

## Subgoal 10

# Is collaborative ecosystem management the basis for decision-making in the Lake Michigan basin?

### What is our target for sustainability?

The promise of the GLRC is realized where awareness and responsibility is shared among different levels of government, non-governmental groups and wide spread basin stewardship actions.

### Why is this important?

The environmental problems in the Great Lakes ecosystem have become increasingly complex over the years. The myriad of jurisdictions and programs with responsibility for the lakes is similarly complex. According to a

2003 Government Accountability Office report, the government presence overseeing Great Lakes resources includes two countries, multiple tribes, and First Nations, more than 140 Federal programs, and numerous city and state programs all dealing with environmental restoration activities. While these organizations have experienced individual opportunities for successes during the last 30 years, there has been no overarching strategy to deliver coordinated restoration and protection efforts in the future.

### What is the current status?

- There has been a significant increase in collaborative action over the last two years.
- The Great Lakes and St. Lawrence Cities Initiative mayors announced a conservation framework in which cities commit to reducing water use within their city limits. Cities will work towards a 15 percent reduction in 15 years using 2000 as a base year.

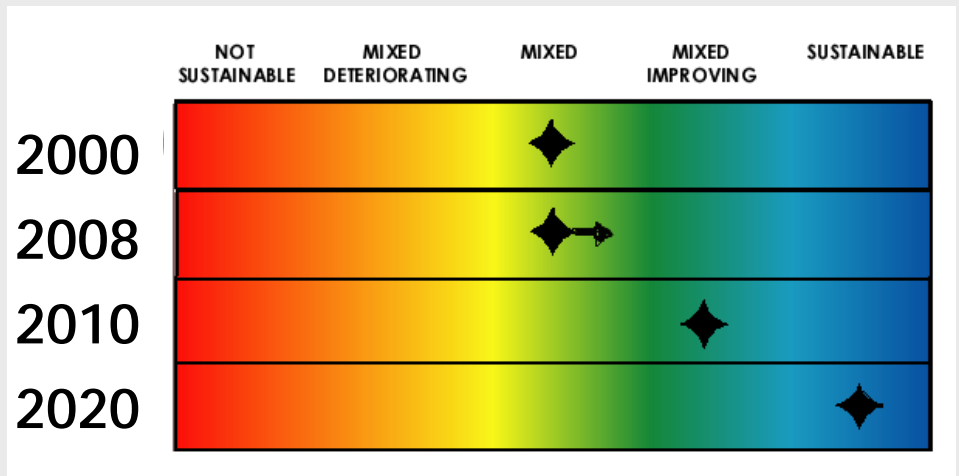
### What are the major challenges?

- Developing a lake level framework for clear goals and objectives that facilitates coordinated actions among agencies and stakeholders in alignment with the Great Lakes Regional Collaboration
- Providing and facilitating opportunities for partnerships and leveraging resources
- Providing opportunities for involved stakeholders

### What are the next steps?

- Continue publication of the Lake Michigan Partnership Directory in each LaMP
- Continue development and linkage of local watersheds with basin-wide issues and activities through the Watershed Academy and partnering with state programs
- Coordinate LaMP and GLBTS efforts on PCBs and mercury
- LMMCC continues leadership role for collaborative monitoring in 2010
- Coordinate with the four Coastal Management programs to explore partnership opportunities
- Explore partnerships with key EPA volunteer programs like Climate Change, Clean Ports, Clean Marinas, and Pesticide Environmental Stewardship

Lake Michigan Target Dates for Sustainability





- **What are some tools for addressing the challenges?**
- Building Collaborative Efforts in the Lake Michigan and Great Lakes Watersheds
- CMAP Framework Plan with Tools for Officials and Planners
- NIRPC Water Conservation and Protection Toolkit
- Coastal America
- Watershed Planning Brochure Wisconsin

### **What are the State of the Lakes Ecosystem (SOLEC) indicators used to help assess the status of the subgoal?**

- Access to Information About the Great Lakes
- Value of Great Lakes to Basin residents

For more information on status of indicators, see <http://www.epa.gov/solec/sogl2007/>

## Major New Efforts Build on Lakewide Efforts

Since 1991, the states, tribes, and federal agencies in the Lake Michigan basin have been collaborating to restore and protect Lake Michigan through the Lakewide Management process. New activities at Great Lakes wide scale may strengthen and enhance LaMP work.

## The Great Lakes Regional Collaboration

On May 18, 2004, President Bush signed Executive Order 13340 creating a cabinet-level Interagency Task Force, led by USEPA, to bring an unprecedented level of collaboration and coordination to restore and protect the Great Lakes. USEPA's Great Lakes National Program Office (GLNPO), established under the Clean Water Act, remains a focal point for Great Lakes responsibilities. GLNPO was cited in the Executive Order and given the responsibility of providing assistance in carrying out the goals of the Order. In addition, the Order directed that a "Regional Collaboration of National Significance" be convened to bring the many partners, both governmental and nongovernmental together to protect and restore the Great Lakes.



The Great Lakes Regional Collaboration (GLRC) developed a Strategy that is different from any plan proposed in the past. The collaborative activities of federal, local, and state agencies, the tribes, elected officials, industry, and non-governmental groups demonstrate a unified effort to reach our goals. Eight Strategy Teams, each focusing on a different issue affecting the Great Lakes basin, began work in January 2005 to develop recommendations for action. More than 1,500 people from diverse backgrounds participated in the process.

The Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes was released in December 2005. A GLRC Executive Committee is overseeing implementation of the Strategy in accordance with the GLRC Strategy Implementation

## EPA, U.S. Forest Service Sign Agreement to Restore Water Quality in National Forests

The Environmental Protection Agency's Office of Water and the U.S. Forest Service signed a September 2007 memorandum of agreement under which they have agreed to pool efforts to develop plans to restore impaired water quality in national forests and grasslands. The two agencies will jointly develop total maximum daily loads (TMDLs) or federally approved alternative approaches to tackle impaired waters in national forests and grasslands.

EPA estimates that about 8 percent of all impaired waters are located on National Forest System lands. Leading causes of impairments include high temperatures, excess sediment, and habitat destruction.

The Forest Service has already assisted EPA and states in developing more than 300 TMDLs in roughly 30 national forests, according to the agreement. In addition, the Forest Service also uses a variety of watershed management approaches. These include best management practices such as erecting silt fences to prevent sediment from entering streams.

The memorandum of agreement is available at [www.epa.gov/owow/tmdl/usfsepamoa/](http://www.epa.gov/owow/tmdl/usfsepamoa/).

Framework which was issued in March 2006. The GLRC Executive Committee brings together representatives from the Great Lakes and St. Lawrence Cities Initiative together with representatives from the Council of Great Lakes Governors, the Great Lakes Congressional Delegation, and the Federal government. The GLRC Executive Committee is responsible for directing the ongoing activities of the GLRC, developing and implementing mechanisms to promote accountability (tracking), identifying and resolving major implementation issues, facilitating coordination of Great Lakes restoration and protection activities among the GLRC participants, communicating with stakeholders and providing for ongoing public participation.

Eight stakeholder teams helped develop the Collaboration's recommendations.

- Nonpoint Source Strategy Team
- Persistent Bioaccumulative Toxics (PBT) reduction Team
- Invasive Species Strategy team

- Habitat/Species team
- Areas of Concern Restoration/Sediments Strategy Team
- Indicators and Information Strategy Team
- Sustainable Development Strategy team
- Coastal Health Strategy Team

The Strategy is being used to guide Federal, State, Tribal and other partners' actions to restore the Great Lakes.

Federal commitments from the Strategy have been identified in the Federal Near Term Action Plan (48 Actions) and are being implemented and tracked. Fifteen of the 48 original near terms actions are completed; two have been moved to long-term status; the other 31 are on track. Highlights of Plan accomplishments include:

- EPA, working with state and local partners, has developed a standardized sanitary survey form for state and local governments to use in assessing their beaches, and is supporting implementation pilots using the new survey.
- The U.S. Fish and Wildlife Service has listed the Asian Silver Carp, Largemouth Silver Carp, and Black Carp as injurious under the Lacey Act.
- In its FY 2008 budget, NOAA has requested funding to establish habitat restoration partnerships focused on Areas of Concern in the Great Lakes, and to create a special NOAA Office on Great Lakes Habitat Restoration that would provide a focal point for all of NOAA's restoration efforts in the Great Lakes.
- Twenty-two environmental restoration projects around the Great Lakes are being funded this year under the Great Lakes Watershed Restoration Grant program. The program is providing \$1.1 million in federal money and leveraging an additional \$1.9 million in contributions by non-federal partners. Partner agencies are: EPA, the Fish & Wildlife Service, NOAA, the Forest Service, and the Natural Resources Conservation Service.
- EPA has completed 5 Legacy Act projects (4 remediation /1 monitor and evaluate), and has 6 additional projects (all monitor and evaluate) underway.
- The Corps of Engineers recently announced that two projects from the Great Lakes region were selected from a nationwide competition for habitat restoration funding under the Estuary Restoration Act of 2000.
- The Great Lakes Interagency Task Force (IATF)

Regional Working Group has been meeting weekly for over a year to oversee implementation of the Near Term Actions, as well as other provisions of the President's Executive Order on the Great Lakes. The meetings have also become an important forum to share information about new programs/initiatives and funding opportunities among members.

- The IATF created the Wetlands Subcommittee and the Aquatic Invasive Species Rapid Response Subcommittee to improve interagency coordination on two high priority areas for the Great Lakes. Both subcommittees are also bringing in non-federal partners through joint projects in cooperation with the Great Lakes Regional Collaboration.
- In addition to individual agency actions, the GLRC Executive Committee is moving forward to implement a series of joint initiatives to address issues from the GLRC Strategy, including aquatic invasive species, toxic pollutants, habitat protection and restoration and clean beaches.

### Aquatic Invasive Species:

#### *Aquatic Invasive Species Rapid Response Initiative.*

While preventing the introduction of Aquatic Invasive Species (AIS) is the first line of defense against



### The Lake Michigan Toolbox Building Collaborative Efforts in the Lake Michigan and Great Lakes Watersheds

Collaboration among a variety of stakeholders to improve the Lake Michigan ecosystem continues to increase since LaMP 2000. This chapter documents several of these collaborative activities. Some of the collaborative efforts include:

- The Great Lakes Regional Collaboration: [www.glrc.us](http://www.glrc.us)
- The Binational Executive Committee
- Great Lakes Binational Toxics Strategy: [www.epa.gov/glnpo/p2/bns.html](http://www.epa.gov/glnpo/p2/bns.html)
- The Great Lakes Human Health Network: [www.epa.gov/glnpo/health.html](http://www.epa.gov/glnpo/health.html)
- The Great Lakes Fishery Commission: [www.glfc.org/](http://www.glfc.org/)
- The Great Lakes and St. Lawrence Cities Initiative: [www.glsccities.org/](http://www.glsccities.org/)
- Council of Great Lakes Governors: [www.cglg.org](http://www.cglg.org)
- Great Lakes Commission: [www.glc.org](http://www.glc.org)
- Great Lakes Legislative Caucus: [www.csgmidwest.org/About/GLLC.htm](http://www.csgmidwest.org/About/GLLC.htm)

## Binational Toxics Strategy Under Review

Experts from industry, environmental groups and regulatory agencies are reviewing the Great Lakes Binational Toxics Strategy (BTS) to determine if and how it might be adapted to meet changing environmental needs in the Great Lakes region related to reducing toxics and addressing new contaminants of concern.

