

INTERNATIONAL JOINT COMMISSION

2013 ACTIVITIES REPORT



INTERNATIONAL JOINT COMMISSION

Canada and United States



www.ijc.org

United States Section Office

2000 L Street, NW

Suite 615

Washington, DC 20440

Phone: 202-736-9000

Fax: 202-632-2006

Canadian Section

234 Laurier Avenue West, 22nd Floor

Ottawa, ON K1P 6K6

Phone: 613-995-2984

Fax: 613-993-5583

Great Lakes Regional Office

100 Ouellette Avenue, 8th Floor

Windsor, ON N9A 6T3

Phone: 519-257-6700

Fax: 519-257-6740

OR

P.O. Box 32869

Detroit, MI 48232

Phone: 313-226-2170 x6733

On the cover, from top to bottom: An upper Great Lakes view, by Scudder Mackey; Commissioners viewing the compensating works in Sault Ste. Marie; the audience during a Lake of the Woods-Rainy River hearing.



INTERNATIONAL JOINT COMMISSION

2013 Activities Report

Table of Contents

Summary	IV
Introduction	V

Chapter I: International Watersheds Initiative

Rainy-Lake of the Woods	1
St. Croix Alewives	2
Binational Water Quality Modeling	3
Data Harmonization	4

Chapter II: Water Quantity

Osoyoos Order Issued	5
Lake Champlain-Richelieu River Plan of Study	6
Souris River Plan of Study	6
Lake Ontario-St. Lawrence River, Plan 2014	7
Recommendations on the International Upper Great Lakes Study	8
Adaptive Management Task Team	8

Chapter III: Water Quality

16th Biennial Report	9
Great Lakes Advisory Boards	10
Great Lakes Water Quality Agreement Priorities (2012-2015)	10
1. Lake Erie Ecosystem Priority (LEEP)	10
2. Assessment of Progress Toward Restoring the Great Lakes	11
3. Public Engagement and Education	11

Chapter IV: IJC Highlights

New Online Features	12
Reports to Governments	12
Commissioners	13
IJC Staff	14
Washington, D.C. Staff	14
Ottawa, Ontario Staff	14
Windsor, Ontario Staff.	15

Appendix

IJC Boards and Task Forces	16
--------------------------------------	----

Summary

This report summarizes activities performed by the International Joint Commission (IJC) and associated boards and task forces during the 2013 calendar year.

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 U.S. under the 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; 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 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

Greetings,

The year 2013 saw the appointment of two Canadian commissioners, the completion of several projects, and progress and planning related to other transboundary water issues.

The two new Canadian commissioners, Gordon Walker of Toronto, Ontario, and Benoît Bouchard, of Roberval, Quebec, joined the Commission in June. Walker has served in the Legislative Assembly of Ontario in the 1970s and '80s, and was an IJC commissioner from 1992-95. Bouchard's background includes time as Canada's ambassador to France, a Member of Parliament and senior member of the Canadian Cabinet, and as a Government of Canada-appointed negotiator with the Innu First Nation.

The two new commissioners joined the IJC during a busy year, which began with the issuance of a new order for Lake Osoyoos, and recommendations on the International Upper Great Lakes Study (IUGLS).

Further, the IJC acted on a recommendation from IUGLS and charged a Great Lakes-St. Lawrence River Task Team with developing an Adaptive Management Plan for the Great Lakes. Separately, the IJC released a revised plan for regulating the water levels of Lake Ontario and the St. Lawrence River and held six public hearings and five technical hearings in 10 communities in New York, Ontario, and Quebec, followed by a telephone town hall. Plans of study for Lake Champlain, Richelieu River and the Souris River also were completed, for flood control measures in those areas.

A newly updated Great Lakes Water Quality Agreement came into force during 2013, and the Commission was active in continuing to assess progress under the previous Agreement, while developing activities under the new Agreement. This included a Biennial Report, the last on progress under the previous Agreement, and a draft Lake Erie Ecosystem Priority report, with recommendations aimed at reducing algal blooms in Lake Erie.

Structures also were developed and nominations sought for members of new Great Lakes advisory boards, and the IJC co-hosted the first Great Lakes Public Forum and a public meeting under the new Agreement.

Beyond the Great Lakes, the Commission established the International Rainy-Lake of the Woods Watershed Board, and tasked members with developing recommendations for a water quality plan of study for the basin, celebrated the return after 18 years of alewives to the international section of the St. Croix River, and worked to harmonize geospatial data for watersheds in Alberta, Saskatchewan, Montana and North Dakota.

These items and more are detailed in this 2013 Activities Report, which shows the results of the hard work done by our staff, boards, and task forces to sustain a long tradition of protecting the waters shared by our two countries.

Signed,

Canadian Section



Gordon Walker, Acting Chair



Benoît Bouchard

United States Section



Lana Pollack, Chair



Rich Moy



Dereth Glance

Chapter I: International Watersheds Initiative

Rainy-Lake of the Woods

In April, the Rainy-Lake of the Woods Watershed Board became the second of its kind established under the International Watersheds Initiative (IWI).

IWI is a twenty-first century initiative in which the Governments of Canada and the United States have encouraged the IJC to consider the interface of water quantity issues, such as droughts, floods and flows, and water quality issues, including nutrient loading, chemical pollution and invasive species. In pursuing this holistic approach to transboundary watershed issues, the IJC has combined and expanded board membership to include more diverse representation of expertise, interests and backgrounds.

