



# 2011 Annual Report



Lake Michigan  
Mermaid Rocks, Pentwater, MI

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Lake Michigan

Stand-up paddleboarders as viewed from  
Sleeping Bear Dunes National Lakeshore, Empire, MI



James M. Tierney

Tim A. Eder

## Standing up, making a difference

The ability to respond directly and effectively to crisis is a fundamental measure of organizational value. When infestation of the Great Lakes by Asian carp via the Chicago Area Waterway System (CAWS) appeared imminent in mid-2010, with potentially disastrous ecological and economic consequences, we like to think the Great Lakes Commission stepped up and demonstrated its value to its member states and provinces.

Within months of the detection in July 2010 of Asian carp only a few miles from Lake Michigan, the Commission was able to build a coalition of government agencies, non-governmental organizations, the Great Lakes and St. Lawrence Cities Initiative, and other stakeholders to call for the immediate investigation of ecological separation in the CAWS to permanently stop the interbasin movement of Asian carp and other aquatic invasive species. By early 2011, the Commission had been able to raise \$2 million in funding from mostly private sources to study the feasibility of such a permanent barrier, and one year later it produced, in partnership with the Cities Initiative, a comprehensive, peer-reviewed report identifying three engineering options for implementation.

Completion of a permanent solution that protects the Great Lakes against Asian

carp and all other invaders from the Mississippi drainage remains the Commission's ultimate goal. But GLC actions in 2011 to raise levels of awareness of the Asian carp threat; demand more urgency in the federal response; and accelerate progress toward a permanent solution were all achievements in which we can take much pride.

Over its 57-year history, the Commission has consistently provided leadership and technical support to the development of sound Great Lakes policy. Seldom, however, has it had to move as nimbly and decisively as it did in 2011 in response to an unusually fast-evolving ecological crisis. No-action or slow-action alternatives were not acceptable. If we have learned anything about the threat posed by aquatic invasive species to the Great Lakes ecosystem, it is that prevention is critical. Once invasives are established, the game changes to a much more costly and never-ending one of damage control and is, essentially, lost.

2011 saw several other examples of Commission leadership, including advocacy to secure \$300 million in the federal FY 2012 budget for the Great Lakes Restoration Initiative (GLRI). Maintaining this level of federal commitment to eliminating toxic hotspots, restoring natural habitat

and fighting invasive species among other activities was no small accomplishment in today's austere budget environment.

The Commission also collaborated with the Biodiversity Research Institute and the University of Wisconsin-La Crosse in a major air deposition research project, *Great Lakes Mercury Connections: The Extent and Effects of Mercury Pollution on the Great Lakes Region*. The GLC continued ongoing efforts in 2011 to explore offshore wind power as a clean, alternative energy source for the Great Lakes region, and also supported pioneering work to better define important relationships between water resource management and energy production in the Great Lakes states.

For sheer breadth and depth – and a textbook example of crisis management – the Great Lakes Commission's activity in 2011 as summarized in this report represents a body of work that clearly made a difference for the Great Lakes. And making a difference is at the heart of the GLC mission.

James M. Tierney, *Chair*

Tim A. Eder, *Executive Director*

## GLC-led Asian carp report established separation as the best approach

“Physically separating the Great Lakes and Mississippi River watersheds is the best long-term solution for preventing the movement of Asian carp and other aquatic invasive species, and our report demonstrates that it can be done.” So said Tim Eder, executive director of the Great Lakes Commission at the culmination of a project that commanded the Commission’s highest priority in 2011.

*Restoring the Natural Divide: Separating the Great Lakes and Mississippi River Basins in the Chicago Area Waterway System* (accessible online at [www.glc.org/caaws](http://www.glc.org/caaws)) was released in January 2012. Work on the report originated in July 2010, led by the Commission and the Great Lakes and St. Lawrence Cities Initiative who shared the concern that federal efforts to permanently protect the Great Lakes from Asian carp were not moving rapidly enough.

