



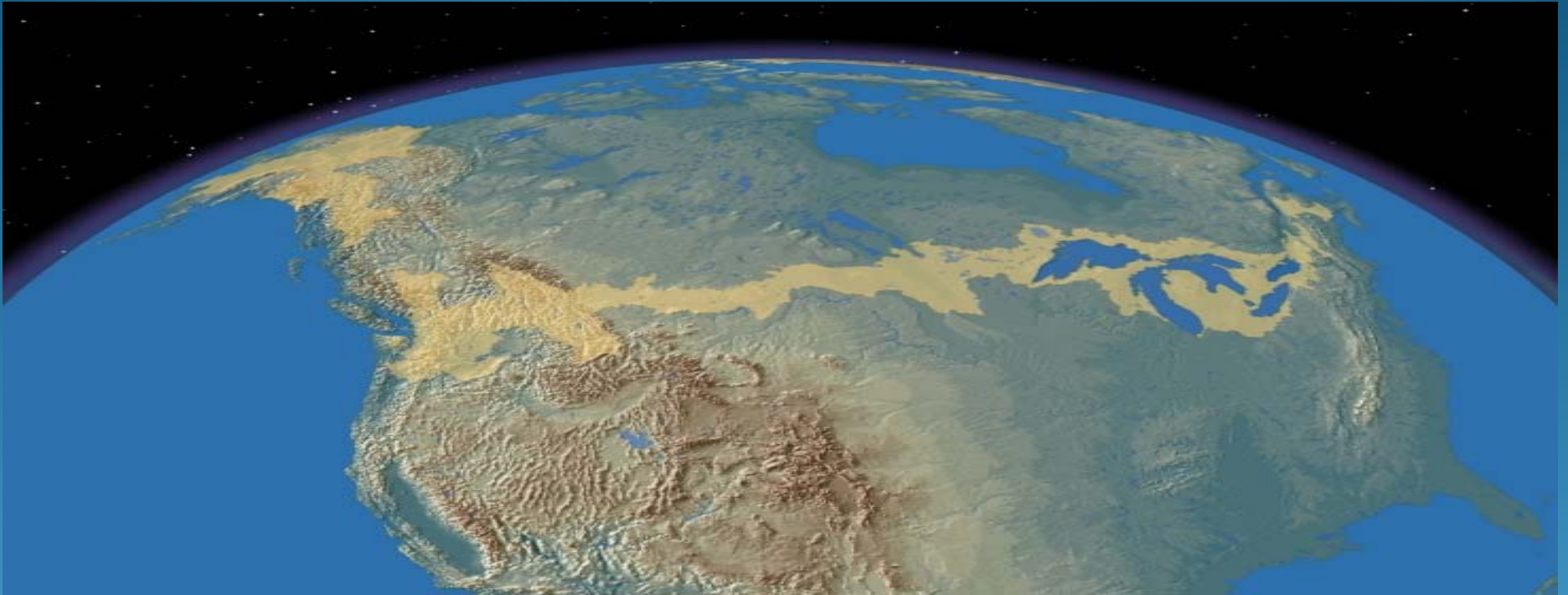
Rich Moy
U.S. Commissioner (2011 to present)
International Joint Commission

My presentation will focus on:

- History of the IJC and the 1909 Boundary Waters Treaty
- How the IJC functions
- A number of IJC activities that could benefit the Columbia River Basin
- The IJC's history with the Columbia River and the Columbia River Treaty



History of 1909 Boundary Waters Treaty



The Alaska Boundary Award 1903

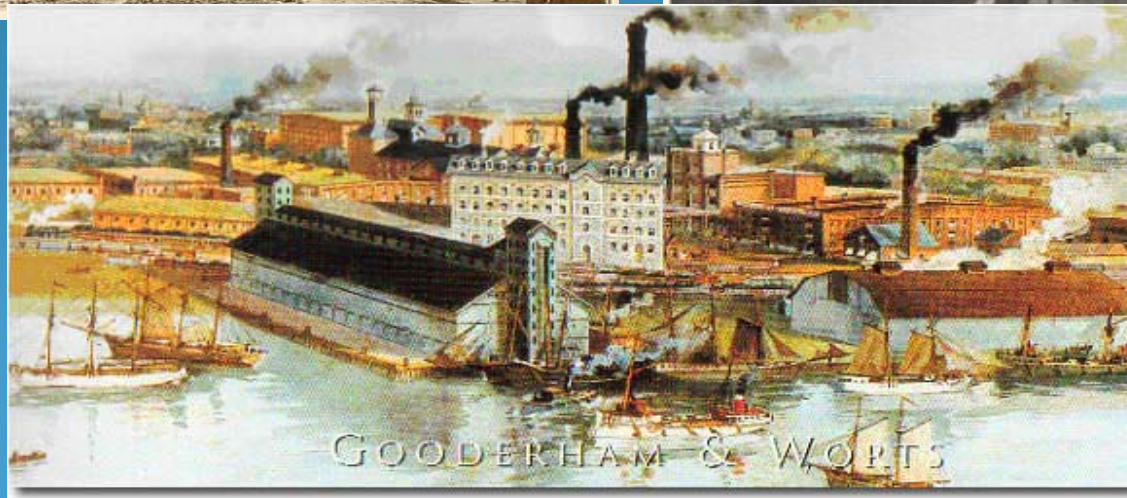
The Treaty was negotiated at a time of industrialization and urbanization of the Great Lakes and other boundary waters



