Great Lakes Commission
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IN THIS ISSUE

Agreements raise barriers to out-of-basin diversions

Governors, premiers sign Great Lakes pact

After years of research, policy discussions, public meetings and plain hard work, the Great Lakes governors and premiers have given their approval to a landmark agreement to protect the world's greatest freshwater resource, the Great Lakes.

On Dec. 13, the governors and premiers signed the *Great Lakes Annex 2001 Implementing Agreements*, setting forth new guidelines to protect the waters of the Great Lakes basin against future shortages and conflicts over their use while maintaining the economic advantages they provide to the region.

"This is a great day for the Great Lakes," said Tom Huntley, chair of the Great Lakes Commission. "These agreements protect the region against future out-of-basin demands for freshwater, which could put severe pressure on the Great Lakes. They offer the promise that we can preserve this world-class resource for the use and enjoyment of future generations."

The agreements, which include a ban on new diversions of water outside the basin with limited exceptions, detail how the states and provinces will manage and protect the Great Lakes - St. Lawrence River basin and provide a framework for each state and province to enact laws protecting the resource.

Huntley praised the Council of Great Lakes Governors and the Canadian premiers for their hard work over the years in crafting the agreement and building consensus upon its provisions, both among the governors and premiers and in the region itself.

> "This is a great day for the Great Lakes."
>
> *-Tom Huntley, chair, Great Lakes Commission*

The agreements include the following key points:

- A ban on new diversions of water. Limited exceptions could be allowed, such as for public water supply purposes in communities near the basin, but exceptions would be strictly regulated.
- The states and provinces will use a consistent standard to review proposed uses of Great Lakes water.
- The collection of technical data will be strengthened, and the states and provinces will share information, which will improve decisionmaking by governments.
- Regional goals and objectives for water conservation and efficiency will be developed and reviewed every five years. Each state and province will develop and implement a water conservation and efficiency program.
- Lasting economic development will be balanced with sustainable water use to ensure Great Lakes waters are managed responsibly.
- The waters of the basin are recognized as a shared public treasure, and there is a strong commitment to continued public involvement in the implementation of the agreements.

A compact among the eight Great Lakes states to make the agreement legally binding has been drafted and will be forwarded to the respective state legislatures and the U.S. Congress for approval. Ontario and Québec will pursue legal implementation through their provincial legislatures.

The Great Lakes Commission has been a long-time advocate for such an agreement and will continue to press

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Director's Update

The commitment of collaboration

With the recent release of the *Great Lakes Regional Collaboration Srategy to Restore and Protect the Great Lakes*, the region is abuzz with the hope and expectation that this landmark initiative will usher in a new era of cooperation and achievement, resulting in a more prosperous economy, a healthier and sustainable ecosystem and a higher quality of life for the citizens of the Great Lakes-St. Lawrence River basin.

As I reflect upon all the work that has been done over the past 18 months and contemplate what lies ahead, I am convinced that the key to reaping the benefits of this effort lies in recognizing the importance of collaboration.

The Great Lakes Regional Collaboration provided an opportunity for us to labor together toward a common goal. This highly inclusive process brought together federal and state agencies, the Great Lakes governors, regional entities, cities, industry groups, tribal interests, conservation and environmental groups and private citizens to identify restoration priorities for the Great Lakes. In so doing, it opened lines of communication, brought fresh ideas to the table and provided a sense of empowerment to those who are often left out of the decisionmaking process.

Enthusiasm for the resulting Great Lakes Strategy has been tempered, in part, by concerns that no new federal funding will be provided for its implementation. In response, the Council of Great Lakes Governors and the Great Lakes Cities Initiative wrote to President Bush urging him to embrace a series of short-term action items in FY2007 and increase federal resources to provide for better protection and restoration of the Great Lakes.

One paragraph of that letter merits particular attention. It states, "Your Executive Order has brought us together as never before. We have renewed our region's optimism and believe that we can work together to overcome our shared challenges. We ask that you (the Administration) help us deliver on the promise of our shared efforts by partnering to support these near-term actions."

It's important that we, as a region, build on this renewed optimism and continue to work together to meet our shared challenges and accomplish our common goals. This may be a tall order, since many of us in this undertaking are not used to cooperating with each other. But my hope is that the process of building relationships that took place during the past year of drafting the report will carry over into the implementation phase.

By understanding the benefits of regional collaboration – laboring together, communicating, trusting each other, considering the needs of the Great Lakes above our own institutions and taking ownership of this common restoration strategy – we have a real hope of seeing a renewed "greatness" to the Great Lakes-St. Lawrence River region.

Thomas R. Crane

Thomas R. Crane
Interim Executive Director

> "...I am convinced that the key to reaping the benefits of this effort lies in recognizing the importance of collaboration."

