



**US Army Corps
of Engineers
Detroit District**



Great Lakes Update

The Boundary Waters Treaty of 1909 100 Years of Cooperation

This year marks the 100th Anniversary of the Boundary Waters Treaty of 1909. The Treaty between the United States of America and the Dominion of Canada (through Great Britain) laid the groundwork for peaceful resolution of any water related matter between the two countries. The Great Lakes, themselves being boundary waters (Figure 1) are important to the livelihoods of both the United States and Canada. Several Great Lakes boards of control are operated under Orders of Approval following guidelines set forth in the Treaty.

The U.S. Army Corps of Engineers performs much of its Great Lakes mission under the auspices of the International Joint Commission, an entity created by the Treaty. This article will highlight the historical significance of the Boundary Waters Treaty and provide information on how the Treaty is still in use and relevant to current issues.

Much of the historical content of this article was taken from the International Joint Commission's website. The Commission also has a special website dedicated to Centennial of the Treaty. This website contains the original Treaty text and can be viewed here:

<http://bwt.ijc.org/>

Information on the International Boards of Control was taken from the individual Board websites, listed later in this article.



Figure 1: The Boundary Waters of the US and Canada

The Boundary Waters Treaty of 1909 is perhaps the most important bilateral agreement between Canada and the United States. Over the past century, it has provided a foundation for cooperation on shared natural resources on the basis of equality between the two countries.

Signed at a time when disagreements existed over shared waterways in several boundary regions the Boundary Waters Treaty established the International Joint Commission, to investigate, resolve and prevent boundary water disputes between the two countries.

The International Joint Commission (IJC) reviews applications for projects that affect water levels and flows across the boundary and investigates issues on request from the U.S. and Canadian governments. It has acted on more than 100 such matters during the last century.

The IJC oversees ongoing operations of dams it has approved and monitors compliance with international water quality objectives. It is assisted by boards made up of an equal number of members from each country. The Treaty requires the IJC to involve the public in all matters.

The IJC seeks solutions that are in the best interests of both countries. Commissioners do not receive instructions from their respective governments and make decisions by consensus rather than voting. Decisions are based on joint fact-finding carried out by the boards and through public consultation.

The Need for a Treaty

Since the end of the American Revolutionary War, water rights have been of paramount importance in the relationship between the United States and Canada. The Definitive Treaty of Peace of 1783 between the United States and Great Britain recognized that each country had jurisdiction over waters on its own side of the border. At this time Canada was a part of the British Empire and ruled by the King of England.

Following the Treaty of 1783, several other treaties relating to the use of water along or across the international boundary were ratified. Most of these agreements pertained to the use of the boundary waters for navigational purposes.

The nineteenth century saw other agreements relating to the use and sharing of waters in Europe and elsewhere in North America. In 1895, the Mexico-United States International Boundary Commission was established to study

and report on irrigation and the possibility of building storage dams on the Rio Grande. It was also suggested that at similar setup be investigated for the waters shared by the United States and Canada

After several ideas and meetings, negotiations toward a new treaty began in Washington in 1907. The chief negotiator on the Canadian side was George C. Gibbons, a London, Ontario lawyer who was the Canadian Chairman of the International Waterways Commission. He consulted closely with the Canadian Prime Minister, Sir Wilfrid Laurier; Canadian Minister of Public Works William Pugsley; Canadian Minister of Justice Allen Aylesworth, and the British Ambassador to the United States, James Bryce. The principal United States negotiator was Chandler P. Anderson, special legal adviser to the Secretary of State, Elihu Root, who took a close interest in the formation of the Treaty.

After a series of long and sometimes difficult discussions resulting in several drafts, negotiations were concluded successfully with the signatures of Secretary of State Root and Ambassador Bryce on January 9, 1909

The Treaty was ratified by President William Howard Taft on April 1, 1910 a day after Great Britain. As a fully independent country, Canada has succeeded fully to Great Britain's rights and obligations under the treaty.

The IJC's Great Lakes Boards of Control

As a result of the Boundary Waters Treaty and corresponding Orders of Approval, Boards of Control were created to ensure equitable use of the water in rivers having control structures.

The Superior, Niagara and St. Lawrence River Boards of Control operate under the auspices of the IJC and are made up of an international group of stakeholders including representatives from the

U.S. Army Corps of Engineers, Environment Canada, the U.S. and Canadian Coast Guards and the hydropower companies.