**Cleveland
Ohio Water
Works Plant,
July 4, 1903**



**The Hamilton
Ontario Steel &
Iron Company,
1900**

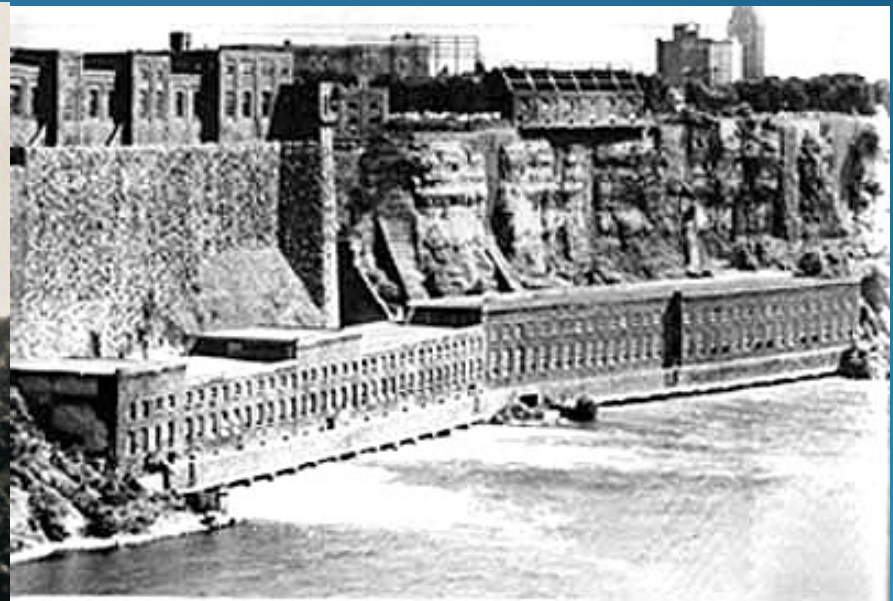


Toronto, Ontario 1896

Two significant border disputes that lead to the negotiations of the Treaty



**Digging the St. Mary Canal
in Montana, 1908**



**Schoellkopf Power Plant
Niagara Falls NY, 1895**

The Treaty provides “Parity of Power” between United States and Canada

“The High Contracting Parties shall have, each on its own side of the boundary, equal and similar rights in the use of the waters hereinbefore defined as boundary waters.”

Article VIII, Boundary Waters Treaty of 1909



More than a century of cooperation, protecting shared waters.

A Treaty ahead of its time!

Great Britain and the United States signed the Treaty to prevent and resolve disputes over the use of the waters shared by Canada and the United States and to settle other transboundary issues

Article IV states “the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.”

Duties of the IJC include:

- Rule on Applications submitted through the U.S. and Canadian governments for approval of projects affecting levels and flows of boundary waters and transboundary rivers
- Reporting Function - Investigates questions or matters of differences between the two countries referred to the Commission as References. Recommendations to governments are not legally binding
- Alerting function – report to governments on new issues of concern as they arise

IJC Organization



All Commissioners are required to take an oath to abide by the 1909 Boundary Waters Treaty

Our Vision

Healthy shared waters for present and future generations

One of our five Mission statements of interest is:

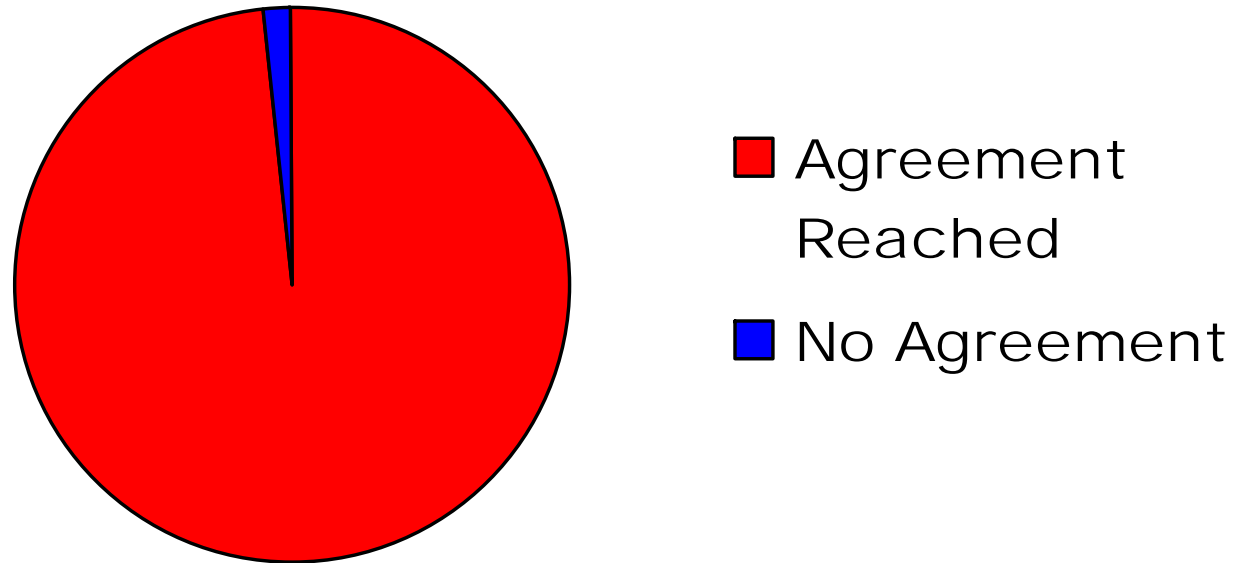
“Assist the governments of Canada and the United States to prevent and resolve disputes by pursuing the common good as an independent and objective advisor”

