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**Great Lakes Commission
1999 Annual Meeting**
Sept. 13-15 in Pittsburgh, PA

Guest editorial

Learning from the past to protect the Great Lakes' future



By Irene B. Brooks, Great Lakes Commission Chair and Executive Director, Office for River Basin Cooperation, Pennsylvania Department of Environmental Protection

As part of a response to President Pierce's 1854 offer to buy land, Chief Seattle stated "Every part of this earth is sacred to my people. Every shining pine needle, every sandy shore, every mist in the dark woods, every clearing and humming insect is holy in memory and experience of my people."

Reflecting on this statement, one must consider our efforts to protect natural treasures and our responsibility to protect these gifts for the future. Our efforts are like a journey in time in which we are granted responsibility for our resources. For the past 45 years, the Great Lakes Commission has taken the responsibility to build upon our experiences and to protect one of our greatest gifts: the Great Lakes.

Last fall, we set goals for our journey to continue the Commission's unparalleled reputation throughout the basin and to expand our intraregional efforts with new interregional initiatives. We have taken the first step of our journey into the next millennium by building a bridge with other interstate organizations involved with water resources management.

The current resurgence of interest in watershed management throughout the country is encouraging. One example is the federal government's Clean Water Action Plan. This initiative is promoted as "charting a new course" to restore the nation's precious waters. Implementation of this plan calls for a watershed management approach that features intergovernmental partnerships. In order to chart this new course, we must first recognize and learn from our successful experiences of the past. The Great Lakes Commission, along with its sister river basin commissions, must collectively raise the profile of over a half century of experience in multijurisdictional problem-solving to our federal counterparts. Once again we have taken a first step in our journey through our partnership with the Interstate Council on Water Policy and its newly formed Standing Committee for Interstate River Basin Organizations.

At our annual meeting in September, we will take our next step by formalizing a Declaration of Partnership for the 21st Century among a number of interstate organizations. This declaration will

- Strengthen our network for information sharing and coordination;
 - Further our collaboration on special projects and studies that impact multiple jurisdictions;
- and
- Further the forum for policy development and advocacy for issues of a regional, national and international nature.

The promise at the beginning of my term as chair to aggressively seek new partnerships is fast becoming a reality. Our work over the past 10 months has established a cohesive bond among interstate organizations that will last well into the next century and beyond.

This is only the beginning. Over the next year, we will work even more aggressively to further the interest of interstate, interregional and international efforts. We will continue to lead the nation in efforts to advance our member interests. This will be an even greater challenge, but it is a challenge we all can welcome. Please join me as our journey continues.

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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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Shaping the Great Lakes Commission of tomorrow: An invitation

In many organizations, strategic planning is viewed as little more than a necessary evil; a lengthy and arduous process that diverts time and resources away from accomplishing tasks. And, too often, the outcome justifies that view. The plan may be little more than a justification for continuing and/or defending the status quo. It may be so broad and so vague that it lacks value as a benchmark for measuring progress. Or, even more typically, it may be viewed as a finite product as opposed to a process, ultimately doing little more than occupying space on a shelf.

Five years ago, the Great Lakes Commission launched its first-ever formal strategic planning process. In so doing, its members agreed to avoid pitfalls encountered by so many other organizations. Strategic planning, they reasoned, should be an exercise in *utility*, not in *futility*. They agreed that the outcome should be a plan that provides a clear vision for the future, a definitive statement of mission, and a series of goals, objectives and tasks that serve as guideposts on the journey toward that vision. And, they agreed that the strategic plan must challenge the organization to move in new directions, and provide a yardstick by which to measure success and make adjustments along the way.

By all accounts, the journey has been a successful one thus far. The Commission's Five Year Strategic Plan, released in 1995, features a vision statement centered on a sustainable development theme and a series of five goals, 24 objectives and 95 practical, pragmatic and measurable strategic actions. The plan has guided literally every major Commission initiative over the last five years. And, in that time, it helped the Commission double its budget, triple its staff, and increase four-fold the number of major projects. More importantly, the plan has challenged the organization; any member or Observer is well aware that the Great Lakes Commission of 1999 is very different from the

Commission of 1995.

But are we making progress? Are we accomplishing what we set out to accomplish? Are we ready for the next five years? These are all important questions, and we are now seeking the answers. We want to know where we've succeeded,

where we've failed, and where we need to focus our resources. To do this, we need your help.

Our strategic plan review and revision process is not an insular, closed door affair. Rather, it is

open and inclusive. We welcome any and all comments from members, Observers, partners and interested parties. We have but one request: think outside the box. What are the unmet needs in planning, management, policymaking and advocacy in the Great Lakes-St. Lawrence basin? Should the Commission exercise more, or a different level of authority on issues of water diversion, consumptive use and export...or watershed-based planning...or U.S.-Canada relations...or water quality management...or land use...or maritime transportation...or legislative and appropriations priorities? As someone who develops or influences public policy, your views are valued.

I invite and encourage you to review our current strategic plan, which can be obtained online (<http://www.glc.org/about/strategy/sp.html>) or in print from the Commission (734-665-9135). The review/revision process formally begins at our annual meeting this September, and your comments will be welcome through February 2000. The new five year plan will be released at our semiannual meeting next spring.

The Great Lakes Basin Compact, the Commission's enabling legislation, is extraordinarily flexible, and opportunities exist for the Commission to exercise its information sharing, policy research and development, and advocacy authorities in a variety of new and creative ways.

What would *you* like the Great Lakes Commission of the future to be?

**Commission
News and
Views**
By Michael J. Donahue, Ph.D.
Executive Director



Recent products and new initiatives: Introducing the Commission's FY2000 Work Plan

Presented on the following pages is an overview of selected products associated with three of the Commission's program areas: Resource Management and Environmental Quality, Communications and Information Management, and Transportation and Economic Development. Also included is an introduction to selected ongoing and new-start initiatives for FY2000. Complementing these activities are ongoing administrative, program development and advocacy efforts that serve the Great Lakes states and provinces in a variety of areas. For further information, review the Commission's FY2000 Work Plan online (www.glc.org/docs/workplan/workplan.html) or request a copy of the plan from the Commission (734-665-9135 or mdonahue@glc.org).

