its member states can use to collectively protect our Great Lakes.

Keeping it on the land...and out of the water

Soil erosion conference showcases innovative control practices

Building partnerships to span government agencies, community organizations and private citizens was a theme that emerged from a basinwide conference on soil erosion and sediment control hosted by the Great Lakes Commission and its state and federal partners Sept. 16-18 in Toledo, Ohio.

The conference theme was established by Ron Nargang, deputy commissioner of the Minnesota Department of Natural Resources, in a review of his state's efforts to implement an ecosystem approach to management.

"Our organization decided to reach out and engage others in what we do and, frankly, take a look at doing things *with* people instead of doing things *to* people," Nargang said.

Reports were presented on major opportunities for soil erosion and sediment control in the Great Lakes, including the Clean Water Action Plan and Lakewide Management plans. Thomas Schueler, director of the Center for Watershed



Participants in the conference included (left to right) William Horvath, National Association of Conservation Districts Policy Center; Wayne Warren, Ohio DNR; Mike Donahue, Great Lakes Commission; and Bruce Kirschner, International Joint Commission.

Protection, discussed watershed planning in urban environments and the effects of development on soil erosion. He noted that once 10 percent of a watershed is covered by impervious surfaces, such as roads, driveways and roofs, ecosystem impacts become increasingly pronounced.

Tom Behlen, director of the International Joint Commission's Great Lakes Regional Office in Windsor, Ontario,

spoke on the connection between land use and water quality and highlighted the IJC's role in monitoring trends in these areas under the Great Lakes Water Quality Agreement.

Case study presentations highlighted demonstration projects funded through the Great Lakes Basin Program for Soil Erosion and Sediment Control, covering topics such as shoreline stabilization, buffer strips and streambank management, and habitat protection and restoration. Since 1991, the program has funded 119 innovative solutions to nonpoint source pollution stemming from agriculture, forestry, urban and recreational sources.

The conference was funded by the USDA-Natural Resources Conservation Service and the U.S. Environmental Protection Agency, Great Lakes National Program Office. A proceedings document is being prepared with abstracts of the conference presentations. Contact: Matt Doss, mdoss@glc.org.

"Communities in Action" workshop highlights local water quality initiatives in southeastern Michigan

Communication, integration and cooperation among all levels of government and within the larger community were key concepts identified at a Sept. 11 workshop organized by the Great Lakes Commission and sponsored by the Statewide Public Advisory Council for Michigan's Areas of Concern Program and the Clinton River Public Advisory Council. The workshop, titled "Communities in Action: Building Local Partnerships for Solving Water Quality Problems with a Focus on Southeastern Michigan," highlighted opportunities and obstacles for building local political support for RAPs and other watershed management efforts.

SPAC representatives from the five southeastern Michigan AOCs (Clinton River, Detroit River, River Raisin, Rouge River and St. Clair River) reviewed local initiatives that

are successfully addressing water quality problems in their communities and identified the ingredients necessary for effective local action. A panel of local officials and others involved in managing the Clinton River watershed discussed the responsibilities, challenges and opportunities their positions offer for addressing water quality problems.

Macomb County's Surface Water Improvement and Monitoring (SWIM) Team provided an innovative example of how local governments can pursue water quality improvements. Organized in the spring of 1998 by the county health department and supported by four field personnel and a dedicated environmental prosecutor, the SWIM Team takes a multifaceted approach to restoring and maintaining water quality through public education, investigation, monitoring and regulation enforcement. By

July, the group had investigated 230 water quality violations, 200 of which subsequently were settled.

In his keynote address, Rep. William Callahan, member of the Michigan Delegation to the Great Lakes Commission, highlighted the importance of protecting water quality in Lake St. Clair, the source of drinking water for about five million people in metropolitan Detroit. He reported on state efforts to address problems associated with combined sewer overflows, outlined the Clean Michigan Initiative environmental bond proposal being considered on November's ballot, and praised the success of the Macomb County SWIM Team and other local efforts.