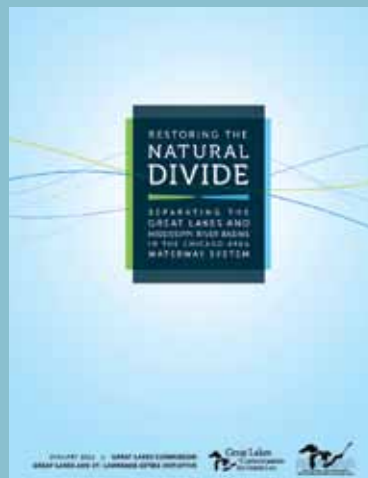
The project was supported by \$2 million in funding from six sources: the Joyce Foundation, C.S. Mott Foundation, Great Lakes Fishery Trust, Wege Foundation, Great Lakes Protection Fund and Frey Foundation. It outlined three alternatives for watershed separation in the Chicago Area Waterway System (CAWS) including a down-river single barrier farthest from Lake Michigan, a mid-system alternative of four barriers, and a near-lake alternative of up to five barriers closest to the lakeshore. All three alternatives also included measures to improve the CAWS’s role in flood management, wastewater treatment and maritime transportation, as well as stopping the interbasin movement of aquatic invasive species.

The report was developed with the support of engineering firm HDR, Inc., which considered some 20 possible barrier locations in its analysis. Although

no recommendation was made for a preferred alternative, the mid-system solution was identified as the least costly and offers other advantages. According to the report’s economic analysis, the cost of the barriers themselves is as low as \$109 million. The addition of all improvements to address water quality, flood prevention and transportation brought total cost estimates ranging from \$3.2 billion to \$9.5 billion, depending on location and the degree to which wastewater treatment plants on the system are upgraded.

The analysis detailed not only potential ecological damage to the Great Lakes from introduction of Asian carp, but also projected economic impacts. It estimated

**Restoring the Natural Divide** outlined three alternatives for watershed separation in the Chicago Area Waterway System. All three alternatives included measures to improve the CAWS’s role in flood management, wastewater treatment and maritime transportation, as well as stopping the interbasin movement of aquatic invasive species.



that preventing just a single invasive species from entering the Great Lakes can save as much as \$5 billion over 30 years. While Asian carp have been migrating up the Mississippi River system since the early 1990s, and detection of their DNA in 2009 suggested they had breached electronic barriers operated by the U.S. Army Corps of Engineers in the CAWS, a new sense of urgency developed in 2010 when a live Asian carp was captured in Lake Calumet just six miles from Lake Michigan, prompting the Great Lakes Commission to initiate the *Restoring the Natural Divide* project.

Immediately following release of the report, the GLC began efforts to further refine the separation alternatives and advocate for an accelerated implementation timeline.

## Exploration of Great Lakes wind power continued with more tools, partnerships

The Great Lakes Commission, in its role as coordinator of the Great Lakes Wind Collaborative (GLWC), continued to support efforts in 2011 to explore the potential of wind energy production in the region. Accomplishments by the Collaborative in 2011 included the release of a new online guide on the best ways to advance wind energy while protecting the environment and addressing community concerns, and acceptance of a national award for its work in promoting wind energy.

*Best Practices for Sustainable Wind Energy Development in the Great Lakes Region* highlights policies and practices to ensure wind development is environmentally protective, sensitive to community concerns and maximizes economic development potential. Recommended approaches to such issues as turbine siting, noise, environmental impacts and

financial mechanisms are among the 18 “best practices” in the guide. All phases of developing a wind energy project are covered, from initial planning to operations and eventual decommissioning of spent turbines. Each best practice features a case example of that practice in action in the Great Lakes region or across the country.

The GLWC marked four years of progress in 2011 toward promoting new partnerships and priorities related to wind energy in the Great Lakes region. As of December 2010, the Great Lakes region had more than 12,000 megawatts of installed wind power capacity, with Minnesota and Illinois as the largest contributors. In its first four years, the Collaborative has worked on numerous wind energy topics including offshore wind, siting and permitting, economic development and transmission, and has developed an online Great Lakes Wind Atlas.

On May 26, 2011, the Great Lakes Commission received the Larry Flowers Award for Outstanding Leadership at the Wind Powering America (WPA) All-States Summit which took place following WINDPOWER 2011 in Anaheim, Calif. The national award was presented in recognition of the Commission’s efforts supporting the Great Lakes Wind Collaborative, and cited the Commission’s “excellence in developing a new model of regional wind collaboration.” Learn more about the GLWC at [www.glc.org/energy/wind](http://www.glc.org/energy/wind).