The Great Lakes Commission announces the receipt of more than \$3.2 million in federal and foundation grants for new or enhanced program and project initiatives in FY2000.

"Our objective is to support the priorities of our member states and cooperating provinces," explained Chair Irene Brooks. "These major new grants and contracts are all directed at the protection and sustainable use of our precious natural resources."

In the area of **Resource Management and Environmental Quality**, Commission projects will

- Accelerate efforts to prevent and control the spread of aquatic nuisance species
- Improve water quality by controlling agricultural and urban nonpoint source pollution
- Advance prevention and response capability for oil and hazardous material spills
- Involve citizens in Great Lakes cleanup
- Improve the efficiency of data gathering and use in decisionmaking

Communications and Information Management projects will

- Strengthen air quality management decisionmaking
- Apply GIS technologies to policy issues
- Promote public health
- Educate teachers about Great Lakes issues
- Form partnerships with scientists around the world

Transportation and Economic Development projects will

- Promote sustainable land use practices
- Strengthen maritime transportation infrastructure
- Reduce maritime transportation costs and improve environmental quality
- Assist states in developing policies on marine sanitation devices

Project funders, among others, include the U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; U.S. Army Corps of Engineers; U.S. Dept. of Agriculture (Natural Resources Conservation Service); National Oceanic and Atmospheric Administration; Ohio Lake Erie Commission; U.S. Geological Survey; Great Lakes Protection Fund; C.S. Mott Foundation; and Ameritech Foundation.

New-start and expanded projects in these areas are among 43 priority initiatives comprising the Great Lakes Commission's Work Plan for FY2000.

Resource Management and Environmental Quality

Model guidance on ANS legislation, regulation and policy

The Great Lakes Panel on Aquatic Nuisance Species moves forward in the effort to curb biological invaders with implementation of its recently completed policy document titled *Legislation, Regulation and Policy for the Prevention and Control of Nonindigenous Aquatic Nuisance Species: Model Guidance for Great Lakes Jurisdictions*. The model guidance is a toolkit from which states, provinces, tribal authorities and local entities can select the legislative, regulatory and policy provisions best suited to address their ANS prevention and control needs.

This regional model was developed to promote interjurisdictional consistency in laws, regulations and policies directed at ANS prevention and control efforts. A multi-watershed, interjurisdictional approach is necessary to address the widespread problems caused by invasive species since they come from other parts of the country as well as waters around the world.

"The model guidance is a good start at familiarizing the governing agencies in the Great Lakes region and elsewhere on ways to respond proactively to ANS problems," says Jay Rendall, panel member representing the Minnesota Department of Natural Resources.

The primary components of the model guidance include:

- Designation of management authority
- A four-tiered classification system for nonindigenous aquatic species and criteria to guide the classification process
- Designation of infested waters and activities subject to regulated/prohibited activities in infested waters
- A permit and regulatory protocol pertaining to beneficial uses of nonindigenous aquatic species
- Inspection of recreational vehicles/equipment and beneficial use operations
- Establishment of enforcement authority and related penalties, and

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FY2000 Work Plan

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- A protocol for an ANS emergency action plan.

The model guidance, approved by the Great Lakes Panel, is available for \$10 (U.S.) upon request. It also is located online at <http://www.glc.org/ans/anspubs.html>. This initiative is funded by a grant from the National Oceanic and Atmospheric Administration and the Michigan Department of Environmental Quality, Coastal Management Program. Contact: Kathe Glassner-Shwayder, shwayder@glc.org.

Contingency planning in the Great Lakes states

Great Lakes Commission staff have completed shoreline GIS mapping the GIS mapping "one county in" from the shores of the Great Lakes from the Ohio/Pennsylvania border to the Minnesota/Canada border. The upper and middle reaches of the Ohio River also have been completed with the lower portion due for completion in the near future. In addition, draft mapping also has been completed for all of Michigan. Commission staff currently are working on the data collection for the remainder of the state of Indiana, which is expected to be completed in draft form by late September.

Data currently is being distributed in hard copy, on CD-ROM, and over the Internet at the U.S. Environmental Protection Agency Region 5's oil web site: <http://www.epa.gov/region5/oil/datamap.html>. This site is featured as

GLIN site of the month for August 1999.

The Commission actively participates with the individual area committees in the preparation of oil and hazardous materials contingency plans. Completed plans to date are Western Lake Erie and Northern Michigan. These plans are available for viewing and downloading at the Commission's area contingency planning project page: <http://www.glc.org/conting/plans.html>. Plans currently being developed with Commission support include: Southeast Michigan; Northeastern Ohio; Columbus, Ohio; Eastern Lake Michigan; and the Great Lakes Annex to the International Joint Inland Plan. Contact: Thomas Rayburn, tray@glc.org.

Other Resource Management and Environmental Quality projects underway in FY2000:

Developing a Basin Water Resources Management Program. The establishment of a comprehensive, coordinated water resources management program is called for under Principle V of the Great Lakes Charter of 1985. It's also been identified by the International Joint Commission as an "urgent" unmet need. The Great Lakes Commission is actively scoping out project elements and accessing necessary funds.

Establishing and supporting a Lake Michigan Monitoring Coordination Council. The U.S. Environmental Protection Agency Region 5 and the U.S. Geological Survey, in conjunction with

partners at the federal, state, tribal and local levels, are forming a Lake Michigan Monitoring Coordination Council (LMMCC) to support resource management efforts in the Lake Michigan basin, including the Lake Michigan Lakewide Management Plan. The Commission has been invited to assist in estab-

lishing this council and to provide secretariat support during its initial year of operation.

