

INTERNATIONAL JOINT COMMISSION

More than a Century of Cooperation Protecting Shared Waters

2011-2012 Activities Report, April 2013



INTERNATIONAL JOINT COMMISSION

Canada and United States



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Summary

This report summarizes activities performed by the International Joint Commission (IJC) and associated boards and task forces during the calendar years 2011 and 2012.

The IJC (IJC.org) is an international organization created by the Boundary Waters Treaty of 1909 between Canada and the United States.

The IJC prevents and resolves disputes between Canada and the United States under the Boundary Waters Treaty and pursues the common good of both countries as an independent and objective adviser to the two governments. The IJC's work over the last century to assist in the harmonious resolution of transboundary water conflicts is considered a model for binational cooperation. In particular, the commission rules on 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.

Canada and the U.S. each appoint three commissioners, including one chair from each country. IJC commissioners, board and task force members are expected to work in their personal and professional capacities, not as representatives of an organization or region. Commissioners traditionally work by consensus to find solutions that are in the best interests of both countries. Commissioners are supported by Canadian and U.S. Section offices in Ottawa, Ontario, and Washington, D.C., and the Great Lakes Regional Office in Windsor, Ontario.

All images contained in this report are from IJC files, unless otherwise noted.

Introduction

Even along the world's friendliest border, there is room for different perspectives. For more than 100 years, the IJC has conducted joint fact-finding, tasked experts and engaged the public to sort these matters out, considering interests on both sides of the border. With more than 40 percent of the boundary between our two countries passing through water, we are attending to water issues related to municipal uses, navigation, hydropower, irrigation, pollution control and prevention, ecology and more.

As illustrated in the sections below, the IJC embraces boundary water challenges—from the humbling damages of flood waters, to the heartrending losses caused by droughts. In each of the basins over which we have responsibility, IJC commissioners are assisted by experts on staff, boards and task forces. This however, tells only a part of our story.

The Boundary Waters Treaty of 1909, which focused primarily on water flow and a fair distribution of this resource across and along the boundary, also took note of pollution threats. The countries also agreed in the treaty that their common waters “shall not be polluted on either side to the injury of health or property on the other.” Often the two governments assign the commission responsibility for evaluation and advice on issues of pollution. With increasing frequency, the commission recognizes that matters of water quantity and concerns with water quality are inextricably linked. In the past decade, this has prompted the IJC, with support from the governments, to establish the International Watersheds Initiative (IWI). The initiative encourages staff and IJC boards to adopt an integrated, ecosystem approach to watershed issues throughout the shared waters of the Canada-U.S. border. These boards work with local governments, environmental and industry advocates, academics, tribes, First Nations, Métis and others to carry out their responsibilities of protecting water quality and managing water levels and flows within a broader ecosystem context. Harmonizing data that have long existed in disconnected Canadian and U.S. silos has been one of the signature achievements of the IWI work. The ongoing data harmonization project provides common information to sustain better decision-making in both countries, along the border and beyond.

Increasingly, the IJC is working to address the challenges inherent to the uncertainties associated with climate change impacts. As close observers of the dynamic patterns of water flow over the past century and more, the commission understands that change is inevitable. Indeed, planning for these changes is at the core of our work. However, substantial changes in the timing of spring freshets, loss of ice cover and warmer waters in the Great Lakes, exceptional and more frequent storm events and other extraordinary conditions are demanding greater monitoring and better analysis. While the governments have historically charged the IJC with undertaking major studies of various basins and particular challenges (such as the International Upper Great Lakes Study), the need for more continuous study is apparent.

The commission is proud of the work illustrated in this report and grateful to the governments of Canada and United States for the support that makes this work possible. We also wish to thank the talented professionals that serve on the more than 20 boards and task forces that directly advise the IJC.