Staff support for the SPAC is provided by the Great Lakes Commission with funding from the U.S. Environmental Protection Agency. Contact: Matt Doss, mdoss@glc.org.

Commission Briefs

Finding places to put dredged material

In the Great Lakes, acceptable places to put dredged material, once referred to as "spoils," are becoming few and far between. This, and other challenges, were addressed at a Sept. 15-16 workshop in Toledo, Ohio, on beneficial use of dredged material, organized by the Great Lakes Commission in cooperation with the Great Lakes Dredging Team. Disposal of mud and sand from harbors and channels is needed to maintain commercial navigation and the industries that depend on low-cost, efficient transportation. Contaminated dredged material must be confined, but finding economical uses for material that is relatively clean has become a challenge.

Beneficial uses are usually categorized as habitat creation, upland and commercial uses, and shoreline protection and restoration. The workshop reviewed current research conducted by the Army Corps of Engineers Waterways Experiment Station, and included six case studies from around the basin. The largest use of clean dredged material in the basin is for beach and littoral nourishment.

Business interest in using the material, with some modification, in "manufactured" soil applications is increasing. Other upland uses are underway, such as capping contaminated sites in brownfields redevelopment or mine reclamation activities. As for habitat creation, islands and protective barriers have been successfully created with dredged material. In some cases, such as at Pte. Mouillee, Mich., near the mouth of the Detroit River, contaminated dredged material is placed in a large confined disposal facility that not only protects an important marsh area from erosive wave action, but creates a wildlife habitat within its 700 acres.

The 80 workshop participants left with a better understanding of the potential for beneficial use, realizing that new regulations and policies are needed to expand opportunities for alternative uses of dredged material. Contact: Steve Thorp, sthorp@glc.org.

Dredging team to streamline decisionmaking, increase beneficial use

Innovative uses for dredged material, decisionmaking in the Great Lakes basin and plans for future work were the focal points of the Sept. 16-17 meeting of the Great Lakes Dredging Team in Toledo, Ohio. All eight Great Lakes states were represented at this sixth meeting of the team, along with several federal agencies and private companies.

The meeting featured two companies involved in the reuse of dredged material. Consolidated Technologies, Inc., manages a project that takes dredged material, combines it with industrial byproducts such as coal ash and cement kiln dust, and applies it to seal the sides of an abandoned coal surface mine. This manufactured fill reduces acidic runoff from old mine walls.

Soils Technology, Ltd. described the process by which it reuses biosolids and dredged materials for landscaping and nursery purposes in northern Ohio. Sharon Barnes, company president, indicated that the private sector is willing to expand their efforts, but needs the permitting process to be more time sensitive and responsive to these opportunities.

The Dredging Team has prepared a white paper that describes the Great



The Great Lakes Dredging Team in action.

Lakes decisionmaking process regarding dredged material, with an emphasis on dredged material management plans (DMMPs). Opportunities for state and federal input and intervention are included in the dredging decision process. Unfortunately, the complexity and time-consuming aspects of the process increase costs and can cause significant delays for dredging work. The team has formed a subgroup to examine the process and recommend ways it can be streamlined.

In other action, the Dredging Team formed two subgroups to look at watershed planning and its role in the DMMP process and how beneficial use of dredged material can be increased in the region. The public outreach subgroup will concentrate its efforts on preparing a general Great Lakes dredging booklet or brochure, video and web site. Contact: Steve Thorp, sthorp@glc.org.

Basin Program 1999 RFP to be released in mid-November

The 1999 Request for Proposals (RFP) under the Great Lakes Basin Program for Soil Erosion and Sediment Control will be released in mid-November, with an application deadline of Jan. 15, 1999. The RFP will be distributed to previous years' applicants, all soil and water conservation districts in the Great Lakes basin, and other interested agencies and organizations. The RFP also will be available online via the Great Lakes Commission web site (<http://www.glc.org>).