Sheboygan is site of 2006 Semiannual Meeting

Don't forget – the 2006 Semiannual Meeting of the Great Lakes Commission will be May 2-4 at the Blue Harbor Resort and Conference Center in Sheboygan, Wis. Watch ***www.glc.org/meeting*** for discussion topics, speakers and other details as they become available. The 2006 Annual Meeting will be Oct. 3-5 in Duluth, Minn.

Report details Great Lakes monitoring efforts

The Great Lakes Monitoring Inventory and Gap Analysis, set for official release at the end of January 2006, is the first comprehensive report on monitoring activities in the Great Lakes basin. Its publication marks an important step toward improving regional monitoring coordination and collaboration, and should also provide a foundation for emerging regional data exchange and environmental observing system initiatives.

The inventory portion of the report was intended to create awareness of, and access to, monitoring program information. With major grants from the Joyce Foundation and the U.S. Environmental Protection Agency - Great Lakes National Program Office, the Great Lakes Commission developed a comprehensive monitoring inventory of more than 600 monitoring programs in the Great Lakes basin. In consultation with monitoring program managers, the Commission assessed gaps and overlaps in monitoring programs and compiled the results of this analysis in a comprehensive report.

The gap analysis summarizes monitoring efforts in 21 separate areas, reviewing current efforts and highlighting potential gaps in coverage. Results show a wide range of sampling programs distributed across the Great Lakes basin, with the majority operating at the state or provincial level.

Monitoring coverage varies widely from one topical area to another. For example, in beach monitoring, it was found that the United States and Ontario follow different standards for issuing beach advisories and closings, and monitoring protocols can vary across jurisdictions, so that results are not directly comparable. For air deposition monitoring, the inventory revealed only one major network, with five master stations for the entire basin. Detailed evaluations and findings for each of the 21 monitoring areas can be found in the full report.

Monitoring in the Great Lakes region encompasses a wide range of activities, from mechanical instruments that automatically collect data to hands-on field work. Here, a seine net is used to collect biological specimens from the French River near Duluth, Minn. Photo: Steve Geving, Minnesota DNR.

The report also includes policy recommendations to address major monitoring gaps and improve the effectiveness of monitoring coordination. One of the primary recommendations is the need for regular interaction among managers of similar monitoring programs. The gap analysis made clear that such interaction is currently lacking among managers in different parts of the basin. Regular discussions will promote increased coordination and collaboration across monitoring programs, leading to more compatible datasets for evaluating basinwide trends.

Other policy recommendations include:

- Incorporating basinwide monitoring needs into federal and state monitoring directives and mandates;
- Promoting state and local governmental participation at regional monitoring coordination meetings;
- Balancing short-term, small-scale monitoring projects with basinwide monitoring initiatives;
- Assessing the compatibility of different monitoring protocols; and
- Utilizing citizen-based or volunteer monitoring efforts.

Findings from the *Great Lakes Monitoring Inventory and Gap Analysis* are being disseminated to the monitoring community, resource managers, and federal and state legislators. They can be accessed from the project web site at ***www.glc.org/monitoring/greatlakes.***

Contact: Ric Lawson, ***rlawson@glc.org.***

Annex Agreements signed (cont'd. from page 1)

for its ratification. The Commission has also provided significant technical support for the development of the agreements, including the development of decision support tools, an inventory of water use in the Great Lakes basin and a tool kit for water conservation.

For more information, including the full text of the agreements, see ***www.cglg.org*** or contact: Tom Crane, ***tcrane@glc.org.***

"Industry Day" seeks partners to participate in GLOS

The Great Lakes Observing System (GLOS), now under development, will provide vastly improved access to a broad range of information on Great Lakes weather and environmental conditions. Doing so, however, will require the involvement of numerous public and private sector partners to develop and operate the new equipment and information management systems the project will require.

To help find such partners and engage them in the process, the Great Lakes Commission and the National Office for Integrated and Sustained Ocean Observations held an "Industry Day" event Nov. 15 in Chicago.

Drawing approximately 70 participants from the private sector, government and nongovernmental organizations, the event also provided an opportunity for potential users of and participants in the system to provide input on its development and discuss near-term opportunities for collaboration.

Industry involvement will be essential in designing and deploying new measurement instruments and developing information management systems for GLOS. Industry partners will also play a key role in promoting and raising awareness of the system's economic and other benefits.

GLOS is one of 11 regional nodes being developed as part of the U.S. Integrated Ocean Observing System (IOOS). Bringing together such elements as improved buoy systems; stationary sensors; satellite, ship and airborne observations; computer models; information integration and more, GLOS is intended to vastly improve the collection and management of information about conditions in the Great Lakes.

By doing so, GLOS will allow for rapid detection and timely predictions of changes in weather, water levels, ecosystems, human impacts and other physical, chemical and biological characteristics.

