Bruce A. Measure Chair Montana

Rhonda Whiting Montana

W. Bill Booth Idaho

James A. Yost Idaho



Joan M. Dukes Vice-Chair Oregon

Bill Bradbury Oregon

Tom Karier Washington

Phil Rockefeller Washington

September 28, 2011

MEMORANDUM

TO: Council Members

FROM: John Shurts

- **SUBJECT:** (1) Report on the *Third Annual Symposium on Transboundary River Governance in the Face of Uncertainty: The Columbia River Treaty, 2014*, Kimberley, British Columbia, Oct 3-5
 - (2) Update on the Columbia River Treaty 2014/2024 Review

The first two items on the agenda for Wednesday October 12 concern the Columbia River Treaty. The first will consist of a report on the transboundary symposium on the treaty that will have taken place the week before in Kimberley, British Columbia. I will be the staff lead for the report, but I expect that Barbara Cosens of the University of Idaho School of Law will be on the phone to offer comments from the perspective of the university coalition hosting the event. The Chair, the Vice Chair and several other members will have been in attendance, and may make comments as well.

The Council and the Columbia Basin Trust are joint sponsors of this symposium, as they have been of the past symposia. To remind the members of the underlying purpose of this symposium and the reason and terms of the Council's sponsorship, I have also attached the sponsorship decision memo to the Council from last March. More information may also be found at the website for the symposium: <u>https://sites.google.com/site/crtthirdannualsymposium/</u>

The second item on the Council's agenda will be an update from representatives of the federal agencies that are engaged with state and tribal representatives in the *Columbia River Treaty* 2014/2024 Review. The website for the review is at: <u>http://www.crt2014-2024review.gov/</u>.

By the time of the Council meeting, the sovereign review entities will have just completed a third round of "Stakeholder Listening Sessions" to discuss the future of the Columbia River Treaty after 2024 with a broadly invited group of interested participants. The listening sessions will take place in Spokane, Portland and Boise. The main focus of the listening sessions will be to learn about and comment on a set of preliminary alternatives developed by the Sovereign Technical and Sovereign Review Teams as well as an overview of an "Iterative Modeling Process" for modeling and evaluating the alternatives.

ATTACHMENT

Bruce A. Measure Chair Montana

Rhonda Whiting Montana

W. Bill Booth Idaho

James A. Yost Idaho



Dick Wallace Vice-Chair Washington

Tom Karier Washington

Bill Bradbury Oregon

Joan M. Dukes Oregon

March 30, 2011

MEMORANDUM

- TO: Council Chair and Vice-Chair Public Affairs Committee Fish and Wildlife Committee
- **FROM:** John Shurts, General Counsel John Harrison, Public Information Officer
- **SUBJECT:** Request to the Council for sponsorship and funding assistance for the Universities Consortium on Columbia Basin Governance's proposed "Third Annual Symposium on Transboundary River Governance in The Face of Uncertainty: The Columbia River Treaty, 2014"

Introduction and staff recommendation for sponsorship and funding assistance

The Universities Consortium on Columbia Basin Governance (made up of representatives from the University of Montana, University of Idaho, University of Washington, Oregon State University, and the University of British Columbia) has hosted two symposia on Columbia River Basin governance and the Columbia River Treaty, the last at OSU in Corvallis last November. There seems to be consensus support among the universities and others for the utility of holding another this fall, this time in British Columbia, probably Cranbrook.

The university consortium representatives have now agreed on the basic outlines or details of the symposium. A draft of their symposium abstract is attached, and the relevant parts about the symposium are repeated below. The Council and the Columbia Basin Trust are being asked again by the universities to help sponsor and fund the symposium. The request for funding support is again \$10,000. The universities have also asked the CBT and Council to allow Kindy Gosal, for the CBT, and John Shurts and John Harrison, for the Council, to sit on a Steering Committee with the universities and others to help plan the symposium further. And the Council

and CBT are being asked to support a student from the one of the universities to help organize materials for the symposium (essentially a research and logistics support intern).

The CBT, through Kindy Gosal, has already responded to the university consortium that it accepts the request. That is, the CBT will help sponsor the symposium, committed \$10,000 in funding support, will allow Kindy Gosal to be part of the Steering Committee, and will support a student.

The staff recommends the Council agree to the do the same. In accordance with our usual process for considering requests of this nature, the universities request for sponsorship and funding assistance will be considered by the Public Affairs Committee at the April Council meeting. The substance of the symposium proposal will also be discussed in the Fish and Wildlife Committee.