The BTS is a voluntary agreement between the United States and Canada to restore and maintain the chemical, physical and biological integrity of the waters in the Great Lakes ecosystem. This has led to significant non-regulatory pollution prevention activities. For example, green chemistry, which designs toxicity out of chemicals, is among the more recent areas of interest for environmentalists and some in industry. The strategy is driven by the review of and potential changes to the underlying agreement --- the Great Lakes Water Quality Agreement (WQA) --- and increasing levels of chemicals not included in the current strategy. Emerging contaminants of concern include polybrominated diphenyl ethers and perfluorooctanesulfonate.

In 1997, EPA and Environment Canada established 17 source and emissions reduction goals for the United States and Canada. Over the past 10 years, both governments (with the help of state, provincial, tribal and local governments and stakeholders from industry, academia, environmental and community groups) have worked together to reduce the use and release of targeted toxic substances. To date, 12 of the 17 goals have been met, and the rest are well advanced. The report discusses the significant voluntary projects of the Strategy, such as the burn barrel outreach campaign and the wood stove exchange campaign, some of which have been adopted nationally on both sides of the border. The report also presents trends of these substances in gull eggs and fish as well as open water, air and sediment. Overall, significant environmental improvements have been realized for legacy pollutants in the Great Lakes. Looking forward, new challenges are presented by emerging substances of concern, such as flame retardants. The U.S. - Canadian Great Lakes Binational Toxics Strategy Tenth Anniversary Edition 2006 Annual Progress Report is available at <http://binational.net/bns/2006>.

The 2006 BTS progress report released by the USEPA and Environment Canada indicated that the strategy has made significant progress toward meeting its goals, including Canada's 85 percent reduction in mercury releases since 1988 and the United States' estimated 50 percent reduction in mercury use nationwide and a 50 percent reduction in national mercury emissions. A stakeholder forum held in Chicago in late May focused on whether the current BTS structure, is sufficient to address new substances. The question raised was whether the strategy should focus on specific industry sectors, families of substances, or a combination of approaches.

Possible changes to the current approach could include using the BTS to identify chemicals of concern and then having specific workgroups target sectors where the chemicals are widely used. Other possible approaches include encouraging sustainable manufacturing, behavior modification, green chemistry and "practical" precaution. Any specific changes to the BTS will likely not be considered until after any changes in the WQA.

**General Outcomes.** Overall, the environmental analyses show many of the level 1 substances remain in the Great Lakes environment at levels which exceed health based criteria, particularly mercury, PCBs, and the cancelled pesticides. These substances continue to impair the Great Lakes, and limit fish consumption, particularly among sensitive populations such as pregnant women and children, and among and indigenous fishers, such as many of the Tribes and First Nations. With regard to source reductions, much progress has been made to date. Of seventeen reduction goals, ten have been met, three more will be met by 2006, and the remaining four will be well advanced toward their respective targets. Notwithstanding these accomplishments, much remains to be done to achieve the ultimate goal of virtual elimination in the Great Lakes.

Analyses suggests that significant source reduction opportunities remain for the "active substances" (i.e., substances for which we have ongoing workgroup activities), which include mercury, PCBs, dioxins and furans, HCB and B(a)P). With respect to the "inactive" (i.e., no ongoing workgroup activity) level 1 substances, cancelled pesticides, alkyl lead, and OCS, the Parties have decided to suspend GLBTS workgroup activities indefinitely, pending periodic review, and to defer to other programs, as appropriate. However, these substances will continue to be tracked and monitored in the Great Lakes. Finally, the GLBTS will continue to monitor and report on progress of sediment remediation activities in Areas of Concern in the Great Lakes basin, and will continue to study issues associated with long-range transport of toxic substances from world-wide sources, in order to better inform our priorities moving forward.

**Conclusions.** The GLBTS presents a unique model of how international cooperation and collaborative problem solving of issues that are beyond the reach of regulations, can lead to real results in environmental protection. There may be an important ongoing role for the GLBTS, not only with respect to the current level 1 substances, but also for newer chemicals of emerging concern. The Parties intend to focus on next steps for the GLBTS in the coming months. Protecting the chemical integrity of the Great Lakes, advancing the goals of the Great Lakes Water Quality Agreement, and virtually eliminating PTS from the Great Lakes basin are of paramount importance. The GLBTS may be one important tool to move us toward these goals.



## The Lake Michigan Toolbox NIRPC Water Conservation and Protection Toolkit

The Northwest Indiana Regional Planning Commission released a **Water Conservation and Protection Toolkit**. The toolkit consists of a series of fact sheets that provide overviews of the specific water resource protection and conservation issues. It also identifies a series of resources saved on a CD that assists people, local governments, and developers in making choices that better protect, conserve, and sustain local water resources.

Addressing water resources problems associated with a developing area requires a comprehensive approach. This means:

- Protecting water resources from pollution and making sure that water sources are not pumped dry;
- Conserving water resources; and
- Restoring and improving water resources so that quality, quantity, flow, and timing align more closely with the natural water cycle.