Lana Pollack, U.S. Section chair



Joseph Comuzzi, Canadian Section chair



Dereth Glance, commissioner



Lyall Knott, commissioner



Rich Moy, commissioner

Chapter I: International Watersheds Initiative

Lake of Woods-Rainy River Governance

In June 2010, the Canadian and U.S. governments gave the IJC letters of reference in which they requested that the IJC study and report on issues related to the binational management of the Lake of the Woods and Rainy River system. Shortly thereafter, the IJC created the International Lake of the Woods and Rainy River Watershed Task Force to carry out the study and report to the IJC.

In July 2011, the task force issued its final report to the IJC, titled “Binational Management of Lake of the Woods and Rainy River Watershed.”

In July and August 2011, the IJC held public hearings and received comments on the task force report. The IJC agreed with key task force observations that there was no one entity with the role of overall coordination and reporting for the entire watershed and that there was not an international governance mechanism in place to manage water quality throughout the watershed.

To address these issues, the IJC recommended in its report to the governments the establishment of a watershed board that would take an ecosystem approach to water quality issues. The governments accepted this recommendation, and the IJC undertook to establish an international watershed board of 20 members combining its existing International Rainy Lake Board of Control and International Rainy River Pollution Advisory Board.

The new International Rainy-Lake of the Woods Watershed Board will have a mandate to report to governments on water quality objectives in the boundary waters of the watershed. Water regulation under the new board is delegated to a Rainy and Namakan Lake Water Levels Control Committee of the board, which will have exactly the same composition as the current International Rainy Lake Board of Control and the authority to act independently.

Once the new board is operational (in spring 2013), it will be IJC’s second official watershed board established under the International Watersheds Initiative. The new board will have First Nation, Métis and Native American tribal representation, and community advisory and industry advisory groups to provide direct advice on issues related to work in the basin.



The Lake of the Woods and Rainy River watershed is located in northwestern Ontario, eastern Manitoba, and northeastern Minnesota, and is part of the larger Winnipeg River watershed that drains to Lake Winnipeg in Manitoba.

Data Harmonization



A map of transboundary basins in Canada and the United States. The IJC has responsibilities for regulating water levels and monitoring the water quality of rivers and lakes along the international border between the two countries.

In less than five years, the IJC Transboundary Data Harmonization Task Force has gained global recognition for its work to develop consistent and compatible data for the basins along the Canada-U.S. boundary.

Prior to the IJC's effort, each country developed its own Geographic Information System (GIS) datasets.

Those datasets stopped at the international boundary, which, consequently, resulted in many inconsistencies and anomalies going across the boundary, and impacted various analyses.

In 2012, the effort resulted in the development of uniform geographic data on waters along the boundary and their watersheds.

Having a common geographic platform for data will help the two countries improve policy, research, and programs for the management and resolution of issues including: pollution control, invasive species management, conservation and sustainable development.

The seamless geographic information developed by the task force also allows national and local agencies in both countries to exchange analyses and jointly steward data, providing a means for effectively implementing binational water protection agreements like the Great Lakes Water Quality Agreement, updated in September 2012.

It also allows for more accurate interpretation of the water flow and characteristics of shared hydrography between Canada and the U.S., and helps eliminate duplication of effort, reduce cost and pave the way for a wealth of other water-related data to be harmonized.

The tireless collaboration of the task force comprised of experts from Natural Resources Canada, Environment Canada, Agriculture and Agri-Food Canada, the U.S. Geological Survey and the U.S. Environmental Protection Agency earned recognition in 2012 from three major GIS organizations: Esri Inc., Esri Canada and the Geospatial World Forum.

Chapter II: Water Quantity

Review of Lake Osoyoos Order

In 2000, the IJC and its International Osoyoos Lake Board of Control began a review process for the IJC's Lake Osoyoos Order of Approval for operating Zosel Dam. The order was set to expire on February 22, 2013, unless renewed. The IJC commissioned eight technical studies, the results of which would be used to review the order. The IJC received reports on the last of the technical studies in 2011. The IJC and the board presented results of the technical studies at a September 2011 Osoyoos Lake Water Science Forum, which was held in the town of Osoyoos, British Columbia. The IJC was a co-sponsor of the forum.