Universities' proposal for the third annual CRT symposium (excerpted from attached):

The Third Annual Symposium [proposal details as of March 2011]

The Third Annual Symposium on Transboundary River Governance in The Face of Uncertainty: The Columbia River Treaty, 2014 will take place in the fall of 2011, probably the week of October 2nd. The symposium will take place in the Columbia basin in British Columbia, presumably in or near Cranbrook, the most convenient major airport. We will schedule the symposium as much as reasonably possible around complementary events, including the Columbia Basin Trust Board of Advisors Water Committee meeting.

The symposium will focus on a transboundary group discussion of alternative scenarios for the Columbia River Treaty and related questions and considerations. Possible scenarios and relevant information, questions, and considerations as source material for the symposium participants will be developed prior to the symposium by the universities, as described below. The objective of symposium will be to produce by its end a set of revised scenarios *and* related ideas, considerations and commentary that the symposium participants would like the Entities and Sovereigns on both sides of the border take into serious consideration in their deliberations and public processes.

Throughout the spring and summer of 2011 students at many of the universities represented in the consortium, under the direction of the faculty representatives, will be reviewing the relevant literature, researching key questions, and interviewing a wide variety of people on both sides of the border. Based on this information, the students will begin developing a set of scenarios for where the region, the Entities and the nation might take the Treaty. The students will also be developing and analyzing a set of associated questions, such as what can be accomplished without requiring a formal Treaty process and what possibilities exist for widening public participation.

A report on the results of the student's work, including interview summaries and scenario development, will be provided in June of 2011to the universities, the Entities, the Northwest Power and Conservation Council, the Columbia Basin Trust, other key federal, state and provincial agencies, and relevant tribes and first nations. Results of interviews by the University of Idaho class in particular will be presented at the PNWER conference in July 2011, along with breakout sessions to obtain further input on possible scenarios. These reporting and discussion sessions will inform areas of further research and development for

the summer of 2011 that will help improve the source materials and plausible scenarios for discussion at the symposium itself in October 2011.

The Columbia Basin Trust and the Northwest Power and Conservation Council will be asked again to sponsor and help fund the symposium. Each will be asked for \$10,000. The universities will also approach others for funding assistance.

Both the CBT and the Council will also be asked to support at least one student from both Canada and the USA over the late spring and summer of 2011 to help research and organize materials for the symposium as well as assist with additional fund raising and logistics. Both the CBT and the Council may be asked to provide support and financial sponsorship for students to get involved.

The CBT will also assist in the organization of this event by acting as a "local" host organization and will facilitate the inclusion of Selkirk College and College of the Rockies as local post-secondary academic institutions who should participate in some way;

A Steering Committee to help further plan the symposium will consist of representatives from the universities, the CBT, the Council, the Entities, and the First Nations/Tribes on both sides of the border. Both CBT (Kindy Gosal) and the Council (John Shurts/John Harrison) will be asked to sit on the Steering Committee for this event. The Steering Committee will be named in late March and meet as soon as reasonably possible to set the exact date and develop the agenda for the symposium.



2014/2024 Review Columbia River Treaty

Overview of Preliminary Phase 2 Alternatives

Northwest Power and Conservation Council

Presented by Nancy Stephan – Bonneville Power Administration Matt Rea – U.S. Army Corps of Engineers

October 12, 2011





U.S. Army Corps of Engineers - Bonneville Power Administration

The Columbia River Treaty

"Relating to International Cooperation in Water Resource Development in the Columbia River Basin"

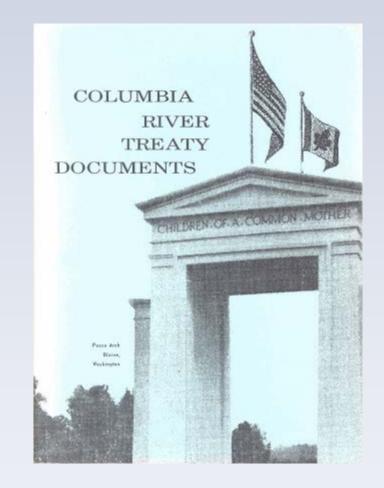
An agreement between Canada and the United States of America, signed at Washington, D.C., January 17, 1961



Libby Dam and Lake Koocanusa, Montana and British Columbia

Why conduct a Treaty 2014/2024 Review?

- 1. <u>The Treaty has no specified</u> <u>end date</u>; however, either nation can terminate most of the provisions of the Treaty as early as Sep 2024, with a minimum 10 years' written notice.
- 2. Current assured annual flood control operating procedures will end in 2024, <u>independent</u> of the Treaty termination decision.



