

# 2004 activities

## Great Lakes Water Quality Agreement (GLWQA)

The Great Lakes are a global treasure representing 20 percent of the fresh surface water on Earth. The International Joint Commission (IJC) helps protect this shared resource in many ways. The Great Lakes Water Quality Agreement of 1978 (GLWQA) expresses the commitment of Canada and the United States to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes basin ecosystem.

The GLWQA directs the IJC to assist in implementing the agreement and to make a full report every two years assessing progress by the two countries toward achieving the

objectives of the agreement. In its *Twelfth Biennial Report on Great Lakes Water Quality*, released in September, the IJC makes recommendations to address new and ongoing issues that impact the integrity of the waters.

Under the GLWQA, the U.S. and Canadian governments must undertake a comprehensive review of the operation and effectiveness of the agreement following the release of every third biennial report, including the *Twelfth Biennial Report*. The current agreement has not been updated or changed since 1987. In 2004, the IJC engaged the governments in discussions of how it might assist them in ensuring the public is fully consulted during the review of the GLWQA. The IJC also provided principles to guide the review and launched a website to encourage public discussion of topics related to the review.

## IJC Recommendations in the Twelfth Biennial Report

To protect against the adverse effects of poorly-planned urban growth, the IJC recommends that the United States and Canada take binational actions to address the impact of urban land use on Great Lakes water quality by:

- evaluating under what circumstances best management practices are effective in managing urban runoff;
- ensuring that information on urban best management practices reaches local authorities and implementers; and
- assessing the cumulative effects of management actions to minimize the impacts of urbanization on the Great Lakes.

The IJC recommends immediate action in the United States to pass the National Aquatic Invasive Species Act and in Canada to implement the National Action Plan to curtail the ongoing invasion of aquatic invasive species. The *Biennial Report* calls on the two countries to issue a special mandate to the IJC to coordinate binational prevention efforts and harmonize national plans, particularly those dealing with residual ballast water and sediment in the ballast tanks of ocean-going ships.

In the *Biennial Report*, the IJC recommends coordinated action to address the increased risk of waterborne infectious diseases from deteriorating wastewater infrastructure, concentrated animal feeding operations and pressures from development, industry, population growth and urban expansion. To protect human and ecosystem health, further reductions of mercury releases to the air and water, particularly

from coal-fired utilities are recommended, along with more research on human health effects and more effective communication with at-risk populations about the adverse human health effects associated with eating contaminated fish.

The *Biennial Report* notes that the current changes in the Lake Erie ecosystem may function as early warning signals for the other Great Lakes. The IJC recommends that Canada and the United States continue to fund comprehensive research to evaluate the complex interaction of aquatic invasive species, climate change and other factors, as well as improved measurements of phosphorus loading, in order to better understand the changes in ecosystem functions observed in Lake Erie.

The IJC continues to call on the two countries, in cooperation with the jurisdictions and the communities, to provide the IJC and the public with precise and concise reporting about accomplishments and challenges in restoring beneficial water uses in the Great Lakes geographic Areas of Concern. The IJC concludes that the two countries need to provide greater resources to undertake further remediation, wastewater and storm water treatment, habitat rehabilitation and protection, and other necessary actions.

The *Biennial Report* expresses serious concern that major spills in the connecting channel from Lake Huron to Lake Erie, particularly the St. Clair River section, have increased over the last two years. The IJC is exploring the issue, keeping abreast of investigations and proposed steps to prevent or mitigate future spills, and anticipates issuing a separate report on this issue as more information becomes available.

## Alien Invasive Species

In September the IJC and Great Lakes Fishery Commission released a joint brochure calling for more action by the governments of Canada and the United States to prevent the introduction of aquatic invasive species in the Great Lakes. Following up on a 1990 report issued by the two commissions, the brochure reports on progress made through legislation and regulations, applied research and development, and in international considerations. The brochure features a timeline of key milestones in the history of invasive species in the Great Lakes from the introduction of the sea lamprey in the 1830s to actions in 2003 to prohibit the sale and transport of live Asian carp.