Information from a a wide variety of data-gathering techniques, such as this Vector Averaging Current Meter being deployed in Lake Michigan by NOAA personnel from the R/V Shenehon*, will be tied together and made more accessible through GLOS. Photo: NOAA Great Lakes Environmental Research Laboratory.*

The IOOS system and GLOS are intended to meet the needs of a wide variety of users, including resource managers, researchers, educators, commercial shippers, recreational boaters, beach users, homeland security interests and others.

GLOS is currently moving from a planning phase into program implementation. In 2006, a board of directors will be established and GLOS will be incorporated as an independent, not-for-profit organization. The Great Lakes Commission is serving as the steering committee secretariat for GLOS development.

For more information, visit ***www.glos.us*** or contact: Roger Gauthier, ***gauthier@glc.org.***

TEACH offers new tools for Great Lakes educators

The Education And Curriculum Homesite (TEACH) is now hosting updated Great Lakes fisheries education resources, reviews, sample lesson plans and related tools for educators at ***www.teach-greatlakes.net.***

TEACH is the educational component of GLIN, the Great Lakes Information Network (***www.great-lakes.net***). The Great Lakes Commission is partnering with the University of Michigan School of Natural Resources and Environment to produce the redesigned and expanded web site, which went live in January 2006.

TEACH also features mini-lessons on many Great Lakes topics in the areas of environment, history and culture, geography, pollution, and careers and business. Geared for middle school students, the modules include links to a glossary explaining scientific terms and acronyms.

This partnership provides dynamic tools for existing Great Lakes fisheries education materials and exposes them to a broader audience. It also greatly enhances the design, organization and content of TEACH.

A CD-ROM will also be produced and evaluated by 500 teachers in the region, further promoting TEACH and GLIN as classroom resources. A $1,500 grant to produce the CD-ROM was awarded to the Commission from the Project AWARE Foundation.

Contact: Christine Manninen, ***manninen@glc.org.***

Great Lakes Panel watches AIS legislation

The Great Lakes Panel on Aquatic Nuisance Species is following with interest the progress of two bills now before the U.S. Senate that offer different approaches to addressing the threat from aquatic invasive species (AIS).

A discussion of the potential implications of the two bills was held at the panel's fall meeting, Nov. 16-17 in Ann Arbor, Mich. The first, Senate Bill 363 (S. 363) the Ballast Water Management Act, would require offshore ballast water exchange until more effective measures are available.

One of the concerns over S. 363 is that it only deals with one AIS vector, ballast water. The bill has been opposed by the Council of Great Lakes Governors because it would prevent states from adopting their own ballast water standards. However, supporters say it has a better chance of passage than more complex legislation addressing other AIS vectors and issues.

The other bill, S. 770, the National Aquatic Invasive Species Act, addresses multiple AIS vectors and does not preempt more stringent state regulations on ballast water. The Great Lakes Commission, which provides staff support to the panel, has adopted a resolution in support of S. 770 but has not taken a position in regard to S. 363.

In business matters, the panel approved its *2006 Priority Species List* targeting 25 established or potential aquatic invaders in need of more research to support the development of better management and control practices. The panel also approved a document, *Aquatic Invasive Species Information and Education Priorities for the Great Lakes,* outlining six broad information and education objectives related to AIS prevention and control and strategies for achieving each.

For more information, visit ***www.glc.org/ans/panel.html*** or contact: Katherine Glassner-Shwayder, ***shwayder@glc.org***.

Search begins for new director

Applications are now being accepted for the position of executive director of the Great Lakes Commission, Chair Thomas E. Huntley has announced. Applications will be accepted through Feb. 10, 2006.

"The person we are looking for is one with the leadership and vision to advance the collective interests of our member states and provinces with regard to the Great Lakes - St. Lawrence system," Huntley said. "The new executive director must also have the skills to lead the Commission in serving as an effective advocate for the binational Great Lakes-St. Lawrence region and in providing objective information for informed policy decisions."

The Great Lakes Commission occupies a unique niche in Great Lakes resource management and policy-making, as a compact agency established by the eight states of the region with the consent of Congress, and with the provinces of Ontario and Québec as associate members.

The new executive director will be only the fifth in the Commission's 50-year history. The successful candidate will succeed Michael J. Donahue, who stepped down in February 2005 after a tenure of 17 years to enter the private sector.

Given the length of time since the last transition, an internal review of the organization was conducted to provide guidance for the search process and for strategic planning once the leadership position is filled. The results of that study, which potential applicants are encouraged to review, are available at ***www.glc.org/announce/05/12edsearch.html.***

Full details of the position and the application process are available at ***www.glc.org/announce/05/edjob.html***.

