Frequently Asked Questions

1. The International Niagara Board of Control

1.1. What is the INBC?

The International Niagara Board of Control (INBC) is a body that provides advice on matters related to the Commission's responsibilities for water levels and flow in the Niagara River. The Board's main duties are to oversee water level regulation in the Chippawa-Grass Island Pool and the 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 power generation.

1.2. What are the principal provisions of the Directive from the IJC Constituting the International Niagara Board of Control (INBC)?

The 1953 Directive from the IJC that created the International Niagara Board of Control state that the INBC will review and approve the design and procedures for the installation of the remedial works at Niagara Falls, and exercise control over the maintenance and operation of the International Niagara Control Works in such a manner as to fully meet the scenic beauty requirements of Article IV of the Niagara Treaty. The Board is to collaborate fully with the representatives designated by the Governments of Canada and the United States as provided in Article VII of the Niagara Treaty in the performance of their duties of the ascernment and determination of the amounts of water available for the Treaty. The Niagara Board is to periodically provide the IJC information on the amounts of water available for the Treaty, the amounts of water flowing over the Horseshoe and American Falls, respectively, the amounts of water diverted for power purposes from the Niagara River and the Welland Canal, and the amounts of water diverted from Lake Erie through the Niagara River and Welland Canal for domestic, sanitary, navigation and for any other purpose. The Niagara Board is also required to submit written reports to the IJC twice a year and at at other times when the Commission may direct and to make representatives available to appear before the IJC when requested.

1.3. Who is on the INBC?

The INBC has four members: two from each country, Canada and the United States. Current membership can be found on the Board's website. Members are not paid for the time they devote to INBC activities beyond any salaries they receive from their employer if they are employed by another institution. The members bring a variety of technical and local knowledge to Board discussions.

1.4. How are members of the INBC appointed?

Members of the INBC are appointed by the IJC. Appointments are based on members' technical background and knowledge of the Lake Erie-Niagara River system. Board members are appointed to serve impartially in their personal and professional capacities, not as representatives of particular agencies, interests or geographic regions.

1.5. Does the INBC take formal votes on its decisions?

Similar to the IJC, the INBC operates by consensus rather than by taking formal votes. The Board discusses the probable outcomes of various courses of action, the views expressed by individual members, and input from the public, until consensus is achieved. If consensus is not reached, additional information and discussion may be required to reach an informed solution.

1.6. Does the International Niagara Board of Control regulate the water level and outflow from Lake Erie?

No, the INBC does not regulate the water level and/or outflow from Lake Erie. The INBC oversees the operation of the International Niagara Control Works (INCW), a structure about 0.8 kilometers upstream of the Horseshoe Falls. The structure is used to raise and lower the Chippawa Grass Island Pool to adjust the flow over the Falls. The elevation of the Chippawa Grass Island Pool also affects the amount of water that can be diverted through the tunnels and open channels operated by the Power Entities in Canada and the United States. The influence of the INCW is limited to the Chippawa Grass Island Pool.

1.7. What is done to ensure that the public has input into INBC decisions?

The INBC actively engages the public through various means including annual meetings with the public, the issuance of news releases to media, and the board's website. The Board also receives and responds to phone calls, letters, and email messages in a timely manner. Public input is considered in decision making by the Board.

1.8. Are records of INBC decisions accessible to the public?

Yes, the INBC releases its semi-annual reports to the IJC. These reports are made available to the public on the IJC Board web-site following the spring and fall semi-annual appearances with the IJC. The International Niagara Working Committee's annual report to the International Niagara Board of Control on the Ice boom is published and shared with the public, again on the Board's IJC web-site

2. The 1950 Niagara Treaty

2.1. What is the 1950 Niagara Treaty?

The 1950 Niagara Treaty was signed between the United States and Canada on February 27, 1950. The Treaty concerns the diversion of waters flowing out of Lake Erie to the Welland Canada and the Niagara River (including the Black Rock Canal) and the initial paragraph thereof states that the two Governments recognize "their primary obligation to preserve and enhance the scenic beauty of the Niagara Falls and River and, consistent with that obligation, their common interest in providing for the most beneficial use of the waters of that River". Waters that were diverted into the natural drainage area of the Great Lakes System through the Long Lac-Ogoki works are covered under an exchange of notes between Governments, and are not included in the water allocated under the provisions of the Niagara Treaty.

2.2. What are the principal provisions of the 1950 Niagara Treaty?

The Treaty establishes minimum amounts of water that must flow over Niagara Falls throughout the days of the year to preserve the scenic beauty of the Falls and establishes an order of precedence of use of the water (e.g. including domestic and sanitary purposes and navigation). Water that is in excess of these minimums is split equally between both Countries and can be used for hydropower production.