Selected ongoing projects:

- Great Lakes Basin Program for Soil Erosion and Sediment Control
- Nonindigenous aquatic nuisance species prevention and control
- Area contingency planning for the Great Lakes basin
- Building a Web-Based Spills Information Center/Great Lakes Spill Prevention Initiative
- International Hazardous Materials Spills Conference series
- Web-based Areas of Concern (AOC) information for the Great Lakes region
- Statewide Public Advisory Council for the Michigan AOC Program
- Lake Michigan Tributary Monitoring project
- Regional Water Use Database
- Managing and coordinating the use of science vessels on the Great Lakes

Communications and Information Management

Sharing resources across the globe: Great Lakes and Baltic Sea Partnership

Environmental concerns in the Great Lakes basin and in the Baltic Sea region are similar. In both parts of the world, for example, watersheds need to be managed, aquatic nuisance species need to be controlled and water quality needs to be assessed. The Great Lakes and Baltic Sea Partnership, a U.S. Environmental Protection Agency (U.S. EPA) project, aims to improve the water quality of the Great Lakes and the Baltic Sea by sharing information, expertise and management approaches.

The two principal areas of cooperation identified are multilateral watershed

continued on next page



management and a fellowship and exchange program. The latter will focus on the problems of persistent toxic substances, the invasion of exotic species, and the specific impacts of both on the Baltic Sea and Great Lakes ecosystems.

The Great Lakes Commission is working with the U.S. EPA to place Baltic scientists for up to six months with host institutions that conduct research on the Great Lakes. The Commission is a member of a review committee that met on May 20, 1999, in Tallinn, Estonia, to select fellows for the exchange program.

The finalists are

Lithuania: Violeta Vinceviciene, Institute of Environmental Engineering, Kaunas University. *Project proposal:* The Development of the Watershed Water Quality Management Concept and System for Lithuanian Rivers.

Estonia: Henn Ojaveer, Estonian Marine Institute, Tallinn. *Project proposal:* Recent newcomer *Cercopagis pengoi* in the Ecosystem of the Great Lakes.

Latvia: Jevgenijs Cernihovics, Laboratory of Ecology, Daugavpils Pedagogical University, Daugavpils. *Project proposal:* Spatial Frameworks for Environmental Assessment.

Alternate:

Lithuania: Pranas Mierauskas, Center for Environmental Studies, Vilnius University, Vilnius. *Project proposal:* Development of Ecological Risk Assessment Methods.

The U.S. EPA and Great Lakes Commission are contacting institutions in Canada and the United States to host the fellows and assist in conducting their research. The first fellows are expected to arrive by October 1999.

Under the Great Lakes and Baltic Sea Partnership, the U.S. EPA will draw on Great Lakes binational initiatives as models to protect environmental quality and public health. In addition, the partnership will continue the U.S. EPA's history of environmental cooperation programs in the Baltic Sea region, which began in the early 1990s. This cooperation has witnessed significant improvements in the management, collection and distribution of environmental data by the Baltic states, as well as in aiding their response to environmental problems.

For further information on the partnership, see <http://www.epa.gov/glnpo/baltic/index.html>. Contact: Julie Wagemakers, juliew@glc.org.

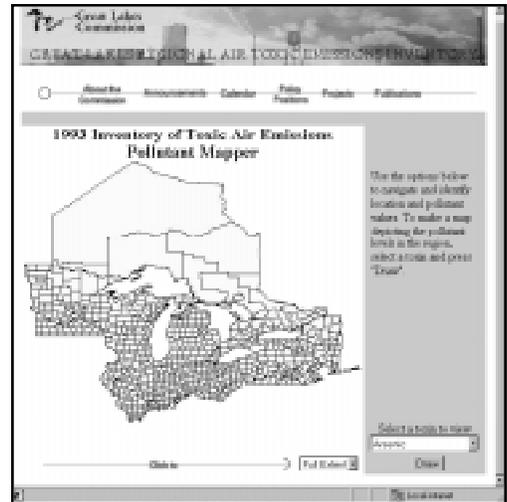
Interactive mapping of toxic air emissions data

The Great Lakes Regional Air Toxic Emissions Inventory project is the latest Commission initiative to utilize Internet Geographic Information Systems (GIS) technology. Benefiting from developments in the Great Lakes GIS Online project, it will now be possible to view pollutant concentrations for the Great Lakes region at an interactive mapping web site. Information for the site comes from the initial regional toxic air emission inventory using 1993 data.

In addition to making a basic map of the basin depicting pollution concentrations, several GIS tools have been included to help visitors explore the web site. Navigation tools such as zoom in, zoom out and pan allows for movement to specific areas of the map. The identification tool can be used to display the name and amount of pollution per county. Visitors will have the ability to locate a county and retrieve information about specific pollutants that may be of interest to them.

GIS has become one of the standard tools for geographic data analysis and planning. Its use is already being applied to a broad variety of Great Lakes data sets related to topics such as the environment, economy, population, land use and transportation. Having access to these data sets over the Internet will have a positive influence on Great Lakes research and will improve decisionmaking. Other users will gain an increased level of understanding with regard to the Great Lakes basin's physical, environmental, cultural and economic features.

This is just one of the ways in which the Air Toxic Emissions Steering Committee has planned on making the inventory available on the Great Lakes Information Network (GLIN). In addition to



Interactive mapping web site.

the interactive mapping web site, the inventory will also be able to be queried and viewed over the Internet or available for downloading for use in spreadsheets. Both of these features will be implemented this fall after the release of the next inventory, which will contain point, area and mobile source emissions data for 1996. The interactive pollutant web site will also be updated to include new data.