Our Guiding Principles

- Complete equality between two countries
- Independent – commissioners and staff serve without instruction from the U.S. and Canadian governments
- Experts and advisors serve in their “personal and professional” capacity and do not represent the federal governments
- Maintain high ethical standards of strict impartiality
- Decisions made by consensus, if possible
- Joint fact-finding and science-based evidence as a foundation for building consensus and making recommendations to governments
- Extensive stakeholder and public engagement

The IJC has addressed over 120 References and Applications across our shared boundary from the St. Croix to the Skagit

Figure 3: IJC Dockets 1909-2006



Transboundary Basins

Columbia River Basin

Souris River Basin

Rainy River Basin

Missisquoi Bay
Lake Champlain

Saint. Croix River Basin

St. Mary - Milk River Basin

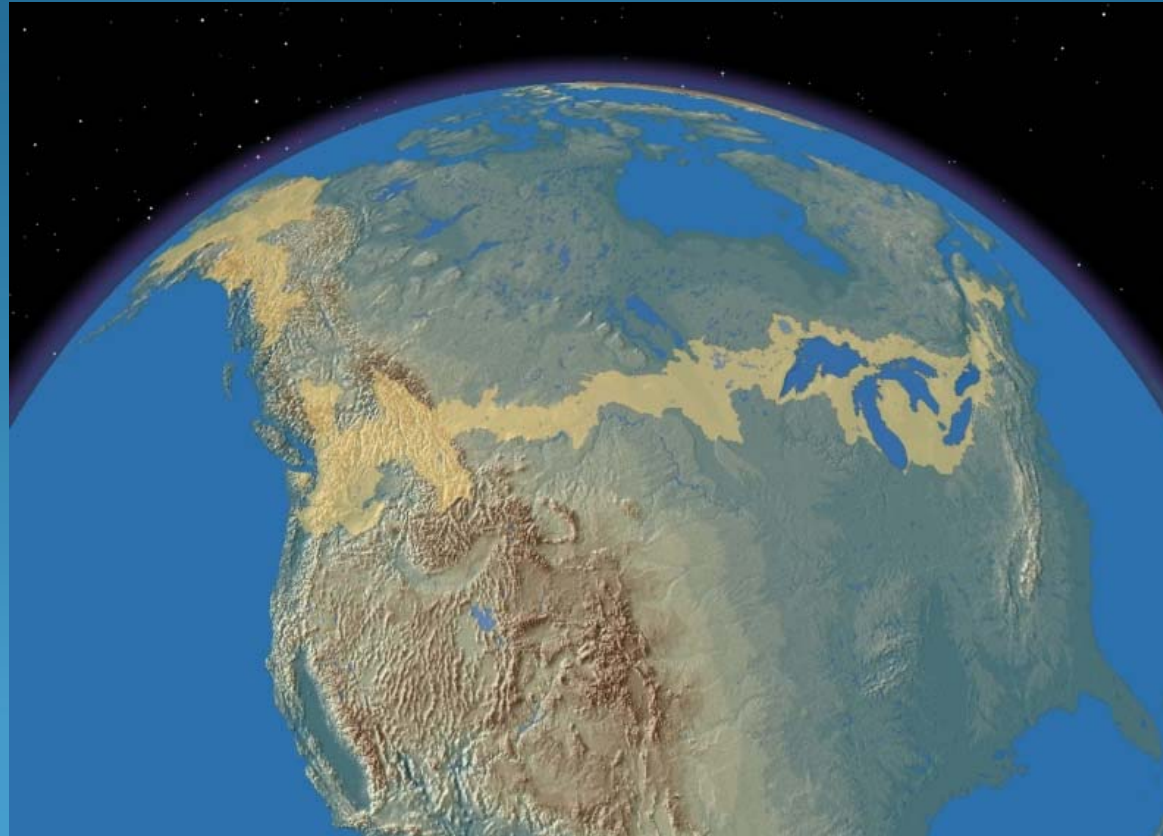
Red River Basin

The Great Lakes
and Waterways



International Watersheds Initiative (IWI)