### Overview Issues

- What is Water Use and Availability in Lake, Porter, and LaPorte Counties in Northwest Indiana?
- The Great Lakes Charter Annex and Protecting, Conserving, Restoring, and Improving Water Resources

### Fact Sheets for Local Officials

- How Can Stormwater Management Protect and Conserve Water Resources?
- How Can Sourcewater Protection Conserve and Protect Water Resources?
- How Can Land Use Planning and Zoning Protect and Conserve Water Resources?
- What Conservation Requirements Can Protect Water Resources?
- How Does Better Site Planning Protect and Conserve Water Resources?

### Fact Sheets for Developers and the Public

- How Can Homeowners Protect and Conserve Water Resources?
- How Can Watershed Planning and Assessment Protect and Conserve Water Resources?

Many of the resources identified in the NIRPC toolkit, are reproduced in the Lake Michigan Toolbox resources throughout LaMP 2008. More information is available at [www.nirpc.org](http://www.nirpc.org).

invasions, even the best prevention efforts may not stop all AIS introductions. In 2007, the GLRC Executive Committee endorsed the formation of an Aquatic Invasive Species Rapid Response Initiative to increase the likelihood that invasions will be addressed successfully through early detection and rapid response efforts, while populations are still localized and can be contained and eradicated. In the Summer of 2007, a Communication Protocol was developed at the direction of the GLRC Executive Committee and Points of Contact were identified by participating GLRC agencies. In December 2007, a compendium of the Points of Contact and Communication protocol was finalized and distributed to GLRC agencies. GLRC agencies are

now developing plans for a Mock Exercise to test the Communication Protocol in Early Summer 2008.

**Great Lakes Clean Boat Initiative.** GLRC partners and the media will promote a "Great Lakes Clean Boat Day" early in the 2008 boating season. This effort will celebrate recreational boating in the Great Lakes and promote practices which will reduce the spread of aquatic invasive species. The Great Lakes are one of the top recreational boating destinations in the nation. Nearly 4.3 million boats are registered in the eight Great Lakes states. These boaters spend nearly \$16 billion on boats and boating activities in a single year, directly supporting 107,000 jobs. Outreach efforts to this user group can help ensure a healthy

Great Lakes ecosystem, as well as help support a strong and sustainable recreational economy. Agencies are compiling educational material over the winter of 2008. At the same time, the Great Lakes States are determining the preferred day or days for holding "Great Lakes Clean Boat Day".

## Toxic Pollutants

**Toxic Pollutants Initiative.** The Toxic Pollutants Initiative sets forth a series of near term activities undertaken by members of the Collaboration to reduce or virtually eliminate persistent toxic substances such as mercury and PCBs in the basin, as well as prevent new toxic threats to the basin through pollution prevention and enhanced surveillance, protect public health through education and outreach, and work with international forums to address sources outside the basin. Activities include:

- A Mercury Phase-down Strategy: In 2007, a workgroup of state, tribal, and city staff developed a basin-wide Great Lakes mercury product stewardship strategy to fulfill the Strategy recommendation to phase down mercury in products and waste. The Draft Mercury In Products Phase-Down Strategy is posted at: <http://www.gllrc.us/initiatives/toxics/draftphasedownstrategy.html>
- A Burn Barrel Education and Outreach Campaign: U.S. EPA with Great Lakes states, tribes, and cities are jointly developing an education and outreach program to address open burning across the Great Lakes Basin. This project targets local and tribal waste management officials with information on infrastructure and alternatives to burning in communities and tools to strengthen burning ordinances and support greater compliance with current regulations. Staff is presenting this program at meetings in all Great Lakes states.
- A Pharmaceutical and Electronic Waste Disposal Education and Outreach: U.S. EPA, Great Lakes states, tribes, and cities are developing an education and outreach effort to address pharmaceutical and electronic wastes in the Great Lakes Basin, targeting waste management officials with information about disposal and recycling policies and options. IL/IN Sea Grant, Great Lakes states, and U.S. EPA staff have presented information to local solid waste management officials and others on



## The Lake Michigan Toolbox Coastal America

Coastal America is a federal agency partnership to protect coastal habitat in the United States. It engages in a range of activities nationwide. It has begun work on several activities in the Lake Michigan basin.



## Corporate Wetlands Restoration Partnership

The Corporate Wetlands Restoration Partnership is a collaborative effort led by Coastal America between the federal government, state agencies and



private corporations and non-profits to restore wetlands across the country. Companies contribute funds and services to match funding for aquatic habitat restoration, education and research projects. To date, over 225 corporations, 13 Federal agencies, over 125 non-governmental partners, including The Nature Conservancy, Chesapeake Bay Foundation, Atlantic Salmon Commission, Ramsar Secretariat and several foundations have partnered with the program.

## Coastal America Activity in the Lake Michigan Basin

There has been preliminary activity in Illinois and Wisconsin. In October of 2004 the Shedd Aquarium became the first Coastal America Ecosystem Learning Center in the Great Lakes. As part of that partnership program, Chicago's Shedd Aquarium, USFWS, IL/IN Sea Grant and Purdue sponsored a new exhibit on Great Lakes Invasive species.

- pharmaceutical at numerous conferences throughout the basin.
- Great Lakes Sport Fish Consortium Project: The Great Lakes Sport Fish Consortium, the Wisconsin Department of Health and Family Services, and representatives of Great Lakes states and tribes finalized the Protocol for Mercury-based Fish Consumption Advice: An addendum to the 1993 Protocol for a Uniform Great Lakes Sport Fish

## Great Lakes and St. Lawrence Cities Initiative Develop Water Conservation Framework and Goals

The Great Lakes Mayors announced the Great Lakes and St. Lawrence Cities Initiative Water Conservation Framework. The Framework is a voluntary program in which cities commit to reducing water use within their city limits. Cities will work towards a 15 percent reduction in total water usage below year 2000 water consumption levels by the year 2015. Re-evaluation will take place in 2015 to determine an appropriate target reduction to achieve by the year 2025.