Contact: Rep. Tom Huntley, chair, Great Lakes Commission, ***rep.thomas.huntley@house.mn.***

Sea Grant Fellowship, Ratza Scholarship now seeking applicants

Applicants are being sought for the Great Lakes Commission-Sea Grant Fellowship and the Carol A. Ratza Memorial Scholarship. Applications and information are available at ***www.glc.org/about/scholarships***.

The Great Lakes Commission-Sea Grant Fellowship provides the opportunity to work with members of the Great Lakes' science, policy and information/education communities for one year, participating in research coordination and policy analysis activities.

This is a paid position at the Great Lakes Commission offices in Ann Arbor, Mich. Applicants must be enrolled in a graduate or professional degree program in a marine or aquatic-related field at an accredited U.S. institution of higher learning. The application deadline is Feb. 28, 2006. Contact: Tom Crane, ***tcrane@glc.org***.

The Ratza Scholarship is a $1,000 award open to any student who will be enrolled full-time at a Great Lakes university or college in fall 2006, including current high school seniors. Applicants should have a career interest in electronic communications technologies and their application to Great Lakes protection and restoration. The deadline is March 31, 2006. Contact: Christine Manninen, ***manninen@glc.org***.

New Great Lakes Basin Program RFP targets whole-watershed sediment and erosion control

The Great Lakes Basin Program for Soil Erosion and Sediment Control has issued its 2006 Request for Proposals. The program offers grants of up to $125,000 for projects to mitigate the damages caused by sediment and soil erosion within the U.S. portion of the Great Lakes basin. Education grants are also available.

Grants will be awarded in three categories. Grants of up to $40,000 per project will be awarded in the areas of soil erosion and sediment control, best management practices (BMPs) demonstration, and information/education. Grants of up to $75,000 will be given for larger-scale projects that demonstrate the installation of BMPs.

A new category this year is the watershed-scale program. This is a four-year, two-phase grant designed to enable local watershed groups to implement soil conservation practices sufficient to virtually eliminate erosion and sedimentation in a small subwatershed. Successful applicants will receive a two-year grant for up to $125,000 that may be renewable for an additional two-year grant of up to $125,000.

The grant program is open to nonfederal government agencies and nonprofit organizations that address sediment problems at the grassroots level. Both established and innovative practices will be considered.

Additional information and application materials are available at ***www.glc.org/basin***. All applications must be submitted online, with a deadline of March 15, 2006.

The program is administered by the Great Lakes Commission in partnership with the U.S. Department of Agriculture - Natural Resources Conservation Service, the U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers.

Contact: Gary Overmier, ***garyo@glc.org.***

Second RDX conference is set for April

Are you interested in learning about satellite, airborne and in situ remote sensing technologies that are being used to study, monitor and manage the Great Lakes-St. Lawrence River system? If so, plan to attend the "Remote Sensing Across the Great Lakes: Observations, Monitoring and Action" conference, April 4-6, 2006, at the Clarion Riverside Hotel in Rochester, N.Y.

The combined event will include the biennial Great Lakes Regional Data Exchange (RDX) Conference and the 5th Annual New York State Remote Sensing Symposium.

The Great Lakes-St. Lawrence River system has a complex network of data collection programs, reporting requirements and monitoring strategies. This conference will focus on developing integrated solutions to the challenges of using and sharing that data from global, national and regional perspectives.

Abstracts for presentations will be accepted until Jan. 19, 2006. See ***www.rdx.glc.org/06*** for online abstract submittal, conference background and registration.

The conference is hosted by the Central New York Region of the American Society of Photogrammetry and Remote Sensing, State University of New York College of Environmental Science and Forestry, and the Great Lakes Commission.

Contact: Roger Gauthier, ***gauthier@glc.org.***

Did you know

A new species was recently found in Lake Superior. A type of diatom, this species of photosynthetic algae appears as a brownish sludge on submerged rocks along the shoreline. The one-celled organism was named hannaea superiorensis by its discoverers.

Community leaders urge president to embrace AOC priorities

Community leaders representing U.S. Areas of Concern (AOC) have urged President Bush to support AOC restoration priorities identified under the Great Lakes Regional Collaboration.

In a recent letter, representatives of 27 of the 31 U.S. AOCs asked the president to view the AOC priorities as "an opportunity to show good faith with those who are passionately committed to restoring the Great Lakes," and underscored that restoring the AOCs "will yield substantial environmental and economic benefits across the eight-state Great Lakes region."

Near-term priorities for the AOC program developed under the Regional Collaboration include full funding for the Great Lakes Legacy Act; support for federal, state and local agencies administering AOC programs; reauthorizing and amending the Legacy Act; and establishing a federal/state AOC coordinating committee.

The letter was coordinated by the Great Lakes Commission as part of its efforts to advance the regional AOC program.

For more information, contact: Matt Doss, ***mdoss@glc.org.***

Partnership will investigate coastal service needs

A joint effort between the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center and the Great Lakes Commission will investigate regional needs for coastal services.

