

2006 activities

REVIEW OF THE GREAT LAKES WATER QUALITY AGREEMENT

Synthesis of Public Comment

In January, the IJC produced a report that synthesized the comments received during its public consultation in the fall of 2005 on the review of the Great Lakes Water Quality Agreement. Participants in the process expressed strong support for the Great Lakes Water Quality Agreement and wanted all levels of government to reinvigorate their implementation efforts. More than 4,000 people and organizations participated, by attending the 15 public meetings or taking part in a web dialogue. The *Synthesis of Public Comment* is available on the IJC's website. Printed copies are available, along with the full record of public comment on CD-ROM, from the IJC's offices.

Commission's Advice to Governments for their review of the GLWQA

In October, the IJC formally submitted its advice in a special report to the governments of the United States and Canada for their review of the Great Lakes Water Quality Agreement. An advance copy was made available informally in August in order to assist the various working groups – on which the Commission serves as observers – established by the governments' Binational Executive Committee to examine various aspects of the Agreement.

The report acknowledged that, since 1972, the Agreement has provided a useful framework for binational cooperation, consultation and action to restore and maintain Great Lakes water quality. The Agreement has worked well over the

past three decades and there has been significant water quality improvement.

However, the IJC noted that some threats to water quality persist and new ones have emerged. Also, scientific advances have yielded new understandings of problems which, in turn, point to different solutions than in the past. The Commission further noted that the Agreement, once judged far-sighted and robust enough to protect vulnerable populations of humans, fish and wildlife, no longer meets this test. Indeed, despite challenges and changes, the Agreement has not been revised since 1987.

The IJC recommends a new, contemporary Agreement promoting accelerated progress, greater governmental accountability, and more public involvement in protecting and restoring the waters of the Great Lakes basin. The report recommended:

- a new, more action-oriented Agreement that addresses a broader array of stressors influencing water quality;
- a Binational Action Plan that engages federal, state, provincial and municipal governments, as well as Tribes and First Nations, who are responsible for achieving the goals of the Agreement. The Plan must have the flexibility to respond to emerging issues and include requirements for regular review and updating;
- clear accountability provisions that set out achievable goals and timelines, measures for evaluating performance, monitoring responsibilities, and the entities that are accountable for reports, including triennial progress reports; and
- a political-level, binational Great Lakes Water Quality Agreement Steering Committee, comprised of the heads of appropriate federal departments and agencies, to oversee implementation of the Agreement.

The Report acknowledged there is need for further improvements in monitoring, notification, data collection, information sharing and spill prevention. The IJC concluded that better monitoring and shared data reporting are required to determine accurately the real trends in spill incidents in the Great Lakes, particularly in the St. Clair-Detroit River connecting channels. To address information gaps, the Report recommended that the responsible agencies at all levels of government in Canada and the United States develop a shared regional database for the Great Lakes basin that can be used to produce a comprehensive binational spill trend analysis.

Spills Report

In October, the IJC released its *Report on Spills in the Great Lakes Basin with a Special Focus on the St. Clair-Detroit River Corridor*, which urged all levels of government in the United States and Canada to coordinate and improve their efforts to protect the public from spills in the Great Lakes. The Report was the culmination of work undertaken since the 12th Biennial Report on *Great Lakes Water Quality* in 2004, when the Commission undertook to continue exploring the issue of spills and make recommendations to prevent or mitigate them.

The IJC also called on the governments to:

- establish and conduct joint testing of government supported real-time monitoring and biomonitoring systems;
- develop common protocols for communicating with the public;
- clarify responsibility for costs of spill clean-up; and
- harmonize U.S. and Canadian spill prevention and enforcement, including stronger provision for spill containment.

13th Biennial Report

In December, the IJC submitted its 13th Biennial Report to the two national governments, on Great Lakes Water Quality pursuant to section VII .3 of the GLWQA. Each of the previous biennial reports covered multiple topics, based largely on analyses and recommendations by the IJC's Great Lakes advisory groups, and on public comments expressed in open forums. However, this year the IJC focused on a single theme – accountability for protecting, restoring and maintaining Great Lakes water quality – because of its importance in accelerating progress. The Commission noted that it will in due course report on progress toward the implementation of LaMPs and RAPs.