Recognizing that some cities already have water conservation programs and others do not, the Framework consists of two groups of cities. Group 1 includes cities that have conservation plans in place and Group 2 includes cities that do not have conservation plans, as of now.

The Framework allows cities to work together on the issue. Cooperation will be fostered through a focus on the sharing of best practices and annual recognition of efforts to reduce water use. The Framework is an opportunity for cities to take a unified and collaborative step to conserve the Great Lakes and St. Lawrence.

The Great Lakes and St. Lawrence Cities Initiative (GLSLCI) is a binational coalition of mayors and other local officials that works actively with federal, state, and provincial governments to advance the protection and restoration of the Great Lakes and the St. Lawrence River. GLSLCI enables mayors and other local officials to be active participants in Great Lakes issues relating to governance, economics, and science.

The GLSLCI [Board of Directors](#) includes Mayors Richard Daley of Chicago, IL (Founding United States Chairman and Director); David Miller of Toronto, Ontario (Founding Canadian Chairman and Director); Gary Becker of Racine, WI (Chairman and Director); Lynn Peterson of Thunder Bay, Ontario (Vice Chairman, Treasurer and Director); George K. Heartwell of Grand Rapids, MI (Secretary and Director); Ellen Anderson of The Town of the Blue Mountains, Ontario; Rudolph Clay of Gary, IN; Robert J. Duffy of Rochester, NY; Carleton S. Finkbeiner of Toledo, OH; Eddie Francis of Windsor, Ontario; Régis Labeaume of the Québec Metropolitan Community; Denis Lapointe of Salaberry-de-Valleyfield, Québec; Brian McMullan of St. Catharines, Ontario; Don Ness of Duluth, MN; Joseph Sinnott of Erie, PA; and Gérald Tremblay of Montréal, Québec.

More information is available at [www.glslicities.org/watercons.htm#Overview](http://www.glslicities.org/watercons.htm#Overview).

Consumption Advisory, with funding from U.S. EPA. Basin-wide consumption outreach materials related to mercury will be produced by the end of 2008.

- A Mercury Emission Reduction Initiative: In 2007, the GLRC decided, under its Toxic Pollutants Initiative, to develop a strategy for reducing mercury emissions across the Great Lakes region. This effort should produce institutionalized activities to sustain mercury emissions reduction from new and existing sources whose mercury emissions have not been regulated, and from sources where regulations have been implemented but additional reductions are technically feasible and economically reasonable. Examples of potential sources include manufacturing processes that produce mercury emissions, and the disposal of mercury-containing products. A Strategy will be drafted in 2008, including an evaluation of the major sources of mercury deposition in the Great Lakes region, identification of priority sectors, and reduction approaches.

## Habitat/Species

***Habitat/Wetlands Initiative.*** The GLRC Strategy outlined the problems associated with habitat loss and degradation and provided recommendations for protecting and restoring Great Lakes habitat. To address the Strategy's key habitat and wetland issues, the Collaboration launched a Wetlands Initiative with two near-term goals: A wetlands challenge to federal and non-federal partners to protect and restore 200,000 acres of wetlands in the Great Lakes Basin; and improving coordination of federal wetlands management programs.

An estimated 65,000 acres of wetlands have been protected, improved and restored across the Great Lakes basin since December 2005 by federal agencies and their partners. This estimate was obtained from a data call to the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Natural Resources Conservation Service, U.S. Forest Service, National Oceanic and Atmospheric Administration and U.S. EPA that adopted reporting conventions of the Council of Environmental Quality's annual, national wetlands report. Agencies were asked to report 2006 and 2007 accomplishments for completed wetlands restoration projects only. The



information is intended to provide an estimate of where Federal agencies and their partners are in contributing to the Great Lakes Regional Collaboration's goal of protecting and restoring 200,000 acres of wetlands across the basin.

At the same time, the U.S. Army Corps of Engineers (Corps) launched a \$1 million Great Lakes Habitat Initiative that builds upon the recommendations of the Collaboration's Strategy. The initiative will help partners advance habitat and wetland restoration projects by connecting partners with the information and resources they need to make projects happen. This effort includes developing a database and detailed inventory of potential habitat and wetlands restoration projects.

The two initiatives share similar goals and have been merged into one overarching Habitat/Wetlands Initiative, focusing initially on coordination to accomplish the wetlands challenge to federal and non-federal partners to protect and restore 200,000 acres in the Great Lakes Basin. Activities include:

- Providing a stakeholder forum for partners to communicate, leverage resources and identify shared opportunities for partnering. The initiative brings together federal agencies, states, tribes, local governments and other Great Lakes stakeholders to identify on-the-ground restoration projects that contribute to the 2005 Strategy, and to identify ways to implement such restoration projects as well as ways to facilitate partnerships and overcome hurdles to implementation. A Steering Committee, Project Delivery Team and Federal Wetlands Subcommittee have been meeting regularly to share information and provide regional coordination.
- Providing partners with the necessary information to facilitate collaborative restoration work. The initiative is connecting partners with information about potential projects, programs and funding sources. The Corps has created a Funding Programs Inventory with information on more than 150 funding governmental and nongovernmental programs for habitat restoration work. The initiative has also developed a Restoration Projects Database with over 200 potential projects, and will be updated periodically.
- Monitoring Great Lakes wetland restoration progress. Progress will be measured and assessed against the 200,000 acre goal using the same



### The Lake Michigan Toolbox Wisconsin Watershed Planning Brochure

The Wisconsin Department of Natural Resources (WDNR) works with many partners. Planning commissions, county conservationists, municipalities, lake and river groups, and individual citizens are critical stewards of our water. WDNR is reframing its watershed planning to reflect the interactive nature of watershed work to move us toward a truly shared vision for *Wisconsin's Waters*. In creating the *Wisconsin Watershed Planning Network*, WDNR hopes to promote watershed work and encourage collaboration on research, planning, and projects. The *Network* provides electronic access to interconnected databases for watershed planning information and activities. Whether you are developing watershed plans, smart growth plans, or other resource strategies, the *Network* is a centralized place to share and research data and planning efforts.