2.3. What are the minimum flows over Niagara Falls?

The 1950 Niagara Treaty established minimum flows over Niagara Falls for scenic purposes. Note that Niagara Falls refers to the sum of the flow over the American and Horseshoe Falls. The Treaty states that the flow over Niagara Falls should not be less than 2832 m^3/s (100,000 ft^3/s) each day between the hours of 8 a.m., E.S.T., and 10 p.m., E.S.T., during the period of each year beginning April 1 and ending September 15, inclusive; and each day between the hours of 8 a.m., E.S.T., and 8 p.m., E.S.T., during the period of each year beginning September 16 and ending October 31, inclusive. Falls flow should not be less than 1416 m^3/s (50,000 ft^3/s) at any other time.

2.4. How are the waters at Niagara divided between uses and Canada and the United States?

Water in excess of the Falls flow minimums and other priority uses is equally distributed between both the countries for potential hydropower generation, with the exception that the amounts diverted into the Great Lakes basin from the Long Lac and Ogoki works belong to Canada exclusively. This amount was set at 141.6 m^3/s (5000 ft^3/s).

2.5. What happens when there is a minimum Treaty flow violation?

The on-site representatives (Canada / United States) of the International Niagara Committee (INC) conduct weekly inspections to ensure compliance with conditions of the Treaty and to investigate violations. After a minimum Treaty flow violation, the on-site representatives will conduct an investigation and report to the INC member of his/her country while also communicating with the other country's members. The INC member records the amount of the violation (which is reported this to Governments in the INC annual report) and then they may take further action if necessary.

3. The International Niagara Committee (INC)

3.1. What is the International Niagara Committee?

In accordance with Article VII of the 1950 Niagara Treaty, a representative was appointed by each Government: "who, acting jointly, shall ascertain and determine the amount of water available for the purpose of this Treaty, and shall record the same, and shall also record the amounts of water used for power diversions." By an exchange of notes during 1955, the two Governments officially designated these representatives as the INC.

3.2. Who are the members of the INC?

The INC consists of two members, one representing Canada and one representing the United States. Current membership can be found on the Board's website. Members are not paid for the time they devote to INC activities beyond any salaries they receive from their employer if they are employed by another institution. The members bring a variety of technical and local knowledge to Committee discussions.

3.3. How are the members of the INC appointed?

The Canadian member is appointed by the Governor in Council based on a recommendation of the Ministers of the Environment and Foreign Affairs. A Divisional Engineer with rank of Brig. General of the US Army Corps of Engineers typically serves as a US member appointed by US Government.

3.4. What is the relationship between the International Niagara Board of Control and the International Niagara Committee?

The INBC provides advice to the IJC for Niagara River water level and flow matters. Its main duties are to oversee water level regulation in the Chippawa-Grass Island Pool and the installation of the Lake Erie-Niagara River ice boom. The INBC collaborates with the INC who ensure compliance with conditions of the 1950 Niagara Treaty. Thus, the INC verifies that the Falls flow requirements are met and that the amount of water used by each of the Power Entities is appropriate. These amounts are reported to the Governments of Canada and the United States.

3.5. Why isn’t there just one Board or one Committee that deals with all issues at Niagara?

The 1950 Niagara River Diversion Treaty specified that one person from each Country would acting jointly, ascertain and determine the amounts of water available for the purposes of the Treaty, and shall record the same, and shall also record the amounts of water used for power diversions. By an exchange of notes in 1955, these individuals were named the International Niagara Committee. In order for the Countries to meet the terms of the 1950 Treaty, a structure had to be built, the International Niagara Control Works. That structure also had to be operated and maintained. The International Joint Commission, created the International Niagara Board of Control to oversee the operation of the structure to ensure the terms of the Treaty were met. Later in 1967, the IJC issued an Order of Approval for the annual installation of the Lake Erie – Niagara River Ice Boom. Overseeing the installation and removal of the Ice Boom is also a responsibility of the International Niagara Board of Control on behalf of the International Joint Commission.

4. The International Niagara Working Committee (INWC)

4.1. What is the International Niagara Working Committee (INWC)?

The International Niagara Working Committee (INWC) is a body that supports both the International Niagara Board of Control (INBC) and the International Niagara Committee (INC). Members and associates of the Committee obtain, compile and verify Niagara River water use data, conduct ice extent and thickness measurements on Lake Erie, among other

duties. They also perform weekly inspections of the power facilities at Niagara in support of the INC.

4.2. Who is on the INWC?

The INWC consists of eight members, four from Canada and US. One of the four members from each country is appointed as a co-Chair. From Canadian side, the members come from Environment Canada, Ontario Power Generation, and Ontario Ministry of Natural Resources and Forestry. The US side members are from United States Army Corps of Engineers, New York Power Authority, and Federal Energy Regulatory Commission.

4.3. How are the members of the INWC appointed?

The members are nominated by their respective organizations and then appointed by the INBC.