Expected to be completed by early summer 2006, the needs assessment will focus on three issue areas: ports and navigation, coastal community development, and information integration and distribution. It will look for opportunities to leverage resources and build partnerships.

"Together, these three broad issue areas touch on virtually every one of the dozens of singular issues of importance to the Great Lakes region," said Victoria Pebbles of the Commission staff who is managing the project. "These three issue areas provide focus for the effort yet recognize the complexity and cross-cutting nature of coastal issues."

Desotelle Consulting, PLC, based out of Duluth, Minn. will conduct the bulk of the regional needs assessment. Dave Knight, manager of the Great Lakes Commission's Transportation and Sustainable Development Program and a prominent regional expert on ports and navigation issues, will be leading needs assessment work in those areas.

The needs assessment will involve planning, data collection and analysis, and reporting. Dozens of experts throughout the Great Lakes region will be asked to participate on planning teams that will provide guidance and feedback on the needs assessment. Such experts will include coastal program staff and other natural resource managers, Sea Grant representatives, port authority staff and academics, among others.

"Across the coastal community, it is increasingly important that we make sure that we are working in close cooperation with our colleagues and partners." said Margaret Davidson, director of the Coastal Services Center. "By taking a collaborative approach, we can maximize the use of organizational and professional capabilities to ensure high-quality outcomes."

The final report will identify opportunities for better regional coordination and facilitation, development of decision support tools, training and improved data integration within each of the three issue areas.

Contact: Victoria Pebbles, ***vpebbles@glc.org.***

MiCorps connects Michigan volunteer water quality monitors

In its first full year of operation, the Michigan Clean Water Corps (MiCorps) trained more than 100 volunteers in lake and stream monitoring skills, funded four stream monitoring projects, developed an integrated data exchange network, and provided technical assistance and quality reviews to volunteer monitoring groups throughout the state.

The program, created by Gov. Jennifer Granholm, marked the conclusion of that first year with its first annual conference Oct. 29 in Higgins Lake, Mich. More than 80 participants turned out for the event, which reviewed the program's accomplishments and sought to engage new volunteer monitoring partners.

MiCorps was established to engage Michigan's volunteer monitoring community to support the Department of Environmental Quality in collecting and sharing data on the quality of Michigan's lakes and streams. Topics covered during the conference included recruitment and education of volunteer monitors; monitoring protocols and data management procedures; funding opportunities; and the use of volunteer monitoring data to support local water quality protection efforts.

The Great Lakes Commission provides staff support and coordination services for MiCorps and hopes to use it as a model for other states in the Great Lakes basin. For more information, see ***www.micorps.net/conference*** or contact: Ric Lawson, ***rlawson@glc.org.***

From left, Michigan Clean Water Corps (MiCorps) trainer Jo Latimore, Huron River Watershed Council (HRWC); volunteer Sue Schuler, Tip of the Mitt Watershed Council; and trainer Joan Martin, HRWC, examine specimens gathered during a monitoring exercise last summer. Photo: Anne Sturm, Great Lakes Commission.

Wind power - has its time arrived?

It's good for the environment and the economy …

Lisa Daniels,
Windustry

Lisa Daniels is executive director of Windustry, a Minneapolis-based nonprofit organization working to create an understanding of wind energy opportunities for rural economic benefit.

The issue:
After years of being touted as a potential source of clean energy, has the time come to embrace wind power?

Wind energy is the world's fastest growing electricity generation source today. And the Great Lakes region, in particular, has been called the "Saudi Arabia" of wind. Wind power development is good for the economy as well as the environment because there are no emissions that contribute to global warming, cause harmful effects on human health and wildlife, or leave a legacy of hazardous waste as with coal and nuclear power generation.

So why are some people opposed to having wind turbines on their landscape? Some of the more common complaints are of noise, impact on birds and bats, and aesthetics.

Visitors to new wind turbine sites often remark that the wind itself makes more noise than the swishing of the turbine blades. Modern wind turbines have been designed to drastically reduce the noise of mechanical components and now have decibel levels comparable to a refrigerator. Sound levels can be anticipated and impacts can be mitigated by establishing setbacks from homes.

The overall impact of wind energy development on birds is extremely low compared with other human-related activities. For example, studies estimate that wind turbines cause less than one of every 10,000 human-related bird deaths in the United States. By comparison, domestic cats cause 1,000 and buildings and windows cause 5,500 of those deaths.

There is one wind farm in California, in Altamont Pass, built in the 1980s, where raptor kills (of eagles, hawks and owls) are a problem. Today, extensive impact assessments and migratory studies are conducted to avoid similar situations for new wind farms. Similarly, reports of bat kills associated with wind farms are largely due to a single facility in West Virginia, and extensive research is underway to study wind/bat interaction and test ways to reduce bat mortality. In addition, avian and wildlife impact studies are routinely conducted at wind sites before projects are proposed.

