



US Army Corps
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Northwestern Division

The Columbia River 2014/2024 Treaty Review

March
2008



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The Columbia River Basin



Significant Investment in Water Resources

- **Columbia Basin: 259,000 square miles**
- **Fourth largest river basin North America**
- **Crosses international boundary and seven state boundaries.**
- **Diverse ecosystems from interior rain forests to grasslands, to deserts.**
- **Over 700 species of fauna.**



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Columbia River Basin



Flood of 1948:

**60 people died.
Town of Vanport Destroyed
Damages throughout the basin.**



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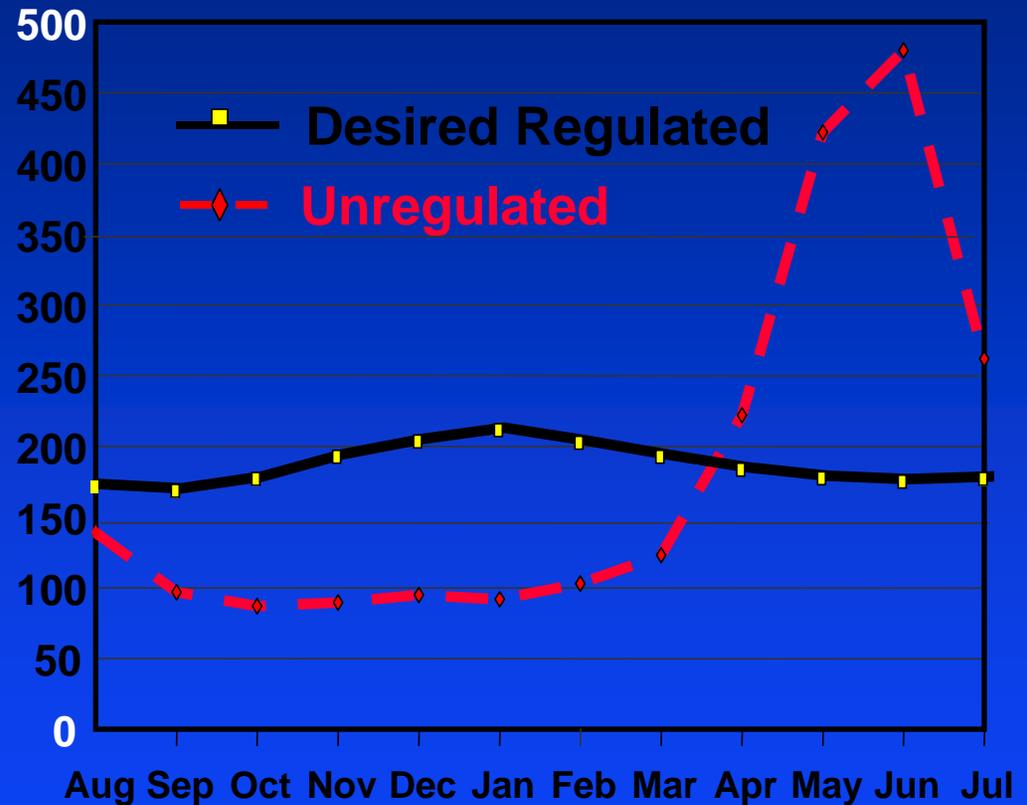
Large Seasonal Flow Variation

1/3 of the Columbia River
water comes from Canada.

Canada has 15% of the basin
area, but 30% of 134 million
acre feet (MAF) average
annual flow at The Dalles.

50% of worst Columbia flood
flows at The Dalles came
from Canada.

Flow at border varies from
14,000 to 555,000 cubic feet
per second (cfs), much wider
variation than Mississippi or
St. Lawrence





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TREATY BACKGROUND

- **US/Canada Treaty - Why?**
 - USA had hydropower and flood control needs.
 - Canada had excellent dam sites.

- **Treaty ratified in 1964.**
 - Required Canada to construct Mica, Arrow, & Duncan Reservoirs. Operate them for flood control and power generation.
 - Required US to pay Canada 50% of estimated value of the future flood control benefits in the US & deliver 50% of the increased power capability. US paid in lump sum.
 - Permitted US to construct Libby. Allows for Canada to divert water from Kootenay River (this hasn't happened).