The Rainy-Lake of the Woods Watershed Board was created to assist the IJC with binational coordination of water quality efforts for the watershed and to coordinate the management of water levels and flows on the Rainy River and Rainy Lake.

The new Board is a combination of the IJC's International Rainy River Water Pollution Board and International Rainy Lake Board of Control, with an expanded mandate. The new Board's directive includes a mandate to report on water quality objectives in the boundary waters of the Lake of the Woods and Rainy River watersheds.

The new board will improve coordination among jurisdictions in the watershed, to help address algae blooms and other local concerns.

The new Board includes 10 Canadian and 10 U.S. members: 11 from federal, state and provincial governments, three from Tribes, First Nations, Métis, and six from the public. It will receive advice from a Community Advisory Group and an Industry Advisory Group.

The new watershed board was tasked with developing recommendations for a water quality plan of study for Lake of the Woods to identify the scientific work needed to address transboundary water issues, such as nutrient enrichment and harmful algal blooms, aquatic invasive species, climate change indicators, and contamination of ground and surface water from sulfide mining and associated heavy metals.

Finalizing a plan of study is a priority for the IJC in 2014.

The governments of the United States and Canada requested that the IJC examine binational governance of the Lake of the Woods and Rainy River in June 2010.



Lake of the Woods takes in parts of Ontario and Manitoba in Canada, and Minnesota in the United States.

St. Croix Alewives

In April, the Maine Legislature passed, by an overwhelming majority, a bill to grant alewife (*Gaspereau*) unconstrained passage at Woodland and Grand Falls dams in the St. Croix River watershed, reversing a 1995 state law.

As water quality in the St. Croix River improved between 1981 and 1987, alewife returning to spawn increased from 169,000 to more than 2.6 million. This alewife resurgence coincided with a drastic decline of introduced smallmouth bass in Spednic Lake, and raised concerns that the increased alewife population might be impacting the smallmouth bass sport fishery.

Over 12 years, the IJC and its [St. Croix River Watershed Board](#) met with parties involved in the issue, including the Passamaquoddy Tribe, Maine's Commissioners of Inland Fisheries and Wildlife and Marine Resources, the Governor, and members of the Maine Guide Association and local guides in efforts to assist in developing a consensus to reopen the river to alewives.

In addition, the St. Croix board issued two reports on the issue, outlining the scientific case for reopening the river. This review of existing research showed that alewives were native to the watershed and that alewife-bass interactions were beneficial. The research noted that because the alewife must swim upstream to spawn, they are vital to the food web and nutrient cycles of marine, freshwater and land habitats in the basin. As bait, they also help support coastal fisheries and lobstering.

After discussion about next steps with the Commission in 2009, the St. Croix board asked expert members of the binational, interagency St. Croix Fisheries Steering Committee to develop an adaptive plan for alewife restoration in the watershed.



Alewives being released into the river above Milltown Fishway after an annual count.

The plan, developed with support from the IJC through [International Watersheds Initiative](#) (IWI) funding, proposed to reopen the river to the alewife while monitoring the basin's smallmouth bass population.

Also in 2009, in cooperation with the U.S. Geological Survey, a report was finalized that analyzed historical smallmouth bass habitat as a function of lake level for Spednic Lake. As such, it provided an alternate explanation for the decline of the bass population in Spednic Lake in the late 1980s.

This work and other actions contributed to the reversal of the Maine law in 2013.

Binational Water Quality Modeling

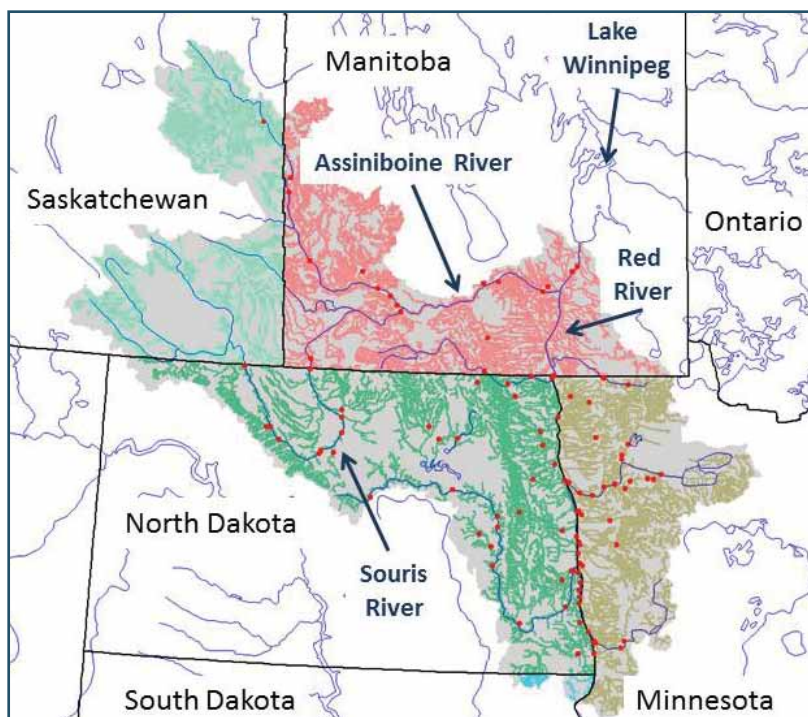
Excessive nutrient loading continues to impair the water quality and ecological condition of many transboundary lakes and rivers. Building on the work of the Data Harmonization Task Force, the IJC has been leading a binational effort to develop regional-scale water quality models for nitrogen and phosphorus since 2012. These models can be used to identify sources spatially by watershed and jurisdiction and to quantify sources according to human land uses and activities.