## Ongoing restoration of Muskegon Lake promised significant economic returns

Working with a \$10 million grant from the National Oceanic and Atmospheric Administration (NOAA) under the American Recovery and Reinvestment Act (ARRA), the Great Lakes Commission continued to make progress in 2011 on the Muskegon Lake Habitat Restoration Project. The Commission and the West Michigan Shoreline Regional Development Commission are leading the project to restore multiple sites along the south shore of Muskegon Lake. The work builds



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on more than two decades of restoration of former industrial areas along Muskegon Lake, including large-scale removal of toxic sediments funded by U.S. EPA and the State of Michigan.

Under the project some 180,000 tons of unnatural fill is being removed from the lake bottom and nearly a mile of shoreline will be rehabilitated. Habitat is being created for fish and wildlife resources and improved recreational opportunities provided for local residents and tourists. The work marks a transition from “reme-

diation” to “restoration” for the degraded lake and brings it closer to being removed from the list of Great Lakes toxic hotspots.

A study conducted in 2011 by Grand Valley State University further documented the project’s value by quantifying economic benefits that will result from it. The study found that the project will generate a \$12 million increase in property values and up to \$600,000 in new tax revenues annually. It also will result in an annual increase of more than \$1 million in new recreational spending and nearly 65,000 new visitors to Muskegon Lake annually. In the long term, the project is expected to result in an overall economic benefit to Muskegon of \$66 million – yielding more than a 6-to-1 return on investment. Learn more about the Muskegon Lake Habitat Restoration project at [www.glc.org/habitat/ARRA-Muskegon-Lake-AOC-Restoration.html](http://www.glc.org/habitat/ARRA-Muskegon-Lake-AOC-Restoration.html).

## Great Lakes Restoration Initiative remained a GLC priority in 2011

As the Great Lakes Restoration Initiative (GLRI) approached its third budget cycle in 2011, the Great Lakes Commission pushed aggressively for sustaining prior levels of funding for the initiative. The GLRI was enacted in 2009 as a five-year, \$2.2 billion program to implement a comprehensive restoration plan for the Great Lakes. It was funded at \$475 million in 2010, its first year and just under \$300 million in its second. The Obama Administration requested \$300 million in 2011 for FY 2012.

Commission Chair James Tierney urged the delegation to sustain appropriations for the GLRI, noting that nearly 300 restoration projects are underway and hundreds more await funding. He also pointed to the GLRI’s economic impact, saying that “the GLRI is putting people to work and revitalizing an economic engine for shoreline communities.” A study prepared by the Brookings Institution in 2007 projected that full implementation of the GLRI plan would generate \$80-\$100 billion in short and long-term benefits.

In its 2011 advocacy program, the Commission highlighted specific activities that depend on continued funding for the GLRI, including critical actions needed to keep Asian carp out of the Great Lakes; large-scale cleanup projects in four Great Lakes toxic hotspots; and efforts to prevent sewage discharges, toxic algal blooms and polluted runoff that threaten public water supplies and recreational beaches.

Further GLC outreach to House and Senate appropriations committees called for congressional direction to the U.S. EPA to strengthen coordination with the states and give them greater authority over how the GLRI is implemented. The Commission noted that the Great Lakes states know what the most important restoration priorities are and can direct resources to them efficiently. The Commission urged Congress to direct U.S. EPA to strengthen coordination with the states and provide greater authority in implementing the GLRI; administer GLRI funding in a way that minimizes transaction costs and maximizes efficiency and on-the-ground results; maintain the GLRI's focus on existing priorities and on-the-ground actions; and minimize nonfederal match requirements while maintaining base funding for existing programs.

The Commission also urged federal appropriators to maintain funding for the GLRI and provide funding for the Clean Water and Safe Drinking Water State Revolving Fund programs.

## New smartphone app goes to the beach

The millions of residents and visitors who flock to Great Lakes beaches in the warm months now have smartphone technology, developed in part by the Great Lakes Commission, to maximize the experience. The Commission, in partnership with LimnoTech and the Great Lakes states, unveiled a free smartphone

**myBeachCast** is a free smartphone application (app) developed in 2011 that provides real-time information on beach water quality advisories, weather and water conditions for more than 1,800 beaches in the Great Lakes region.



application (app) in 2011 that provides real-time information on beach water quality advisories, weather and water conditions for more than 1,800 beaches in the Great Lakes region. (To download the *myBeachCast* app, go to [beachcast.glin.net](http://beachcast.glin.net).)