More information is available at:

<http://dnr.wi.gov/org/water/watersheds/network/>

<http://www.dnr.state.wi.us/org/water/watersheds/planning/WisconsinWatersheds.pdf>

definitions and methodology as the President's annual Earth Day Wetlands Report. Great Lakes restoration progress will be reported beginning in December 2007. Since December 2005, an estimated 65,000 acres of wetlands have been protected, improved or restored by federal agencies working with partners. Significant additional acreage has been protected and restored by states, local and tribal governments, and other partners.

- Developing a User Manual. In addition to the three activities initially approved, a user manual is being developed to guide partners in how to use the database and tools to restore and protect habitat in the Great Lakes.

### Coastal Health

**Beach Project Initiative.** The GLRC identified coastal health as a challenge recognizing the significance of beaches to the economic well-being, health and



## The Lake Michigan Toolbox CMAP Framework Plan with Tools for Officials and Planners

The Chicago Metropolitan Agency for Planning (CMAP) (formerly the Northeastern Illinois Planning Commission) released its "2040 Regional Framework Plan". It provides a series of tools for local elected officials and planners to aid land-use decisions. The plan is the culmination of an extensive public-involvement process that included 200 workshops where 4,000 participants expressed their vision of how the region should address growth through the year 2040. CMAP's "Common Ground" process engaged these communities' residents, elected officials, planners, developers and other stakeholders, who expressed five top priorities for 2040 on behalf of the region:

- We want livable communities.
- We want a region that views the diversity of its people as an asset.
- We want a healthy natural environment.
- We want a regional economy that is competitive globally.
- We want governments to collaborate at the local and regional levels.

The 2040 Plan describes 17 implementation strategies that require close partnership at the regional and local levels. They include steps toward achieving a balance between jobs and housing, promoting alternative modes of travel such as walking and biking, sustaining the water supply from Lake Michigan and other sources, preserving farmland and other strategies.

More information is available at: [www.nipc.org/2040/](http://www.nipc.org/2040/).

quality of life of the region's citizens. Because contamination leading to beach advisories continues to be a concern in the Basin, the GLRC called for identification of sources of contamination and remediation. Several federal, state, local, and tribal partners who work together with the Great Lakes Beach Association are creating and improving the use of sanitary surveys and beach forecasting models. The GLRC will increase this cooperation by supporting and encouraging the use of sanitary surveys and predictive modeling. Ultimately, the GLRC hopes to recognize and integrate sanitary survey tools and predictive modeling as a coastal health initiative to enhance the health of beaches along the Great Lakes to promote recreational activity and reduce risk to human health. In 2008, the partners are developing outreach materials for distribution and utilization of the sanitary survey tools and predictive models.

### Proposed Great Lakes Legislation in the 110<sup>th</sup> Congress

***The National Aquatic Invasive Species Act*** (S. 725): Amends existing law to: require the Coast Guard to implement ballast water regulations; require ships to

take steps to minimize the introduction of invasive species; establishes an early detection and monitoring programs along with state, regional and federal rapid response networks; improves research; authorizes the construction of a second barrier in the Chicago Ship and Sanitary Canal; and gives the International Joint Commission a reference to coordinate prevention efforts with Canada.

***Aquatic Invasive Species Research Act*** (H.R.260): Requires the National Oceanic and Atmospheric Administration (NOAA), the Smithsonian Institution, and the U.S. Geological Survey to develop a marine and freshwater research program to support efforts to assess introduction rates and patterns of invasive, nonnative species and efforts to detect, prevent, and eradicate them. Reauthorizes the ship pathway technology demonstration program. Requires the Environmental Protection Agency (EPA) to develop a grant program to fund research, development, demonstration and verification of environmentally sound, cost-effective technologies and methods to control and eradicate such species.

***Great Lakes Invasive Species Control Act*** (H.R.801): Amends current law to require vessels equipped with ballast water tanks but not ballast water on board

(NOBOB) to carry out ballast water exchange or alternative ballast water management methods prior to entry into any port within the Great Lakes. Directs the Coast Guard to conduct a study of the effectiveness of alternative ballast water management methods in reducing the threat of invasive species to the Great Lakes.

**Prevention of Aquatic Invasive Species Act** (H.R.889): Amends current law to require vessels to conduct ballast water treatment so that the discharged ballast water will contain no more than a specified level of living organisms or microbes. Urges the Secretary to negotiate with foreign countries to develop and implement an international program for preventing the unintentional introduction and spread of aquatic invasive species.

**Ballast Water Management Act** (H.R.2423/S. 1578): To provide for the management and treatment of ballast water to prevent the introduction of nonindigenous aquatic species into coastal and inland waters of the United States, and for other purposes.

**Coast Guard Authorization** (H.R. 2830): Authorizes appropriations for the Coast Guard for: (1) operation and maintenance; (2) aids to navigation, facilities, vessels, and aircraft; (3) Coast Guard research and development; (4) retired pay; (5) bridges; (6) environmental compliance; and (7) the Coast Guard Reserve program. Amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 with provisions relating to the introduction and spread of species from ballast water and other ship-borne vectors.