Working with the U.S. Geological Survey (USGS), the National Research Council (NRC) of Canada and a broad array of collaborating agencies and organizations, the IJC is adapting the USGS-developed SPATIally-Referenced Regressions On Watershed attributes model ([SPARROW](#)) to the Red-Assiniboine and Great Lakes basins. The Red-Assiniboine basin model represents the first binational application of SPARROW.

A preliminary version of the Red-Assiniboine basin SPARROW model was presented at an [International Red River Board](#) water quality modeling workshop held in Grand Forks, North Dakota, in April 2013. Revisions and improvements to the model continued through the year and culminated in an IJC-hosted technology training and transfer workshop held in Winnipeg, Manitoba, in December 2013.

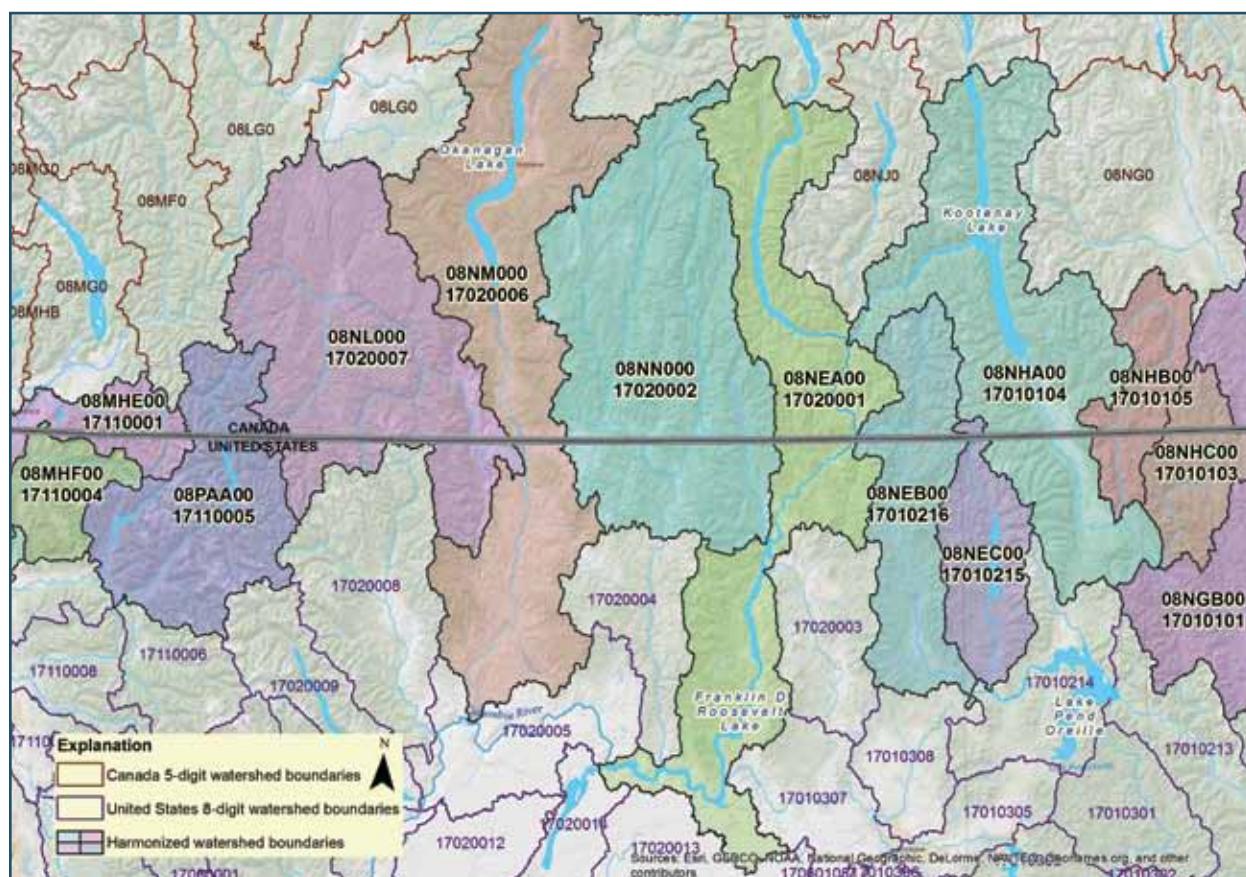
From the experience gained during development of the Red-Assiniboine basin model, the IJC has embarked on development of a Great Lakes basin SPARROW model. Much of the modeling effort in 2013 was dedicated to the creation of a harmonized stream and river network between Canada and the United States. It is anticipated that a SPARROW model for the Great Lakes Basin will be completed by the end of 2014.