The Basin Program is a federal, state and local partnership for improving Great Lakes water quality. Program partners include the Great Lakes Commission; U.S. Environmental

Protection Agency, Region 5; and the U.S. Department of Agriculture, Natural Resources Conservation Service.

Eligible applicants under the grants program include units of state and county government, watershed councils, soil conservation districts, academic institutions, environmental groups and other nonfederal public entities or nonprofit organizations in the United States.

To date, the Great Lakes Basin Program has provided \$3.85 million in demonstration grants at 119 project sites in the Great Lakes states. Contact: Matt Doss, mdoss@glc.org.

Baltic Fellowship Program: Forging global partnerships

The Great Lakes and Baltic regions have long been the focus of comparative analyses directed at environmental issues, socioeconomic characteristics and multijurisdictional institutional arrangements. New opportunities for these regions to learn from one another have taken a major step forward with the announcement of a new Baltic Fellowship Program sponsored by the U.S. EPA, Great Lakes National Program Office.

The fellowship program will provide opportunities for one or more senior scientists from the Baltic Sea countries to visit, study and collaborate with Great Lakes institutions on issues of shared interest. The fellows will gain an in-depth knowledge of programs such as monitoring and information networks, remediation of contaminated sediments,

habitat protection and enhancement, brownfields redevelopment, and bilateral coordination under the Great Lakes Water Quality Agreement. In turn, Great Lakes scientists, managers and policymakers will benefit from the insights of experienced colleagues.

The Great Lakes Commission will provide technical and logistical support for the program and, in addition to hosting the fellows for a portion of their visit, will help establish their itinerary and study plan, and assist with subsequent publication of reports on their experiences and study outcomes.

On a related topic, plans to establish a Commission-based National Sea Grant Fellowship are being finalized, with a formal announcement expected later this fall. Contact: Mike Donahue, mdonahue@glc.org.

National Conference showcases interstate organizations

Interstate organizations for water resources management are enjoying a heightened profile throughout the United States, thanks to evolving federal and state policies that emphasize intergovernmental partnerships, watershed-based planning and management, and creative institutional arrangements for solving transboundary issues. The Interstate Council on Water Policy, a national association of water management professionals, will showcase such organizations when it convenes in Seattle, Wash., for its Oct. 27-30 annual meeting.

The meeting's theme is "The Role of Interstate Approaches in Emerging Water Management Issues," and will feature presentations on national issues with regional implications, case studies of interstate initiatives, and opportunities for coalition building among interstate organizations.

The ICWP program also will include the initial meeting of its new Standing Committee on Interstate River Basin Organizations. The group was formed

under Commission Vice Chair Irene Brooks' leadership.

"Interstate organizations provide an efficient and cost-effective means to administer policies and programs on a watershed basis," explains Brooks. "Such organizations can, and must, be used to the fullest extent possible as national water policy becomes increasingly focused on intergovernmental partnerships and on watershed—as opposed to geopolitical—boundaries."

Brooks points to the Clinton administration's Clean Water Action Plan as an initiative that must rely upon interstate organizations if it is to be successful.

The Standing Committee on Interstate River Basin Organizations will meet on Oct. 27, followed by a summit on "Water Supply Issues for a Sustainable 21st Century" (co-sponsored by the American Water Works Association) on Oct. 28, and the ICWP annual meeting on Oct. 29-30. Contact: ICWP, 202-218-4196.

Congratulations to our Commissioners

Great Lakes Commission Chair Don Vonnahme recently received an award from the Universities Council on Water Resources for his public service to the water resource community. Vonnahme was recognized for his interstate conflict resolution activities with the Upper Mississippi River Basin Association, Ohio River Basin Commission and Great Lakes Commission. He was applauded for his efforts during and after the flood of 1993 to avoid interstate levee wars, as well as for his leadership efforts during the current mediation concerning Illinois' diversion of Great Lakes water.

Another Illinois Commissioner has been recognized for his outstanding accomplishments in the field of engineering. Frank Kudrna has been named a Fellow in the Society of American Military Engineers for his years of involvement and numerous contributions to the organization. Kudrna currently is the director of the society's Chicago chapter.