See the Pollutant Mapper at the Great Lakes Regional Air Toxic Emissions Inventory page: <http://www.glc.org/air/air3.html>. Contact: Julie Wagemakers, juliew@glc.org or Derek Moy, dmoy@glc.org

The Great Lakes GIS Online project can be viewed at <http://www.glc.org/GIS/GIS.html>. Contact: Stuart Eddy, seddy@glc.org.

Other Communications and Information Management projects underway in FY2000:

BEACHES: An online beach advisory system. In collaboration with government jurisdictions at all levels, the Great Lakes Commission has initiated a Great Lakes pilot project in support of U.S. EPA's national Beaches Environmental Assessment, Closure and Health (BEACH) Program. The project will promote consistency and enhance efforts in beach water quality monitoring, analysis,

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advisory implementation, publicity and interjurisdictional reporting.

TEACH Great Lakes: The Education and Curriculum Homesite. The Commission will develop an educators network and web site that will significantly advance the nature and extent of formal and informal Great Lakes-related educational materials. The TEACH site will feature a virtual library of curriculum and related educational materials, as well as an educators information exchange corner/listserv, expert speakers bureau and introduction to scientific tools including Geographic Information Systems. (Final funding approval pending.)

Great Lakes Funding Sources: A Reference Guide for Government, Foundation and Corporate Grant Programs.

The Commission will assist the U.S. EPA in the development and maintenance of a web-based reference guide to Great Lakes funding sources that includes government, foundation and corporate grant programs. The guide will be extensively linked to other sites, and will be continuously expanded and updated. (Final funding approval pending.)

Selected ongoing projects:

- The ADVISOR newsletter
- *Living with the Lakes: Understanding and Adapting to Great Lakes Water Level Changes*
- Publication production and marketing
- Great Lakes Information Clearinghouse
- Publicity and media relations for Commission programs and initiatives
- Great Lakes Information Network: An Internet-based communications system for the region (<http://www.great-lakes.net>)
- Release of an annual regional emissions inventory of toxic air contaminants
- Online spatial data sharing and integrated mapping: GIS Online

Transportation and Economic Development

New series of case studies presents Great Lakes dredging efforts

Four new case studies about Great Lakes dredging and dredged material disposal are now available from the Great Lakes Commission.

The Port of Toledo and the Maumee River Basin case study describes successful efforts underway to reduce basin erosion and sedimentation. The study also outlines measures for dredged material disposal including beneficial use of the material with sewage sludge as a manufactured soil, and development of a new confined disposal facility that also would control wave erosion and create wildlife habitat.

The Duluth-Superior Harbor Dredged Material Management Plan (DMMP) describes the April 1999 completion of a DMMP after six years of extensive review of disposal alternatives. The special status of Lake Superior's water quality, along with binational efforts for its protection, complicated the effort to implement U.S. Army Corps of Engineers policy for disposal of dredged material in a least costly and environmentally sound manner.

The Beneficial Use of Dredged Material case study in Brown County, Wisconsin, describes an effort in which part of a disposal facility has been reconfigured to function as a processing facility for material to be utilized for agricultural purposes. A key to the project's success has been a system of multiple containment cells that de-water the sediments.

The Waukegan Harbor case study describes a complicated situation in which contaminated sediments and lack of a disposal plan had prevented navigation dredging since the 1970s. The removal and treatment of some sediments, along with the identification of a Superfund site as a possible disposal location, has made dredging more likely.

This series of case studies is one of several public outreach and communication products prepared by the Great Lakes Dredging Team. The GLDT is a federal/state partnership created in 1996 to ensure timely, cost-effective and environmentally responsible dredging of U.S. harbors and navigation channels. Other public outreach tools are a Great Lakes Dredging Team web site (www.glc.org/projects/dredging/), fact sheets and an upcoming dredging brochure and video.

The case studies will be available, both online and in print, in mid-August. Contact: Steve Thorp, sthorp@glc.org.

Other Transportation and Economic Development projects underway in FY2000:

Marine sanitation devices workshop. This workshop, to be held Nov. 10 in Hammond, Ind., will inform government authorities and the concerned public about public health issues and regulatory enforcement responsibilities associated with the use and effectiveness of marine sanitation devices.

Promoting the beneficial use of dredged material. This U.S. EPA-supported initiative will yield a process for state involvement in developing federal guidance on beneficial use, a brochure for public education, and risk-based guidance materials to promote beneficial use. (Final funding approval pending.)

Selected ongoing projects:

- Soo Lock funding
- Great Lakes Circle Tour
- Congressional advocacy for water resources funding
- Staff support to the International Great Lakes-St. Lawrence Mayors' Conference
- Brownfields redevelopment and greenfields protection
- Editing of Great Lakes book (*The Future of the Great Lakes*)

Building partnerships to control erosion and sedimentation in the Great Lakes basin

Keeping it on the Land conference proceedings now available

Years of study and demonstration projects have been conducted in the Great Lakes basin to help soil and water conservation professionals control erosion and reduce sedimentation. The challenge, however, has been to share new information, technology and experiences among professionals throughout the entire Great Lakes basin. This unmet need was addressed at a September 1998 event sponsored by the Great Lakes Commission and other organizations.

The conference, titled *Keeping it on the Land*, featured more than 40 speakers, provided in-depth coverage of 10 topical areas, and included more than 100 participants from all eight Great Lakes states and the province of Ontario. The event provided opportunities for networking and building partnerships on important soil erosion and sedimentation issues from across the basin.

The conference proceedings document, along with the recently completed 1997 annual report of the Great Lakes Basin Program for Soil and Erosion and Sediment Control, can be obtained through the Great Lakes Commission.

"The proceedings document is a great tool for introducing topics, ideas and innovative practices for controlling erosion, sedimentation and other nonpoint sources of pollution," says David Cowgill, chief of the Technical Assistance and Analysis Branch of U.S. EPA's Great Lakes National Program Office.

"Most importantly, it provides an opportunity for researchers in New York and Pennsylvania to see what approaches are being tried in Wisconsin and Minnesota, and vice versa."