Once completed, peer-reviewed models will be made available to IJC boards through online mapping applications and decision support system tools to assist in the resolution of water quality issues.



The spatial extent of the Red-Assiniboine basin model. Water-quality stations are marked with red dots.

Data Harmonization



An example of harmonized geospatial data for Canada and U.S. sub-basins. Credit: USGS.

In 2013, new seamless geospatial datasets were completed to provide a clearer view of waters along the Canadian and U.S. borders. The uninterrupted data make it easier for agencies in the two countries to solve complex water issues that require a thorough understanding of drainage systems on both sides of the boundary.

The effort involved the U.S. Geological Survey and Natural Resources Canada, with oversight by the IJC. The U.S. Environmental Protection Agency, Agricultural Foods Canada, and Environment Canada also participated in the process, along with provincial and in-state partners.

The work was a project of the IJC Transboundary Data Harmonization Task Force. The effort, over a number of years, developed uniform geographic data on waters along the boundary and their watersheds, creating a common platform for analysis and a potential binational stewardship framework.

The seamless geospatial data will have many uses, such as allowing for a better understanding of the levels of phosphorous flowing from Lake Champlain in Vermont into Quebec, the tracking of flooding in the Red River Valley (which flows north from Minnesota and the Dakotas into Manitoba), and the efficient restoration of salmon fisheries in the Columbia River Basin in the Pacific Northwest.

In the U.S., the data is stored in the [National Hydrography Dataset \(NHD\)](#) and [Watershed Boundary Dataset \(WBD\)](#). In Canada, the [National Hydro Network \(NHN\)](#) can be accessed through [GeoBase](#). In 2014, water quality and quantity modelling, as well as a wide array of data visualization tools, will be developed on top of the enriched database.

Chapter II: Water Quantity

Osoyoos Order Issued

In January, the IJC issued an [Order of Approval](#) for the future management of Osoyoos Lake water levels.

The Order, which renewed the state of Washington's authority to operate the Zosel Dam, also made minor changes in how water levels on the lake will be managed. The dam regulates the outflow from the lake, and backs water across the border into British Columbia.

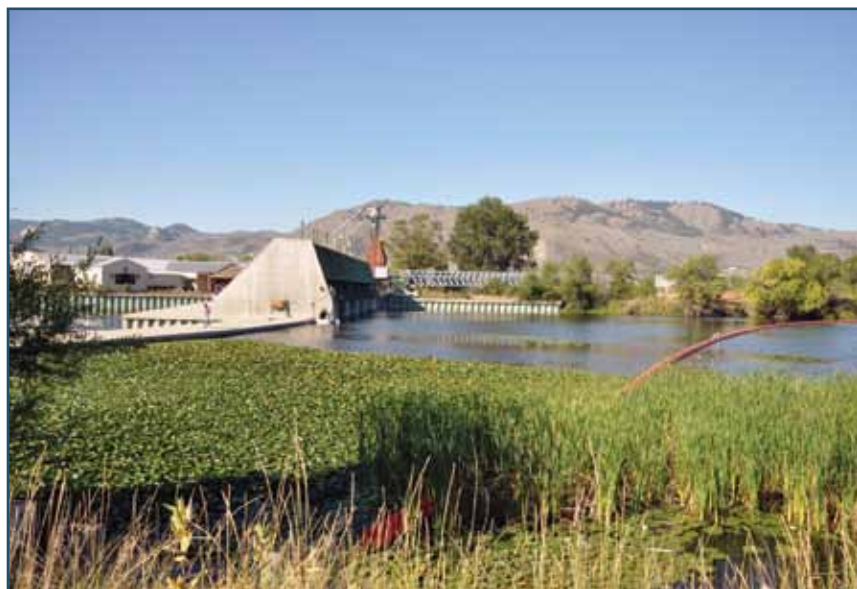
An update was required because existing orders for the dam were due to expire by April 2013, after more than 30 years.

The new Order was completed after input from watershed residents, and officials from Washington state and British Columbia. The process began in 2000 and included extensive studies related to water levels, future water supplies and water quality, along with discussions at Osoyoos Lake Water Science Forums, the last of which was held in 2011.

In a 2012 report to the IJC, the International Osoyoos Lake Board of Control concluded that the current Orders had adequately facilitated control of water levels in Osoyoos Lake, to the extent possible, primarily for the benefit of agriculture, tourism, municipal interests, and fisheries protection. The Board recommended minor modifications to a rule curve that sets Osoyoos Lake upper and lower target water levels for different times of the year.

The IJC later held public hearings in Oroville, Washington, and Osoyoos, British Columbia, in 2012, and met with the Osoyoos Indian Band. After hearing concerns from shoreline residents in Canada about flooding, erosion, riparian habitat, endangered species and navigation, IJC commissioners decided to make adjustments to the rule curve recommended by the Board.

The new Order is ongoing, but is subject to review in 25 years or sooner, as determined by the Commission.



A view of Zosel Dam on the Okanogan River, downstream of Osoyoos Lake.

Lake Champlain-Richelieu River Plan of Study

In July, the IJC delivered recommendations to Canada and the United States on a Plan of Study to address the problem of flooding in the Lake Champlain-Richelieu River basin that includes New York, Vermont, and Quebec.