In May 2012, the International Osoyoos Lake Board of Control provided the IJC with a report and recommendations for renewing the order, based on the results of the technical studies. The board recommended that the scope of a renewed order remain limited to the management of lake levels, with only minor modifications primarily related to a revised lake-level rule curve. The rule curve the board proposed would provide additional seasonal flexibility in achieving targeted lake levels, accommodate multiple uses and users of the lake, eliminate drought and non-drought declarations and limit the maximum lake levels to 278 meters (912.5 feet) in the summer.

The board also recommended that the IJC encourage continued cooperation between Washington state and British Columbia to balance flow needs across the international border and downstream of Zosel Dam, while respecting goals for Osoyoos Lake elevations and limits on releases that are possible from Okanagan Lake.

In July and August 2012, the IJC held public hearings in the basin and invited public comment on the board's recommendations. After considering the recommendations and public input, the IJC is expected to issue a new order in early 2013.



Osoyoos Lake is impounded by Zosel Dam, located in the United States and owned by the state of Washington.

2011 Lake Champlain-Richelieu River Flood

In the spring and summer of 2011, major flooding occurred in the Lake Champlain-Richelieu River. Water levels exceeded flood stage for a total of 67 days. Close to 4,000 homes were flooded, resulting in tens of millions of dollars in damage throughout the Lake Champlain-Richelieu River basin.

In March 2012, the Canadian and U.S. governments asked the IJC to prepare a plan of study that would identify what studies would be needed for evaluating the causes and impacts of the 2011 flooding and developing possible mitigative solutions.

The IJC established the Lake Champlain-Richelieu River Plan of Study Workgroup in May 2012 and charged the workgroup with developing a plan of study. The workgroup held public meetings in August 2012 to receive initial input from stakeholders. In September 2012, the workgroup held a technical experts' workshop.



2011 Souris Flood

The Souris River basin in North Dakota, U.S., and Saskatchewan, Canada, also experienced record flooding in 2011. The conditions were attributed to high soil moisture content, above-average snow pack and heavy, persistent rainfall in the spring and summer.

About 12,000 residents were evacuated from Minot, N.D., and that area saw an estimated \$600 million (U.S.) in property and infrastructure damage, according to a 2011 Post-Flood Report from the U.S. Army Corps of Engineers.



In Saskatchewan, more than 400 residents were evacuated. Another 140 people were forced to leave their homes in Manitoba. Infrastructure damage included road closures, and lost roads and pumping stations. In addition, about four million acres of land in rural Saskatchewan were left unplanted.

Throughout the Souris River basin, precipitation in May 2011 ranged from 200-400 percent above normal. The total flow volume in the lower reaches of the basin was more than 2.5 times larger than the previous record event in 1976, and far exceeded the 100-year design capacity of a Souris Basin Flood Control Project.

The 2011 Post-Flood Report, submitted to the IJC's International Souris River Board, includes 10 recommendations to improve the operating plan contained in Annex A of the 1989 Canada-U.S. Agreement for Water Supply and Flood Control in the Souris River Basin. They include adding more precipitation and streamflow gauges in the upper portion of the basin, and updating and rewriting the Agreement to clarify its intent.

Due to the unprecedented 2011 flooding in the basin, residents asked that additional flood protection measures be evaluated beyond what is currently provided under the 1989 agreement.

In February 2012, the board appointed the Souris River Basin Task Force to review the operating plan contained in Annex A of the 1989 agreement and appointed members from federal, state and provincial agencies.

The first requirement of the task force is to identify studies needed to review the existing operating plan, and to evaluate alternatives to maximize flood control and water supply benefits.

Lake Ontario-St. Lawrence River: A New Approach

Regulation of water levels and flows in the Lake Ontario-St. Lawrence River system began more than 50 years ago. Since then, conditions have changed. The system is experiencing milder winters and more intense storms.