## Lake Ontario-St. Lawrence River Study

In the fourth year of a five-year study, the IJC's International Lake Ontario-St. Lawrence River Study Board developed and evaluated plans for regulating water levels and flows on Lake Ontario and the St. Lawrence River (Ontario, Quebec and New York). The purpose of the study is to determine what changes may be required in the IJC's order of approval — issued some 50 years ago — for the operation of structures at the hydroelectric power project in the international section of the St. Lawrence River.

The study's technical working groups refined performance indicators that measure how various water level and flow scenarios affect coastal processes, commercial navigation, water uses, wetlands and other environmental aspects, hydroelectric power, recreational boating and tourism. Their findings were integrated into a shared vision model that can be used to evaluate different approaches to regulating water levels and flows. In October, the study board held a workshop to make a preliminary decision on choosing a new regulation plan and gained insight into issues that will need greater attention in the final year of the study.

The study's Public Interest Advisory Group (PIAG) conducted extensive outreach to obtain comments from all interests on the relevance and validity of the performance indicators. A full range of study experts were on hand to answer questions and listen to comments. The PIAG also held a series of 15 public meetings in the summer to discuss study progress. The PIAG issues a quarterly publication,

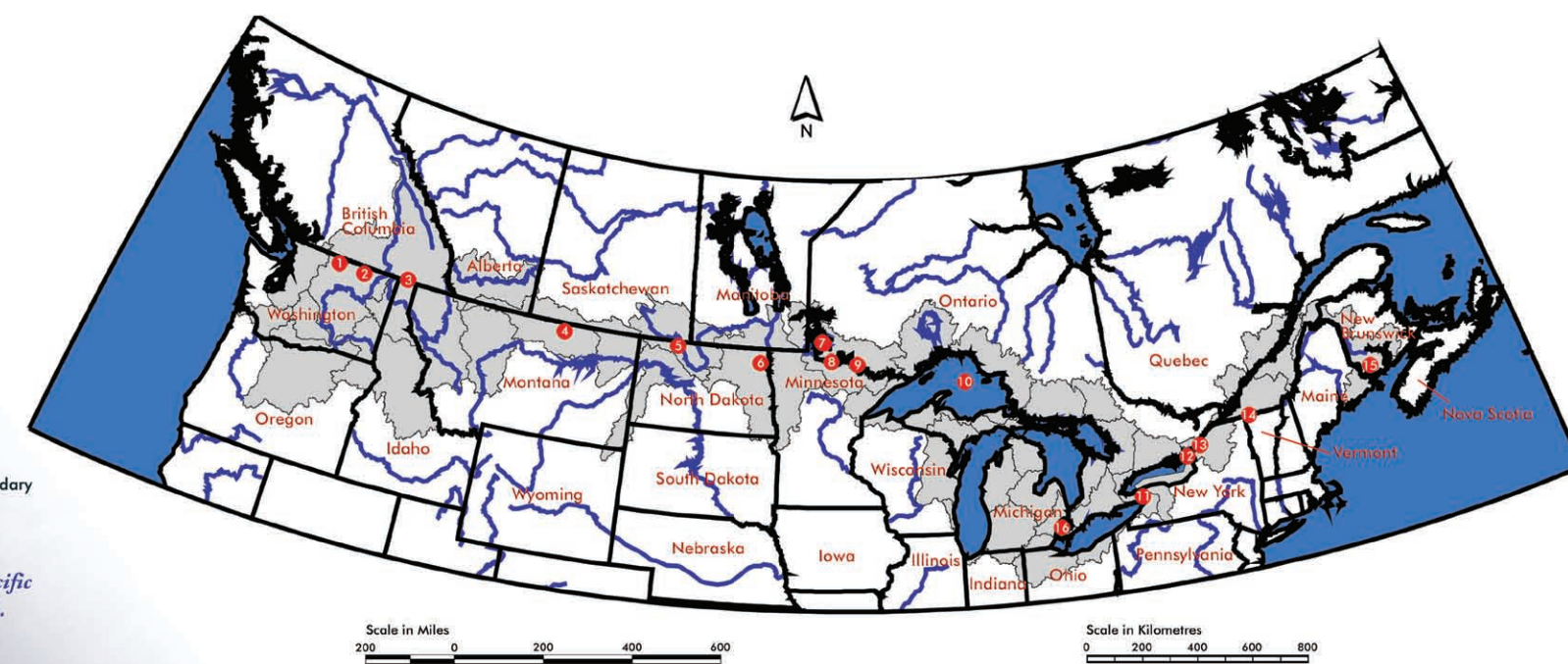
## TRANSBOUNDARY BASINS AND IJC BOARD ACTIVITY