Careful design of wind farms can alleviate many visual concerns for a new wind project. Some people feel

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Public has its say on Great Lakes Water Quality Agreement

The International Joint Commission (IJC) recently completed a series of meetings and online discussions intended to gather public input on the effectiveness of the Great Lakes Water Quality Agreement (GLWQA).

First signed in 1972 between Canada and the United States and last revised in 1987, the GLWQA expresses the commitment of each country to restore and maintain the chemical, physical and biological integrity of the Great Lakes basin ecosystem. A provision requires the IJC to review the operation and effectiveness of the agreement every six years.

Last fall, the IJC conducted 14 public meetings across the Great Lakes – St. Lawrence River basin to receive comments in person and maintained an Internet site to collect comments online and by e-mail. More than 270 people also provided input via an innovative Internet-based web dialogue from Nov. 29-Dec. 2, 2005.

Key issues raised include public desires to maintain the physical, chemical and biological integrity of the system. Other issues included the possibility of broadening the scope of the agreement to include downstream areas in the St. Lawrence estuary and the water quantity effects of interbasin diversions.

The IJC is now preparing a report synthesizing the views it has received. The report will be submitted to the U.S. and Canadian governments in early 2006. For more information, visit ***www.ijc.org/glconsultations.***

The views expressed are those of the authors or the organizations they represent alone and do not necessarily reflect those of the Great Lakes Commission or its member jurisdictions.

. . . but industrial nature is often overlooked

Susan Hlywa Topp,
Topp Law, PLC

Susan Hlywa Topp is the principal of Topp Law, PLC in Gaylord, Mich. and focuses her practice on environmental, natural resource, real estate development and gas/oil matters. She is chair of the Program Committee and secretary-treasurer of the Environmental Law Section Council of the State Bar of Michigan.

Wind power is frequently touted as "green energy." However, commercial wind turbine generators (WTG) are not environmentally benign. WTG are industrial facilities that conflict with rural, residential and tourism-based areas. These are not your grandmother's windmills: a typical 400 ft. turbine stands 40 stories high, is wider than a 747 jumbo jet, and has flashing strobe lighting that can be seen from more than 25 miles away.

Independent studies have verified the following negative impacts from WTG: 1) A diminution in property value of 19 percent to 30 percent for properties within view of the WTG; 2) The low-frequency noise created by the blade passing the tower (sounds like a helicopter) can impact homes more than a mile distant, penetrating the walls and causing sleep disturbance and emotional distress; 3) The blades create a disturbing "shadow flicker" that can be cast as far as 1¼ miles from the WTG, appearing on lawns, roads and walls, penetrating standard window treatments and which has been known to cause seizures; 4) An increased mortality rate of birds and bats from collision with the blades; 5) A decrease in tourism, local economy and local tax base (caused by declining property values and tax exemptions).

Between 1990 and 2003, U.S. wind power quadrupled, yet that added up to less than one percent of nationwide electric power generation. The propagation of WTG, which are not cost efficient, is driven by huge tax incentives. At current rates, wind energy tax subsidies will cost the taxpayers $3.7 billion over the next five years. In order for electric companies to produce 10 percent of their electricity from renewable energy, 100,000 new WTG would need to be constructed in the United States.

As a result of the negative impacts, local communities are passing zoning regulations to restrict the height and placement of WTG. These restrictions are being upheld by the courts based upon the importance of preserving scenic views and aesthetics in tourism-based economies. Isn't that the purpose of zoning . . . to protect and conserve the natural environment and the char-

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Lake Ontario outflow regulation study concludes

A five-year study supporting the development of revised outflow regulation plans for Lake Ontario has been completed and provided to the International Joint Commission (IJC).

The International Lake Ontario-St. Lawrence River (LOSLR) Study Board was formed by the IJC to identify outflow regulation plans that would best serve the range of affected interests, be widely accepted by all interests, and address climatic conditions in the Lake Ontario-St. Lawrence River basin. After numerous public meetings, workshops and continued refinements, the board has submitted three options for consideration by the IJC.

Each of the three candidate plans offers a different mix of benefits. All provide net economic and environmental improvements over the current plan of regulation (Plan 1958D with deviations).

Plan A^+ produces the highest net economic benefits of the three candidate plans. It offers benefits for recreational boaters and hydropower, and small gains for commercial navigation. It is the only candidate plan that does not create losses for coastal interests (i.e., property owners) on Lake Ontario and provides small improvements for the environment.

