



# 2014/2024 Review Columbia River Treaty

## Treaty Review 101 “The Basics”



# 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 Kootenai, Montana and British Columbia

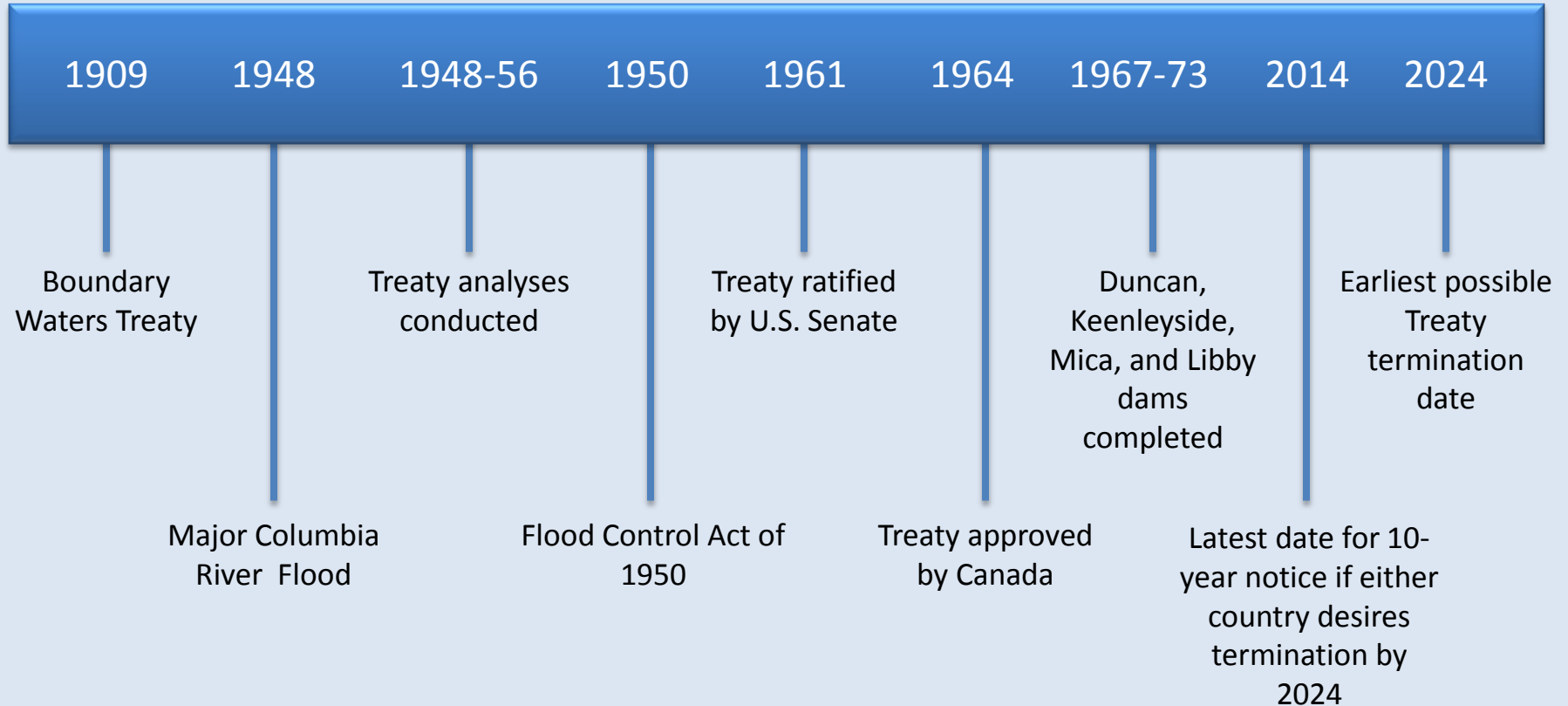
# Overview of Today's Presentation

- Treaty Basics – History, Provisions, Benefits
- Why a 2014/2024 Treaty Review?
- Mechanics of Treaty Review
- Regional Engagement Strategy
- Stakeholder Influence on Treaty Review
- Next Steps