1. International Osoyoos Lake Board of Control
2. International Columbia River Board of Control
3. International Kootenay Lake Board of Control
4. St. Mary-Milk Rivers Accredited Officers
5. International Souris River Board
6. International Red River Board
7. International Lake of the Woods Board of Control
8. International Rainy River Water Pollution Board
9. International Rainy Lake Board of Control
10. International Lake Superior Board of Control
11. International Niagara Board of Control
12. International St. Lawrence River Board of Control
13. International Lake Ontario-St. Lawrence River Study Board
14. International Missisquoi Bay Task Force
15. International St. Croix River Board
16. Great Lakes Water Quality Agreement Boards:  
Great Lakes Water Quality Board  
Great Lakes Science Advisory Board  
Council of Great Lakes Research Managers

Active along the entire boundary:  
International Air Quality Advisory Board  
Health Professionals Task Force

Areas tinted grey represent transboundary basins

Canada and the United States share a boundary that is more than 8,800 kilometres (5,500 miles) long, from the Atlantic Ocean to the Pacific Ocean and on the Alaska-Yukon/British Columbia portion (not shown). Water makes up 3,800 kilometres (2,400 miles) of the boundary.



*Ripple Effects*, which is distributed widely and contains detailed information on the activities and findings of the study. More information about the study can be found on its website at [www.losl.org](http://www.losl.org).

## Missisquoi Bay

In May, the U.S. and Canadian federal governments asked the International Joint Commission to investigate a transboundary water quality issue in Missisquoi Bay (Vermont and Quebec), located in the northeastern portion of Lake Champlain. Specifically, the governments asked the IJC to provide advice on whether plans by the State of Vermont to modernize the Alburg-Swanton Bridge comply with the Boundary Waters Treaty of 1909 with regard to causing pollution to the injury of health or property in Canada or the United States. The bridge is located in Vermont and crosses the waters connecting Missisquoi Bay with the rest of Lake Champlain. Citizens from both countries attended IJC public meetings in August and expressed the view that the causeway for the old bridge contributes to elevated levels of nutrients and algae in the bay by inhibiting the circulation of water and requested that the causeway be removed.

A four-member International Missisquoi Bay Task Force appointed by the IJC reviewed the available information and reported its findings in October. The IJC held public hearings in December and intends to issue its report to the governments in early 2005.

## St. Mary and Milk Rivers

The IJC held public consultation sessions in July to gather information in response to a request from the state of Montana that the IJC review its 1921 order for apportionment of the waters of the St. Mary and Milk rivers (Alberta, Saskatchewan and Montana). The order was issued pursuant to Article VI of the Boundary Waters Treaty, which provides that these two rivers be measured and apportioned by an accredited officer from each country under the direction of the IJC. Six years of drought in the region have led to greater scrutiny of how the water is apportioned.

After considering the comments provided by basin residents and consulting with the accredited officers, the IJC announced in December that it would establish a St. Mary and Milk Rivers Administrative Measures Task Force. The task force will examine whether the existing administrative procedures can be improved to provide a more beneficial use and optimal receipt by each country of its apportioned waters, within the terms of the 1921 Order.