Funded by the U.S. EPA-led Great Lakes Restoration Initiative, the *myBeachCast* app also features real-time and forecasted weather and lake conditions (e.g., water temperature, wave heights, wind speed/direction) and nearshore marine forecasts, drawn from the Great Lakes Observing System (GLOS) and the National Oceanic and Atmospheric Administration (NOAA). *myBeachCast* allows users to discover local beaches based on the user's location, view beaches and their status on a map, save favorite beaches, and get driving directions. A mobile-enhanced website available on the Great Lakes Information Network (see [glin.net/beachcast/conditions.html](http://glin.net/beachcast/conditions.html)) offers complementary information for web viewers, iPhones and other mobile devices.

Data providers who are contributing to *myBeachCast* include the states of Illinois, Indiana, Michigan, Minnesota, New

York, Ohio and Wisconsin; Pennsylvania's Erie County Department of Health; BeachGuard (Windsor Solutions); NOAA; and GLOS.

## Great Lakes Week debuted in 2011, kicked off by the Great Lakes Commission

The Great Lakes Commission's Annual Meeting in Detroit took on a new dimension in 2011 as it kicked off the first-ever Great Lakes Week, an unprecedented convocation of the Great Lakes environmental policy community. Highlighted by a joint session keynote address by former Vice President Al Gore, the week featured meetings of several other regional and federal organizations including the International Joint Commission, the Healing Our Waters - Great Lakes Coalition, the U.S. Environmental Protection Agency and the Great Lakes Areas of Concern Conference. Most of the Great Lakes Week proceedings, including the GLC meeting, received comprehensive broadcast coverage by Detroit Public Television.

At its meeting, the GLC unanimously adopted a resolution renewing its call for a federal policy for ballast discharge, rather than the individual state standards that have emerged in recent years in the absence of federal guidance. In the wake of a summer season that saw an increase in harmful algae blooms in the Great Lakes, particularly on Lake Erie, the Commission also called for establishment of a regional phosphorus reduction task force to develop recommendations for the reduction of phosphorus and other nutrients contributing to algae blooms and hypoxic "dead zones" in the lakes.

Keynote speakers at the meeting included Michigan Lt. Governor Brian

Calley who outlined Michigan Governor Rick Snyder's efforts to build a second bridge over the Detroit River between Detroit and Windsor. The Commission responded with a resolution urging the Michigan legislature to approve the project. It also moved to establish a new standing committee to focus on economic development.

## Mercury pollution remains a serious threat according to GLAD-sponsored report

New research showing that the scope and intensity of mercury pollution in the Great Lakes region is much greater than previously reported was produced by the Great Lakes Commission in 2011 in collaboration with the Biodiversity Research Institute in Gorham, Maine, and the University of Wisconsin-La Crosse. There was also good news from the analysis: that additional mercury controls should bring needed improvement.

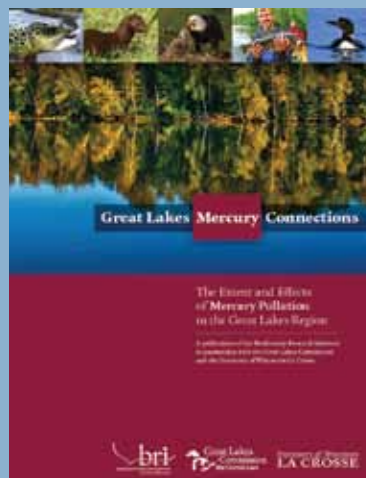
*Great Lakes Mercury Connections: The Extent and Effects of Mercury Pollution in the Great Lakes Region* (available online at: [www.briloan.org/mercuryconnections/GreatLakes](http://www.briloan.org/mercuryconnections/GreatLakes)) summarized 35 peer-reviewed papers representing the work of more than 170 scientists, researchers and resource managers. Contributors used more than 300,000 mercury measurements to document the impact and trends of mercury pollution on the Great Lakes region. The project was sponsored by a GLC signature program since 2003, the U.S. EPA-funded Great Lakes Air Deposition Program (GLAD).

The report found that, despite general declines in mercury levels in the Great Lakes region over the past four decades, mercury concentrations still exceed human and ecological risk thresholds, especially in inland lakes and rivers. In fact, for some species of fish and wildlife in particular areas, mercury concentrations may again be on the rise.

According to the new research, northern reaches of the Great Lakes region are particularly sensitive to mercury.

While atmospheric emissions are the primary source of mercury deposition in the Great Lakes basin, the report projects that further controls on those emissions "are expected to lower mercury concentrations in the food web, yielding multiple benefits to fish, wildlife and people in the Great Lakes region."