The need to strengthen accountability has been highlighted by the IJC many times over the years. The Report made the case that there is now a compelling need for the two national governments to build on their previous initiatives and substantially improve their accountability so that persistent and emerging challenges can be more effectively addressed. The major recommendation was that the governments should make it a priority to develop an effective accountability framework.

The IJC also offered to work with the two national governments, using its expert advisory boards and other initiatives, to assist in achieving this objective as quickly as possible. The Commission also recommended that the governments accelerate their review of the GLWQA so that the results of the review coincide with the release of the draft Accountability Framework. The IJC noted it would convene, in collaboration with the governments, a Great Lakes Accountability Summit in summer of 2008.

Release of Great Lakes Advisory Boards' 2003-2005 Priorities Report

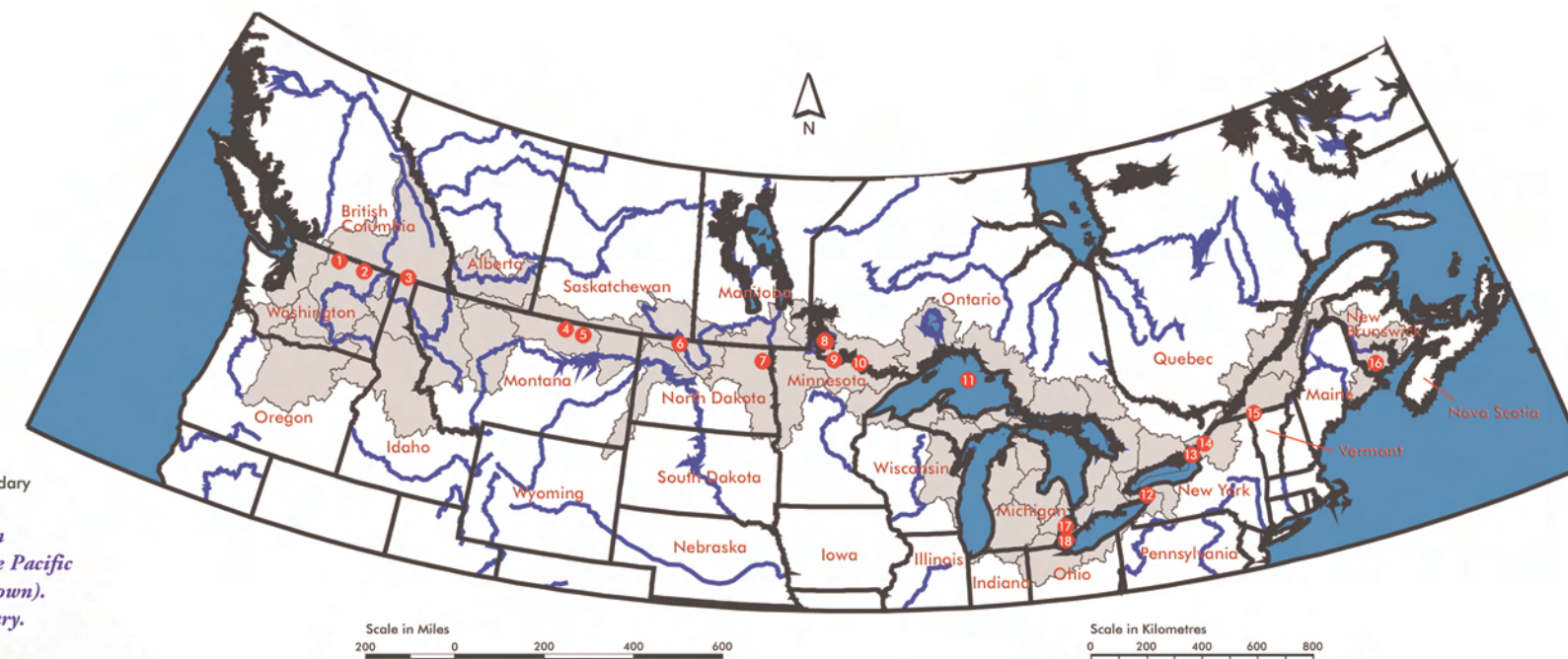
In June, the IJC's advisory boards issued their biennial report, *Priorities 2003-2005: Priorities and Progress under the Great Lakes Water Quality Agreement*. The advisory boards are the