**Great Lakes Asian Carp Barrier Act** (H.R. 553/S. 336): This bill authorizes the Corps of Engineers to upgrade Barrier I into a permanent barrier, complete construction of Barrier II, operate and maintain both barriers, and to study additional measures to prevent carp from entering the Great Lakes.

**Asian Carp Prevention and Control Act** (H.R. 83. /S. 726): This bill amends the Lacey Act to legislatively list three species of Asian carp as injurious wildlife. A listing under the Lacey Act would prohibit the interstate transport and importation of these fish.

**Great Lakes Collaboration Implementation Act** (H.R. 1350/S. 791): The Great Lakes Regional Collaboration Implementation Act makes many of the necessary

legislative changes to implement the policy recommendations made by the Collaboration strategy addressing aquatic invasive species, habitat and species, toxic pollution, and many other issues.

**Recreational Boating Act** (H.R. 2550/S. 2067): Amends the Clean Water Act to redefine the term "pollutant" to exclude any deck runoff from a recreational vessel, any engine cooling water, gray water, bilge water effluent from properly functioning recreational marine engine, laundry, shower, and galley sink wastes from a recreational vessel, or any other discharge incidental to the normal operation of a recreational vessel.

**Water Resources and Development Act** (H.R. 1495): This legislation directs the U.S. Army Corps of Engineers to undertake projects and is normally reauthorized every two years. Regarding the Great Lakes, it authorizes in-kind contributions to count towards the non-federal cost-share requirement of the John Glenn Basin program and the Great Lakes Fishery and Ecosystem Restoration Program. The bill authorizes the Corps of Engineers to convert Barrier I into a permanent facility, to complete construction of Barrier II, and to operate and maintain both dispersal barriers at full federal cost. The legislation also increases the authorization for section 206 (Restoration of the Environment for Protection of Aquatic and Riparian Ecosystems Program) and section 1135 (Environmental Modification of Projects for Improvement and Restoration of Ecosystems



Chicago Area waterways map showing location of carp barrier (Illustration courtesy of Phil Moy, University of Wisconsin Sea Grant Institute)

Program), two programs that are used frequently throughout the Great Lakes region.

**Great Lakes Migratory Bird Research and Management Act** (H.R.469): This bill would enable the Great Lakes Fishery Commission to investigate effects of cormorants on stocks of fish of common concern in the Great Lakes.

**Great Lakes Short Sea Shipping Enhancement Act of 2007** (H.R.981/S. 1683): Amends the Internal Revenue Code to exempt from the harbor maintenance tax commercial cargo (other than bulk cargo) loaded or unloaded at U.S. ports in the Great Lakes Saint Lawrence Seaway System.

H.R.1842: Amend the Safe Drinking Water Act to prevent acid mine drainage into the Great Lakes.

**Coastal and Ocean Observation System Act of 2007** (S.950/H.R. 2342): Directs the Secretary of Commerce to establish within NOAA a Coastal Ocean Observation System to support coastal and fishery management activities and an integrated national ocean observation system, including the Great Lakes. Authorizes the Secretary to: (1) designate as a unit of the System any Federal agency or non-Federal entity that operates marine sensors that collect observation data in U.S. ocean and coastal waters; and (2) coordinate such units' activities.

**Water Quality Financing Act** (H.R.720): Amends the Federal Water Pollution Control Act to authorize the EPA to make grants to nonprofit organizations to provide technical assistance to rural and small municipalities for wastewater infrastructure financing. Authorizes appropriations through FY2012 for: (1) state pollution control programs; and (2) watershed pilot projects. Revises: (1) eligibility requirements for grants for sewage collection systems; and (2) state water pollution control revolving fund provisions. Authorizes and increases funding for capitalization grants for state water pollution control revolving funds for FY2008-FY2012. Revises funding allocations for activities serving Indian tribes and reservations. Requires the Comptroller General to study the funding mechanisms and funding sources available to establish a Clean Water Trust Fund. Requires the EPA, in consultation with the State Department and Canadian government, to study wastewater treatment facilities that discharge into the Great Lakes and provide recommendations to improve monitoring, information sharing, and cooperation between the U.S. and Canada.

H.CON.RES.187: Expressing the sense of Congress regarding the dumping of industrial waste into the Great Lakes.

H.R.1842: To amend the Safe Drinking Water Act to prevent acid mine drainage into the Great Lakes.

H.R.1844: To amend the Federal Water Pollution Control Act to prevent acid mine drainage into the Great Lakes.

**Great Lakes Water Protection Act** (H.R.2907): To amend the Federal Water Pollution Control Act to establish a deadline for restricting sewage dumping into the Great Lakes and to fund programs and activities for improving wastewater discharges into the Great Lakes.

**Bad Polluters Act of 2007** (H.R.3276): To amend the Internal Revenue Code of 1986 to deny refinery expensing to owners of refineries that are permitted to increase the discharge of pollutants into the Great Lakes.

**Beach Protection Act of 2007** (S. 1506/H.R. 2537): Amends the Clean Water Act to include among eligible grant activities the development and implementation of programs for source tracking, sanitary surveys, and prevention efforts to address the identified sources of beach water pollution.

H.R. 2836: To authorize appropriations for the National Sea Grant College Program Act for fiscal years 2009 through 2013.

