

Understanding the Columbia River Treaty

The first step to knowing how a 50-year-old agreement between the United States and Canada affects Northwest residents begins with the basics

By Jennifer Brown

The future of the Columbia River Treaty may be one of the most important issues affecting the Northwest that most people haven't heard about.

Signed in 1961 and implemented in 1964, the treaty is an agreement between the United States and Canada that helps guide the operations of the Columbia River Basin for flood risk management and power control.

Although the treaty has no end date, either country may end most power provisions of the treaty in 2024 with a minimum of 10 years' notice. The earliest that 10 years' notice could start is this September.

Some treaty provisions—mostly related to flood risk management—will remain in effect even if some power provisions are terminated.

The History

The Columbia River is the fourth-largest river on the continent—as measured by average annual flow—and generates more power than any other river in North America. Its headwaters originate in British Columbia.

Only 15 percent of the basin is in Canada, but Canadian waters account for about 38 percent of the annual volume that flows by The Dalles Dam on the Columbia River.

Until 50 years ago, the river was unregulated and faced flooding issues along its banks. A key example is the 1948



Mica Dam in British Columbia was built to provide 7 million acre feet of water storage as outlined in the Columbia River Treaty, plus another 5 million acre feet referred to as “non-treaty storage.” In comparison, Grand Coulee Dam in Washington has 5.2 million acre feet of storage.

Photo courtesy of Bonneville Power Administration

flooding—and destruction—of the city of Vanport, once the second-largest city in Oregon.

In 1944, the U.S. and Canada asked the International Joint Commission—an

organization formed by both countries under the 1909 Boundary Waters Treaty—to study development of the Columbia Basin waters in Canada. Following a 15-year study, the



Columbia River Treaty storage projects.

Map courtesy of BPA

commission made recommendations that led to the Columbia River Treaty. In 1960, negotiations began between the U.S. and Canada on the selection, construction and joint use of specific hydroelectric projects.

Two entities were created to implement the treaty. Representing the U.S. was the administrator of Bonneville Power Administration and the Northwestern division engineer of the U.S. Army Corps of Engineers. Representing Canada was the British Columbia Hydro and Power Authority.

At the time, storage capability was a concern. Because the river was free flowing and not controlled or contained by dams, water storage was limited. By nature, the river could generate more power in the spring due to snowmelt and rain. But the rest of the year, power was lacking.

As part of the treaty, Canada built three dams: Duncan, Hugh Keenleyside and Mica. The U.S. built Libby Dam on the Kootenai River—a tributary of the Columbia River—in Montana. By building these four dams, storage in the Northwest doubled. Storage capacity increased from 15 million acre feet to 30 million acre feet.

“By doubling the size of storage in the Columbia River Basin, water could be moved around to the benefit of power and flood control, which benefitted both countries,” says BPA and treaty spokesperson Mike Hansen.

The Cost of Expansion

As part of the treaty agreement, Canada received \$64 million from the U.S.

“The U.S. made a one-time payment to help build some of the reservoirs,” Hansen says. “For the type of damage that could happen (without the dams), that was a very good deal.”

Canada also was entitled to half of the downstream benefits of storage—half of the power that is generated by the agreement. There were two ways Canada could reap the benefits.

“BPA would return the power to them, but they didn’t need the power,” Hansen explains. “So for the first 30 years, they took a lump-sum check for their half and used it to build the dams.”

Those Canadian entitlement benefits totaled \$254 million.

“That was also a very good deal,” Hansen says.

Since 2004, BPA has provided power—rather than cash—to Canada: about 500 average megawatts per year, which is enough energy to power 365,000 Northwest homes for a year.

Fifty-Year Changes

The treaty states that after 50 years, either country can decide to renegotiate or terminate the treaty. This stipulation looks to benefit Northwest residents.

“The value of that 500 megawatts is \$250 million to \$350 million per year,” Hansen says. “We believe that going forward—post 2024—the actual value of the Canadian entitlement is worth significantly less than half of what we are currently paying.

“We believe there is an opportunity to rebalance the Canadian entitlement. That saves Northwest ratepayers money. Since BPA is a not-for-profit entity, any money

BPA saves could potentially reduce wholesale power rates.”

Environmentally speaking, much has changed in the 50 years since the treaty was designed. In the 1960s, there was no Endangered Species Act requiring mitigation measures for salmon and steel-head runs. The Northwest Power and Conservation Council—which develops regional power plans—was not formed until 1980. Aside from power and flood control, environmental concerns were not considered.

Since 1993, however, the treaty has been used to meet requirements of the Endangered Species Act.

“For example, 1 million acre feet of additional storage has been used to help with flows that can help migrating salmon,” Hansen says.

Changes to the treaty would provide ways to make eco-based system improvements to further benefit endangered species, Hansen notes.

Moving Forward

Last December, the U.S. entity sent a regional recommendation to the U.S. Department of State, which will determine how—or if—the treaty will change.

“The region’s goal is for the United States and Canada to develop a modernized framework for the treaty that ensures a more resilient and healthy ecosystem-based function throughout the Columbia River Basin, while maintaining a similar level of flood risk and assuring reliable and economic hydropower benefits,” Hansen says. “It is important for the treaty to balance power production, flood risk management and ecosystem-based function as the primary purposes, while also recognizing and implementing all authorized purposes.

“We have been told by the State Department that it could take six to nine months for them to conduct an internal review and determine the next steps. However, it could take longer.” ■

For more information about the Columbia River Treaty, go to www.crt2014-2024review.gov.