TRANSBOUNDARY WATERSHED AND IJC BOARDS

1. International Osoyoos Lake Board of Control
 2. International Columbia River Board of Control
 3. International Kootenay Lake Board of Control
 4. St. Mary and Milk Rivers Accredited Officers
 5. St. Mary and Milk Rivers Administrative Measures Task Force
 6. International Souris River Board
 7. International Red River Board
 8. International Lake of the Woods Control Board
 9. International Rainy River Water Pollution Board
 10. International Rainy Lake Board of Control
 11. International Lake Superior Board of Control
 12. International Niagara Board of Control
 13. International St. Lawrence River Board of Control
 14. International Lake Ontario-St. Lawrence River Study Board (disbanded 2007)
 15. International Missisquoi Bay Task Force
 16. International St. Croix River Board
 17. International Upper Lakes Study Board (new)
 18. Great Lakes Water Quality Agreement Boards
- Great Lakes Science Advisory Board
Council of Great Lakes Research Managers
Boards active along the entire boundary
International Air Quality Advisory Board
Health Professionals Task Force

Areas tinted grey represent transboundary basins

The United States and Canada 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). Freshwater makes up 3,800 kilometres (2,400 miles) of the boundary.



Great Lakes Water Quality Board, the Great Lakes Science Advisory Board, and the Council of Great Lakes Research Managers. The report contains 28 recommendations based on in-depth scientific and policy analysis of the Commission's priority issues during the 2003-2005 biennial cycle. The priorities focused on a multi-board review of the Great Lakes Water Quality Agreement, which included contributions from the International Air Quality Board and the Health Professionals Task Force. Other priorities were the atmospheric transport of mercury, Remedial Action Plans and Lakewide Management Plans (Annex 2 of the Agreement), urban land use, and human health. The report also describes additional work of the Science Advisory Board, Council of Great Lakes Research Managers, and Great Lakes Water Quality Board.

Healthy Watersheds, Sustainable Cities Priority

Collaborative efforts among the IJC's Great Lakes advisory bodies in 2006 addressed significant water quality issues related to urban land use in the Great Lakes basin, including best management practices (Great Lakes Science Advisory Board), decaying infrastructure (Great Lakes Water Quality Board), urban transportation (International Air Quality Advisory Board), and health effects (Health Professionals Task Force). A special report of the boards' findings and recommendations will be presented to the Commission early next year.

Other collaborative research begun in 2006 will address groundwater and surface water quality issues related to urban contaminants and urban heat-island effects. These are expected

to result in detailed technical guidance, on-site evaluation and implementation of recharge-based storm-water management, and advice on watershed management issues related to urban growth in the basin.

The IJC has supported ongoing activities in the land use area since its early, significant work on the PLUARG (Pollution from Land Use Activities Reference Group) activity in 1970s. While PLUARG focused largely on reducing loadings of excess nutrients from agriculture and was instrumental in establishing non-point source controls to improve water quality, current water quality conditions require additional efforts that are focused on urban and urbanizing areas and their impacts on air and water quality.

International Lake Ontario-St. Lawrence River Study

In May, the IJC's International Lake Ontario-St. Lawrence River Study Board released its final report. The Commission established the Study Board in 2000 to review the order and regulation plan relating to the construction and operation of the Moses-Saunders dam and hydroelectric power plant across the international section of the St. Lawrence River, a 1952 order that was amended in 1956. The study cost of \$US 20 million was shared by the governments of the United States and Canada and involved approximately 150 experts from both countries over a five-year period. Following the report's publication, the IJC opened a three-month public comment period. Close to 400 submissions were received from

various cities, organizations, industries and individuals throughout the region. These comments can be viewed on the Commission's website at: http://www.ijc.org/en/activities/losl/comments_received.php The IJC's public comment period built on the Study Board's public outreach program during the previous three summers.