The basin exceeded the flood stage for 67 days in the spring of 2011, damaging almost 4,000 homes and resulting in tens of millions of dollars in damages.

The IJC recommended that governments invest in an enhanced suite of models based on the advice of the International Lake Champlain-Richelieu River Plan of Study Work Group, which the IJC established in 2012. The models would be used to assess possible flood-control measures for the basin, at a projected cost of \$14 million over five years.

As part of this, a binational Study Board would be established to coordinate the work, and consult with the public and local governments along the way. The Study Board would determine the causes of the spring 2011 flooding, analyze flood mitigation solutions, and develop possible structural and non-structural flood mitigation measures on Lake Champlain and the Richelieu River. At the close of 2013, the governments of Canada and the United States had not responded to the Lake Champlain-Richelieu River Plan of Study recommendation.



Souris River Plan of Study

In June, the IJC endorsed a \$2.14 million plan to address future flooding in the Souris River basin, which encompasses North Dakota, Saskatchewan and Manitoba.

The IJC's International Souris River Board established a Souris River Basin Task Force in 2012 to develop study options, following historic flooding of the Souris River in 2011.

The Task Force identified three funding options, from about \$1 million for a basic assessment to \$2.14 million for the most comprehensive analysis.

The IJC decided to support the comprehensive plan after input from the International Souris River Board, stakeholders, and the public.

The goal is to examine the 1989 Canada-United States Agreement for Water Supply and Flood Control in the Souris River Basin and its operating rules to allow for new flood control provisions. The work, if approved and funded by the two federal governments, is expected to take two years.



Lake Ontario-St. Lawrence River, Plan 2014

An improved proposal for Lake Ontario-St. Lawrence River regulation was released in 2013, and public comment received at several hearings around the basin as well as by online, mail and telephone communications.

The proposal includes an Order of Approval, a regulation plan, known as Plan 2014, and policy for deviations from plan flows, and a new board and adaptive management strategy.

Plan 2014 would continue to contribute to the economic health of communities throughout the region, retain the benefits of regulation downstream of the Moses-Saunders hydropower dam, and improve the long-term ecological health of Lake Ontario and the upper St. Lawrence River. The new plan is an updated version of Plan Bv7, discussed at public information sessions in 2012.


Plan 2014 includes trigger levels for adjusting Lake Ontario outflows during extreme high and low Lake Ontario water levels. As such, it protects Lake Ontario shoreline properties better than Bv7 while providing nearly the same environmental improvements.

The proposed plan would restore wetlands and other fish and wildlife habitat. The new regulations also reduce flooding and erosion, and provide more favorable conditions for water intakes, recreational boating, commercial navigation and hydroelectric power production.

From June through August, more than 5,000 people expressed their written views on Plan 2014. More than 200 people also spoke at hearings during July in New York, Ontario, and Quebec. Two teleconferences were held in July.

IJC plans to provide a report on its proposal in 2014.





IJC Proposal for Lake Ontario and the St. Lawrence River

Summer 2013

Photo caption: Genesee River, Lake Ontario. Bruce Sande

contents

The need a new plan for regulating water levels and flows 1

The IJC Proposal for Lake Ontario and the St. Lawrence River 2

Criteria and Conditions for the Order of Approval 2

Plan 2014 2

How would Plan 2014 affect Lake Ontario Water Levels? 3

The International Lake Ontario — St. Lawrence River Board 3

Adaptive Management Strategy 3

Hearing Schedule 4

The International Joint Commission (IJC) is inviting the public to comment on its proposal for managing the water levels and flows in Lake Ontario and the St. Lawrence River that will contribute to the economic health of communities throughout the basin while improving the long-term ecological health of Lake Ontario and the upper St. Lawrence River.

Since 1960, the International Joint Commission has managed the flow of water at the Moses-Saunders hydropower dam, located on the St. Lawrence River between Cornwall, Ontario and Massena, New York. The management of water flows influences water levels on Lake Ontario and in the St. Lawrence River as far downstream as Lake St. Pierre in Quebec. Water levels and flows are driven primarily by precipitation, but the influence of water flow management has provided substantial benefits to the region by reducing flooding and erosion on the Lake Ontario shoreline, reducing flooding downstream, and providing more favorable conditions on the lake and river for water intakes, recreational boating, commercial navigation and hydroelectric power production.

However, water levels on the lake and river are being managed according to criteria that were set more than 50 years ago. Much has changed since then. Updated policies based on current knowledge are necessary to address the present and future needs of all interests the basin.

The need for a new plan for regulating water levels and flows

Lake Ontario is recognized as the most stressed of the Great Lakes due to a variety of factors, including degraded coastal health. Extensive research shows the regulation criteria developed in the 1950s have compressed the range of water levels to the point of degrading coastal wetlands on Lake Ontario and the upper St. Lawrence River. This has adversely affected the health of native plants, birds, fish and other animals. Allowing more natural variations in water levels, while moderating extreme levels, can improve the wetland ecosystem on the Lake and upper river.

The 1950s criteria are based on the limited range of water supplies to Lake Ontario that were recorded from the 1860s to the 1950s. The 1950's criteria created an unrealistic expectation that Lake Ontario water levels can be maintained within a four-foot range (approx. 1.2 meters). Over 50 years of experience, including the low levels of 1965 and the high levels in the mid-1970s, 1993 and 1998 have shown that it is not possible to keep the lake within this range under more wide-ranging water supply conditions. Loss of ice cover, increased storm intensity and warmer temperatures all influence how water levels and flows impact coastal communities, recreational boating and commercial navigation, drinking water, hydropower production, and the system's ecological health.