Since 2009, the IJC has been developing a new comprehensive action plan for regulating water levels and flows for Lake Ontario and the St. Lawrence River with the assistance of a working group comprised of representatives from agencies in New York, Ontario, Quebec, and the Canadian and U.S. federal governments. This follows earlier IJC work in the system, including a large technical study (2000-2006).



A new plan would be flexible and continue to provide economic benefits to the region while reducing the ongoing harm to the environment and systematically addressing future challenges. The plan consists of a number of elements including: a legal framework, new rules for managing the water flow from Lake Ontario, management and oversight, and performance evaluation. The action plan would continue to limit exposure to flooding and erosion, provide adequate depths for drinking water, commercial navigation and recreational boating and provide for efficient hydropower.

Based on science and incorporating extensive public input from local communities, the IJC action plan complements existing programs in the region to restore and preserve the shoreline ecosystem. Coastal properties can be damaged by storms, especially when water levels are extremely high. Compared to current regulation, there is a small increased risk to the shoreline under the new plan, which is expected to provide economic and ecological benefits for the system overall.



Interested members of the public gather for an information session in June 2012 on the proposed Lake Ontario and St. Lawrence River plan.

In the fall of 2011, the IJC met with stakeholder groups around the basin to introduce the proposed new approach. The IJC launched a website with extensive technical information in January 2012. The IJC held 12 public information meetings in May and June 2012, along with a four-day web dialogue that provided opportunities for the public to interact with IJC technical experts. Before adopting a new action plan, the IJC will hold formal public hearings and seek the concurrence of the two federal governments.

Upper Great Lakes Study

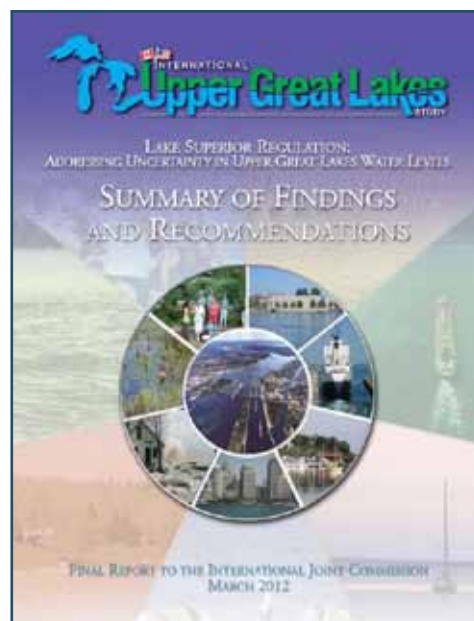
In 2007, the IJC appointed a 10-member International Upper Great Lakes Study Board to undertake studies to evaluate options for regulating levels and flows in the upper Great Lakes system for the benefit of affected interests and the system as a whole. The board produced the second of two comprehensive scientific reports during 2011-2012.

The second phase of the Study focused on the formulation and evaluation of options for a new regulation plan for Lake Superior outflows. It also addressed restoration and multi-lake regulation as alternative approaches for dealing with extreme water levels beyond those addressed by Lake Superior regulation alone, and considered the important role that adaptive management can play to help all parties better anticipate and respond to extreme water levels in the future.

The study board submitted the Lake Superior final report to the IJC in March 2012. The report included several key recommendations, including: a new plan for regulating the Lake Superior outflow; a continuous, coordinated binational effort that includes strengthened modeling and enhanced data collection; and an adaptive management strategy to address future extreme water levels. The final report was unanimously endorsed by the study board, included the work of more than 200 scientists and engineers, and underwent extensive, independent peer review.

The IJC held 13 public hearings in July 2012 to present the Lake Superior report's findings and receive public comment. A public teleconference also was held in September 2012, and comments were accepted by mail, email and online from June 18- Sept. 30, 2012. The IJC provided its advice to governments on the study recommendations in April 2013.

The Lake Superior report will be of use to state, provincial and federal officials in the two countries, along with local officials, resource managers and others for planning purposes and further research on how the upper Great Lakes function. Extensive information on the supporting science and technical projects that were critical to the Study is available online at www.iugls.org.