5. The International Niagara Control Works (INCW)

5.1. What is the INCW?

The International Niagara Control Works (INCW) is a structure constructed at the lower end of the Chippawa-Grass Island Pool, about 0.8 kilometers upstream of the Horseshoe Falls. The INCW spans the Niagara River from the Canadian shore to a point a little over halfway across the Niagara River. It consists of 18 sluice gates.

5.2. What is the purpose of the INCW?

The INCW is used to ensure that sufficient flow passes over the Falls and to control the level of the Chippawa Grass Island Pool (CGIP). The level of the CGIP influences how much water is available to be diverted through the tunnels and open cut channels to the hydroelectric facilities in Canada and the United States. The INCW is also used to manage and flush ice from the CGIP and to assist local authorities in responding to emergency situations.

5.3. Who operates the INCW?

The Power Entities, Ontario Power Generation and New York Power Authority operate the INCW.

6. Lake Erie - Niagara River Ice Boom

6.1. Why do the Power Entities install an ice boom at the outlet of Lake Erie each winter?

The ice boom is installed each year to accelerate the formation and stabilization of the natural ice arch that forms at the outlet of Lake Erie near the head of the Niagara River. The ice boom is installed to reduce the frequency and duration of heavy ice runs into the Niagara River. These ice runs may cause ice jams, damage shoreline property, and reduce hydropower diversions.

6.2. Who approves the installation of the ice boom at the outlet of Lake Erie each winter?

The International Joint Commission, through an Order of Approval originally issued in 1964 and last amended in 1999, approves the installation of the ice boom in accordance with the terms of the Order.

6.3. What role does the International Niagara Board of Control play with respect to the ice boom?

The INBC consults with representatives of the Power Entities and such interests as the INBC considers may be affected by the opening of the boom. The Board informs the IJC on the installation, operation and removal of the boom, the formation, retention and recession of the ice cover and ice conditions in the Niagara River. The Board receives formal reports on a regular basis from the Power Entities and advises the IJC when required. The Board reviews the operation of the ice boom when circumstances require but no less frequently than once every five years.

6.4. Does installing the ice boom at the outlet of Lake Erie affect the length of the winter in the Niagara area?

A study completed by the National Academy of Science in 1983 found no evidence that the ice boom affects the temperatures in the Niagara area.

6.5. Who owns and maintains the ice boom?

The Power Entities (Ontario Power Generation and the New York Power Authority) own, operate, and maintain the ice boom.

6.6. Who makes the decision as to when to remove the ice boom?

The Order of Approval for the ice boom requires that it is removed by April 1st. However, depending upon the ice and weather conditions, its removal may be delayed if the ice cover in the eastern section of Lake Erie is greater than 650 km^2 or downstream conditions would be negatively impacted by the boom's removal. Representatives of the INWC and the Power Entities regularly communicate during the ice season, and based on conditions, decide when the ice boom is to be removed. The INBC issues a media advisory once the final decision has been made to remove the ice boom.

7. Other Questions

7.1. How do the Power Entities (Ontario Power Generation and the New York Power Authority) get water from the Chippawa-Grass Island Pool to their respective hydro-electric plants at Queenston, ON and Lewiston, NY?

Both OPG and NYPA divert water from the CGIP above the INCW. Water is carried by gravity through a difference in head to the hydroelectric facilities. The OPG carries water to a forebay by a set of three tunnels and an open channel, whereas the NYPA use two covered conduits for water diversion to its power plant forebay. From the forebay, water may be either discharged through the plants to the Niagara River or pumped to a storage reservoir and later used by the main plants.

7.2. How does the operation of the third Ontario Power Generation tunnel affect levels and flows?

Ontario Power Generation constructed a third tunnel that was put into operation in 2013 to increase its diversion capacity from the Niagara River to be able to better use Canada's share of the water of the Niagara River. The Falls flow minimums specified in the 1950 Niagara Treaty remain in force, as do the limits in the GIP.

7.3. Can the flow over the Falls be stopped completely?

No, the International Niagara Control Works does not extend entirely across the Niagara River and therefore it cannot stop the flow completely.

7.4. I have seen pictures of Niagara Falls being dry; doesn't this prove that the Falls flow can be stopped completely?

In the summer and fall of 1969, the American Falls were dewatered in order to study the erosion that had been happening on the American Falls and to develop options to prevent further erosion. Although many pictures were taken during this time and these give the impression that the Falls were shut off, flow over Horseshoe Falls continued during this period.

7.5. Is it true that 1/3rd of the Horseshoe Falls is in the US?

No, however topographic maps produced by the US Geological Survey (USGS) in 1980 and 1995 showed an incorrect location of the crest of the Horseshoe Falls. These maps gave the incorrect impression that 1/3rd of the Horseshoe Falls was actually in US territory. More recent topographic maps produced by the USGS show the proper location of the crest of Horseshoe Falls. On these maps, the international border crosses the crest of Horseshoe Falls very close to where it meets Terrapin Point, resulting in almost the entire crest of the Horseshoe Falls being located in Canada.