**Great Lakes Pollution Prevention Act of 2007** (H.R.3360): Amends the Federal Water Pollution Control Act to prohibit either the EPA or any Great Lakes state from issuing a permit for the discharge of a pollutant into a body of water that is part of the Great Lakes without the concurrence of all such states. Authorizes a state to concur only after providing notice in the vicinity of the portion of the body of water within its boundaries and an opportunity for public comment

## The Binational Executive Committee

The Binational Executive Committee (BEC) is charged with coordinating the implementation of the binational aspects of the 1987 Great Lakes Water Quality Agreement (GLWQA). The BEC is co-chaired by Environment Canada and USEPA, and includes

members of the Great Lakes states, the Province of Ontario, and other federal departments and agencies in Canada and the United States and tribes. The BEC addresses binational, basinwide issues of concern and provides strategic direction to the LaMPs, RAPs, and other Great Lakes programs such as the Binational Toxics Strategy, and the State of the Lakes Ecosystem Conference.

## Great Lakes Water Quality Agreement

The Canada-United States Great Lakes Water Quality Agreement (GLWQA), first signed in 1972 and renewed in 1978, expresses the commitment of each country to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem and includes a number of objectives and guidelines to achieve these goals. It reaffirms the rights and obligation of Canada and the United States under the Boundary Waters Treaty and has become a major focus of International Joint Commission (IJC) activity.

The IJC is an independent binational organization established by the Boundary Waters Treaty of 1909. Its purpose is to help prevent and resolve disputes relating to the use and quality of boundary waters and to advise Canada and the United States on related questions. It has oversight to the implementation of the GLWQA.

The 1972 Agreement set general and specific water quality objectives and called for programs to meet them. It gave priority to point-source pollution from industrial sources and sewage plants. Point-source pollution was dramatically reduced and many visible and noxious pollution problems were alleviated by regulatory programs like the Clean Water Act.

In 1978, the two governments replaced the 1972 Agreement with a new agreement. The 1978 Agreement built upon the foundation established in the earlier Agreement, as well as new information from scientists both in and out of government. It shifted the focus from conventional pollutants, such as phosphorus and bacteria, to toxic and hazardous polluting substances. Persistent toxic substances remain in the environment for very long periods, can accumulate in living organisms, and can have serious impacts on the health of wildlife and humans. Through the 1978 Agreement, the two countries adopted a policy that the discharge of any or all

persistent toxic substances be virtually eliminated in the Great Lakes and international section of the St. Lawrence River. Timelines were then established for municipal and industrial pollution abatement and control programs.

The Agreement was amended in 1987 and added several new programs and initiatives to restore beneficial uses in open waters of the 5 lakes and in 43 of the most contaminated local areas in the basin. Conditions have improved significantly in a number of these local Areas of Concern (AOCs) and in the open waters of the lakes.

But now, despite considerable progress to date, new challenges are emerging while some old ones persist. What does this mean for the Agreement? Should it – or how should it – address issues like alien invasive species, population growth and urbanization, new chemical pollutants, climate change and human health.

The governments of Canada and the United States asked the IJC to seek the public's views on how well the GLWQA has worked so far and how effective it has been. In response, the IJC held public meetings in 14 Great Lakes and St. Lawrence cities in Fall 2005, wrapping up its consultations with a Web Dialogue. It also received comments from individuals and organizations by hand, mail, fax, phone, e-mail and online. More than 4000 individuals and organizations took part.

The governments of Canada and the United States conducted a year long review process involving over 350 stakeholders representing a broad cross section of the Great Lakes community. Upon completion of public comment period, a final Agreement Review Report was presented for consideration to the Binational Executive Committee of Environment Canada and USEPA in Fall 2007. Environment Canada and USEPA are considering the Final Agreement Report and will provide advice, respectively, to Foreign Affairs Canada and the U.S. Department of State. The governments will then determine next steps for the Agreement, including whether it will be revised. The mandated review of the GLWQA every six years, does not obligate the governments to amend or modify the Agreement.

For more information about the Agreement, view or download the Guide to the Great Lakes Water Quality Agreement at: [www.ijc.org/glconsultations](http://www.ijc.org/glconsultations).

## Great Lakes Human Health Network

A Great Lakes-wide human health network was formed by the Binational Executive Committee to maximize resources and efficiencies of scale. The USEPA's GLNPO provides staff resources to facilitate the exchange of information and expertise among health and environmental agencies. The human health network brings together experts and agencies from throughout the basin to share information and provide technical assistance on human health issues for inclusion in the LaMP. Currently, the Network has representative from six federal government agencies, five tribal government agencies, eleven state and provincial government agencies, and one county government agency. The Network anticipates that the membership will continue to grow as the Network becomes more widely known. Current information on the Network and its work may be found at [www.epa.gov/glnpo/health.html](http://www.epa.gov/glnpo/health.html).

## The Great Lakes Fishery Commission

The Great Lakes Fishery Commission (GLFC) is a critical partner in achieving a balanced and healthy

fish community in Lake Michigan, both in terms of controlling exotic species and rehabilitating native species in the lake. GLFC has adopted and implemented an integrated management of sea lamprey (IMSL) approach to control sea lamprey in the Great Lakes. The IMSL process involves using a variety of control methods instead of relying solely on chemicals. For example, GLFC is reducing the minimum lethal concentrations of chemicals used to kill larval sea lampreys in order to protect young lake sturgeon and is scheduling chemical treatments later in the summer to reduce the effects on young lake sturgeon. GLFC has reduced chemical use by 50 percent compared to the amounts used in the 1990s.

## Great Lakes Legislative Caucus

State lawmakers from the eight states and two Canadian provinces that surround the Great Lakes have formed a caucus to coordinate legislative action on Great Lakes issues. The group, comprised of lawmakers from the 10 states and provincial Legislatures, will serve as a clearinghouse for information, policies and coordination on issues such as beach closings, water diversion, and invasive species. The caucus focused its activities around aquatic nuisance species and the Great Lakes Charter Annex.