Plan B^+ offers an improvement over the current plan with regard to hydropower and navigation, but would mean more damages to Lake Ontario shoreline properties and is

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Great Lakes Calendar

2006 Industry Days Conference and Science Vessel Coordination Workshop
January 25-27, Traverse City, Mich.
Contact: Mark Burrows, 519-257-6709, *burrowsm@windsor.ijc.org*

Wisconsin's Wetland Association's 11th Annual Science Forum
February 2-3, Madison, Wis.
Contact: Laura England, 608-250-9971, *laura@wiscwetlands.org*

2006 Great Lakes Regional Data Exchange Conference
April 4-6, Rochester, N.Y.
Contact: Roger Gauthier, 734-971-9135, *gauthier@glc.org*

Great Lakes Marine Community Day
March 8, Cleveland, Ohio
Contact: *racooper@d9.uscg.mil*

5th Annual Western Great Lakes Research Conference
March 22-23, Ashland, Wis.
Contact: RaeLynn Jones Loss, 612-624-0734, *raelynn@umn.edu*

2006 Semiannual Meeting of the Great Lakes Commission
May 2-4, 2006, Sheboygan, Wis.
Contact: Tom Crane, 734-971-9135, *tcrane@glc.org*

International Association for Great Lakes Research (IAGLR) 2006 Conference
May 22-26, Windsor, Ontario
Contact: Tim Johnson, 519-825-7316 or Lynda Corkum, 519-253-3000 ext. 2717, *06chairs@iaglr.org*

40th Canadian Meteorological and Oceanographic Society (CMOS) Congress
May 29-June 1, Toronto, Ontario
Contact: David Hudak, 905-833-3905, ext. 242 *cmos2006@cmos.ca*

Great Lakes Legacy Act cleanups continue

Two contaminated sediment cleanups have been completed and a third is underway as implementation of the Great Lakes Legacy Act moves forward.

Cleanup projects were completed last fall in the Black Lagoon portion of the Detroit River Area of Concern (AOC) and at Hog Island in the St. Louis River AOC at Duluth-Superior Harbor. These important milestones were celebrated by the communities and representatives from the federal, state and local agencies that contributed to the cleanups.

A third cleanup, at Ruddiman Creek in the Muskegon Lake AOC in western Michigan, began in August. In addition, plans were recently finalized for the largest Legacy Act cleanup to date, a $50 million cleanup in the Ashtabula River AOC in northeastern Ohio that will remove approximately 600,000 cubic yards of contaminated sediment from the river.

Several other contaminated sediment cleanup projects are either in the sediment characterization phase or under review. Signed into law by President Bush in 2002, the Great Lakes Legacy Act authorizes $270 million over five years to remediate contaminated sediment in Great Lakes AOCs. For further information, visit ***www.epa.gov/glla*** or contact Marc Tuchman, ***tuchman.marc@epa.gov*** or David Cowgill, ***cowgill.david@epa.gov.***

Wind energy

Part of a clean energy solution (cont'd. from page 8)

wind turbines are impressive with their sleek and modern designs. The environmental impact of wind turbines is not zero, but is largely benign, especially compared to coal and nuclear power. Wind power is a clean, domestically produced, safe and reliable source for electricity that produces no emissions, requires no fuel and has predictable operating costs over time. It makes good environmental and economic sense to use our American ingenuity and use wind power today to help usher in a transition to a clean energy system.

Wind energy is a part of a green and clean solution to our electricity needs today. It is not the total answer and it is not a perfect energy source but - what is?

Downsides are often overlooked (cont'd. from page 9)

acter, social and economic stability of the use areas? Not if WTG proponents succeed in changing the law. In Michigan, House bills 4648 and 4649, which are pending, will take authority away from townships and counties to regulate WTG siting and exempt WTG owners from damages for nuisance.

That's not to say that wind energy does not have its place. But the inland areas of the Great Lakes region lack sufficient wind speed to make WTG cost-effective and the benefits do not outweigh the detriments. The data is clear that WTG do not belong everywhere. What is needed is low-cost, reliable power, not small amounts of high-cost, unreliable power. Whether or not WTG in or near the Great Lakes will be a solution or just another dark tale is yet to be proven.

Where in the Great Lakes?

Can you identify this Great Lakes landmark? E-mail your answer, along with your name, address and phone number to ***kirkh@glc.org*** or mail it to the *Advisor* at the address on the back page. All correct responses received by March 15, 2006 will be entered into a drawing for the winner's choice of either a Great Lakes Commission t-shirt or oversized coffee mug.

Our previous winner was Sharon Johnston, a policy analyst with the Ontario Ministry of Agriculture and Food in Guelph, who identified this photo of the Detroit River Walk at Tri-Centennial State Park and Harbor. Thanks to everyone who entered!

Photo credits: Top, Christine Mannien, Great Lakes Commission. Bottom: Detroit RiverFront Conservancy, Inc.

Regional Collaboration calls for coordinated Great Lakes action

On Dec. 12, 2005, nearly 200 concerned members of the Great Lakes community met at the John G. Shedd Aquarium in Chicago to participate in the public release of the *Great Lakes Regional Collaboration Strategy to Restore and Protect the Great Lakes*.