Decisions made by the Boards are not for political reasons. There are agreed upon regulation plans in place that govern the recommendations made by the boards' representatives. The regulation plans were put in place by Orders of Approval issued by the IJC.

The International Lake Superior Board of Control was established by the IJC in its 1914 Order of Approval granting permission for increased hydropower development in the St. Marys River. The Board's duties include setting Lake Superior outflows and overseeing the operation of the various control works (Figure 2), all located in St. Marys River near Sault Ste. Marie, Michigan and Ontario. Activities related to these responsibilities include: conducting studies to develop and improve the regulation plan; monitoring repairs and maintenance of the control facilities; and directing flow measurements in the St. Marys River for the purpose of determining the discharge capacities of the various control works.



Figure 2: The compensating works near the head of the St. Marys River

The Board provides the IJC with advice on matters related to: adverse hydrologic conditions on the lakes; modification of the control facilities; and levels and flows in the St. Marys River, including the environmentally sensitive St. Marys

Rapids. The Board meets at least twice yearly, semi-annually provides the Commission with a report on its activities, and annually conducts meetings with the public. More information on the Superior Board can be found at:

<http://www.lre.usace.army.mil/IJC/Superior/index.shtml>

The International Niagara Board of Control was established by the IJC in 1953 to advise on matters related to the responsibilities for water levels and flows in the Niagara River. The Board's main duties are to oversee water levels in the Chippawa-Grass Island Pool and installation of the Lake Erie-Niagara River ice boom. The Board also collaborates with the International Niagara Committee, a body created by the 1950 Niagara Treaty to determine the amount of water available for the Falls and for power generation.

The International Niagara Control Works (Figure 3) is a structure extending about a half mile into the river from the Canadian shore at the downstream end of the Chippawa-Grass Island Pool. Its 18 sluice gates allow for precise changes in the flow over the Falls and adjustments to the water level in the Chippawa-Grass Island Pool, where water is diverted for hydroelectric power production. The ability to change water levels near Niagara Falls by adjusting gate settings and altering plant diversions has, on numerous occasions, assisted in river rescue operations to save people from going over the Falls.

The Board monitors operation of the control works by the power entities, Ontario Power Generation and the New York Power Authority, under an IJC directive. To lessen the adverse effects from high or low water levels, the power entities are required to maintain the long-term average level of the Chippawa-Grass Island Pool within certain tolerances. Under abnormal flow or ice conditions, these tolerances may be suspended and a somewhat wider range of levels is

permitted. Operation of this structure does not change the total flow of the Niagara River and has little effect on Lake Erie water levels.



Figure 3: Niagara Control Works

The Board meets at least twice a year and provides semi-annual progress reports to the IJC. The Board also produces an annual report on the operation of the Lake Erie-Niagara River Ice Boom and holds an annual meeting with the public to provide information and receive input from all interested persons. For more information on the Niagara board visit:

http://www.ijc.org/conseil_board/niagara/en/niagara_home_accueil.htm

The International St. Lawrence River Board of Control was created in 1952 by an Order of Approval from the IJC. Its main duty is to ensure that outflows from Lake Ontario meet the requirements of the IJC's order. The Board also develops regulation plans and conducts special studies as requested by the IJC. Outflows are set by the Board under the regulation plan and may deviate from plan flows under emergency conditions or winter operations. It may also use its limited discretionary authority when a change from plan flow can be made to provide benefits or relief to one or more interests without appreciably harming others, and without breaching the requirements of the order.

The primary control structure on the St. Lawrence River is the Moses-Saunders hydropower dam

near Massena, NY and Cornwall, Ontario, about 100 miles from the head of the river (Figure 4). This dam was completed in 1960 and is owned and operated by the New York Power Authority and Ontario Hydro. Other structures located near Long Sault, Ontario and Point Iroquois, Ontario are also used in the current regulation plan.



Figure 4: Moses-Saunders Power Dam

The Board meets at least twice a year and provides semi-annual reports to the Commission. It holds meetings with the public annually. More information on the St. Lawrence Board can be found at:

<http://www.islrbc.org/new-Version/engmain.html>

Upcoming Meetings with the Public

International St. Lawrence Board of Control
Open House
Tuesday, September 15 at 7:00 pm
Royal Botanic Gardens
680 Plains Road West
Hamilton, Ontario, Canada

International Niagara Board of Control
Open House
Wednesday, September 16 at 7:30 pm
Burgoyne Room at the St. Catharines Museum
1932 Welland Canals Parkway
St. Catharines, Ontario, Canada.