The cover of the final report on Lake Superior regulation illustrates the various interests considered in formulating the finding and recommendations.

Adaptive Management

In response to the International Upper Great Lakes Study Board's recommendation on adaptive management, the IJC in May 2012 established an International Great Lakes-St. Lawrence River Adaptive Management Task Team to develop a detailed adaptive management plan for the Great Lakes-St. Lawrence River system.

Better information plays an important role in how humans can respond to extreme low or extreme high water levels since dams or other control structures have a limited impact. Adaptive management is an approach that uses a structured, iterative process for continually improving management policies and practices by learning from the outcomes of previous policies and practices.

As part of the development process, the task team established a binational Advisory Group of Great Lakes-St. Lawrence River agencies to provide advice and suggestions. The proposed adaptive management plan is based on working collaboratively with these and other partners to gather and share critical information over time, assess the information with state-of-the-art tools, measure success in managing the impacts of extreme water levels—and adapt accordingly. The IJC will be receiving the task team's report and providing advice to the governments in 2013.

Concern over extreme water levels in the region intensified as Lake Michigan-Huron set a new record low water level for the month of December in December 2012. Water levels on Superior and Michigan-Huron have been below long-term averages for more than 13 years, the longest consecutive period on record for each lake.



A dock on Georgian Bay, from a photo submitted during public comments on the Great Lakes Study in August 2012.

Chapter III: Water Quality

15th Biennial Report

In 2011, IJC issued its 15th Biennial Report on Great Lakes Water Quality. The focus of this report is on the nearshore zone, the vital ecological link among watersheds, tributaries, wetlands, groundwater and offshore waters of the Great Lakes.

The report was based primarily on the work of IJC's Great Lakes advisory boards and discussions of six nearshore concerns: eutrophication, beaches and recreational water quality, groundwater, chemicals of emerging concern, fish consumption and aquatic invasive species. The report provided 32 recommendations to the governments.

Some of these recommendations provided suggestions for themes to be included in a revised 2012 Great Lakes Quality Quality Agreement:

- ◆ Perform a binational condition assessment of nearshore waters
- ◆ Develop improved phosphorus loading models



- ◆ Develop binational standards to monitor and report on waterborne illness
- ◆ Recognize the importance of groundwater as a source of drinking water
- ◆ Develop a process to identify chemicals that are a priority for binational action
- ◆ Monitor omega 3 fatty acids and contaminants in fish
- ◆ Address aquatic invasive species as a separate Annex.

Other recommendations provided advice for implementing the 2012 Agreement:

- ◆ Improve land use and management practices in nearshore urban and rural areas
- ◆ Improve testing methods to make more timely decisions about beach closures
- ◆ Reduce impacts on groundwater from multiple sources
- ◆ Provide economic incentives to encourage industry and agriculture to use and develop more environmentally-friendly products
- ◆ Conduct research to improve the understanding of human health effects from chemicals in fish
- ◆ Coordinate aquatic invasive species rapid response planning.

Great Lakes Water Quality Agreement

In September 2012, the governments of Canada and the U.S. updated the Great Lakes Water Quality Agreement for the first time since 1987.

Canada's Environment Minister Peter Kent and U.S. Environmental Protection Agency Administrator Lisa Jackson signed the new agreement protocol. The 2012 agreement is a blueprint for binational cooperation to restore and protect the lakes, and gives the IJC the role of assisting governments in achieving agreement objectives and assessing progress toward restoration.

Under the renewed agreement, the governments conclude that the "best means to preserve Great Lakes Basin Ecosystem and improve water quality" is to adopt common objectives and cooperative programs. In the agreement, the governments assigned special responsibilities to the IJC.