Contact: Tom Crane, tcrane@glc.org.

Commission releases water use, consumption findings and recommendations

Every day, almost 900 billion gallons of water are withdrawn for a variety of domestic, industrial, agricultural and power production uses in the Great Lakes-St. Lawrence basin. Of this, about 2.5 billion gallons are consumed or, in other words, not returned to the basin. These and other figures, based on 1993 data collected by the Great Lakes Commission, are available in a new report titled *Consumptive Use in the Great Lakes-St. Lawrence Basin*. The report, an adaptation of an annual Commission publication, has been submitted to the International Joint Commission as a working paper in support of its ongoing reference on the consumption, diversion and removal of water (see related story on page 11).

In addition to providing withdrawal and consumptive use data on a lake basin, jurisdiction and water use category basis, the report offers a series of findings and recommendations to enhance basin jurisdictions' capabilities in managing shared water resources. These findings and recommendations—all founded in established Great Lakes Commission policy—have been forwarded to the IJC for consideration in its ongoing reference.

The sidebar on this page summarizes key findings and recommendations. Further details, and a copy of the report, are available upon request. Contact: Mike Donahue, mdonahue@glc.org.

Consumptive use in the Great Lakes-St. Lawrence basin *Findings and recommendations of the Great Lake Commission*

Selected findings:

- Water withdrawals in 1993 totaled 895.6 billion gallons per day (bgd), or 3,391.1 billion liters per day (bl); the majority of these withdrawals (94%) were for hydroelectric purposes. Exclusive of hydroelectric purposes, withdrawals totaled 55.4 bgd (215.5 bld).
- Consumptive use accounted for 2.639 bgd (9.99 bld) in 1993, which represents 0.3 percent of total withdrawals or 4.7 percent of withdrawals excluding hydroelectric power production.
- While no comprehensive, basinwide predictions have been made in recent years, informed opinion suggests that consumptive use is likely to increase only modestly in the next several decades.
- Great Lakes jurisdictions vary considerably in the nature and extent of their monitoring, reporting and analysis capabilities. Limited staffing and financial resources, combined with the low priority generally assigned to such activities, have compromised the comprehensiveness, accuracy and timeliness of such efforts and limited usage of such data in decisionmaking processes.

Selected recommendations:

- Great Lakes-St. Lawrence jurisdictions should place a higher priority on water use monitoring, reporting and analysis activities to ensure that such data meets basinwide requirements for comprehensiveness, accuracy and timeliness.
- The Commission's Great Lakes Regional Water Use Database, and the work of the regional Water Resources Management Committee, should remain a focal point for the collection, analysis and interpretation of basinwide water use data.
- A basinwide study should be conducted to yield meaningful data on water withdrawal and consumptive use trends over the next several decades. The methodology should overcome inconsistencies in jurisdiction-specific data, be binational in scope, and present multiple water use scenarios and the implications associated with each.
- Water use monitoring, reporting and analysis activities should be better integrated into jurisdiction-specific and regional decisionmaking processes. Toward that end, the Basin Water Resources Management Program established under the 1985 Great Lakes Charter (or a similar mechanism) should be developed and operationalized.

Water Resources Development Act of 1999, at last!

The Water Resources Development Act of 1999 (WRDA '99) was passed by Congress on Aug. 5 and signed by the President after having been delayed since the last session of Congress. This kind of authorization legislation has been very important to the Great Lakes region over the years. It sustains federal infrastructure and investment policy regarding the water resources of the nation including flood control, shorelands protection and the navigation system. WRDA '99 includes many specific provisions pertaining to local projects around the Great Lakes, but also contains sections that have a broader reach. Many of the Commission's 1999 legislative priorities were addressed.

A major highlight of WRDA '99 is Section 455, the John Glenn Great Lakes Basin Program, which is named after the retired Ohio senator who championed

Great Lakes causes throughout his career. This section mandates that a Great Lakes strategic plan be developed by the U.S. Army Corps of Engineers to guide the organization's future program and projects. A major recreational boating study is to be undertaken by the Corps in cooperation with the Great Lakes states and provinces, as well as tribal governments. This provision was called for by the Great Lakes Commission to help rectify a Corps practice of not considering recreational boating benefits in assessing overall Great Lakes dredging needs and priorities. Other Glenn Program elements provide for an inventory of biohydrological data and technical assistance to the states to develop interstate guidelines for consistent policies regarding water use.

Selected WRDA '99 provisions:

- Secures an interest waiver pertaining

to nonfederal share of new Soo Lock cost (see Soo Lock article below).

- Amends environmental dredging authority of the Corps by increasing federal share of dredging and related disposal to 65 percent from 50 percent, as well as increasing the appropriations level.
- Provides for a comprehensive study of the Western Lake Erie basin.
- Provides for a Great Lakes Navigation System study to look at modifications of existing infrastructure.
- Provides for a comprehensive management plan for the environmental restoration of the St. Clair River and Lake St. Clair.
- Amends Corps authority to support states in development and implementation of remedial action plans by allowing the nonfederal share to come from non-profit or private sources.

Contact: Steve Thorp, sthorp@glc.org.

WRDA '99: Paving the way for a new Soo Lock

The summer of 1999 has been a pivotal period for the proposed lock at Sault Ste. Marie, Mich. Just before adjourning for its August recess, Congress passed the Water Resources Development Act (WRDA) of 1999, which contains an interest waiver provision pertaining to the new lock. The waiver provision reduces the nonfederal cost share by about half and paves the way for a Great Lakes states agreement on funding their share of the project. The provision was the focus of a concerted lobbying effort by the Great Lakes Commission and the state of Michigan. The savings to the region from the waiver, and a WRDA '96 provision that accounted for Canadian vessel use of the Soo Locks, are estimated to be around \$80 million.