What is new since the IJC held public information sessions in 2012?

The IJC has carefully considered public comments received last year. The proposal includes the following new features:

- A policy for deviations, including trigger levels for extreme high and low water conditions on Lake Ontario.
- Plan 2014 performs significantly better than Plan Bv7 for Lake Ontario coastal and boating interests while providing nearly the same environmental improvements.
- Conditions and criteria for the Order of Approval that take account of the more extreme water supplies experienced since 1960.
- Numerical criteria for Montreal and Lac St. Louis water levels to retain current benefits for downstream interests.
- Substantial further work on an adaptive management strategy that will be implemented over time.

International Joint Commission
2000 L Street, NW
Suite #615
Washington, DC 20440
234 Laurier Avenue West,
22nd Floor
Ottawa, Ontario
K1P 6K6
IJC.org/en/_/tosl

Part of an insert on Plan 2014 distributed at public hearings and in newspapers.

7

Recommendations on the International Upper Great Lakes Study



Batchawana Bay, in Ontario, on Lake Superior.

In April, long-awaited recommendations from a five-year project on Great Lakes water levels were released by the Commission.

The IJC sent its [advice to the Canadian and the U.S. governments](#) in response to the findings and recommendations of the International Upper Great Lakes Study (IUGLS), which were finalized in 2012.

The IJC advised the governments of its intention to implement Lake Superior Regulation Plan 2012 for regulating outflows at Sault Ste. Marie, which provides additional benefits compared to current regulation, especially during extreme water supply conditions.

The Commission also recommended that the governments investigate structural options to restore water levels in Lake Michigan-Huron by 13 to 25 centimeters (about 5 to 10 inches), including a comprehensive cost-benefit analysis and a detailed environmental impact study.

Specifically, the Commission encouraged governments to focus on options that would not exacerbate future high water levels but that would provide relief during periods of low water.

Lana Pollack, U.S. chair, chose not to sign the Commission report because, in [her view](#), it placed insufficient emphasis on climate change and the need for governments to pursue and fund adaptive management strategies in the basin.

Adaptive Management Task Team

The International Upper Great Lakes Study's final report of 2012 also recommended [the development of an adaptive management strategy](#) to address future extreme water levels in the basin.

To this end, the IJC created an [International Great Lakes-St. Lawrence River Adaptive Management Task Team](#) to develop a detailed Adaptive Management Plan.

This plan marks a new approach to addressing water levels issues, based on

working collaboratively with partners in the Great Lakes-St. Lawrence River system to gather and share critical information over time, assess the information with state-of-the art tools, develop adaptation strategies, measure collective success in managing the impacts of extreme water levels, and adapting accordingly.

The goal is provide a more efficient and cost effective way to support more collaborative decision-making among agencies to reduce the impacts associated with future extreme water levels.

Input on the Task Team proposal was gathered from the public during a series of webinars, each focused on key aspects of the plan, from hydroclimate monitoring and modeling to pilot projects. Comments also were accepted online.

Adaptive management also includes monitoring and assessment of the IJC's regulation at the outlets of lakes Superior and Ontario, and in the Niagara River. During 2014, the IJC plans to pursue this aspect of adaptive management within its existing authorities and budget.

Chapter III: Water Quality

16th Biennial Report

In May, the health of the Great Lakes was highlighted in a 16th Biennial Report on Great Lakes Water Quality.

The report examined how the health of the lakes has changed since 1987, when Canada and the U.S. last updated the Great Lakes Water Quality Agreement.

The analysis was based on 16 measures, which indicate the status of the chemical, physical and biological health of the lakes.

The diagnosis was mixed. While sustained efforts by government and the public have measurably improved water quality, there is still a need for concern.

Seven indicators of chemical integrity for the lakes showed favorable or stable results. Concentrations of toxic chemicals have dropped in herring gulls, fish, sediments and mussels. Some data also reveal a leveling off or reversal of reductions in toxic chemicals like mercury. Still, phosphorus loading from sources such as rain-soaked farm fields and sewer overflows is a problem in places like Lake Erie, where excessive algal blooms have re-emerged.

Two physical indicators—surface water and ice cover—showed a warming trend in the lakes, which suggests that climate change is having an effect.

Five biological indicators showed mixed results, including the fact that 34 nonnative species that became established in the lakes from 1987- 2006, mostly from ballast water discharges from ocean-going vessels. However, the report noted that no new invasive species had been introduced via ballast water since 2006.



From the cover of the "16th Biennial Report on Great Lakes Water Quality."

Finally, two performance indicators were evaluated. The first noted that four out of 43 of the historically contaminated sites known as Areas of Concern had been delisted due to restoration efforts; in the other “hot spots” about a quarter of impairments have been removed due to environmental improvements. In a separate indicator, IJC noted beach closings are still common due to high bacteria levels, and that the number of closings has remained fairly stable during the last 10 years.

The Biennial Report was prepared under the Great Lakes Water Quality Agreement signed in 1978 by the two governments. That Agreement asked the IJC to report regularly on the health of the lakes and on how the governments are meeting their obligations under the Agreement.