**Great Lakes Mercury Connections** summarized 35 peer-reviewed papers representing the work of more than 170 scientists, researchers and resource managers. The report found that, despite general declines in mercury levels in the Great Lakes region over the past four decades, mercury concentrations still exceed human and ecological risk thresholds, especially in inland lakes and rivers.



## 2011 studies focus on water used to produce energy, and water bills as conservation incentives

Two emerging issue areas related to management of Great Lakes water resources were addressed by the Great Lakes Commission in 2011, including impacts on water sources used to generate electricity as potential drivers of energy policy; and the use of true commodity pricing as a water conservation tool.

A GLC research project, the Great Lakes Energy-Water Nexus (GLEW) Initiative sponsored by the Great Lakes Protection Fund (GLPF), examined how water use associated with power production could impact the health of the Great Lakes basin's rivers and streams. Findings from this 18-month effort are summarized in the report *Integrating Energy and Water Resources Decision Making in the Great Lakes Basin: An Examination of Future Power Generation Scenarios and Water Resource Impacts*.

The report synthesizes several background studies examining technical and policy aspects of power and water in the Great Lakes basin, and examines how changes in the type of power generation could affect sensitive watersheds in the future. The analysis is complemented by a review of relevant water and energy policies that identifies gaps and opportunities for improvements. Read the full report at [www.glc.org/energy/glew](http://www.glc.org/energy/glew). A companion project, the GLEW Interactive Mapping Tool, is available at [erie.glin.net/glew](http://erie.glin.net/glew).

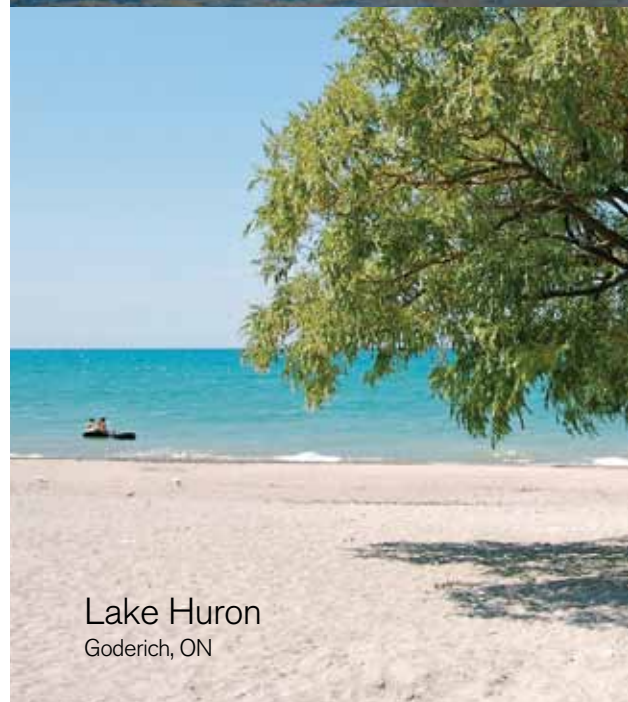
As plentiful as water is in the Great Lakes region, the cost to deliver it to consumers is increasing and should be reflected more accurately in bills to encourage conservation, according to recommendations in the GLC's Value of Great Lakes Water Initiative," an 18-month project also supported by the GLPF. The Initiative focused on three primary issues: 1) how energy costs factor into water bills; 2) whether the cost of providing water to consumers is fully transparent; and 3) if an efficiency-oriented revenue structure would change water use in the Great Lakes basin. Read the full report at [www.glc.org/wateruse/watervalue](http://www.glc.org/wateruse/watervalue).

## 2011 Funders and Supporters

The great majority of Commission programs and projects are pursued in partnership with other agencies and organizations, and benefit from their funding support. A listing of 2011 funders and supporters is provided below. Thanks to all for their assistance!