The strategy represents the culmination of a year of work by more than 1,500 Great Lakes experts and stakeholders to come up with a comprehensive assessment of the Great Lakes' major needs and make recommendations for addressing them. The effort was initiated by an executive order from President Bush that recognized the lakes as a national treasure.

The report outlines an ambitious and comprehensive five-year plan to address the major needs of the Great Lakes, taking its cue from a series of regional priorities identified by the Council of Great Lakes Governors. Among its specific recommendations, the plan calls for actions to:

• Stop introduction of aquatic invasive species through ballast water and other vectors;

• Restore near-shore habitat;

• Minimize the risk to human health from wet weather sewage overflows;

• Protect drinking water supplies;

• Restore Great Lakes Areas of Concern through aggressive contaminated sediment cleanup;

• Reduce nonpoint source pollution through proven watershed management practices;

• Reduce and virtually eliminate the discharge of mercury, PCBs, dioxins, pesticides and other toxic substances to the system;

• Ensure sustainability of natural resources through improved land use, agriculture, forestry, transportation and industrial practices;

• Enhance research, monitoring and information management coordination; and

• Provide for better public education and outreach across the region.

The strategy report calls for an investment of more than $21 billion in additional federal and state resources over five years, plus additional resources provided by Native American communities and nongovernmental organizations. A point of contention arose after some federal officials indicated that no new federal funds would be provided to implement the strategy and that it should instead be taken as a guide to making more efficient use of existing funds.

In response, the Council of Great Lakes Governors and the Great Lakes Cities Initiative have called upon President Bush to support $300 million in FY2007 funding for a series of immediate, short-term actions to initiate work on the strategy's recommendations.

The report is available online at ***www.glrc.us.***

Lake Ontario outflow study concludes (cont'd from page 9)

associated with some increases in flood damages on the lower St. Lawrence River. The plan provides significant overall environmental improvements over the current plan.

Plan D^+ (Plan C was eliminated earlier in the process) has some gains in net benefits for recreational boaters, hydropower and commercial navigation. It is very close to the current plan with respect to coastal interests. It is the most balanced of the three plans in its distribution of benefits and causes no disproportionate losses to any interest or region. It offers modest improvements for the environment overall.

The Study Board's final report is scheduled to be released this spring, after which the IJC will hold a set of public meetings to gather additional input before a final decision is made. For more information, including future updates, visit the LOSLR web site, ***www.losl.org*** or the IJC web site at ***www.ijc.org.***

Contact: Tony Eberhardt, International Joint Commission, ***Anthony.J.Eberhardt@lrb01.usace.army.mil.***

Commissioners' Corner

Samuel W. Speck, chair, Ohio Delegation

Historic agreements to protect the lakes

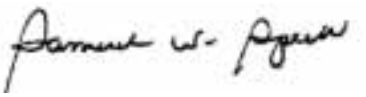
With the stroke of their pens, the eight Great Lakes governors and the premiers of Ontario and Québec have taken action that changes forever the way our region conserves, protects and manages its most valued natural resource: the waters of the Great Lakes-St. Lawrence River basin.

On Dec. 13, 2005, the 10 leaders reached accord on two historic agreements to implement Annex 2001 to the Great Lakes Charter, providing a science-based standard for the region's governments, with active public participation, to manage the use of Great Lakes water. These include a good-faith agreement among the states and provinces and an enforceable compact among the eight states, the latter taking effect upon passage by the eight state legislatures and consent by Congress.

These agreements prohibit diversions of water outside the basin, save for limited exceptions for border communities and counties. States and provinces pledge to apply a common standard for managing withdrawals. The parties also pledge to develop programs to promote conservation and efficient use of water resources. Substantial opportunity for public participation is provided for and tribal/First Nations treaty rights are specifically recognized.

An important change from drafts circulated last summer is that decisions regarding in-basin consumptive uses will be made by the affected state or province. However, the other jurisdictions must be notified and allowed to comment on any proposal for more than 5 million gallons per day of consumptive use.

The agreements also ensure accountability by providing for periodic joint review of jurisdictional enforcement of the standard and the conservation programs. Finally, there is a strong commitment to collectively develop a database to ensure that science-based decisions are made.



Samuel W. Speck, director of the Ohio Department of Natural Resources, is chair of the Water Management Working Group assigned by the Council of Great Lakes Governors to develop the Annex 2001 implementing agreements.

ADVISOR

The *ADVISOR* is published quarterly by the Great Lakes Commission. The Great Lakes Commission is a binational agency established in 1955 to promote the orderly, integrated and comprehensive development, use and conservation of the water and related natural resources of the Great Lakes basin and St. Lawrence River.

Cover photo: North Shore of Lake Superior, © Minnesota Office of Tourism

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