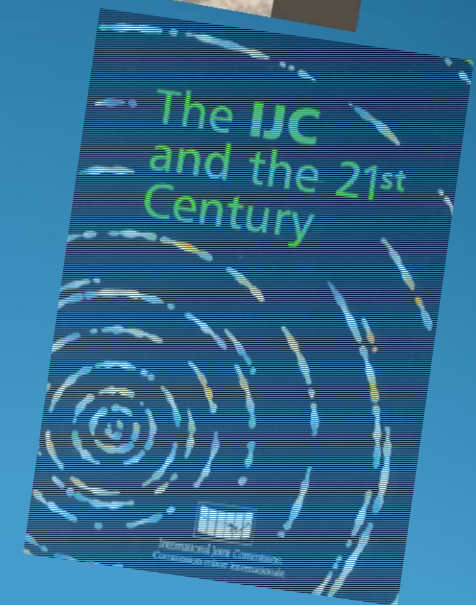
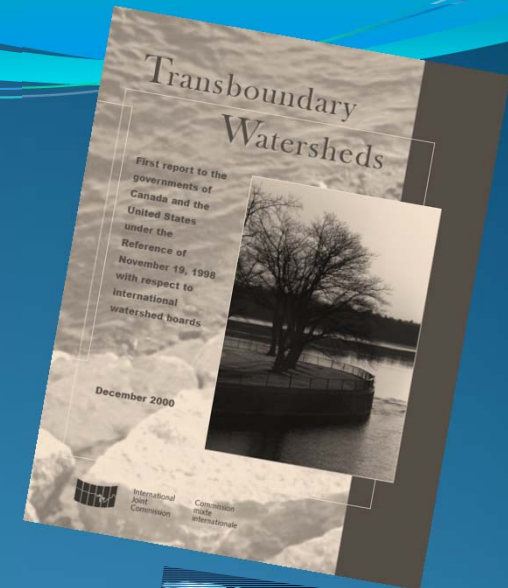
Over 40 percent of the border between the U.S. and Canada is water with more than 300 lakes and rivers that are part of or cross the border



Origin of IWI

In 1996, the U.S. and Canadian governments asked the Commission's advice on how it might best meet the environmental challenges of the 21st century within the framework of our treaty responsibilities.

In 1997, the IJC came up with the International Watershed Initiative (IWI) Program and both federal governments have given their support.



Under the IWI Program, the IJC believes:

- Water resources and environmental problems can best be anticipated, prevented and resolved at the local level before developing into international issues;
- An integrated, ecosystem based approach that recognizes the complex interrelationships within each watershed is the best way to address transboundary issues;
- A common data base is paramount for understanding the science of each watershed---the IJC develops and uses compatible hydrographic and geospatial data and water quality models; and
- The IJC sponsors and funds IWI board projects that aim to address water-related issues within watersheds

The International Watersheds Initiative:

Implementing a New Paradigm
for Transboundary Basins



Third Report to Governments on
the International Watersheds Initiative

January 2009



INTERNATIONAL
JOINT
COMMISSION
Canada and United States

COMMISSION
MIXTE
INTERNATIONALE
Canada et États-Unis



IWI's Guiding Principles

- A focus on “problem solving” within each watershed;
- Our watershed boards are balanced and inclusive--- they are a partnership between local, state, provincial and federal governments and local experts, stakeholders and community leaders including First Nations and Native Americans;
- Use an integrated ecosystem-based approach that is built on a strong scientific foundation;
- Strive to achieve consensus through collaboration and cooperation;
- Maintain open and respectful dialogue;
- Frequently engage the public in a very transparent process; and
- Include an adaptive management process to address a changing climate and other unanticipated conditions.

IWI Boards



St. Croix: Under a 1955 Reference, the IJC recommended actions that governments could take to improve water quality and restore the runs of anadromous fish in the St. Croix River. Recently, we were able to assist in the restoration of the indigenous alewives in the river system.

International Rainy/ Lake of the Woods Watershed Board

- The Board's **mandate** is to monitor and report on the ecological health of the Lake of the Woods and Rainy Lake aquatic ecosystems, including water quality, and to assist the Commission in preventing and resolving disputes within the watershed.
- The Board is made up of **22 members** with strong local leaders and stakeholders in partnership with representatives of state, provincial, tribal and federal government agencies
- The Board has **two large advisory groups** that provide advice and guidance to the Board: the Industrial Advisory Group and the Citizens Advisory Group
- The Board has **three Committees**: Aquatic Ecosystem Health Committee, Public Engagement Committee and Water Levels Committee

Examples of IWI Issues

- Impacts from a changing climate and implementing appropriate adaptive management strategies (i.e. severe and frequent droughts and floods);
- Increased algal blooms (ie Lake Champlain and Lake of the Woods);
- Instream flow needs for fish and other aquatic life;
- Need for science-based water quality objectives for nutrients, heavy metals and other water quality parameters; and
- New environmental and water quality challenges as they arise (AIS).