Those responsibilities include:

- ◆ Assess progress to restore and protect the Great Lakes
- ◆ Engage people, communities, private and public institutions, First Nations and Native Americans and all levels of government in collective efforts for Great Lakes water quality
- ◆ Advise governments on effective Great Lakes programs and policies, research and monitoring priorities and approaches and opportunities to achieve objectives for Great Lakes water quality
- ◆ Analyze and share information on transboundary pollution
- ◆ Assist in developing water quality objectives
- ◆ Convene the Great Lakes Public Forum.



Canada's Minister of the Environment Peter Kent, left, and U.S. Environmental Protection Agency Administrator Lisa P. Jackson sign a newly amended Great Lakes Water Quality Agreement at a formal ceremony in Washington, D.C. Photo Credit: Environment Canada.

16th Biennial Report

With a revised agreement in place, the 16th Biennial Report is the final report under the 1987 agreement. The IJC made a concerted effort to obtain information and work with experts from both countries to assess the changes since the previous amendment in 1987. This assessment will provide important information and guidance for ongoing implementation and provide useful recommendations for assessing progress under the new 2012 agreement. The IJC used data provided by more than 20 experts from both sides of the border in order to address the frequently asked question: “Are the Great Lakes getting healthier?” The report used 16 indicators of Great Lakes conditions, stressors or government programs to focus on changes in the health of the Great Lakes since 1987.

The IJC shared the draft report with the public at its October 2011 Biennial meeting in Detroit. The commission revised the draft report based on comments received from multiple Great Lakes organizations and members of IJC’s Great Lakes advisory boards. The commission released the report in spring 2013.

Great Lakes Priorities for 2012-2015

Under terms of the updated Great Lakes Water Quality Agreement, the IJC assesses progress and provides expert scientific advice on issues related to restoring and protecting water quality in the Great Lakes.

With professional staff in its Windsor, Ontario, Great Lakes Office and section offices in Ottawa, Ontario, and Washington, D.C., the IJC brings together experts from both sides of the border to develop consensus findings and recommendations for governments.

During 2012-2015, work groups will focus on three priorities chosen by the commission:



The extent of a 2011 harmful algal bloom in Lake Erie is shown in this satellite photograph.

Lake Erie Ecosystem Priority to Reduce Phosphorus and Algal Blooms

This priority (also known as LEEP) is targeting the problem of excessive algal growth in Lake Erie. The goals are to develop recommendations for the Canadian and U.S. governments to measurably reduce dissolved reactive phosphorus loads and algae by the end of 2015.

In 2011, Lake Erie saw some of the largest algal blooms in recent history. Due in part to excess phosphorus inputs to the lake, the frequency and size of blooms have been getting steadily worse in the last decade. Phosphorus is a nutrient found in everything from fertilizers to sewage. In excess amounts, it can cause aquatic plants like algae to flourish, and close beaches to the public due to harmful bacteria in the algae. The water quality agreement of 1972 prescribed phosphorus targets for Lake Erie. Those targets were being met as of 2012, but may need to be revised for the future in light of the recent proliferation of algae.

LEEP is looking at Lake Erie algae in three ways: examining the current state of the science; examining policies and programs for addressing the issue; and examining the socio-economic impact of algae on important sectors like fisheries, recreation and tourism.

The IJC held eight public meetings in August and September of 2012 to receive feedback from stakeholders on the LEEP.

Assessment of Progress toward Restoring the Great Lakes

Based on the work of the 16th Biennial Report, the IJC in 2012 initiated an effort to reach consensus among experts from government, academia, industry and non-governmental organizations to select a small set of ecological and human health indicators to assess progress.

In late 2012, the group of experts identified 16 ecological indicators as a core set that could be used to measure progress toward achieving the ecological objectives of the agreement. Those indicators include measures of physical, chemical, biological integrity, aquatic invasive species and chemicals of emerging concerns.

Also in late 2012, a related effort began to identify whether data are available for calculating those identified indicators by evaluating the degree to which government programs collect such data.