## Watershed Initiative

Efforts to advance the IJC's watershed initiative in accordance with a 1998 request from the U.S. and Canadian governments continued in 2004. In April, the IJC issued a set of principles that, among other things, promotes building capacity at the watershed level to respond to a range of transboundary water and other environmental challenges.

The IJC continues to work with local partners in the Red River basin to address flood hazards, broaden participation and improve the comprehensive, science-based understanding of the basin. The IJC is also exploring opportunities to take a more comprehensive watershed approach in other transboundary basins that fall within its mandate.

## Air Quality

In 2004, the IJC released two reports by its International Air Quality Advisory Board (IAQAB). The first, *Summary of Critical Air Quality Issues in the Transboundary Region*, provides a concise analysis of seven significant transboundary air quality issues and makes recommendations to improve air quality. The second report, *Air Quality in Selected Binational Great Lakes Urban Regions*, reviews current air quality data, control programs and cooperative efforts in three locations: the Detroit/Windsor, Port Huron/Sarnia and Sault Ste. Marie areas of Michigan and Ontario. The IAQAB also convened a workshop of experts to discuss ideas on the U.S. Prevention of Significant Deterioration program and Canada's Keeping Clean Areas Clean program as they relate to the border regions. Consistent with its responsibilities under the U.S.-Canada 1991 Air Quality Agreement, the IJC invited public comment on a 2004 progress report by the Canadian and U.S. governments.

## History and Mission

The Boundary Waters Treaty of 1909 established the International Joint Commission (IJC) to assist the governments of the United States and Canada in preventing and resolving transboundary disputes, primarily regarding water and environmental issues, by undertaking investigations, providing advice and licensing certain works in boundary and transboundary waters. The IJC also brings emerging transboundary issues to the attention of the governments for their early action.

The IJC has section staffs in Washington, D.C. and Ottawa, Ontario (funded by the respective governments) and a binational, jointly-funded Great Lakes Regional Office in Windsor, Ontario. Generally, the day-to-day oversight of IJC-approved projects and IJC investigations and are carried out by boards of control, investigative and surveillance boards, advisory boards, task forces and accredited officers. These groups, created by the IJC, also assess environmental quality in the Great Lakes and other transboundary watersheds and identify emerging transboundary air quality issues.

The Boundary Waters Treaty provides that the Canadian and U.S. governments may refer questions or matters of difference to the IJC for examination and report. When the IJC receives a reference( it usually appoints an investigative board or task force to examine the facts and advise on the questions. Once the IJC issues a report, it may be requested by governments to undertake a continuing role

to monitor progress in implementing the report(s) recommendations. The IJC generally appoints a board for assistance in carrying out these functions.

Under the 1978 Great Lakes Water Quality Agreement, the IJC assists the two countries in implementing measures to enhance and protect the Great Lakes and evaluates the programs and progress of the U.S. and Canadian governments designed to improve environmental quality in the Great Lakes. The IJC reports to the federal, state and provincial governments, and the public, on achievements and shortfalls in meeting agreement goals. The IJC carries out this responsibility principally through its Great Lakes advisory boards and council and its Great Lakes Regional Office.

Under the Boundary Waters Treaty, the IJC acts on applications for hydropower dams and other projects in waters along the Canada-U.S. border to protect all interests from the effects of the projects. If the IJC issues orders of approval for such projects, it typically appoints a board to monitor operation of the project. The board ensures that the requirements of IJC orders are met.

The IJC monitors the flows through projects in the St. Croix, St. Lawrence, Niagara and Columbia rivers, and at the outlets of Lake Superior, Namakan Lake, Rainy Lake, Lake of the Woods, Kootenay Lake and Osoyoos Lake. The IJC also administers the apportionment of the waters of the Souris, St. Mary and Milk rivers.