Knowledge gained from the Great Lakes Water Quality Agreement could benefit the Columbia

The purpose of the Agreement is “to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes basin ecosystem”



The Cuyahoga River on fire in 1969.



President Richard Nixon and Prime Minister Pierre Trudeau signing the Great Lakes Water Quality Agreement, April 15, 1972

More than a century of cooperation protecting shared waters



What happens on the landeffects the water

20% of the world's fresh water is in the Great Lakes

Over 40 million people live in the Great Lakes Basin

Over 70% of the water within the Great Lakes is from precipitation





2009 – Secretary Clinton and Minister Cannon commit to update the GLWQ Agreement.

The new GLWQ Agreement was updated and signed in 2012.



The 2012 Great Lakes Water Quality Agreement

- Defines the purpose, principles and approaches to “restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes.”
- Defines general and specific objectives that the Parties (U.S. and Canadian governments) are to achieve.
- The **General Objectives** include:
 1. A source of safe, high-quality drinking water;
 2. Allow for swimming and other recreational use, unrestricted by environmental quality concerns;
 3. Allow for human consumption of fish and wildlife unrestricted by concerns due to harmful pollutants;

General Objectives: cont.

5. To be free from pollutants in quantities or concentrations that could be harmful to human health, wildlife or aquatic organisms;
6. Support healthy and productive wetlands and other habitats to sustain resilient populations of native species;
7. To be free from nutrients that directly or indirectly enter the waters as a result of human activity, in amounts that promote growth of algae and cyanobacteria that interfere with aquatic ecosystem health or human use of the ecosystem;
8. Be free from the introduction and spread of aquatic invasive species and free from the introduction and spread of terrestrial invasive species that adversely impact the quality of the waters of the Great Lakes;
9. Be free from the harmful impact of contaminated groundwater; and
10. Be free from other substances, materials or conditions that may negatively impact the chemical, physical or biological integrity of the waters of the Great Lakes.



Role of the IJC under the GLWQA

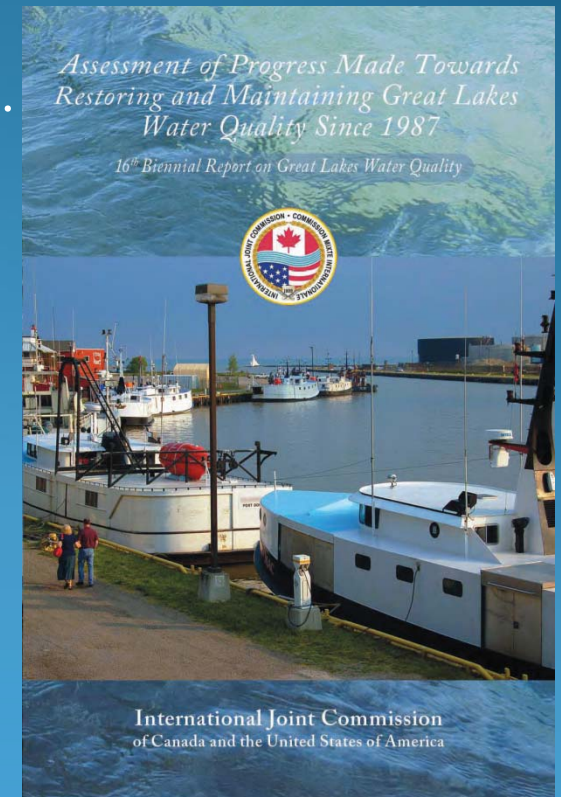
- The IJC analyzes and disseminates data and information related to the quality of the waters of the Great Lakes and pollution that enters the Lakes from tributaries and other sources
- Every 3 years, the IJC as an independent advisor:
 - Evaluates how well the parties are doing to achieve the general and specific objectives;
 - Seeks advice from the general public on the state of the Great Lakes and how well governments are doing to achieve their specific and general objectives; and
 - Assesses the extent to which government programs and other measures are achieving the general and specific objectives of the agreement.