To date, seven of the Commission's member states have agreed on a method to allocate the \$60 million to 70 million nonfederal cost share among them; a decision from the eighth state is anticipated soon. According to the plan, individual state amounts will be based on a formula that considers waterborne tonnage through the Soo Locks and its connection to each state. That connection includes both port shipments and receipts,

and state-based origin and destination commodity movements. Minnesota and Michigan will account for more than half of the nonfederal share because of large iron ore shipments and coal deliveries to Detroit-area utilities. A final decision on the cost share formula will be made by the Commission's Executive Committee. Also, the Commission will be considering a resolution at its September meeting that addresses the Commission's project role as the nonfederal sponsor.

In another development, the U.S. Army Corps of Engineers-Detroit District is wrapping up its Limited Re-evaluation Report for the new lock. This part of the feasibility study process will result in a draft report to be released in October. The Commission then will begin its review of the findings, which will include information on national and regional economic benefits of the new lock. The study already has produced important information concerning the impact of a lock closure due to accident or sabotage. The short term (90 day) arrangements for moving cargo via other modes could cost approximately \$250 million. Contact: Steve Thorp, sthorp@glc.org.

2000 Carol A. Ratza Memorial Scholarship

The Great Lakes Commission is pleased to announce a scholarship opportunity for students with an interest in electronic communications technology and its applications in the Great Lakes region. The scholarship is in memory of Carol Ratza, a longtime employee of the Commission.

A \$500 (U.S.) scholarship will be awarded to a deserving student enrolled full-time at a college or university in the Great Lakes states or Canadian provinces during the fall 2000 semester. The eligible student must have a demonstrated interest in the environmental or economic applications of electronic communications technology, exhibit academic excellence, and have a sincere appreciation for the Great Lakes and their protection. High school seniors are welcome to apply.

For further information, contact Mike Donahue, mdonahue@glc.org; or visit www.glc.org. Application deadline: March 31, 2000.

This information is excerpted from an August 1999 report by the Northeast-Midwest House and Senate Coalition Great Lakes Task Force. The table addresses selected aspects of the Great Lakes Commission's federal legislative and appropriations priorities statement released in May. The figures presented have been approved by the relevant House and Senate committees, but final action is still pending. The appropriations listed are subject to rescission. Contact: Rochelle Sturtevant, 202-224-1211, rochelle_sturtevant@levin.senate.gov.

Congressional action on selected Great Lakes programs (As of August 1999) Funding in millions of dollars	Great Lakes Commission request	FY2000 House	FY2000 Senate
Agriculture			
Great Lakes Basin Program for Soil Erosion and Sediment Control	0.75	0.6	0.5
Commerce, Justice and State			
National Sea Grant College Program	65.8	58.5 including 3.0 ANS ¹	60.5 including 3.0 ANS
Great Lakes Environmental Research Laboratory (NOAA)	7.5	6.825 OAR ²	6.825 NOS
Great Lakes Fishery Commission	9.353	8.353	9.353 ³
International Joint Commission	4.5	3.432	3.432
Energy and Water			
Water Resources Development Act (WRDA)			
Environmental Dredging (Sec. 312)	20	Ashtabula River 0.6, Indiana Harbor 0.1, Muskegon Lake 0.1, White Lake 0.1, Detroit River 0.1	Ashtabula River 0.6, Detroit River 0.1
Restoration of Environmental Quality (Sec. 1135)	20	8.5	10 including sea lamprey 0.2 ⁴
Beneficial Uses of Dredged Material (Sec. 204)	5	0.35 ⁵	10
Sediment Transport Models and Sediment Management Planning (Sec. 516)	1	0	0
RAP Assistance (Sec. 401)	1.5	0.5	0
Improvement of Soo Lock	Necessary construction funds	0	0.4
Dispersal Barrier Demonstration (NISA, Sec. 1202)	0.6	0.3	0.1
Interior			
National Invasive Species Act			
Aquatic Nuisance Species Program (F&WS)	4.7	4.192 ⁶	3.2
Great Lakes Science Center (USGS/BRD)	6.8	6.575	6.575 + 0.5 for vessel retrofit ⁷
Transportation			
Icebreaker <i>Mackinaw</i>	Continued operation	Continued operation + 13 ⁸	Continued operation + 3
Ballast Water Guidelines and Prevention Program (NISA) <i>Includes Ballast Discharge Study and Information Clearinghouse</i>	4	4 ⁹	3 + 1.5 R&D ¹⁰

1 "\$3,000,000 provided for zebra mussel research in accordance with the Nonindigenous Aquatic Nuisance Prevention and Control Act, ...in addition, within the amounts provided for aquatic nuisance research, the Committee encourages the Sea Grant program to conduct research related to the public health risks posed by pathogens released in ballast water discharges in ports around the country."

2 "The committee has continued funding for GLERL within OAR, given the other Great Lakes-related programs contained in this line office. Should NOAA propose to consolidate all related programs into one line office, the Committee would be willing to consider such a transfer in accordance with the direction included under the National Ocean Service."

3 The committee recommends \$9.353 million for the Great Lakes Fishery Commission "including \$8,724,000 for the sea lamprey operations and research program, of which not less than \$200,000 shall be used to treat Lake Champlain. The GLFC is directed to give priority to states that have provided

matching grants when distributing lampricide funds."

4 "The recommendation includes \$200,000 for planning and design upon successful completion and approval of the Preliminary Restoration Plan for the Great Lakes, Sea Lamprey Control program, and the submission of a formal study request by the Great Lakes Fishery Commission."

5 The committee directs the Corps to "emphasize projects that use dredged material to recreate habitat, such as those in Duluth Harbor, MN and Cat Island Chain, WI."

6 The committee provided \$1 million less than the President's request for the overall Fisheries/Fish and Wildlife Management account, with an earmark of \$500,000 for fish passage (not included in the President's budget). The Committee did not specify which programs should bear the cut, leaving that decision to the discretion of the agency. Numbers included here reflect discussion with senior FWS employees.