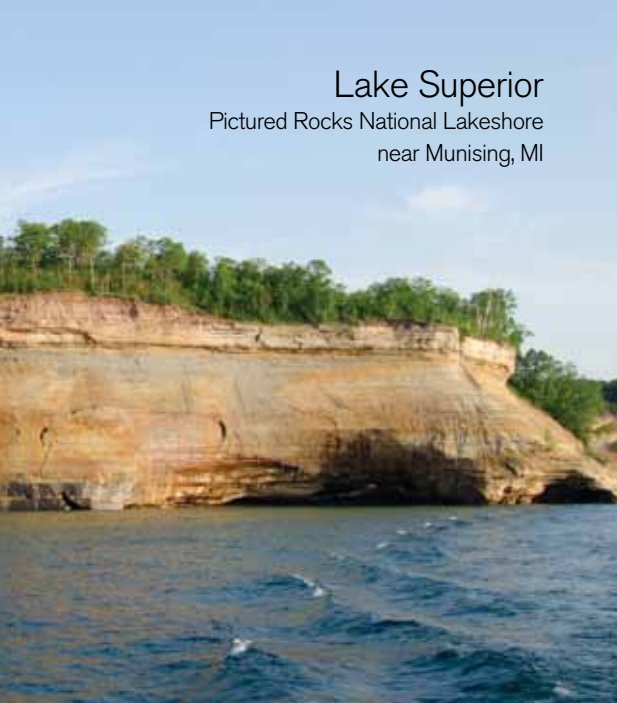
American Recovery and Reinvestment Act – EPA  
American Recovery and Reinvestment Act – NOAA  
American Recovery and Reinvestment Act – New York  
American Wind Energy Association  
C.S. Mott Foundation  
Cardno JFNew  
Commonwealth of Pennsylvania  
Council of Great Lakes Governors  
Douglas Westwood  
Ecology and Environment, Inc.  
Environmental Consulting & Technology, Inc.  
Fred A. and Barbara M. Erb Family Foundation  
Frey Foundation  
Gamesa Technology Corporation  
Government of Ontario  
Government of Québec  
Grand Valley State University  
Great Lakes Fishery Trust  
Great Lakes Observing System  
Great Lakes Protection Fund  
Great Lakes Restoration Initiative  
HDR, Inc.  
Healing Our Waters® - Great Lakes Coalition  
Industrial Economics, Inc.  
International Joint Commission  
Joyce Foundation  
LimnoTech, Inc.  
Michigan Department of Environmental Quality  
*(formerly Michigan Department of Natural Resources and Environment)*  
Michigan State University  
Michigan Technological University  
New York Power Authority  
New York State Department of Environmental Conservation  
National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center  
NOAA National Sea Grant College Program  
NOAA Restoration Center  
National Renewable Energy Laboratory  
Navigant Consulting, Inc.  
Northeast-Midwest Institute  
SmithGroupJJR  
State of Illinois  
State of Indiana  
State of Michigan  
State of Minnesota  
State of New York  
State of Ohio  
State of Wisconsin  
Superior Watershed Partnership  
U.S. Army Corps of Engineers  
U.S. Department of Agriculture, Natural Resources Conservation Service  
U.S. Department of Energy, Energy Efficiency and Renewable Energy  
U.S. Environmental Protection Agency (U.S. EPA), Great Lakes National Program Office  
U.S. EPA, Region 5, Air and Radiological Division  
U.S. EPA, Region 5, Superfund Division  
U.S. Fish and Wildlife Service  
USGS – Great Lakes Science Center  
Warner Norcross & Judd LLP  
Wege Foundation

*Note: the funders listed above provided support to the GLC in calendar year 2011. The financial report on page 9 covers the GLC's fiscal year only, which concluded June 30, 2011.*





Lake Superior  
Pictured Rocks National Lakeshore  
near Munising, MI



Lake Ontario  
Humber River Pedestrian Bridge  
Toronto, ON

## FY 2011 Revenues and Expenses

The Great Lakes Commission concluded FY 2011 in sound financial condition, with operating revenues of almost \$9.5 million. Expenses exceeded revenues by \$42,132, less than one half of one percent.

Overall, the Commission continues to effectively manage its general and restricted funds to achieve the goals and objectives of the organization.

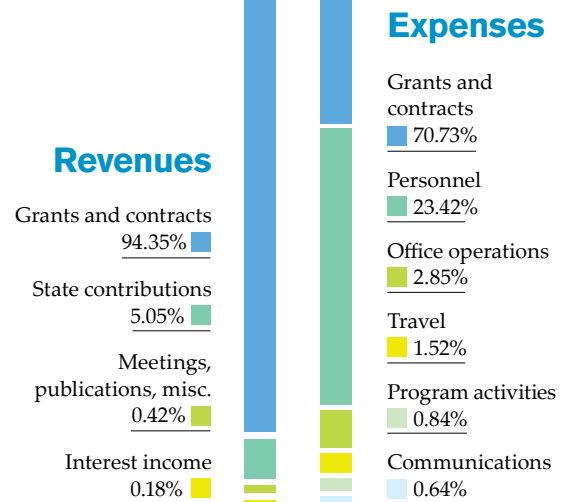
These figures were confirmed by an independent audit, which is conducted each year to examine the Commission's financial operations. The 2011 fiscal year ended June 30, 2011.

