

Columbia River Treaty Governance Webinar

For the Columbia River Treaty Local Governments' Committee and the Columbia Basin Regional Advisory Committee

February 26, 2020

A follow up webinar to answer additional questions was held March 24, 2020

Background

The purpose of this webinar was to provide an explanation of the current Columbia River Treaty governance structure to the Columbia River Treaty Local Governments' Committee (LGC) and the Columbia Basin Regional Advisory Committee (CBRAC). Jeremy Benson, Manager, Planning & Licensing, Generation System Operations at BC Hydro, delivered the presentation. Jeremy has 11 years of experience working on Columbia River Operations. He also assists with current Canada-United States (U.S.) Treaty Negotiations. Prior to his current role, Jeremy was the Secretary to the Canadian Entity for the Columbia River Treaty.

Historical Context

In 1948, flooding devastated communities along the Columbia River in Canada and the U.S., which pushed the Canadian and U.S. governments to investigate co-operation on managing the river. The growing power demand in the Pacific Northwest and B.C.'s then-Premier W.A.C. Bennett's vision for affordable electricity to create economic benefits also helped to drive the process forward. Over the next decade, Canada and the U.S. collaborated to determine where storage should be built to prevent further flooding and increase power generation. Negotiations between the two countries began in 1960, with the Treaty being signed in 1961 and ratified in 1964.

In exchange for a one-time flood control payment and for an equal share of the incremental U.S. downstream power benefits, the Treaty required Canada to build and operate three storage dams – Duncan, Hugh L. Keenleyside and Mica – in British Columbia and allowed the U.S. to build a fourth dam, the Libby Dam, that flooded into Canada. The dams were built slightly differently than how they were laid out in the Treaty. Mica Dam was built higher to allow for additional storage outside of the Treaty, (currently managed through the Non-Treaty Storage Agreement), and a lock was built at the Hugh Keenleyside Dam to allow for transportation of forestry products along the Arrow Lakes Reservoir.

The B.C. government contended that, as all the Treaty obligations and impacts were the sole responsibility of B.C., all the benefits from the Treaty should also go to the people of B.C. This resulted in the 1963 Canada-British Columbia Agreement, whereby most of the Treaty rights, benefits and

obligations were transferred to the Province. British Columbia designated the newly established BC Hydro as the 'Canadian Entity' to implement the Treaty.

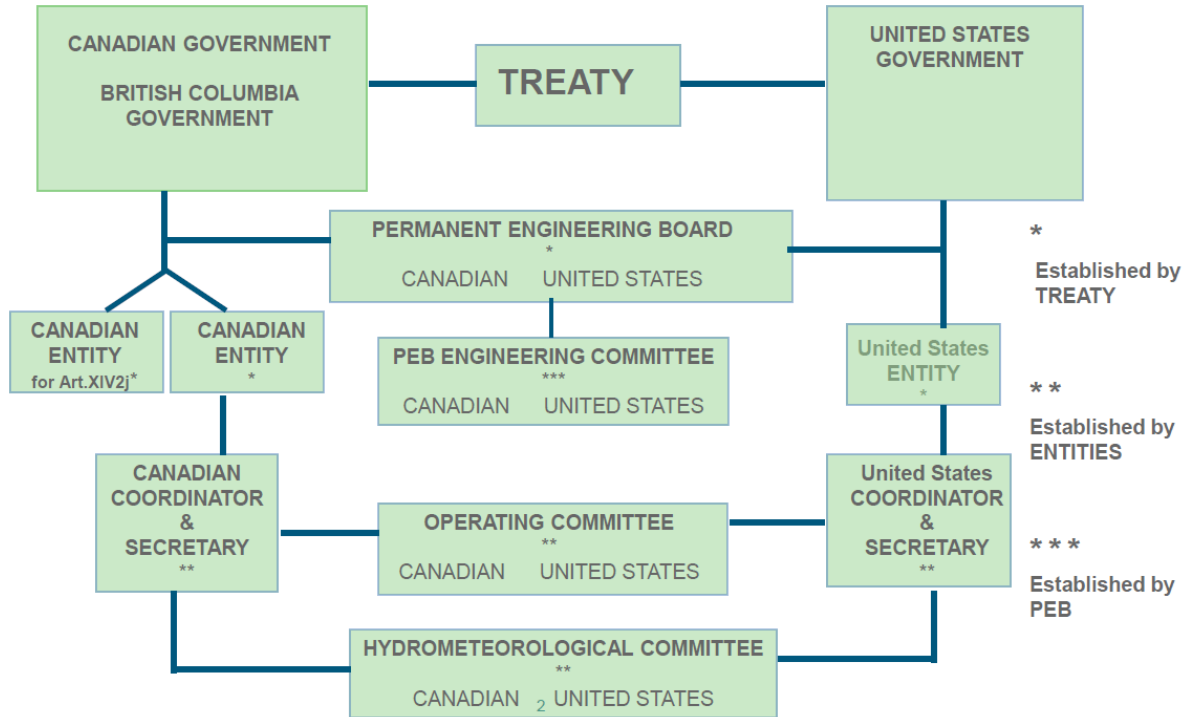
Under the terms of the Treaty, the U.S. pre-paid Canada \$64 million for 60 years of assured flood control operations, which resulted in reduced flood damage and increased safety for U.S. citizens. The U.S. also committed in the Treaty to paying Canada half of the incremental power potential that could be produced as a result of the new flow regimes made possible by the Treaty coordination.