7 "The Committee understands an additional

\$500,000 will be required to complete the retrofit, an amount that the center is encouraged to seek from some of the many beneficiaries of the research vessel's lab work."

8 Section 345 specifies that \$10 million of this funding is to support a portion of the acquisition cost, and is available until September 30, 2005.

9 "Of the funds provided, \$4 million is only to continue and broaden the national ballast water management program. The current program allows Coast Guard boarding officers to monitor industry compliance with voluntary guidelines regarding the management of ballast water. The inadequate attention to proper ballast handling procedures leads to the propagation of invasive aquatic species."

10 "Within the amount provided for marine environmental protection, the Committee has included not less than \$1,500,000 to continue the development and testing of methods to verify the occurrence of ship ballast exchange to ensure that alien aquatic species are not introduced into American waterways."

1999 International Joint Commission Biennial Forum, Sept. 24-26

Sharing knowledge for the good of the Great Lakes

Citizens, communities, businesses, organizations and agencies are finding new ways to build partnerships and balance economic, social and environmental goals in cleaning up the Great Lakes. The 1999 International Joint Commission Biennial Forum on Great Lakes Water Quality, Sept. 24-26 in Milwaukee, Wis., provides an opportunity for representatives from these and other groups to meet and discuss issues of concern regarding the Great Lakes ecosystem.

Reports from the IJC, public hearings, and U.S. and Canadian government presentations on the restoration and protection of the Great Lakes ecosystem are just a few highlights on the agenda for the 1999 Biennial Forum. In addition to these main events, more than 20 workshops and sessions are planned to cover topics such as toxics, watershed

management, the use of clean technology, water levels and sediment management. The program emphasizes building "partnerships for progress" so the best of what is occurring in the Great Lakes basin can be replicated in other regions.

In conjunction with the Biennial Forum, the first Great Lakes Environmental Expo will be held to showcase a variety of special projects, new technologies, environmental products and future plans to protect and preserve the Great Lakes.

The Great Lakes Commission will be well-represented at the expo, overseeing an extensive Great Lakes Information Network (GLIN) display and numerous project exhibits. GLIN also will be showcased during a "Meet Lake Michigan" workshop planned for Sept. 25, and Commission staff will co-host a

series of Great Lakes education workshops with the Center for Great Lakes Environmental Education. Also, Commission Executive Director Mike Donahue will make a plenary presentation in his capacity as U.S. chair of the IJC's Science Advisory Board.

The Great Lakes Communicators Network, founded by the Commission, IJC and other regional partners in early 1999, will host the second in a series of workshops focusing on communicating science to non-scientists. This workshop, open to the public, will continue discussions begun at the annual meeting of the International Association for Great Lakes Research this past May.

Contact: Jennifer Day, IJC, 519-257-6733 (Canada), 313-226-2170 ext. 6733 (U.S.), dayj@windsor.ijc.org, <http://www.ijc.org>.

Aquatic Invaders television special focuses on threats posed by aquatic nuisance species

Aquatic Invaders, the new edition of Information Television Network's *TECHNO 2100* series, examines the threat posed by aquatic nuisance species and how scientists, policymakers and the public are working to prevent new introductions and control the spread of existing ones.

The 30-minute special focuses on prevention and control efforts in the binational Great Lakes basin, highlighting the work of the Great Lakes Panel on Aquatic Nuisance Species and many federal, state, provincial, and university-based research and management initiatives. The challenges and opportunities in prevention and control are placed in a national and international context as well.

The program initially aired on CNBC on Aug. 14, and will be repeated at least 30 times over the next year in primetime slots. Accessible to some 66 million U.S. and Canadian viewers, the program is produced by Information Television Network in collaboration with the U.S. Environmen-

tal Protection Agency, the Great Lakes Commission, and numerous federal, state and provincial agencies including:

- Michigan Office of the Great Lakes
- Indiana Dept. of Natural Resources
- Ohio Dept. of Natural Resources
- United States Coast Guard
- Pennsylvania Dept. of Environmental Protection
- Minnesota Dept. of Natural Resources
- New York State Dept. of Environmental Conservation
- Great Lakes Fishery Commission
- Dept. of Fisheries and Oceans Canada
- United States Fish and Wildlife Service

For further details on the TV special, or other initiatives in aquatic nuisance species prevention and control, contact Mike Donahue, mdonahue@glc.org. Information also can be found on the Great Lakes Information Network (<http://www.great-lakes.net>) and the Great Lakes Commission's web site (<http://www.glc.org>).

Changes of command in the basin



Hull

On July 2, Rear Adm. James Hull assumed duties as the Commander of the Ninth Coast Guard District. Hull replaces the retiring Rear Adm. John McGowan, who had served as commander since May 1997.

Prior to his recent appointment, Hull was the director of Operations Policy for the Coast Guard. Under his direction were programs that included maritime safety, law enforcement and national defense.

The U.S. Army Corps of Engineers' Great Lakes and Ohio River Division saw Brig. Gen. Robert Griffin assume command on Aug. 5.

Griffin will head two regional offices, the Ohio River Regional Office and the Great Lakes Regional Office. He also is the U.S. chair of the International Joint Commission's Lake Superior, Niagara and St. Lawrence River boards of control.



Griffin

International Joint Commission releases interim report on water diversion, consumptive use and removal

Six months after receiving a reference from the United States and Canadian federal governments, the International Joint Commission has released an interim report with recommendations on "matters which have, or may have, effects on levels and flows of waters within the boundary or transboundary basins and shored aquifers."

An early 1998 proposal for the bulk export of Lake Superior water prompted the reference, with the governments expressing concern that "current management principles and conservation measures may be inadequate to insure the future sustainable use of shared waters."