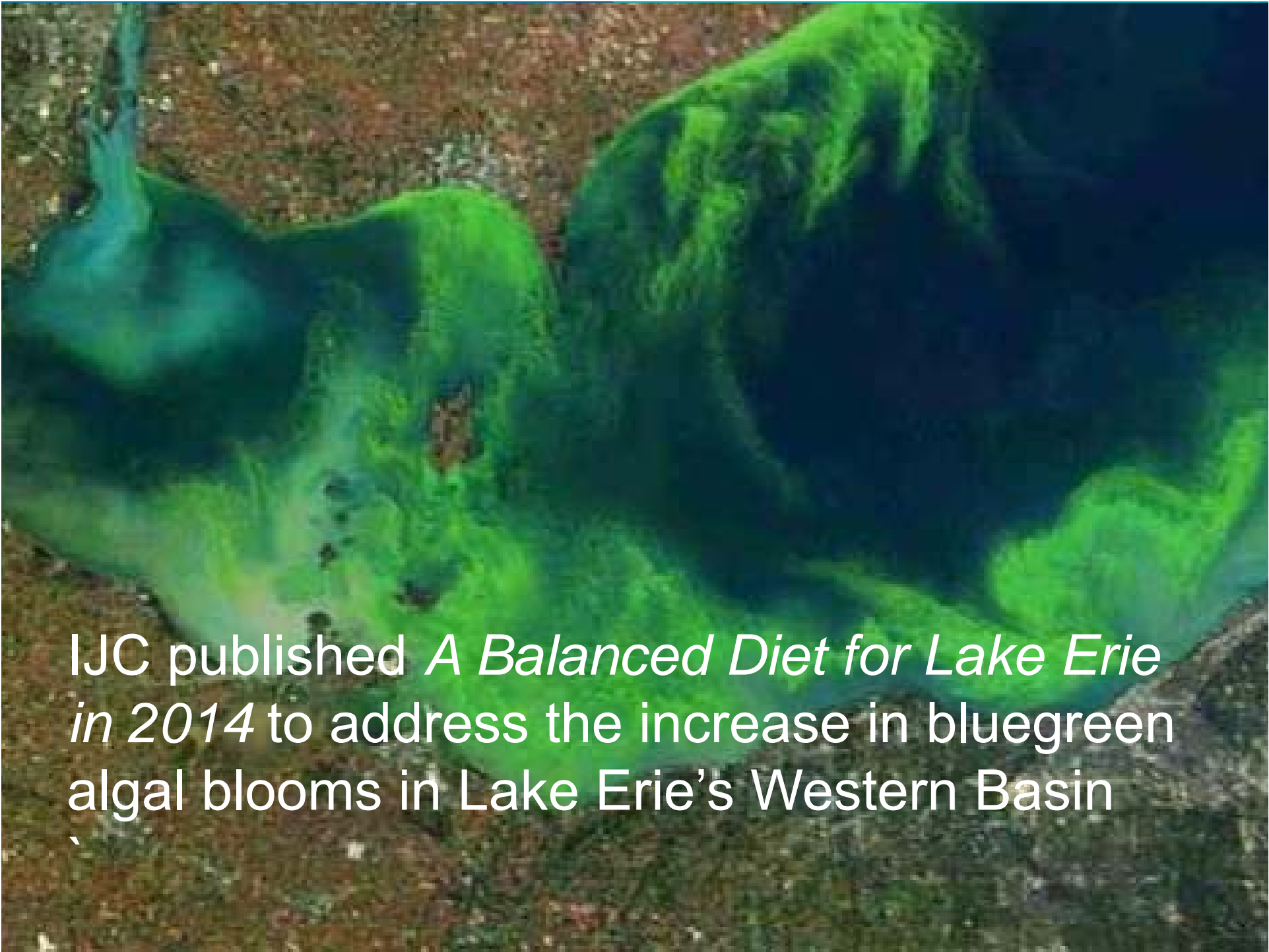
Role of the IJC: cont.

- Created a **24 member Water Quality Board (WQB)** that is the principal advisor to the Commission. The Board assist the Commission by:
 - reviewing and assessing the progress of the parties in implementing the Agreement;
 - Identifying emerging issues and recommending strategies and approaches for preventing and resolving complex challenges facing the Great Lakes; and
 - providing advice on the role of relevant jurisdiction to implement these strategies and approaches.
- Created a **Great Lakes Science Advisory Board** (consisting of the **Science Priority Committee** and **Resource Coordinating Committee**) to provide advice on research to the Commission and to the Great Lakes WQB.
- Use our **Health Professional Advisory Board** to provide advice on clinical and public health issues related to the transboundary environment including the Great Lakes.