# Columbia River Treaty Project Locations



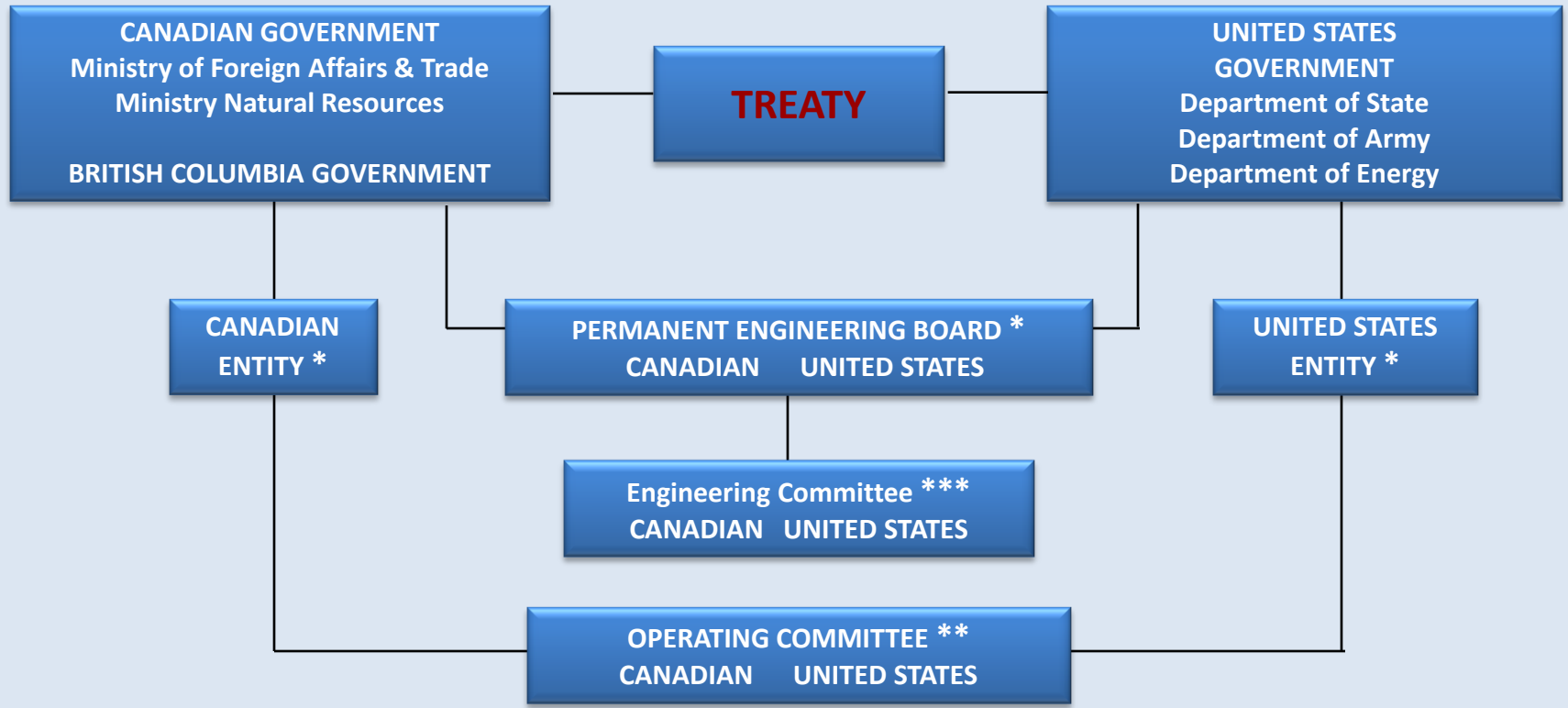
# Columbia River Treaty History



## Key Treaty Provisions

- 1) Canada must build 3 dams -- Mica, Arrow & Duncan -- with 15.5 MAF storage
- 2) U.S. may build Libby Dam
- 3) U.S. and Canada share equally in the downstream hydropower benefits
- 4) U.S. and Canadian Treaty Entities established

# Columbia River Treaty Organization



*BPA Administrator and Corps of Engineers' Northwestern Division Engineer are the U.S. Entity that implements the Treaty for the U.S. The Canadian Entity is B.C. Hydro, a province owned electric utility.*

\*Established by TREATY      \*\*Established by ENTITIES      \*\*\* Established by PEB

# Treaty Power Provisions

## 1) Storage

- 15.5 Million acre feet stored by Canada for optimum power generation downstream in Canada AND the United States.
- Today, the Columbia River basin has the most hydropower capacity (~37 GW) in North America.