A spur route for the Circle Tour



Don Clingan, vice president of marketing, Lake Michigan Carferry Service, Inc., accepting the Lake Michigan Circle Tour spur route designation at a dockside ceremony Aug. 28 in Manitowoc, Wis. This Great Lakes Commission initiative formally recognizes the Lake Michigan ferry *Badger* and its route between Ludington, Mich., and Manitowoc as part of the Lake Michigan Circle Tour.

Around the Lakes

Students learn about watershed management at National Envirothon competition



High school students from 40 states and three Canadian provinces competed for scholarships at the annual

National Envirothon held at Michigan State University, July 27-Aug. 1. Through written and field tests, the event tests the critical thinking skills of teams in five subject areas: wildlife, forestry, soil, aquatics and watersheds. The five team members from University High School in Tucson, Ariz., won \$2,500 scholarships for the team's outstanding performance on the tests and final oral presentation.

The weeklong Envirothon was full of hands-on activities for the students. In addition to spending two days at outdoor ecostations on MSU's campus, the students hiked through P.J. Hoffmaster State Park to learn about sand dunes, toured the federal government's Lake Michigan Field Station, and sampled sediments during a boat cruise on the University of Michigan's research vessel *Laurentian* on Muskegon Lake and Lake Michigan.

"Through the ecostation approach, the students were able to clearly see and understand the interplay between people and the environment," said Dr. Frank D'Itri, associate director of

MSU's Michigan Institute of Water Research and member of the Great Lakes Commission's Michigan Delegation.

The teams also prepared and delivered watershed action plans for keeping Lake Michigan healthy to a panel of judges acting as the Council of Great Lakes Governors.

D'Itri organized the event's 67 judges who volunteered to evaluate the teams' final presentations.

"We specifically chose judges who were knowledgeable about different areas of environmental concern, such as urban planning, farming, education, conservation and forestry," D'Itri said.

The Great Lakes Commission was represented at the Envirothon by Steve Thorp, manager of the Transportation and Economic Development Program. He discussed the structure of the Great Lakes region's manufacturing economy with a special emphasis on commercial navigation and tourism.

Sponsors of the National Envirothon include Canon U.S.A., Michigan Department of Agriculture, Michigan State University, U.S. Forest Service, USDA Natural Resources Conservation Service, U.S. Environmental Protection Agency and National Association of Conservation Districts. Contact: Pat Ruta, Michigan Envirothon Office, 616-839-6149.

American Heritage Rivers flow in many Great Lakes states

Of the 14 rivers recently designated as American Heritage Rivers, six are found within Great Lakes states. To revitalize the rivers and riverfronts, communities along these rivers will receive federal support in the form of refocused programs, grants and technical assistance from existing federal resources over the next five years. The six rivers flowing through Great Lakes states are

- Cuyahoga River in Ohio
- Detroit River in Michigan
- Hudson River in New York
- Upper Mississippi River in Illinois, Iowa, Minnesota, Missouri and Wisconsin
- Potomac River in the District of Columbia, Maryland, Pennsylvania, Virginia and West Virginia
- Upper Susquehanna and Lackawanna rivers in Pennsylvania

The American Heritage Rivers Initiative was announced by President Clinton in his 1997 State of the Union address. As stated in the initial project description from the Council on Environmental Quality, the program recognizes and rewards voluntary community-based efforts to restore and protect the environmental, economic, cultural and historic values of our rivers.

Contact: <http://www.epa.gov/rivers>.

New leadership in the Great Lakes basin

After an extensive nationwide search, Tim Eder has been named director of the National Wildlife Federation's largest conservation field office, the Great Lakes Natural Resource Center in Ann Arbor, Mich. Eder had been the GLNRC's acting director since early 1998 after taking over for Wayne Schmidt, who took a position at NWF headquarters.

Before his recent term as acting director, Eder spent nine years as NWF's



Eder

Great Lakes water quality manager.