Under the Canada-British Columbia Agreement, the Canadian Entitlement benefits are owned by the Province of B.C. When the Treaty was ratified, B.C. pre-sold the first 30 years of the Entitlement to a consortium of utilities in the U.S. for \$254 million and used the money to partly finance the construction of the three Canadian Columbia River Treaty dams. Those sales agreements expired between 1998 and 2003, and the Province now receives all of the annual Canadian Entitlement.

The U.S. provides the Canadian Entitlement to B.C. in the form of energy and capacity, rather than money. Powerex then sells the Canadian Entitlement on the wholesale market to either BC Hydro or utilities in Alberta and the U.S. The Canadian Entitlement is currently worth approximately \$100-\$150 million each year, depending on power market prices, and that revenue goes into the Province of B.C.'s Consolidated Revenue Fund.

The Canadian Entitlement continues as long as the Columbia River Treaty is in place. If the Columbia River Treaty is terminated, the Canadian Entitlement ends. Canada is required to provide some flood protection for as long as the three Treaty dams exist, even if the Treaty is terminated. However, in 2024 the assured flood control provisions change to a more ad hoc "called upon" operation that takes effect only in extreme flooding years, whereby, unless Canada and the U.S. come to a new agreement, the U.S. must make effective use of its reservoirs before calling on Canada for additional storage. This "called upon" operation would remain in effect should the Treaty be terminated by either side.

Columbia River Treaty - Organization



This chart reflects the current Columbia River Treaty governance structure.

Description of Roles

The Canadian Government and the United States Government are parties to the Treaty. B.C. is listed in this chart along with the Canadian government because the 1963 Canada-British Columbia Agreement allocates most Treaty rights, benefits and obligations to the Province. Although this agreement retains Canada’s constitutional jurisdiction for international treaties, it requires Canada to obtain the agreement of the Province before terminating or amending the Treaty. In the U.S., it is the responsibility of federal agencies to consult with state governments on Treaty matters. Decisions related to termination and amendments are made by the federal administration.

Appointees responsible: Prime Minister of Canada and President of the U.S.

The Treaty established Canadian and U.S. **Entities** and a **Permanent Engineering Board**.

The **Permanent Engineering Board (PEB)** was established by the Treaty to oversee the work of the Entities, to ensure they implement and operate the Treaty as originally envisioned. The PEB is not a decision-making body and does not have direct involvement in the day-to-day operations of the Treaty. If there is a dispute between Entities, they can bring it to the PEB for advice.