# Power Provisions, con't...

## 2) Canadian Entitlement

- U.S. delivers power to Canada for one-half the downstream benefits produced from the operation of the Canadian Treaty projects: currently 536 average annual MW.
- U.S. paid \$254 for Canadian Entitlement in 1964 for first 30 years of operation.
- Return of full Canadian Entitlement to British Columbia began in 2003.
- Province of British Columbia owns Entitlement.
- U.S. delivers power based on daily schedules set by B.C.
- Owners of five Mid-Columbia non-federal hydro projects deliver 27.5% of Entitlement.
- Due to changes in the power system and other non-power operations, power payments to Canada are higher than actual benefits produced in the U.S. today.

# Treaty Flood Control Provisions

## 1) Storage

- Canada operates 8.95 Million-acre-feet of storage.

## 2) Flood Control Operating Plan

- Attempts to eliminate , or reduce, all flood damages in Canada and U.S.



# Treaty Benefits

## 1) Canadian Storage

- Reduces flood flows and spill
- Shifts energy from low-value to high-value time periods

## 2) Infrastructure and Governance

- Electrical intertie to California
- Regional power preference legislation
- New generators at most dams

## 3) Power coordination agreements

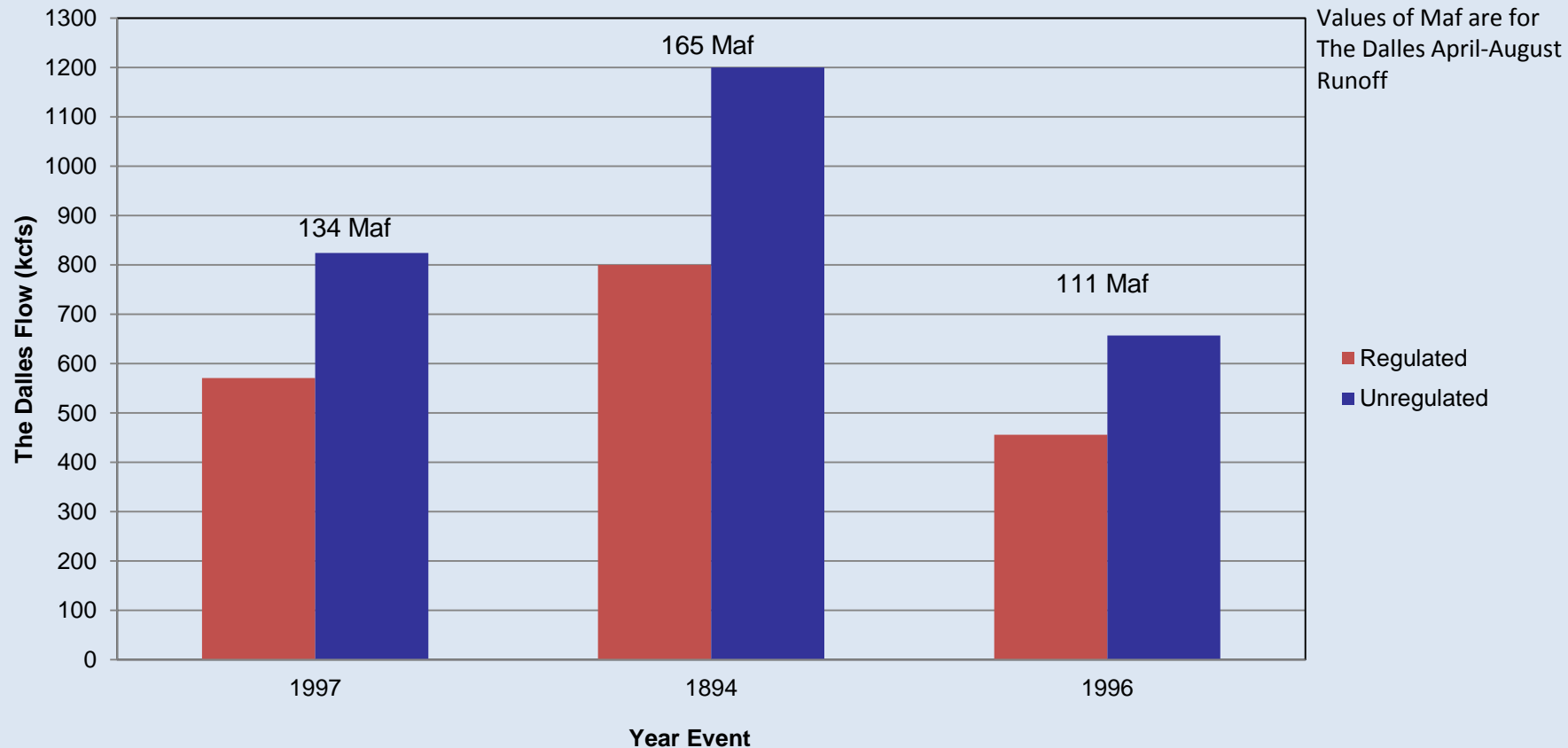
- Several related to the Treaty, e.g. Pacific Northwest Coordinating Agreement.