Great Lakes Advisory Boards

Under the revised 2012 Agreement, the IJC took steps in 2013 to update its Great Lakes advisory boards.

A public consultation process included seeking input on the composition, structure and functions of the IJC’s Science Advisory and Water Quality boards.

The 2012 Agreement directed the Commission to create a Great Lakes Water Quality Board to be its principal adviser, and a Great Lakes Science Advisory Board to inform the Commission and the Water Quality Board on scientific issues related to the Agreement.

Comments from the consultation process were used by the Commission to craft recommendations on board functions, objectives, and member credentials. The specific functions, or mandates, of the updated boards are subject to the approval of the two federal governments.

The IJC also sought nominations for positions on its Water Quality and Science Advisory boards during 2013. A selection committee was convened by the IJC to evaluate the applications.

In 2014, the IJC will make appointments and convene the boards.

Great Lakes Water Quality Agreement Priorities (2012-2015)



A photo from the LEEP Panel discussion in Milwaukee.

The Commission has adopted major priority areas for its Great Lakes work. For each priority, the Commission has identified a desired outcome by 2015 and assigned a staff management team to work with its Great Lakes boards and other experts. Highlights on these priorities appear below:

1. Lake Erie Ecosystem Priority (LEEP)

In August, a draft report on LEEP was released, titled “Lake Erie Ecosystem Priority: Scientific Findings and Policy Recommendations to Reduce Nutrient Loadings and Harmful Algal Blooms.”

The draft report reflected more than a year of work that brought together Canadian and U.S. scientists to examine lake-wide changes related to phosphorus enrichment from both urban and rural sources, compounded by climate change and aquatic invasive species.

The report recommended additional actions by federal, state and provincial governments to reduce phosphorus inputs to the lake. It called for establishing phosphorus load targets for the Maumee River and the western basin of Lake Erie that would be about 40 percent below average loads of the past five years.

Following the release, the public was invited to comment online. A series of [seven open houses](#) also was held in Michigan, Ohio and Ontario, with an opportunity for people to ask questions and express their views. An eighth comment session included a panel discussion with top scientists and independent experts at Great Lakes Week in Milwaukee, Wisconsin. In total, more than 400 people attended these sessions and more than 100 comments were received.

The public involvement allowed the IJC to make improvements to the draft, and the final LEEP report is to be submitted to the governments in early 2014.

2. Assessment of Progress Toward Restoring the Great Lakes

This priority aims to define environmental and human health indicators that will help track progress under the Great Lakes Water Quality Agreement, developing a framework for assessing the effectiveness of government Great Lakes programs, and documenting existing environmental monitoring and future monitoring needs.

In October, the IJC released two reports on a suite of indicators for assessing the health of the Great Lakes: a “[Technical Report on Ecosystem Indicators: Assessment of Progress towards Restoring the Great Lakes](#)” and a companion, summary document titled “[Great Lakes Ecosystem Indicators –Summary Report: the Few That Tell Us the Most.](#)”

Public comments on the technical report and on refining the techniques for the 16 indicators were accepted during 2013.

During the next phase, in 2014 the IJC will work with its advisory boards and other experts to develop a draft indicator report which will have more specific finer indicator details. A draft of this report will be reviewed by experts and the public before its submission to the governments.

The IJC also is identifying human health indicators and response indicators. Human health indicators focus on the quality of drinking water, beach safety and the risks of fish consumption. Response indicators assess progress made by management actions, such as acres of habitat protected or beneficial use impairments removed in Great Lakes Areas of Concern.

3. Public Engagement and Education

As called for in the 2012 update to the Great Lakes Water Quality Agreement, the Commission helped convene a [Great Lakes Public Forum](#) during Great Lakes Week, in cooperation with Environment Canada and the U.S. Environmental Protection Agency.

Attended by more than 100 people, the Forum was convened to receive public comments on the [state of the lakes](#), progress in meeting objections of the Agreement and to help determine binational priorities for science and action.

For those unable to attend the Forum, coverage was provided by [Detroit Public TV](#) as part of its production of activities at Great Lakes Week.

Chapter IV: IJC Highlights

New Online Features

Since IJC activities have a large geographic scope, our website is one of the major ways we interact with the public. In early 2013, the IJC launched the first major redesign of IJC.org in nine years.

The new portal was [created from the ground up](#), and customized with features that allow for a more appealing, easier-to-use experience for users.

That includes the new and old --- from [historical files](#) and [images](#), to consolidated information on various projects and events, new [interactive maps](#) of [transboundary basins](#), and enhanced ways for the public to review and comment on draft reports, studies, and other documents.



A snapshot of the landing page of IJC.org.

We also launched an [online newsletter](#) to communicate with people, reaching beyond the confines of typical news releases and official announcements to highlight news and feature various projects from the IJC and partner organizations.

People can [subscribe](#) to receive regular newsletter updates via email. Newsletter items and twice-monthly newsletter summaries of recent posts also are shared on social networks including [Twitter](#) and [Facebook](#).

As part of the redesign, sites for IJC [boards and task forces](#) were revamped as well.

And although the new IJC.org is just over a year old, we'll be working on Version 2.0 in 2014, to make further improvements.

