

## Columbia River Treaty Fact Sheet

The Columbia River Treaty is an international agreement between Canada and the United States of America for the cooperative development and operation of the water resources of the Columbia River Basin for the benefit of flood control and power.



### Historic Dates

**1909** – Boundary Waters Treaty established principles and procedures affecting boundary waters and created an International Joint Commission (IJC) to study/resolve issues relating to joint use of boundary waters.

**1944** – U.S. and Canadian governments request IJC determine feasibility of developing Columbia River System.

**1945** – Columbia River Engineering Board concludes that further development is both practicable and in public interest of both nations.

**1948** – Memorial Day flood of 1948, with over 50 deaths and destruction of Vanport, Oregon's 2nd largest city.

**1959** – IJC recommends Principles for determining and apportioning benefits for the cooperative use of storage. Treaty negotiations begin.

**1961** – Columbia River Treaty signed and ratified by U.S. Senate.

**1964** – Treaty is ratified by Canada and implemented. Canadian "Entitlement" to U.S. power benefits sold for 30 years.

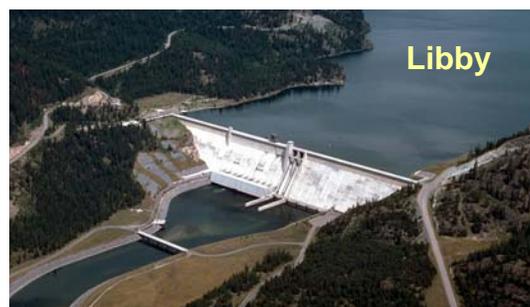
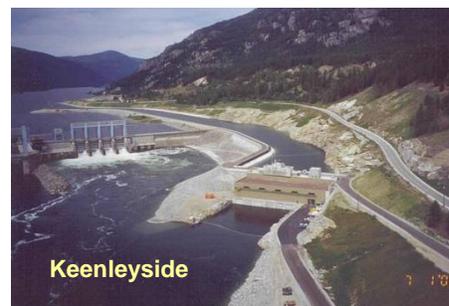
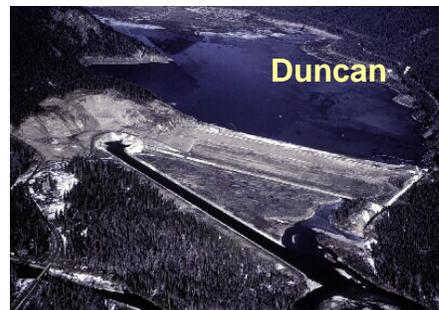
**1967** - Duncan Dam is completed.

**1968** – Arrow Dam (re-named Keenleyside) is completed.

**1973** – Mica and Libby dams are completed.

## Treaty Projects

- ▶ The Treaty required Canada to build and operate three dams with 15.5 Million acre-feet (Maf) of storage on the Columbia and a tributary in Canada.
- ▶ The Canadian projects are:
  - Mica with 7 Maf Treaty storage + 5 Maf non-Treaty storage
  - Duncan with 1.4 Maf Treaty storage
  - Keenleyside (Arrow Lakes) with 7.1 Maf Treaty storage
- ▶ The Treaty allowed the U.S. to construct and operate Libby dam with 5 Maf of storage on the Kootenai River in Montana for flood control and other purposes.
- ▶ Canadian Treaty storage reduces flood flows, reduces spill, and shifts energy from low value time periods to high value time periods.
- ▶ The Treaty coordination between Canada and US on power and flood control provides \$100's million dollars of annual mutual benefits across the Columbia River Basin.
- ▶ The Treaty motivated infrastructure and governance development such as the electrical intertie to California, regional power preference legislation, added generators at most Columbia dams, and several regional power coordination agreements.



## Columbia River Basin

- ▶ Fourth largest river in North America (by volume).
- ▶ Average annual flow at the mouth is about 198 Maf.
- ▶ Canada has 15% of the basin area, but 30% of the 134 Maf average annual flow at The Dalles.
- ▶ Fifty percent of the flows at The Dalles during the worst flood (1894) came from across the Canadian border.

## Power

- ▶ Columbia River is the largest hydroelectric producing river on the continent.
- ▶ Provides over 40 percent of the total electricity produced in British Columbia, Canada, and about 30 percent for the Pacific Northwest in the U.S.
- ▶ Under the Treaty, the U.S. must deliver electric power to Canada equal to one-half the estimated U.S. power benefits, or the “Canadian Entitlement”, from the operation of Canadian Treaty storage.



## Flood Control

- ▶ Canada is obligated to operate 8.45 Maf of storage (recently increased to 8.95 Maf due to Arrow – Mica re-allocation) under a flood control operating plan which specifies assured reservoir drafts.
- ▶ Plus all additional storage on an on-call basis (as requested and paid for)... this has never been used to date.
- ▶ As the dams were completed, the U.S. paid Canada \$64.4 million for one-half the present worth of the expected future U.S. flood damages prevented from 1968 through 2024.
- ▶ The unconditional guarantee by Canada of 8.95 Maf of flood control was purchased only through 2024.