Columbia River Treaty 2014 / 2024 Review

Description

Studies jointly conducted by USACE and BPA on behalf of the U.S. Entity in collaboration with regional Sovereigns and stakeholders to evaluate the benefits and costs associated with alternative Treaty futures.

Purpose

Enable the U.S. Entity to make an informed recommendation, aided by the assistance of regional sovereigns, to the U.S. Dept. Of State by September 2013 as to whether or not it is in the best interest of the U.S. to continue, terminate or seek to renegotiate the Treaty.

Authorization

Columbia River Treaty executed between the U.S. and Canada in 1964 authorizes the U.S. and Canadian entities to conduct studies necessary to implement the Treaty.

Columbia River Treaty 2014 / 2024 Review Program Scope

- 1. Work Completed to Date
 - a) Phase I: U.S./Canadian Entities Joint Technical Studies
 - b) U.S. Entity Supplemental Studies

2. Work Currently Underway

- a) Corps Flood Risk Management Studies
- b) Regional Engagement with Sovereign and Non-sovereign Interests
- c) Coordination with US Departments of State and Energy
- 3. Future Work (Currently Being Scoped)
 - a) Additional Technical Analysis
 - b) Evaluation of Treaty Alternatives

Regional Engagement Plan

Sovereign Review Team:

- 1. States: OR, WA, ID, MT
- 2. NW Tribes: 5 representatives (USRT, CRITFC, UCUT, Cowlitz, CSKT)
- 3. Federal Agencies: NMFS, USFWS, BOR, USACE, BPA, BLM, EPA, USFS, USGS, BIA, NPS)

Northwest Stakeholders:

- Regional Listening Sessions
- Listening sessions directly between the SRT and regional stakeholders and technical experts

SRT Framework Questions

- 1. What justification is needed to support a regional recommendation?
- 2. What are the benefits and costs to the U.S. of continuing the Treaty?
- 3. Is this significantly better compared to termination?
- 4. Are either of these scenarios acceptable from the perspective of ecological function, flood risk management, and power production?
- 5. As an alternative, the region may recommend modification or amendment to the Treaty. If that is the case:
 - a) What would the U.S. objectives be with this modification or amendment?
 - b) What justification would we need for this recommendation?

SRT Sideboards for Study Alternatives and Impact Assessment

- 1. Support the September 2013 recommendation to the Department of State (DOS).
- 2. Focus on operation of U.S. and Canadian Treaty reservoirs, and potentially affected U.S. reservoirs.
- 3. Design and assess alternatives around three primary driving purposes: Flood Risk Management, Hydropower, and Ecosystem-based Function.
- 4. Impacts for other system uses assessed qualitatively at a minimum, quantitatively where information and tools are available to support the analysis.
- 5. Ecosystem function alternatives and impact assessments will be defined by water flow and timing, reservoir levels, water quality, contaminant fate and transport, survival and recovery of important fish and wildlife populations and the long-term sustainability of functions and processes related to riparian, floodplain, and estuary habitat, including cultural resources.

SRT Sideboards for Study Alternatives and Impact Assessment

- 6. Use tools, such as existing models or models under development that available for use within the limited timeframe of this Review.
- 7. Alternatives will attempt to be inclusive of each Sovereign's interests, but limited to a reasonable number that can be modeled and evaluated within the Treaty Review timeframe.
- 8. Environmental evaluation and documentation sufficient for the DOS Circular 175 process will support the overall recommendation.
- 9. Current regulatory and statutory requirements will be the default, but will not necessarily constrain the development of alternatives.
- 10. Climate change will be integrated in the alternatives evaluation.

Treaty Review Objectives

- Primary Driving Purpose Objectives
 - Hydropower
 - Flood Control
 - Ecosystem Function
- Impact Assessment Objectives
 - Navigation
 - Recreation
 - Water supply
 - Irrigation
 - Climate Change
 - Environmental Issues and Concerns

Ecosystem-Based Function Objectives

- Provide streamflows with appropriate timing, quantity and water quality in the basin to promote productive populations of native fish and wildlife.
- Provide reservoir conditions to promote productive populations of fish and wildlife.
- Provide for streamflow and reservoir conditions that protect and enhance cultural resources.
- Improve hydrology in the estuary to promote productive populations of native fish and wildlife.

Hydropower Objectives

- Provide an adequate, efficient, economical, and reliable power supply.
- Provide a flexible power system for integrating renewable resources.
- Ensure that the Canadian Entitlement accurately reflects the power value of the Treaty to the United States relative to termination.

Flood Risk Objective

Provide an acceptable level of flood risk.