Reports to Governments

Throughout the year, the IJC issues [reports](#) to governments on various topics, many of which were covered in previous sections of this report. Below, find a list of reports and letters to governments issued in 2013.

- ◆ 2011-2012 [Activities Report](#), April 2013
- ◆ Lake Erie Ecosystem Priority – [Draft Summary Report](#), August 2013
- ◆ [Plan of Study](#) for the Identification of Measures to Mitigate Flooding and the Impacts of Flooding of Lake Champlain and Richelieu River, July 2013
- ◆ (Souris River) [Plan of Study](#): For the Review of the Operating Plan Contained in Annex A of the 1989 International Agreement Between the Government of Canada and the Government of the United States of America, April 2013

- ◆ Assessment of Progress Made Towards Restoring and Maintaining Great Lakes Water Quality Since 1987 - [16th Biennial Report](#) on Great Lakes Water Quality, April 2013
- ◆ International Joint Commission's [Advice to Governments](#) on the Recommendations of the International Upper Great Lakes Study, April 2013
- ◆ Synthesis of Public Comment on the 2012 Progress Report under the Canada-United States Air Quality Agreement, November 2013.

Commissioners

Seven commissioners served during the period covered by this report.



Canada, Chair
Joseph Comuzzi
Jan. 2010-Jan. 2014



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



U.S.
Dereth Glance
July 2011-present



U.S.
Rich Moy
July 2011-present



Canada
Gordon Walker
June 2013-present



Canada
Benoît Bouchard
June 2013-present



Canada
Lyall D. Knott
April 2009-April 2013

IJC Staff

The IJC has U.S. and Canadian section offices in Washington, D.C., and Ottawa, Ontario. A Great Lakes Regional Office located in Windsor, Ontario, celebrated its 40th anniversary in 2013. Below, find a list of staff as of 2013.

Washington, D.C. Staff

Chuck Lawson
Secretary

Frank Bevacqua
Public Information Officer

Susan Haynes Brown
Administrative Officer

Susan Daniel
Legal Adviser

Talante Henderson
Network Administrator

Brian Maloney
Staff Assistant

Russ Trowbridge
Political Adviser

Joe Babb
Senior Adviser

Antionette Cade
Special Assistant

Mark Colosimo
Engineering Adviser

Dave Dempsey
Policy Adviser

Michael Laitta
Geographic Information Systems Coordinator

Victor Serveiss
Environmental Adviser

Two staff members from D.C. concluded their service with IJC in 2013: Anne Chick, senior adviser; and Ian Herbst, administrative specialist.

Ottawa, Ontario Staff

Camille Mageau
Secretary

Maxime Beauchamp
Assistant Secretary, Finance

Glenn Benoy
Senior Water Quality and Ecosystem Adviser

Jean-François Cantin,
Senior Engineering Adviser

Rose Désilets
Executive Assistant to the Chair

Linda Gauthier
Administrative Assistant

Jasmine Jarjour
Senior Adviser

Sarah Lobrichon
Policy and Communications Analyst

Gavin Murphy
Legal Adviser

Isabelle Reid
Executive Assistant

Isobel Wheatcroft
Administrative Assistant

Ted Yuzyk
Director, Sciences and Engineering

Paul Allen
Manager, Policy, Programs and Communications

Bernard Beckhoff
Public Relations Adviser

Tara Buchanan
Environmental Officer

Tracy Commando
Human Resources Officer

David Fay
Engineering Adviser

Nick Heisler
Senior Adviser, Strategic Planning and Stakeholder Relations

Jeff Laberge
Information Management Officer

Pierre Montreuil
Financial Officer

Anselme Nsoga
Assistant Secretary, Human Resources and Administration

Cindy Warwick
Engineering Adviser

John Yee
Chief, Information Management and Technology Management Services

Co-op student Phillip Zaphiropoulos concluded his service with the IJC in 2013.

Windsor, Ontario Staff

Stephen Locke
Director

Shahbaz Ahmed
Canadian Public Health Officer

Daniel Berube
Senior System Analyst

Mark Burrows
Physical Scientist

Matthew Child
Physical Scientist

Jill Mailloux
Administrative Officer

John Nevin
Public Affairs Adviser

Lizhu Wang
Physical Scientist

Antonette Arvai,
Physical Scientist

Raj Bejankiwar,
Physical Scientist

Jennifer Boehme
Physical Scientist

Mae Carter
Reference Resource Specialist

Sheila Hamstra
Administrative Officer

Monique Myre
Administrative Officer

Diane Varosky
Administrative Coordinator

John Wilson
Physical Scientist

Five staff members from Windsor concluded their service with IJC in 2013: Saad Jasim, director; Doug M. Bondy, regional assistant; Richard Delisle, administrative officer; Giovanna Stasiuk, clerical support; Kathy Tallon, finance specialist; and Karen Ure, administrative specialist.

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	Red River Board	Souris River Board	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 • Rainy-Lake of the Woods Watershed Board 	Lake Champlain-Richelieu River Plan of Study Workgroup	St. Croix River Watershed Board	St. Croix River Watershed Board
Transboundary Boards			
<ul style="list-style-type: none"> • Air Quality Advisory Board • Health Professionals Advisory Board 			

Printed by A/GIS/GPS

April 2014