### Revenues

Grants and contracts	\$ 8,959,626
State contributions	480,000
Meetings, publications, misc.	39,986
Interest income	17,123
<b>Total</b>	<b>\$ 9,496,735</b>

### Expenses

Grants and contracts	\$ 6,746,938
Personnel	2,234,048
Office operations	271,852
Travel	144,936
Program activities	80,252
Communications	60,841
<b>Total</b>	<b>\$ 9,538,867</b>



# 2011 Commissioners, Alternates and Observers

as of December 2011. Delegation chairs are in **bold**

## Illinois

### **Marc Miller,**

*Illinois Dept. of Natural Resources*  
Joe Deal, *City of Chicago*  
Steven M. Powell,  
*United Food and Commercial Workers*  
Gov. Patrick Quinn  
Kimberly J. Walz,  
*Illinois Fifth Congressional District*

### *Alternates*

Dan Injerd,  
*Illinois Dept. of Natural Resources*  
Todd Main,  
*Illinois Dept. of Natural Resources*

## Indiana

### **Kari Bennett,**

*Indiana Utility Regulatory Commission*  
Robert E. Carter, Jr.,  
*Indiana Dept. of Natural Resources*  
Thomas W. Easterly, *Indiana*  
*Dept. of Environmental Management*  
Ron McAhron,  
*Indiana Dept. of Natural Resources*  
Jody W. Peacock, *Ports of Indiana*

## Michigan

### **Patricia Birkholz,**

*Michigan Dept. of*  
*Environmental Quality*  
Bruce Rasher  
Hon. Bill Schuette, *Attorney General*  
Helen Taylor, *The Nature Conservancy*  
Hon. Rebekah Warren, *State Senator*

### *Alternates*

S. Peter Manning,  
*Dept. of the Attorney General*  
Dr. Roger Eberhardt, *Michigan Dept.*  
*of Natural Resources and Environment*

## Minnesota

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*State Representative*  
Hon. Carolyn McElfrick,  
*State Representative*  
Lt. Gov. Yvonne Prettner Solon  
Hon. Ann Rest, *State Senator*

### *Alternates*

Dick Lambert,  
*Minnesota Dept. of Transportation*

## New York

### **Joseph Martens,**

*New York State Dept. of*  
*Environmental Conservation*  
James M. Tierney, *New York State*  
*Dept. of Environmental Conservation*  
Donald Zelazny, *New York State*  
*Dept. of Environmental Conservation*

## Ohio

### **James Zehringer,**

*Ohio Dept. of Natural Resources*  
Hon. John Eklund, *State Senator*  
Scott J. Nally,  
*Ohio Environmental Protection Agency*  
Hon. Dennis Murray, *State Representative*  
James Weakley, *Lake Carriers' Association*

### *Alternates*

John D. Baker,  
*International Longshoremen's Association*  
Gail Hesse, *Ohio Lake Erie Commission*

## Ontario

### **William Carr,**

*Office of International*  
*Relations and Protocol*  
Roselyn Lawrence,  
*Ministry of Natural Resources*  
Paul Evans, *Ministry of the Environment*  
Scott Thompson, *Ministry of*  
*Transportation*

### *Alternates*

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*Environment*  
Eric Boysen, *Ministry of Natural Resources*  
Linda McAusland,  
*Ministry of Transportation*  
Ranissah Samah,  
*Office of International Relations and Protocol*

## Pennsylvania

### **Kelly Burch,**

*Pennsylvania Dept.*  
*of Environmental Protection*  
Robert W. Light, *Penn State Behrend*  
Pat Lupo, *Earth Action*

### *Alternates*

John Booser, *Pennsylvania*  
*Dept. of Environmental Protection*  
Lori A. Boughton, *Pennsylvania*  
*Dept. of Environmental Protection*  
John T. Hines, *Pennsylvania*  
*Dept. of Environmental Protection*