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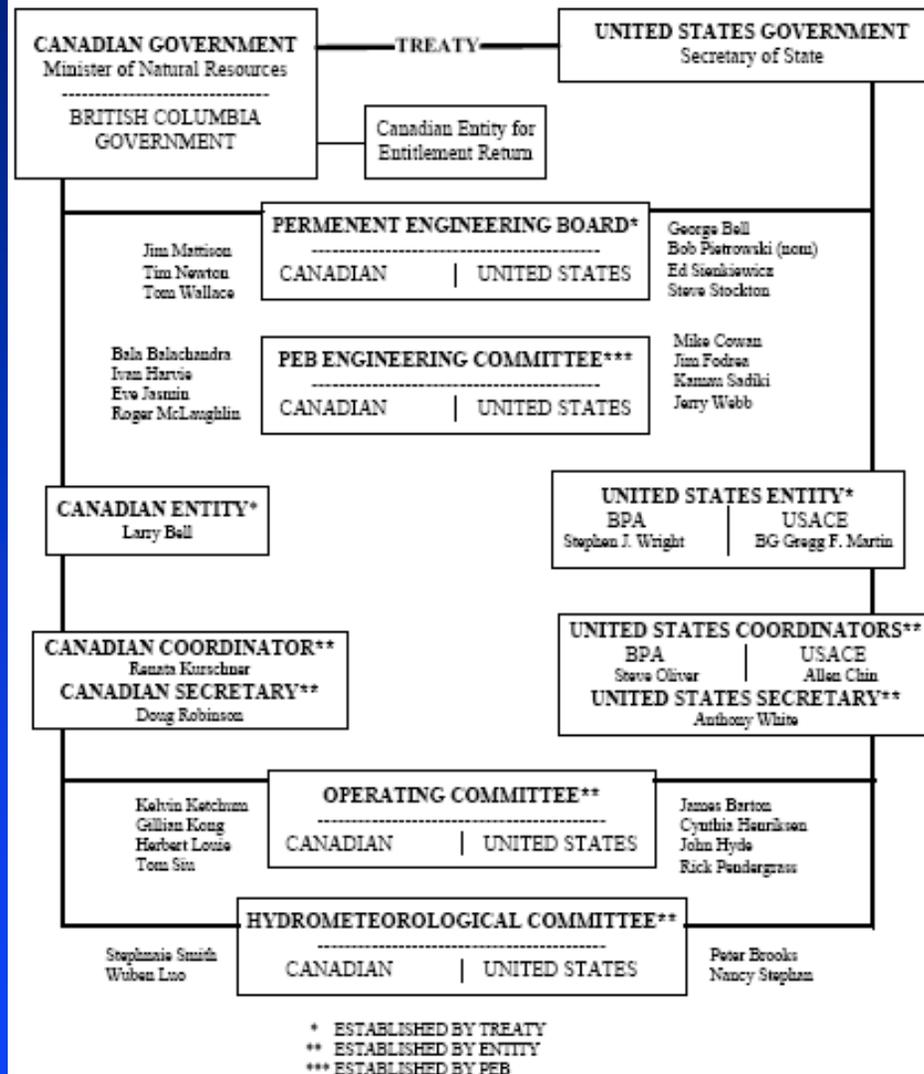
TREATY BACKGROUND

- Either government has option to terminate in 2024.
- Must give a 10 year advance notice - thus 2014 is date that is used for notification.
- **If Terminated:**
 - Mica, Arrow, Duncan, Libby may continue to operate.
 - Canada may provide some amount of flood control. Compensation will be required.



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COLUMBIA RIVER TREATY ORGANIZATION





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Assumptions

- ❑ **Treaty will be “revisited”:** outputs/impacts will have to be evaluated.
- ❑ **State Department will negotiate treaty.**
- ❑ **Canada will come to the negotiation table and desire compensation for hydropower, flood control, and other benefits.**
- ❑ **Other stakeholders in the Columbia basin will want to be involved in the process.**
- ❑ **Accurate, up-to-date, information will be necessary to enter into negotiations.**
- ❑ **Corps will play a lead role in developing information.**



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Flood Control Provisions

- **Pre-2024:**
 - **Canada is obligated to operate 8.45 Maf of storage [recently increased to 8.95 Maf due to Arrow – Mica swap] under an annual 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.**
- **Post-2024:**
 - **Annual flood control operating plan was only purchased until 2024, when it ends independent of Treaty termination.**
 - **US required to prove need and request Called Upon flood control.**
 - **Requests are only to be made after all US flood control is used.**
 - **Consultation is required for determination of US need.**
 - **Canada to be compensated for all costs or losses.**
 - **Many legal, policy, & technical unknowns regarding implementation.**



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Treaty Alternatives

- A. Operational and/or Payment Changes without Changing Treaty
 - A variation on (A) that may facilitate subtle adjustments
 - Could include new operating objectives and changes to reduce Canadian Entitlement
 - Flood control is either renegotiated or converted to called-upon
- B. Modification / Amendment to Treaty:
 - Coordination mechanisms modified to include values not allowed under (B);
 - Canadian Entitlement could be revised.
 - Flood Control is either renegotiated or converted to called-upon.
- C. Treaty Termination (by either or both parties):
 - Some Treaty terms remain, i.e. called-upon flood control and operate the dams.
 - Reduced coordination; no downstream power benefit payments.
 - Unlikely that flood control payments and amount could be renegotiated
 - International Joint Commission likely resumes jurisdiction under Boundary Waters Treaty.
- D. Treaty Stays in Place with Minimum Action:
 - Flood Control is converted to “Called Upon” storage with some payment arrangements
 - Power storage operation and Canadian Entitlement to ½ U.S. power benefits remain.
 - Related agreements (e.g. Libby Coordination, Aspects of Delivery, Entitlement Allocation, PNW Coordination) to be renewed?



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The Path Forward

- A Study/Review is needed to develop technical information and possible scenarios to be used by the State Department/Decision makers.
- NWD has developed a draft PgMP on how to manage the study.
- Study will be in partnership with BPA
- Others (NOAA, BOR, USFWS) will also want to be involved.



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Management Needs and Objectives

- **DRAFT PgMP developed**
 - **Portland is lead district**
 - **PM will be in Portland District, job to be advertised soon**



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Complex Study. Need to develop detailed PMP

- While Flood Risk Management and Hydropower were the focus of the original treaty other impacts/outputs could include:
 - Navigation.
 - Anadromous Fish.
 - Resident Fish.
 - Wildlife.
 - Recreation.
 - Water Supply & Water Quality.
 - Cultural Resources.



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The Path Forward Funding

- FY08: Estimated \$600,000 -
For District Scoping
- FY09: Budget for FY09 (as
line item under "Surveillance of
Northern Boundary Waters".)
HQ will Support (\$10,000,000)
- Future: Overall, could be \$30-
\$60 million effort



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The Path Forward Timeline

- **FY 08: Scoping on High Priority Work Groups.**
- **FY 09: Technical work to begin, stage-damage update high priority**
- **FY 10-12: Continuation of alternative analysis and technical work.**
- **FY 2013: Complete.**



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