Ecological and Human Health Indicators

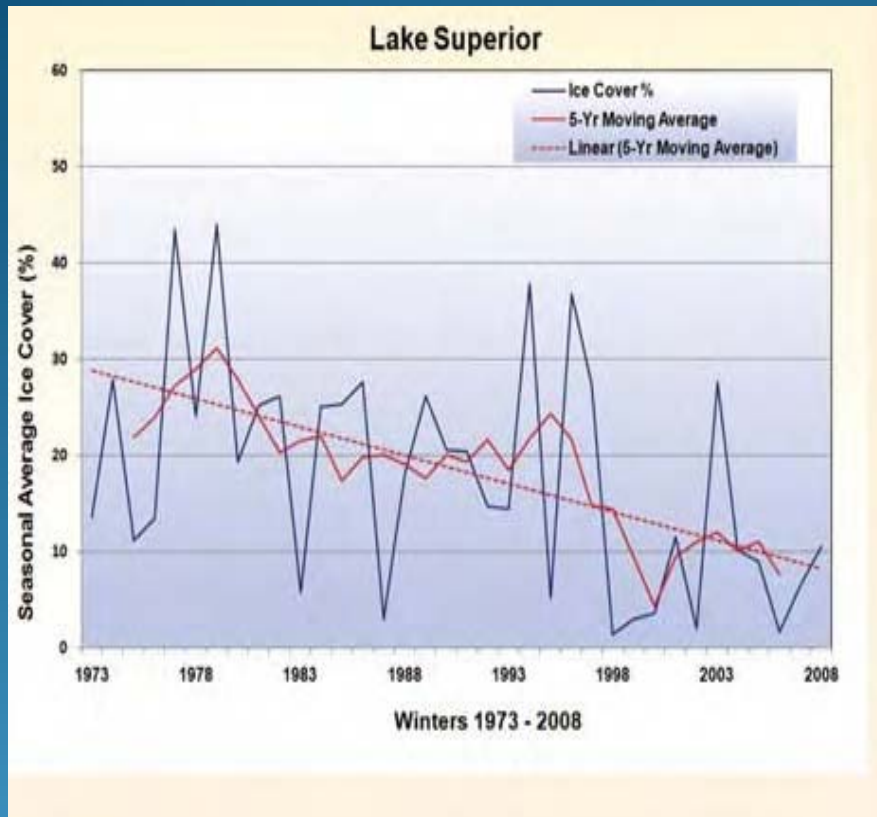
- Before 2011, the IJC had no way of assessing changes in the ecological health of the Great Lakes. There were no long-term trend analysis of key ecological parameters.
- In its 16 Biennial Report, the IJC used 7 chemical, 2 physical, 5 biological parameters and 2 performance indicators to describe how the Great Lakes have changed in the past 25 years.
- IJC spent considerable effort in cooperation with Governments to define the important indicators of human and ecological health.
- In our recent draft TAP report, we recommended that governments frequently present **8 Vital Signs** or indicators to the public.



An aerial photograph showing a large, irregularly shaped area of bright green water, indicating a significant algal bloom. The surrounding water is a darker, deep blue. The bloom is situated in a basin or near a shoreline, with some land visible at the top and bottom edges of the frame.

IJC published *A Balanced Diet for Lake Erie in 2014* to address the increase in bluegreen algal blooms in Lake Erie's Western Basin

Ice Cover is Declining



Seasonal average ice cover declined by 88 percent on Lake Ontario.

The IJC's GL Adaptive Management Committee is assessing the impacts associated with a changing climate



Low & High Water Levels Plague the Great Lakes



The IJC process for revising our Orders for the operations of dams on the Great Lakes could benefit the Columbia River Basin

- We use the **“Shared Vision Model”**.
- We bring together decision makers, experts and stakeholders to work together to create a system model that connects science, public preferences and decision-making criteria.
- Our Binational technical and stakeholder working groups would:
 - first become comfortable with the technical information and the methods used;
 - define the issues and options they would like to see addressed;
 - operate the models to show the trade-offs between the various economic uses and important environmental indicators; and
 - make sure the process is very transparent and open to the public.

Many of the Challenges in the Great Lakes and along our common border are similar to those found in the Columbia River Basin.

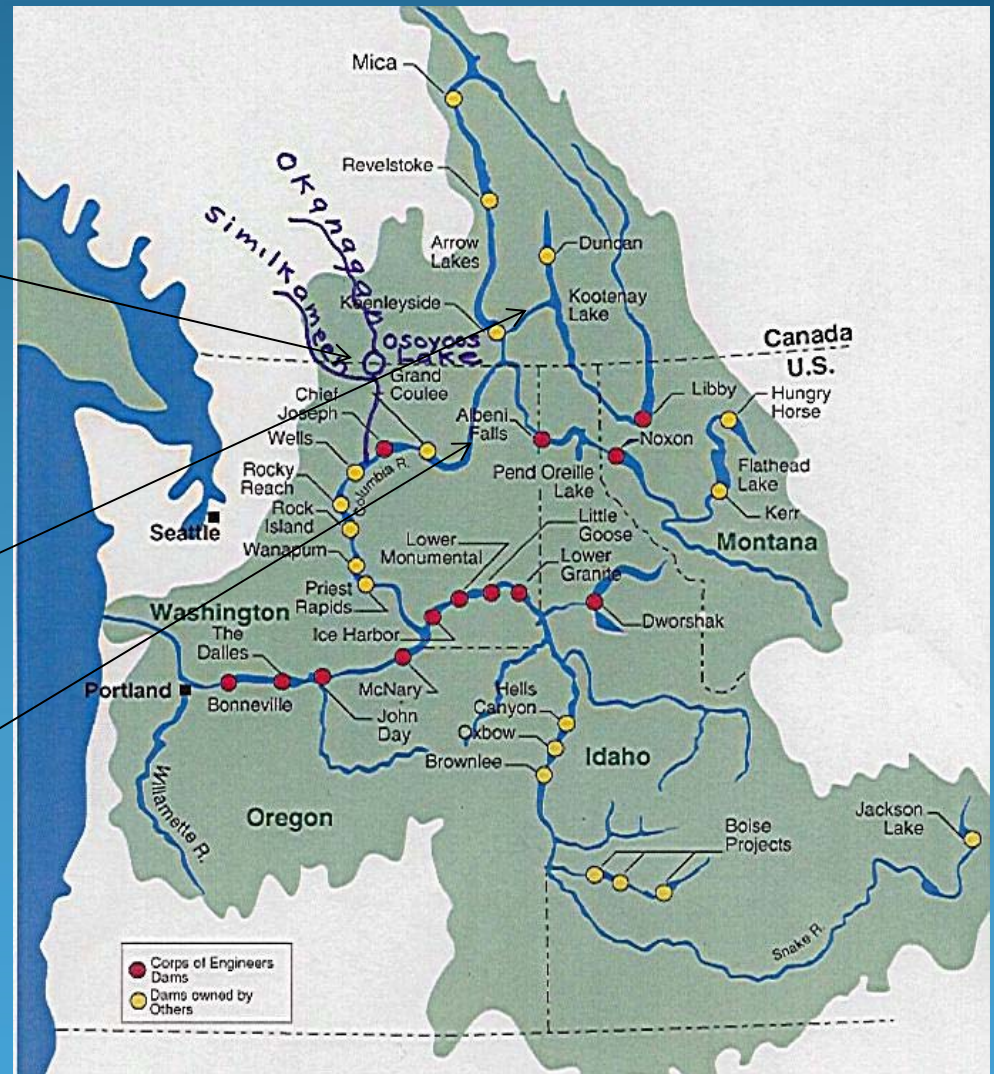
- Impacts from a changing climate: more severe droughts, more rainfall and less snowpack, higher intensity storm systems and floods, and changes in stream flow hydrographs.
- Associated with a warming climate, we are seeing shifts in species composition; increase in nutrient loading, deteriorating water quality and increase algal blooms; and more aquatic and human health issues.
- Other significant challenges include: emerging chemicals of concern and persistent toxic substances; deteriorating infrastructure and recreational water quality and drinking water sources; and the many different types of impacts from aquatic Invasive species (i.e. mussels).