The PEB reports to the Canadian and U.S. governments, and primarily does so by issuing annual reports, all of which can be found on the U.S. Army Corps of Engineers website¹. The PEB handles tasks such as assembling flow records, assisting in settling differences that may arise between the Entities, and creating annual reports of the results being achieved. The PEB consists of four members, two appointed by Canada, and two by the U.S. The PEB has its own committee which consists of Canadian and American appointees who do day-to-day work and prepare for briefings.

Appointees: Two Canadian and two American representatives.

Entities

The Canadian and U.S. Entities were established to implement the Treaty

Canadian Entity – The Canadian Entity is composed of BC Hydro, which is responsible for hydroelectric operations, and the Province of B.C., which is responsible for the disposal of the Canadian Entitlement. The current Canadian Chair is Chris O’Riley, President and CEO of BC Hydro. The Coordinator is Heather Matthews, Director of Generation System Operations, BC Hydro. The Secretary is Chris Revell, Coordination Agreements Specialist Planning & Licensing, Generation System Operations, BC Hydro.

U.S. Entity – The U.S. Entity is composed of the Bonneville Power Administration (BPA), primarily responsible for management of the Columbia River system for hydroelectric power purposes, and the U.S. Army Corps of Engineers (USACE), primarily responsible for flood risk management. There is a Coordinator and Co-chair for each agency. There is one Secretary, who is a representative from BPA. The Coordinator is responsible for system operations. The Secretary is typically an engineer who works in the same department as the Coordinator. In the U.S., the Chairs rotate every two years, unlike in Canada where the Chairs are long-term.

¹ <https://www.nwd.usace.army.mil/CRWM/PEB/>

Committees

The Entities appoint representatives to the Operating and Hydrometeorological committees.

The **Hydrometeorological Committee (Hydromet Committee)** consists of Canadian and U.S. hydrologists and engineers, and reports to the Operating Committee. The Hydromet Committee is responsible for measuring the flows and reservoir elevations throughout the Columbia Basin as needed for Treaty purposes. They are also responsible for developing and maintaining a hydromet network across the basin that is used for weather and inflow forecasts for the region.

Appointees: Engineers from USACE, BPA and BC Hydro.

The **Operating Committee** is responsible for ensuring the operation of Treaty facilities meet the requirements specified by the Treaty. It plans the operation of storage which includes both downstream discharges and reservoir elevations.

On the Canadian side, the committee's Chair is Darren Sherbot, and the members are Gillian Kong, Doug D. Robinson and Herbert Louie, all from BC Hydro. The Operating Committee meets in person every two months and discusses current operations, events of the past two months and expected events in the upcoming months.

An Assured Operating Plan (AOP) is developed six years in advance using historical inflow data. The AOP contains the Treaty storage operating rules and the resulting downstream power benefit (half of which is the Canadian Entitlement). The AOP is published and signed by the Entities (BC Hydro, BPA and USACE).

Approximately one year in advance of the targeted operations, the Operating Committee develops a Detailed Operating Plan (DOP) that applies updated, more current data to the operating plan. The DOP is similar to the AOP but only focuses on operations. The Canadian Entitlement is not recalculated and all changes are by mutual agreement of the Entities. Historically, differences between the AOP and the DOP have been small.

The DOP also provides for parties to enter into supplemental operating agreements, such as the non-power use agreements, which allow BC Hydro to operate the Arrow Lakes Reservoir for whitefish and bull trout, and helps the U.S. meet flow requirements for various environmental and other interests downstream. The Treaty is sometimes criticized for focusing only on power and flood control, but the non-power uses agreement is one example of how the Treaty designers understood the uncertainty in future conditions and had the foresight to create mechanisms that could incorporate other interests.

Appointees: Representatives from BC Hydro, BPA, USACE.