A ten-member International Study Team, including Commission Executive Director Mike Donahue, was appointed to examine, report and offer recommendations on matters that include existing and potential cumulative impacts of the consumptive use, diversion and removal of water, and current laws and policies that affect sustainability of such practices. The team produced a series of background papers that helped shape the IJC's report.

Released on Aug. 18, the report characterizes water use in the Great Lakes basin and examines the cumulative effects, climate change impacts, groundwater consumption and water, conservation practices, and legal and policy considerations. A series of 22 conclusions features principles to "ensure the protection and conservation" of Great Lakes water. Among others, they call for preserving ecosystem integrity; adopting a precautionary approach to management; embracing sustainability, conservation and interjurisdictional cooperation; building on the strengths of existing management institutions; establishing reasonable, scientifically sound and adaptive management practices; and ensuring fairness in applying such practices.

The IJC offers eight recommendations to the governments in the report. They call for:

- A federal, state and provincial moratorium on any new bulk sales or removals of surface or groundwater, pend-

ing issuance of a final report;

- Denial of any proposed removal of water that endangers the integrity of the Great Lakes ecosystem;

- Improved monitoring of water supply and usage, coordinated research, and the development and maintenance of a common base of data and information;

- Enhanced groundwater research to better understand usage characteristics and interactions with basin surface water;

- Application of the "precautionary principle" with respect to groundwater usage given the current lack of information on such;

- Issuance of a "standing reference" to the IJC to periodically review its recommendations;

- Minimization of consumptive use through the development and implementation of water conservation strategies at all levels of government; and

- Strengthening the elements of the Great Lakes Charter of 1985, including the "urgent" development and implementation of a Basin Water Resources Management Program.

The IJC will submit a final report to the governments on or before Feb. 10, 2000. Special attention in the coming months will be placed on acquiring and analyzing additional consumptive use and groundwater data; determining cumulative impacts of Great Lakes water level changes resulting from current and future removals and consumptive uses; examining trade law issues and implications in further detail; and continuing consultation with state and provincial governments and the public.

The interim report is available on the IJC web site (www.ijc.org), or by contacting the IJC in Washington (202-736-9000), Ottawa (613-995-2984) or Windsor (519-256-7821).

Water Quality Agreement, Lakewide Management Plans focus of Binational Executive Committee

Binational planning and management activities under the U.S.-Canada Great Lakes Water Quality Agreement will receive expedited attention, thanks to decisions by a Binational Executive Committee comprised of federal, state, provincial, regional and tribal officials. Convening in Toronto on July 21-22, the committee agreed on April 2000 as the target for release of a revised Great Lakes Water Quality Agreement, as well as for Lakewide Management Plans (LaMPs) for lakes Superior, Michigan, Erie and Ontario.

The Great Lakes Water Quality Agreement, signed in 1972 and amended in 1978 and 1987, is presently under review by the two federal governments per a requirement in the Agreement itself. The review process, which includes solicitation of input from all basin jurisdictions and other interested parties, is focusing on Agreement annexes and the prospective need for updating, enhancing or otherwise revising them.

On a related topic, committee members agreed to expedite the development of LaMPs, called for in Annex 2 of the Agreement. Delays in plan development and implementation have been a growing concern among the jurisdictions and, per the committee's decision, initial plans will be completed over the next eight months and updated on a biennial basis thereafter.

Contact: Susan Nameth, Environment Canada (416-739-4937) or Vicki Thomas, U.S. Environmental Protection Agency (312-353-2117).



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 the ADVISOR editor at 734-665-9135; glc@great-lakes.net.

Commission events

September

13-15 Celebrating Interstate and International Cooperation in Water Resources Management: Annual Meeting of the Great Lakes Commission and Special Session with the Interstate Council on Water Policy. Pittsburgh, PA. Contact: Mike Donahue, mdonahue@glc.org.

29-30 Soil Erosion and Sedimentation Task Force. Erie, PA. Contact: Tom Crane, tcrane@glc.org.

October

6-7 Great Lakes Dredging Team Meeting. Chicago, IL. Contact: Steve Thorp, sthorp@glc.org.

19-20 Great Lakes Panel on Aquatic Nuisance Species. Chicago, IL. Contact: KatheGlassner-Shwayder, shwayder@glc.org.

Basin events

September

20-23 "Make a Difference": EPA Region III's 1999 Chemical Emergency Preparedness and Prevention Conference. Washington, DC. Contact: 1-877-804-CEPP.

22 Lake Michigan Monitoring Coordination Council. Milwaukee, WI. Contact: Matt Doss, 734-665-9135, mdoss@glc.org.

22-24 23rd Annual Inland Spills Conference. Independence, OH. Contact: Linda Fields, Linda.Fields@epa.state.oh.us.

24-26 International Joint Commission's 1999 Biennial Forum on Great Lakes Water Quality. Milwaukee, WI. Contact: Jennifer Day, 519-257-6733 in Canada, 313-226-2170 ext. 6733 in U.S., dayj@windsor.ijc.org.

24-26 Great Lakes Environmental Expo. Milwaukee, WI. Contact: Chuck Stoffle, 888-366-0357, info@epsglobal.com.

28-29 1999 Mid-Atlantic Resource Conservation and Development Association Annual Conference. Erie, PA. Contact: Penn Soil RC&D, 814-226-8160 ext. 102 or 119.

29-30 National Association of Conservation Districts (NACD). Erie, PA. Contact: Tom Crane, 734-665-9135, tcrane@glc.org.

October

25-28 Lake Superior Binational Monitoring Workshop. Sault Ste. Marie, ON. Contact: Angie Coe, 705-759-2554 ext. 497, angie.coe@saultc.on.ca.

November

8-9 Lake Michigan: State of the Lake '99. Muskegon, MI. Contact: Janet Vail, 616-895-3048, vailj@gvsu.edu.

May 2000

17-19 International Great Lakes St. Lawrence Mayors' Conference. Gary, IN. Contact: Steve Thorp, sthorp@glc.org.

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