The Study Board proposed three options for regulating Lake Ontario outflows and held public meetings around the basin to receive public comments, which they used to refine those options to make final recommendations to the IJC in the Study Board's final report.

The IJC began considering these and other options in 2006 as part of a review process that is expected to continue into 2007. Once it makes a preliminary determination, the Commission will hold public hearings and consult with the governments of the United States and Canada before making a final decision on a new or revised order and regulation plan.

St. Mary and Milk Rivers Administrative Measures Task Force

In April, the International St. Mary and Milk Rivers Administrative Measures Task Force presented its draft report to the IJC. The Task force then sought comments on the report in two public meetings held in Havre, Montana and Lethbridge, Alberta, in June, followed by a subsequent comment period. Irrigators and government officials from both Montana and Alberta expressed interest in collaborating on improvements in water use in the two basins. A brief synopsis of the meetings and the public comments is posted on the Commission's website. Over the next several months, the IJC will receive the Task Force report and determine what, if any, administrative changes will be made to optimize water allocation benefits.

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 over shared waters by undertaking investigations and by providing advice and regulating 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 oversees a binational, jointly-funded Great Lakes Regional Office in Windsor, Ontario. Generally, the day-to-day oversight of IJC-approved projects and IJC investigations 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 water quality in the Great Lakes and other transboundary watersheds and identify emerging transboundary air quality issues.

The Boundary Waters Treaty provides that the national governments may refer questions or matters of difference to the IJC for investigation and report. When the Commission receives a reference, it usually appoints an investigative body to jointly find facts and advise on the questions. Upon issuing a report, the IJC may be requested by governments to undertake a continuing role to monitor progress in implementing the report's

recommendations. The Commission generally appoints a board for assistance in carrying out these functions.

Under the Boundary Waters Treaty, the IJC acts on applications for Orders of Approval for the construction dams and other projects in waters along the Canada-U.S. border to protect all interests from the effects of the projects. If the Commission issues orders of approval for such projects, it typically appoints a board to monitor the 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 Commission also administers the apportionment of the waters of the Souris, St. Mary and Milk rivers. (see map)

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 Commission 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.

watershed, to show watershed boundaries and hydrologic features, and to match disparate data along the U.S.-Canada boundary.

A spring 2007 workshop will present the resulting products to stakeholders, many of whom participated in identifying mapping needs. This mapping project serves as a pilot to inform other digital watershed mapping efforts along the U.S.-Canada border. The IJC also initiated reservoir and stream hydrologic modeling work to incorporate all of the operating rules and procedures for the seven reservoirs on the St. Croix River system.

The Red River watershed: The IJC responded to a request from the governments of the United States and Canada to define a baseline monitoring program and to subsequently carry out parasite and pathogen monitoring during the fall of 2006 in Devils Lake, the Red River and Lake Winnipeg between Manitoba and N. Dakota. The Commission's International Red River Board developed a plan for conducting this monitoring and held a workshop in the basin in August to coordinate each country's approaches to provide a jointly-agreed framework and to ensure that work in both countries is compatible. The IJC provided funds to the United States Fish and Wildlife Service to enable them to undertake the monitoring effort with Environment Canada and Fisheries and Oceans Canada. Results

of the 2006 activities will be used to refine the monitoring program for future years, which remain unfunded at this time.

The Rainy River watershed: The IJC initiated LIDAR (Light Detection and Ranging) elevation mapping of approximately 610 metres (2,000 feet) on each side of the Rainy River, which forms the U.S.-Canada boundary between the International Falls-Fort Frances area and the Lake of the Woods. This effort covers most of the 500-year floodplain on the Rainy River. The LIDAR elevation mapping will be combined with bathymetric data of the Rainy River. The Commission also initiated hydraulic models for the Rainy River, allowing for the assessment of water level and flow impacts associated with releases from the dam at International Falls and Fort Frances.