# Columbia River Treaty Benefits

Effect of Columbia River Coordinated Reservoir Operations

## The Dalles Flows



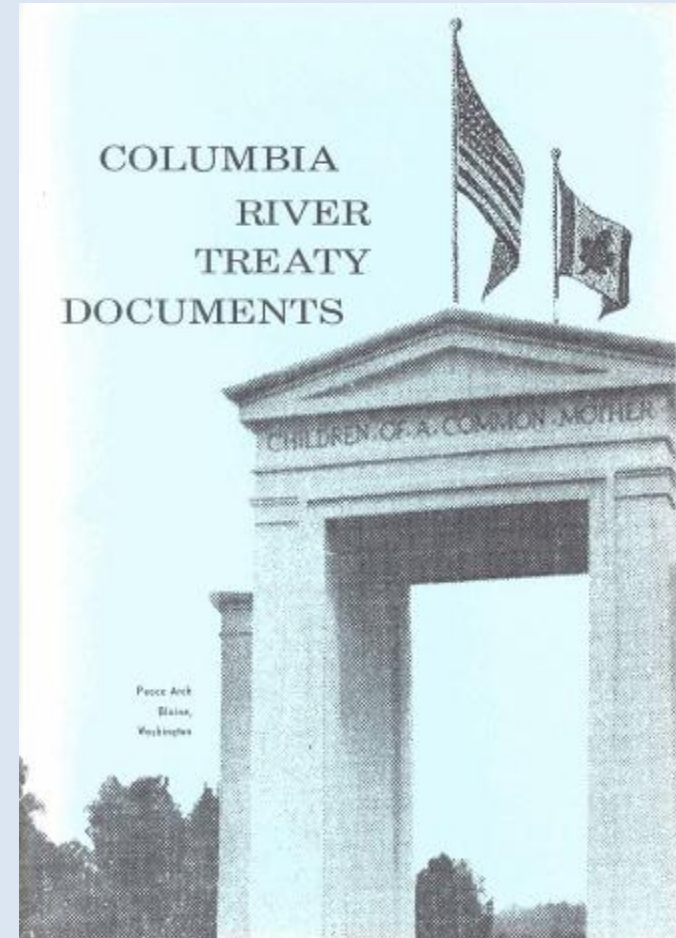
# Why a Treaty 2014/2024 Review?

***Treaty has no specified end date...***

but either nation can terminate as early as Sept. 2024 with 10 years' written notice.