## Levels and Flows

With the assistance of its control boards, the IJC regulated water levels and flows in the Great Lakes and seven other watersheds along the boundary to achieve an appropriate balance among the many interests affected by water levels in each basin. Drought operations were initiated for Osoyoos Lake (British Columbia and Washington) in April and terminated in July. The Lake of the Woods (Minnesota, Ontario and Manitoba) experienced high water levels in the summer, triggering for a short period of time the requirement for international regulation of its outflows. In November, the International Lake Superior Board of Control invited public comment on a proposed change on how it makes decisions when the hydroelectric power companies at Sault Ste. Marie, Michigan and Ontario wish to reduce Lake Superior outflows on weekends and holidays.

## Water Uses

In August, the IJC released *Protection of the Waters of the Great Lakes: Review of the Recommendations in the February 2000 Report*. The new report describes legislative actions taken in both countries since 2000 to protect against diversions and notes work underway by the Great Lakes states and provinces to develop standards and procedures to manage water withdrawals and use. The IJC continues to urge that the new regime be consistent with the recommendations in its 2000 report. The new report highlights the IJC's continuing concern over the slow pace to implement conservation measures by governments at all levels and the continuing deficiencies in water use data. Unsustainable use of groundwater was also raised as an issue. Research shows that pumping in southeastern Wisconsin has actually reversed the flow of groundwater so that it no longer recharges Lake Michigan.

## Souris River

The International Souris River Board (ISRB) monitored apportionment of the Souris River waters at the Saskatchewan-North Dakota and North Dakota-Manitoba borders. In addition, it maintained a watching brief on basin water development activities. Consultations with the governments continued on expanding the mandate of the board to merge the responsibilities of the Souris River Bilateral Water Quality Monitoring Group with the ISRB and to include oversight of flood forecasting and flood operations.

## Red River

The International Red River Board (IRRB) completed a review of progress on the recommendations made by the IJC in its November 2000 report *Living With The Red*. The board also endorsed the conclusions and recommendations made a Pembina Study Team it created to undertake a situation analysis and report on the longstanding lower Pembina River flooding issue. The board will continue to facilitate movement toward resolution of the issue. The board is reviewing the feasibility of establishing international water quality objectives for the Red River (Manitoba, Minnesota, North Dakota and South Dakota) at the boundary. It endorsed an interim goal of reducing nutrient loading into Lake Winnipeg by 10 percent over the next five years and will encourage the jurisdictions to work towards the development of science-based targets. The IJC and the IRRB continue to work with the Red River Basin Commission on the development of a comprehensive flood mitigation plan for the Red River basin.

For copies of all the reports issued in 2004, visit the IJC website or contact one of the IJC offices at the addresses listed below.

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# International Joint Commission

## United States and Canada

## 2004 Annual Report

We are pleased to provide our 2004 Annual Report describing the International Joint Commission's activities during the past year.

The 1909 Boundary Waters Treaty committed Canada and the United States to peacefully resolving disputes over transboundary waters. Despite the many changes that have occurred over the last 95 years, the treaty remains a forward-looking document. The International Joint Commission continues to assist our two countries in meeting their commitments under the treaty.

       
Rt. Hon. Herb Gray, Chairman, Canadian Section | Hon. Dennis L. Schornack, Chairman, U.S. Section | Hon. Robert Gourde, Commissioner | Hon. Jack Blaney, Commissioner | Hon. Irene B. Brooks, Commissioner | Hon. Allen I. Olson, Commissioner



The International Joint Commission prevents and resolves disputes between the United States of America and Canada under the 1909 Boundary Waters Treaty and pursues the common good of both countries as an independent and objective advisor to the two governments.

The International Joint Commission assists the two countries in the protection of the transboundary environment, including the implementation of the Great Lakes Water Quality Agreement and the improvement of transboundary air quality. It rules upon applications for approval of projects affecting the levels and flows of boundary or transboundary waters and may regulate the operation of these projects. In addition, the IJC apportions water and monitors water quality in certain transboundary watersheds, and alerts the governments to emerging issues along the boundary that may give rise to bilateral disputes.