Impact Assessment Objectives

Navigation -- Assess impacts on ability to

- Provide an authorized navigation channel and safe lockage.
- Provide reservoir conditions to allow for ferry operation.

Water Supply -- Assess impacts on

- Ability to provide current water supply reliability.
- Opportunities for additional water supply from Canada for instream and out-of-stream uses.
- Effective use of instream and out-of-stream uses for the Columbia River Basin.

Impact Assessment Objectives

Recreation -- Assess the impacts on ability to provide:

- Conditions to protect infrastructure related to reservoir and river recreation.
- Reservoir and river conditions for safe and enjoyable recreational activities.

Climate Change

 Assess opportunities to provide for operational flexibility and resiliency that allows the system to mitigate for and adapt to climate change.

Environmental Issues or Concerns

Assess the impacts on the ability to minimize contaminated sediments.

Summary of Stakeholder Input Received to Date

- 1. Listening Sessions
 - a) February 2011, Portland
 - b) June 2011, Spokane
 - c) Sept. 27th, Sept. 30th, and October 13th
- 2. SRT Panel Sessions, June and August 2011
 - a) Ecosystem Function
 - b) Flood Risk Management
 - c) Hydropower

U.S. Army Corps of Engineers - Bonneville Power Administration

Iterations

Columbia River Treaty 2014/2024 Review Alternative Formulation and Evaluation - Modeling Iterations

Legend RC-CC RC-450 RC-600 **RC-450TT** Objective(s) Met 600 kcfs Treaty Current No Action Max. Flood RC Terminate Condition 450 kcfs Flow 450 kcfs **Alternative** pre-2024 Max. Flood Objective Max. Flood F Flow Flow Objective Objective F н **RC-600TT** С Formulation Alternative Evaluation Treaty TT Terminate 600 kcfs Max. Flood Flow Refine Iteration #2 and Evaluation Iteration #1: Objective **Reference Cases** Modeling E1 F2 E3 F1 F2 No Called Modify U.S. Normative Increase Improve Summer Determine Probability of and Early Fall Upon Flood Spring Peaking Flood Flow Reservoir Refill & Anadromous Fish Hydrograph Objective at Storage Management Stabilize Summe Migration The Dalles Infrastructure Reservoir Levels based on Flood Risk H1 H2 H3 Alternative Evaluation & Selected Impact Assessments Optimize the Optimize the Determine Joint Canadian Joint Canadian Power Benefits and U.S. and U.S. of the Treaty to Columbia Basin Columbia Basin the U.S. Hydropower Hydropower System System with BiOn Define Iteration # Alternatives Iteration #2: Preliminary Alternatives C1 C2 C3 C4 C5 Combined Combined Combined Combined Combined Alternative Alternative Alternative Alternative Alternative Alternative Evaluation & Iteration #3: Full Impact Assessments **Refined Alternatives** Treaty Note: Integration of Climate Change information to be determined