The plan for 2013 is to add select human health indicators which will be used to evaluate whether Great Lakes water is drinkable, swimmable, and fishable and to evaluate if government programs are collecting those data. By 2015, the plan is to use the selected set of ecological and human health indicators to assess the progress made by U.S. and Canadian governments toward achieving the objectives of the 2012 agreement.

Strengthening the Capacity to Deliver Great Lakes Science and Information

This priority is being undertaken by a work group established to assess binational capacity and capability to coordinate and deliver Great Lakes science.

In particular, access to data is a key focus of their work, including identifying a common portal to lists of both human health and environmental data, and demonstrating the benefits of connecting such datasets.

Efforts under this priority also include increasing the capacity of the IJC to process and distribute geographic information system and remote sensing data in support of agreement reporting requirements.

Missisquoi Bay Phosphorus Reduction

The Canadian and U.S. governments gave the IJC letters of reference in August 2008 in which they requested that the IJC study ways to reduce phosphorus loading into Missisquoi Bay, an international watershed within the Lake Champlain Basin, and to advance the state of information regarding loads of nitrogen and sediment into the bay.

In February 2012, the International Missisquoi Bay Study Board submitted its report on the Missisquoi Bay Critical Source Area Study.



In September 2012, the IJC endorsed the findings and recommendations of the study board, noting that the study improved existing beneficial cooperation between Vermont and Quebec, and would be a resource at the state, provincial and federal levels in both countries.

The IJC further suggested that the focus shift from a study of the phosphorus problem to using the data in Vermont's ongoing efforts to reduce phosphorus loading into Missisquoi Bay. Further use of the data for measuring progress in phosphorus reduction was encouraged.

Devils Lake Fish Parasites and Pathogens Study

In 2005, the IJC directed the International Red River Board to investigate the risk that an outlet from Devils Lake in North Dakota would release invasive species and lethal fish parasites and pathogens into the Red River and Lake Winnipeg. The action came as a result of requests from the Canadian and U.S. governments.

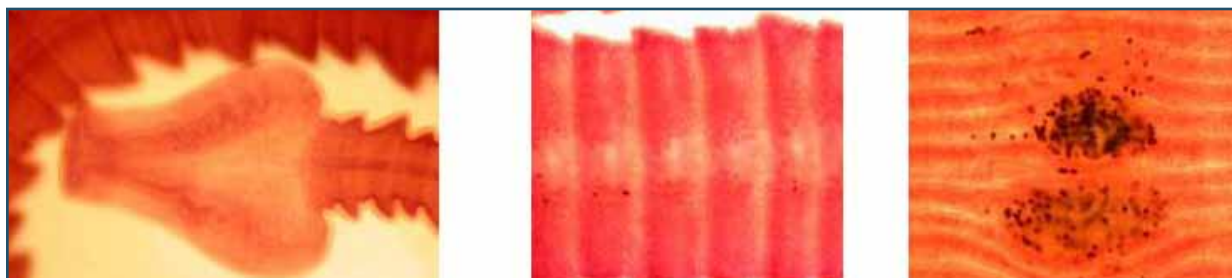
After several years of investigation by Canadian and U.S. fish pathologists, the board issued a qualitative risk assessment report in October 2011.

The parasites and bacteria found in Devils Lake were found to be widely distributed throughout much of North America. All were opportunistic pathogens that could adversely affect fish health only if fish health was compromised for other reasons. None were foreign parasite or pathogen species.

For these reasons, experts concluded in the report that the risk to downstream fish and fisheries was low from the parasites and pathogens found in Devils Lake, and the potential for causing disease was negligible.

Recommendations included adopting a proactive model and precautionary approach to prevent and monitor transfers of invasive species and certain fish pathogens into the basin of Hudson Bay, which includes Devils Lake.

The results of the collaborative study are significant in that they provide a factual basis for discussions intended to resolve disagreements between the two countries over the risk posed by invasive species, fish parasites and pathogens in the basin.



Photomicrographs of specimens commonly found in the intestines of walleye from Devils Lake, Lake Ashtabula, and Lake Traverse. From the 2011 Qualitative Risk Assessment report.