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*Representative in Chicago*  
Danielle Provnost, *Division of*  
*Intergovernmental Affairs*  
Nathalie Camden, *Ministère des*  
*Ressources naturelles et de la Faune*  
Marc Gagnon, *Fednav Limited*  
Josée Hallé, *Ministry of Transportation*

### *Alternates*

Marcel Bernard, *Ministère des*  
*Ressources naturelles et de la Faune*  
Eve Joseph,  
*Ministère des Transports du Québec*  
Louise Lapierre, *Ministry of Sustainable*  
*Development, Environment and Parks*

## Wisconsin

### **Kenneth Johnson,**

*Wisconsin Dept. of Natural Resources*  
*Alternate*  
Steve Galarneau,  
*Wisconsin Dept. of Natural Resources*

## Observers

Alliance for the Great Lakes, *Joel Brammeier*  
Canadian Embassy, *Christina Jutzi*  
Chippewa Ottawa Resource Authority, *Mike Ripley*  
Coastal States Organization, *Kristen Fletcher*  
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Council of Great Lakes Industries, *George Kuper*  
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*David Ullrich*  
Great Lakes Environmental Law Center,  
*Nick Schroeck*  
Great Lakes Fishery Commission,  
*Christopher Goddard*  
Great Lakes Observing System, *Jennifer Read*  
Great Lakes Sea Grant Network, *Jeff Gunderson*  
Great Lakes United, *Jennifer Nalbone*  
Helsinki Commission, *Anne Christine Brusendorff*  
International Joint Commission, *Dr. Saad Y. Jasim*  
Maritime Administration, Great Lakes Region,  
*Floyd Miras*  
National Association of Conservation Districts,  
*Donald Lloyd*  
National Oceanic and Atmospheric Administration,  
Great Lakes Environmental Research Laboratory,  
*Marie C. Colton*  
NOAA Office of Ocean and Coastal Resource  
Management, *David Kennedy*  
National Park Service, *Gary Vequist*  
National Wildlife Federation, *Andy Buchsbaum*  
St. Lawrence Seaway Development Corp.,  
*Collister (Terry) Johnson, Jr.*  
The Nature Conservancy (Michigan Chapter),  
*Richard Bowman*  
U.S. Army Corps of Engineers, *Jan Miller*  
U.S. Coast Guard, Ninth Coast Guard District,  
*Radm. Michael N. Parks*  
U.S. Department of Agriculture, Natural  
Resources Conservation Service, *Terry Cosby*  
U.S. Department of Energy, *John R. Gasper*  
U.S. Environmental Protection Agency,  
Great Lakes National Program Office,  
*Chris Korleski*  
U.S. Fish and Wildlife Service, *Craig Czarnecki*  
U.S. Geological Survey, *Russell Strach*



## Commission staff

Front row (*from left*): Becky Pearson, Cassie Bradley, Laura Kaminski, Victoria Pebbles, Christine Manninen, Kathe Glassner-Shwayder, Pat Gable, Heather Braun, Laura Andrews. Back row (*from left*): Gary Overmier, Stuart Eddy, John Hummer, Frank Cardone, Vitaly Peker, Mike Schneider, Matt Doss, Youness Elhariri, Tim Eder, Joe Bertram, Dave Knight, Guan Wang. *Not pictured*: Tom Crane, Erika Jensen, Jeff McAulay.

## Credits

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## About the Commission

The Great Lakes Commission was established in 1955 with a mandate to “promote the orderly, integrated and comprehensive development, use and conservation of the water resources of the Great Lakes basin.” Founded in state law with U.S. federal consent, with membership consisting of the eight Great Lakes states and associate member status for the provinces of Ontario and Québec, the Commission pursues four primary functions: communication and education, information integration and reporting, facilitation and consensus building, and policy coordination and advocacy.

Each Member jurisdiction is represented by a delegation consisting of three to five members who are appointees of the respective governor or premier, legislators or senior agency officials. A board of directors, consisting of the chair of each delegation, is the Commission’s executive body.

In carrying out its initiatives, the Commission works in close cooperation with many partner organizations, including U.S. and Canadian federal agencies, binational institutions, tribal/ First Nation governments and other regional interests. Representatives appointed by partner entities participate extensively in Commission activities through a formal Observer program. The Commission is supported by a professional staff in Ann Arbor, Mich.

## Lake Erie

Toledo Harbor Lighthouse  
near Toledo, OH