The Lake Champlain watershed: The IJC engaged the Lake Champlain Basin Program to provide technical assistance in the development of plans to manage nutrients, especially phosphorus, for small farms in Missisquoi Bay over a three-year period, as nutrient loadings to Missisquoi Bay are the highest in Lake Champlain.

Air Quality

In April 2006, the IJC's International Air Quality Advisory Board provided a formal written report to the Commission and the governments of the United States and Canada on its second workshop held in February 2005 in Boulder, Colorado, under the Keeping Clean Areas Clean initiative. Among the issues reviewed at this workshop was progress on ground-based monitoring of air quality, particularly the use of satellite-based remote sensing technology to detect and track pollutants. The report also described the evolution of air quality indices in the United States and Canada, noting the growing inclusion of such health-based indicators in local weather forecasts and on environmental agency websites. The report from this workshop is available on the IJC website.

In January 2006, under its Great Lakes initiative, the Board convened a workshop in Niagara Falls, New York, on the development of a model tracking mercury from deposition onto watersheds, its distribution in the waters, sediment and biota, including fish, and ultimate appearance in humans. This work will lead up to a second workshop specific to Lake Ontario modeling, being convened in early 2007 by the Council of Great Lakes Research Managers. The outcome of these two events will form part of the IAQAB report under the 2005-07 Great Lakes Priorities.

The Board also provided the IJC with a written overview and presentation regarding air quality for both common air pollutants and other toxic contaminants in the Detroit-Windsor region, based on reports prepared by the Commission and others over the past two decades.

Osoyoos Lake Plan of Study for Evaluation of Renewal of IJC Orders

In August, the IJC approved a Plan of Study for Evaluation and Renewal of IJC Orders which govern the outflows from Osoyoos Lake and provided it to the governments of the United States and Canada, the State of Washington, Province of British Columbia, and to the public. The Plan of Study was developed to prepare for renewing the orders, which expire in 2013. Eight major study components address topics such as drought operations, potential effects of water-level regulation on water quality, possible ecosystem requirements and climate change; furthermore, concerns often raised by the public over the last few years are addressed in study components. The Plan of Study has yet to be funded.

Dam Safety and Security

In 1998, the IJC published a report entitled *Unsafe Dams? A Report by the IJC*, wherein it was recommended that the governments of the United States and Canada oversee the safety and security of 15 facilities operated under IJC orders along the U.S.-Canada border.

In July, the IJC published a report entitled *Seven Years Later – What Has Changed*, an update on efforts by the two national governments to ensure dam safety and security, focusing on what had changed since 1998. The report found that in Canada, neither the federal government nor any of the provincial governments, with the exception of British Columbia, have fully implemented the recommendations contained in the Commission's 1998 report. This contrasts with practices in the U.S., where regular inspections, mainly by federal agencies and which were noted in the 1998 report, have continued. The report indicated that some improvements have been made since 1998 on both sides of the border for the safety and security of regulated structures. The report, which has been shared with the two governments, repeats the 1998 recommendation that governments put in place suitable arrangements for joint oversight of structures that extend across the border.

Grand Coulee Dam

In October, the IJC wrote to the Canadian Columbia River Inter-Tribal Fishery Commission (CCRIFC), noting the responses of the government of Canada, and advising the CCRIFC that it had decided not to take any further action with respect to the 1941 Order of Approval of the Grand Coulee Dam, located on the Columbia River in Washington State.



International Joint Commission

Canada and United States

2006 Annual Report

We are pleased to provide our Annual Report describing the International Joint Commission's activities in 2006.

The IJC 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.

In particular, the IJC rules upon applications for approval of projects affecting boundary or transboundary waters and may regulate the operation of these projects; it 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; and it alerts the governments to emerging issues along the boundary that may give rise to bilateral disputes.



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