Chapter IV: IJC Highlights

Commissioners

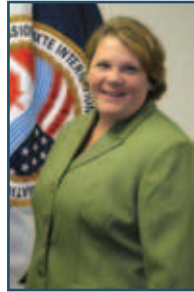
Eight commissioners served during the 2011-2012 period covered by this report.



Canadian, Chair
Joseph Comuzzi
Jan. 2010- present



U.S., Chair
Lana Pollack
June 2010-present



U.S.
Dereth Glance
July 2011-present



Canada
Lyall D. Knott
April 2009-present



U.S.
Rich Moy
July 2011-present



Canada
Pierre Trépanier
April 2008-April 2012



U.S.
Sam Speck
May 2008-July 2011



U.S.
Irene B. Brooks
Dec. 2002-July 2011

Staff Changes

Several staff members joined the IJC in 2011-2012:

Name, Position	Office
Anne Chick, Senior Adviser	Washington, D.C.
Ian Herbst, Administrative Specialist	Washington, D.C.
Michael Laitta , Geographic Information Systems Coordinator	Washington, D.C.
Camille Mageau, Secretary	Ottawa, Ont.
Anselme Nsoga, Senior Adviser, Human Resources	Ottawa, Ont.
Glenn Benoy, Senior Water Quality and Ecosystem Adviser	Ottawa, Ont.
Paul Allen, Manager, Policy, Programs and Communications	Ottawa, Ont.
Rose Désilets, Executive Assistant to the Chair	Ottawa, Ont.
Lizhu Wang, Physical Scientist	Windsor, Ont.
Jennifer Boehme, Physical Scientist	Windsor, Ont.

Other staff members completed their service with the IJC in 2011-2012:

Name, Position	Office
Robert Reynolds, Senior Adviser	Washington, D.C.
Lise Fleury, Human Resources Officer	Ottawa, Ont.
Paul Pilon, Engineering Adviser	Ottawa, Ont.
Tom McAuley, Engineering Adviser	Ottawa, Ont.

In Memoriam

Bruce Kirschner passed away Feb. 8, 2012, in LaGrange, Indiana. He was 60. Kirschner began his career in federal service in 1975 as a soil conservationist with the U.S. Department of Agriculture's Soil Conservation Service in Louisiana.

His professional career included time as a biologist and water quality specialist in Louisiana, Maryland, Illinois and Michigan.

He transferred to the U.S. State Department as an environmental scientist in 1989, under the IJC.

He retired in December 2011, with almost 40 years of federal service.



Appendix

IJC Boards and Task Forces



The IJC has established numerous boards and task forces that work in transboundary basins along the Canadian-U.S. border.

1. Great Lakes	2. Yukon - Alaska - British Columbia Region	3. Columbia River	4. Skagit River
<ul style="list-style-type: none"> • Great Lakes Water Quality Board • Great Lakes Science Advisory Board • Great Lakes Research Council • Niagara Board of Control • St. Lawrence River Board of Control • Lake Superior Board of Control • Great Lakes-St. Lawrence River Task Team 	No current activity	<ul style="list-style-type: none"> • Osoyoos Lake Board of Control • Kootenay Lake Board of Control • Columbia River Board of Control 	No current activity
5. St. Mary and Milk Rivers	6. Poplar River	7. Souris River	8. Red River
Accredited Officers for the St. Mary-Milk Rivers	International Red River Board	International Souris River Board	International Red River Board
9. Lake of the Woods and Rainy River	10. Lake Champlain and Richelieu River	11. St. Croix River	12. St. John River
<ul style="list-style-type: none"> • Lake of the Woods Control Board • International Rainy Lake Board of Control • International Rainy River Water Pollution Board 	International Lake Champlain-Richelieu River Plan of Study Workgroup	International St. Croix River Watershed Board	International St. Croix River Watershed Board
Transboundary Boards			
<ul style="list-style-type: none"> • Air Quality Advisory Board • Health Professionals Advisory Board 			