The Detroit District of the U.S. Army Corps of Engineers also is under new direction. Lt. Col. Robert Davis assumed command of the district in July. Prior to coming to Detroit, he served in the Executive Office to the Chief of Engineers at the USACE in Washington, D.C.

Another new leader in the region is the Hon. John Tennant, recently named Consul General at the Canadian Consu-



Davis

late General, Detroit. Previously, he served as Minister for Economic and Commercial Affairs at the Canadian Embassy in Tokyo.

Eder and Davis were recognized at an Aug. 25 Great Lakes Directors Luncheon hosted in Ann Arbor, Mich., by Great Lakes Commission Executive Director Mike Donahue. The luncheon, attended by 25 directors and senior staff from public agencies and nongovernmental organizations in the southeast Michigan and Windsor, Ontario, area, is a periodic event recognizing new Great Lakes leadership.

Celebrating 20 years of coastal management in Wisconsin

This year marks the 20th anniversary of the Wisconsin Coastal Management Program and its efforts to protect, restore and enhance Wisconsin's Lake Michigan and Lake Superior coastal resources. A Sept. 14 symposium was held in Madison, Wis., to celebrate the anniversary, with a full day of activities focusing on the status of the lakes and their impact on the future of Wisconsin coastal communities.

"For the past two decades, the Wisconsin Coastal Management Program has achieved a balance between the protection of natural resources and economic development," said Nathaniel E. Robinson, administrator of the state's Division of Energy and Intergovernmental Relations and chair of the Wisconsin Delegation to the Great Lakes Commission. "The challenges lay ahead as we see more people moving to the coastal zone."

The symposium featured panel discus-

sions on the future of Wisconsin's coastal communities from many different points of view. Joseph Uravitch, administrator of the Coastal Programs Division of the Office of Coastal Resource Management, discussed issues from a federal point of view. Commission Executive Director Mike Donahue was on hand to offer a regional perspective.

"True coastal management is achieved when you find federal, state and local governments and private businesses working together for the protection and enhancement of coastal resources," said Oscar Herrera, chief of the Wisconsin Coastal Management Program.

As part of Wisconsin's sesquicentennial celebration, Gov. Tommy Thompson declared September 1998 to be Coastal Awareness Month, which was celebrated through award ceremonies, the symposium, coastal walks and wetland workshops, among other events. The Wisconsin Coastal Management Program and



Great Lakes Commission Executive Director Mike Donahue offers a regional perspective on coastal management, as Wisconsin Commissioner Nathaniel E. Robinson looks on.

Council received recognition awards for the program's anniversary from Gov. Thompson and the Office of Coastal Resource Management, U.S. Department of Commerce.

Planning and implementation of the month's activities were a joint initiative between the Wisconsin Coastal Management Council and the Wisconsin Delegation to the Great Lakes Commission. Contact: Nathaniel E. Robinson, 608-266-7257.

Peregrine falcons recover in Great Lakes region

The peregrine falcon, one of the fastest raptors in the world, is making a comeback in the Great Lakes region and throughout the country. The peregrine is being proposed for removal from the endangered species list, according to an Aug. 25 announcement by Interior Secretary Bruce Babbitt. The U.S. Fish and Wildlife Service proposal to delist was published in the Aug. 26, 1998, edition of the Federal Register.

The bird's decline began after World War II when widespread use of the pesticide DDT and other organochlorine pesticides eradicated populations. The pesticides cause the falcons to lay thin-shelled eggs that break during incubation. When the falcons were given federal protection in 1970, their population had shrunk to 39 pairs in the lower 48 states. Now, there are almost 1,600 breeding pairs in North America.

State wildlife agencies and the U.S. FWS have joined with academic, private and other government agencies to develop recovery strategies to stop the de-

cline of peregrines and start rebuilding populations. Among the key strategies are elimination of DDT and reintroduction of peregrines back into the wild, including large urban areas where the birds are able to hunt pigeons and starlings.