Reference Case

Function

Flood Risk

Combined

F3

Flood Risk

E5

Canadian

perspective of

U.S. Flood

Control

Operation

Hydropower

Ecosystem-Based

Treaty Terminates

F4

Expand Use of

U.S. Reservoirs

F6

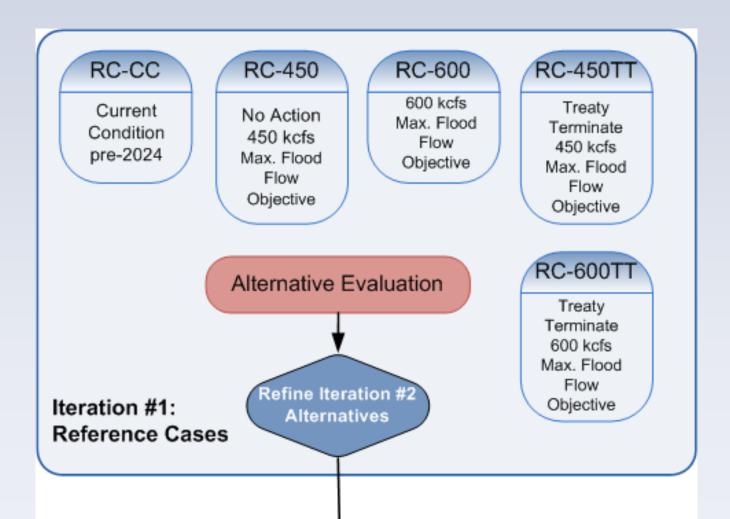
Continue

Assured

Canadian Flood Control

Storage

Alternative Formulation & Evaluation: Iteration #1



Summary of Iteration 1 Alternatives

Operating Criteria	RC-CC	RC-450	RC-450TT	RC-600	RC-600TT
Treaty Status					
Treaty Continues	\checkmark	\checkmark		\checkmark	
Treaty Terminates			\checkmark		\checkmark
Treaty Modfified					
Flood Control Operations					
FCOP with 8.45 MAF	\checkmark				
Called Upon 450 kcfs		\checkmark	\checkmark		
Called Upon 600 kcfs				\checkmark	\checkmark
Power Operations					
Coordinated Treaty Planning (with	1	1		1	
DOP, AOP and TSR)	•	•		•	
Uncoordinated Canadian Operation			1		1
(2-3 Scenarios)			•		•
Ecosystem Function Operations					
1 MAF Suppplemental Agreement					
for flow augmentation	V	V		V	
BiOp Operations	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Iteration 1 Impact Assessment

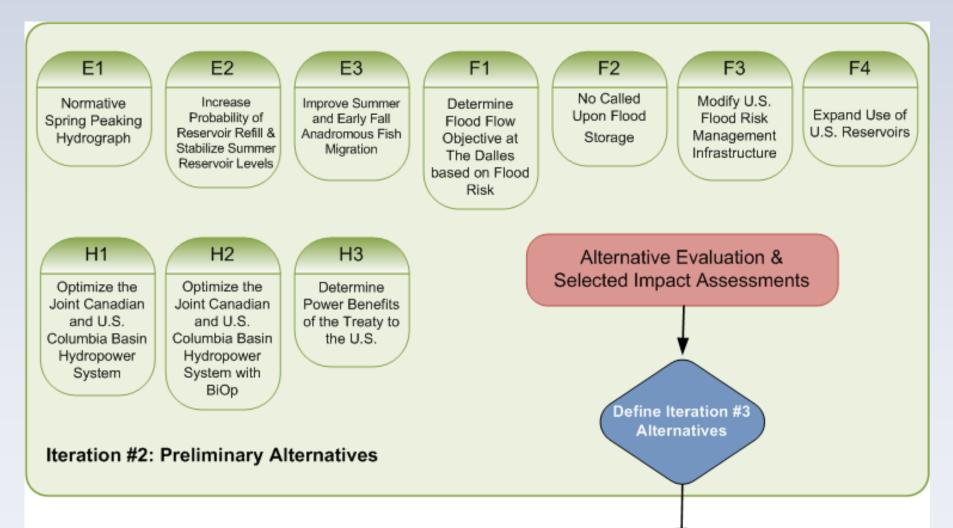
1. Hydroregulation Models

- a) HydSim: BPA, Monthly (14-period) outputs
- b) ResSim: Corps, Daily outputs

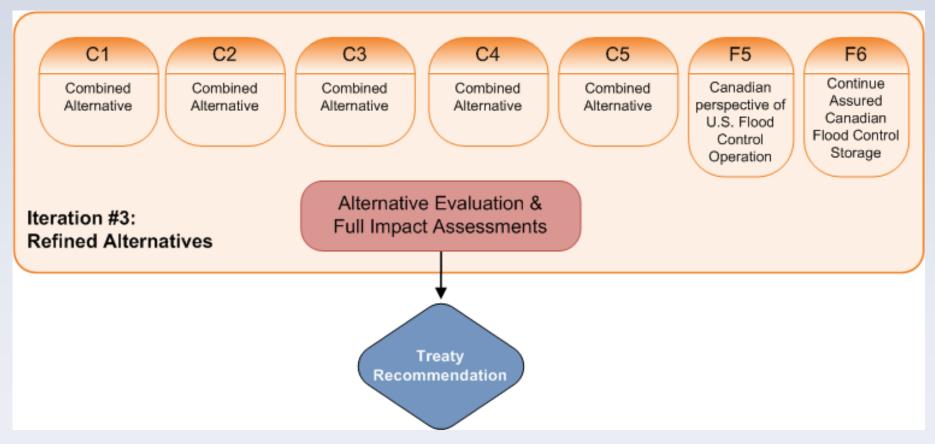
2. Hydroregulation metrics to be used in Iteration 1 assessment

- a) Reservoir Inflows (monthly 14-period)
- b) Reservoir Outflows (monthly 14-period)
- c) Peak Discharge (Daily)
- d) Reservoir Elevations (end of month)
- e) River Stage (Portland/Vancouver)
- f) Spill (% and/or kcfs)
- g) Generation

Alternative Formulation & Evaluation: Iteration #2



Alternative Formulation & Evaluation: Iteration #3



For more information:

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