IJC's 3 Orders in the Columbia River Basin

Zosel Dam – Osoyoos Lake –
Okanagan River (1946, 1982,
1986, 2013)

Corra Linn Dam – Kootenay Lake –
Kootenay River (1938)

Grand Coulee Dam – Lake
Roosevelt – Columbia River
(1941)

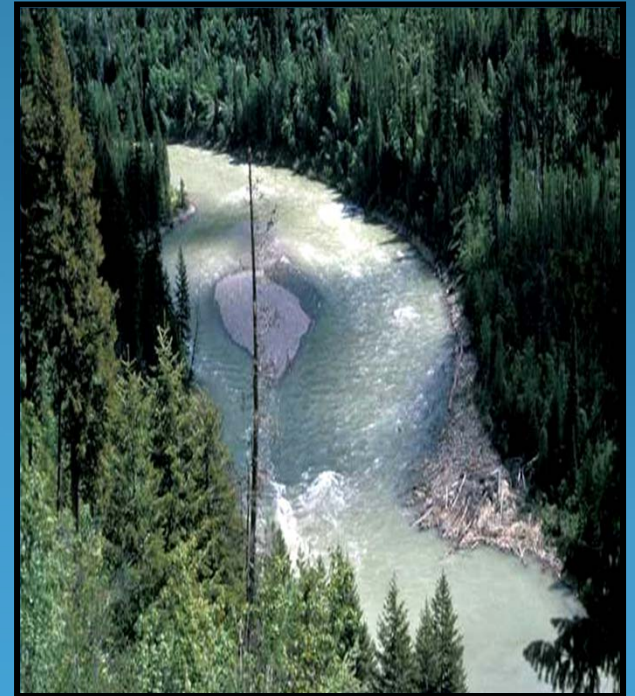


IJC References/Activities in the Columbia River Basin

1927-1931: Trail Smelter Reference – Investigated and reported on air pollution from a smelter at Trail, BC that caused damage to farmers in Washington State. Created the “no harm rule”.

1985-1988: Flathead River Reference - Studied the impacts of a proposed BC coal mine on the North Fork of the Flathead River. Identified potential risks to water quality and the trout fishery.

1980-1984: BC/Seattle Agreement – Facilitated the resolution on the “High Ross” Dam issue to the satisfaction of both BC And the City of Seattle.



IJC Played a Major Role in the Columbia River Treaty

- Canada and U.S. governments asked the IJC under a 1944 Reference to develop the technical framework for optimizing flood control, hydropower production and other beneficial uses in the basin.
- In 1958, the governments came back to the IJC and asked it to define guiding power and flood control principles that should be included in a Treaty.
- The technical data and guiding principles became the foundation for the Columbia River Treaty. The IJC also provided technical expertise to both federal Governments in drafting the Treaty.
- Under the Treaty, three dams were built in Canada and one in the United States.
- Presently, the IJC's role in the Treaty is limited to settling differences arising under the Treaty which the two countries cannot resolve (Article XVI). Disputes may be referred to the IJC by either country. This provision has never been used.

Questions

For more information about the IJC,
check out our website: www.ijc.org