"The recovery of the peregrine falcon shows how we can all work together to get the job done. This bird is again a part of our ecosystem," said John Christian, assistant regional director at the U.S. FWS and Great Lakes Commission Observer.

In 1970, there were no breeding pairs of peregrines in the Midwest. In 1997, the count of pairs in Great Lakes states were as follows

Illinois: 6
Indiana: 8
Michigan: 8
Minnesota: 22
New York: 34
Pennsylvania: 7
Ohio: 11
Wisconsin: 12

Peregrine recovery efforts in the Midwest have been led by The Raptor Center at the University of Minnesota and the Indiana Department of Natural Resources. From 1981 to 1994, The Raptor Center facilitated the reintroduction of 700 peregrine falcons in upper Midwestern states. To re-establish peregrine populations in Indiana, the state's DNR teamed up with The Raptor Center and the U.S. FWS in 1991 to introduce peregrines in four cities.

The public may comment in writing on the proposal to delist the peregrine falcon until Nov. 23,

1998. Comments should be sent to: Field Supervisor, U.S. FWS, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, CA 93003.



Drawing by Robert Savannah, U.S. Fish and Wildlife Service

Great Lakes Calendar

This calendar is a compilation of selected events of interest to the Commission. Further details and a more extensive calendar are available online via the Great Lakes Information Network (www.great-lakes.net). We encourage your input to the calendar. If you know of an event you'd like us to include, please contact Lara Slee, ADVISOR editor, at 734-665-9135; lslee@glc.org.

Commission events

October

19-20 Annual Meeting of the Great Lakes Commission. Hyatt Regency Buffalo, Buffalo, NY. Contact: Mike Donahue, mdonahue@glc.org.

December

9-10 Great Lakes GIS Online Workshop. The University of Chicago, Gleacher Center, Chicago, IL. Contact: Julie Wagemakers, juliew@glc.org.

1999

January

19-20 Great Lakes Panel on Aquatic Nuisance Species. Ann Arbor, MI. Contact: Matt Doss, mdoss@glc.org.

20-21 Ballast Water Management Research Workshop. Ann Arbor, MI. Contact: Matt Doss, mdoss@glc.org.

May

17-18 Semiannual Meeting of the Great Lakes Commission. Marriott Chateau Champlain, Montreal, Québec. Contact: Mike Donahue, mdonahue@glc.org.

19 Great Lakes-St. Lawrence Seaway Symposium. Marriott Chateau Champlain, Montreal, Québec. Contact: Mike Donahue, mdonahue@glc.org.

20-21 13th International Great Lakes St. Lawrence Mayors' Conference. Marriott Chateau Champlain, Montreal, Québec. Contact: Steve Thorp, sthorp@glc.org.

Basin events

October

21-23 State of the Lakes Ecosystem Conference (SOLEC 98). Buffalo, NY. Contact: Paul Horvatin, 312-353-3612, horvatin.paul@epamail.epa.gov.

29-30 Interstate Council on Water Policy Annual Meeting. Seattle, WA. Contact: ICWP, 202-218-4196.

November

6-7 ACM Symposium on Geographic Information Systems. Washington, D.C. Contact: Dr. E.K. Park, 816-235-1497, ekpark@cstp.umkc.edu.

17-18 National Aquatic Nuisance Species Task Force Meeting/Field Trip. Vicksburg, MS. Contact: Bob Peoples, 703-358-2025. robert_peoples@fws.org.

17-19 Midwest Natural Resources Group Roundtable and Meeting. Lake Geneva, WI. Contact: John Perrecone, perrecone.john@epamail.epa.gov.

1999

January

10-15 Institute for Conservation Leadership's Great Lakes Executive Director Development Program. Lake Geneva, WI. Contact: Peter Lane, 301-270-2900, peter@icl.org.

24-27 National Conference on Marine Bioinvasions. Cambridge, MA. Contact: Judith Pederson, fax 617-252-1615, jpeterso@mit.edu.

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