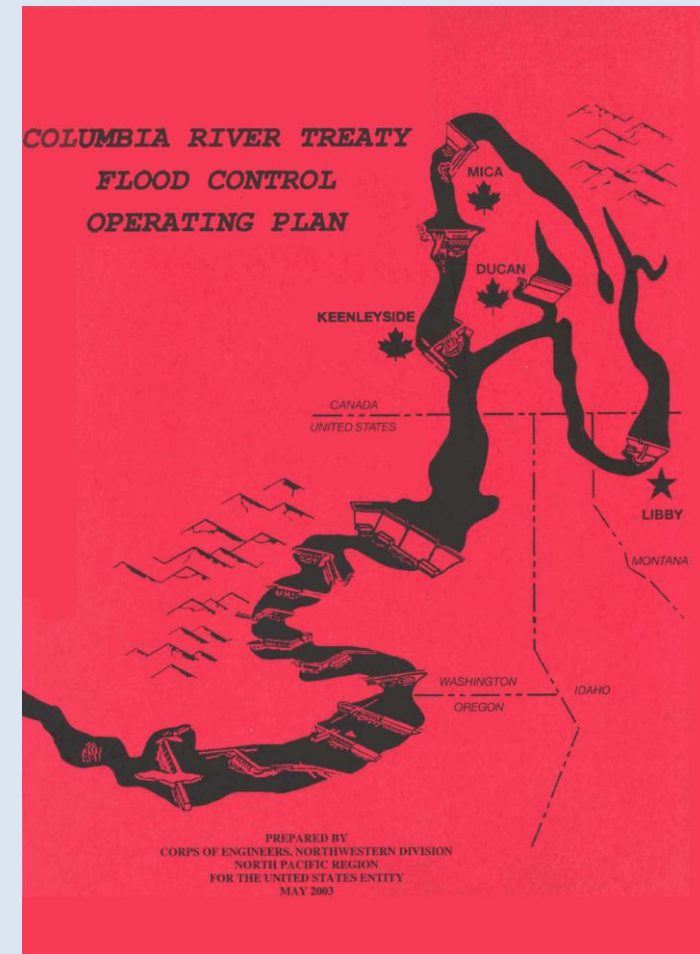
***Current assured annual flood control operating procedures will end in 2024...***

whether or not there is a Treaty.



## Why Review, Con't...

- Shift to Called-Upon Flood Control is significant
- Occurs with or without the Treaty
- U.S. requests limited to potential floods that cannot be adequately controlled by all related U.S. storage (effective use).
- Canada provides no greater degree of flood control post-2024 than pre-2024
- U.S. must pay for Canadian operating costs and economic losses due to called upon.



# Columbia River Treaty 2014 / 2024 Review

- **Description**

- Studies jointly conducted by USACE and BPA on behalf of the U.S. Entity.
- Collaboration with regional sovereigns and stakeholders.
- Evaluates benefits and costs of alternative Treaty futures.

- **Purpose**

- Enable the U.S. Entity to make an informed recommendation, regionally-support recommendation to the U.S. Department of State
- Is it in the best interest of the U.S. to continue, terminate or seek to amend the Treaty?

- **Authorization**

- Existing Treaty authorizes U.S. Entity to conduct these studies.

# The Big Questions

**Treaty Review is designed to answer a number of pressing and complex questions:**

- Without a Treaty – what is the level of uncertainty for U.S. power, flood risk management, fisheries, and other river interests and operations?
- Is the Canadian Entitlement a true reflection of the power benefits resulting from the Treaty operation?
- Called Upon post 2024: How much will we need? How will it be implemented? How will it be paid for? If U.S. reservoirs have to operate differently for flood control – what are the implications and impacts?
- Regional priorities and needs have changed dramatically since 1964. What are the impacts of the current Treaty on our ecosystems? Would those systems be better off with or without the Treaty?



## Key Points to Remember

- Ultimate purpose of the Treaty is cooperative management of Treaty projects for water storage and releases. No new water is produced.
- Focus of regional recommendation is on Treaty continues, terminates, or is modified -- not on post-2024 implementation.
- Treaty is touted as a model international water management agreement. It produces substantial benefits. At this point is unclear if greater or lesser benefits will be produced by termination.
- The U.S. Entity is conducting the Treaty Review in collaboration and consultation with the region, however, the ultimate decision on whether to terminate or seek to amend the Treaty rests with the Department of State and the President.

# Mechanics of Treaty Review

## 1. Understand

- Start by understanding regional needs and priorities.

## 2. Determine

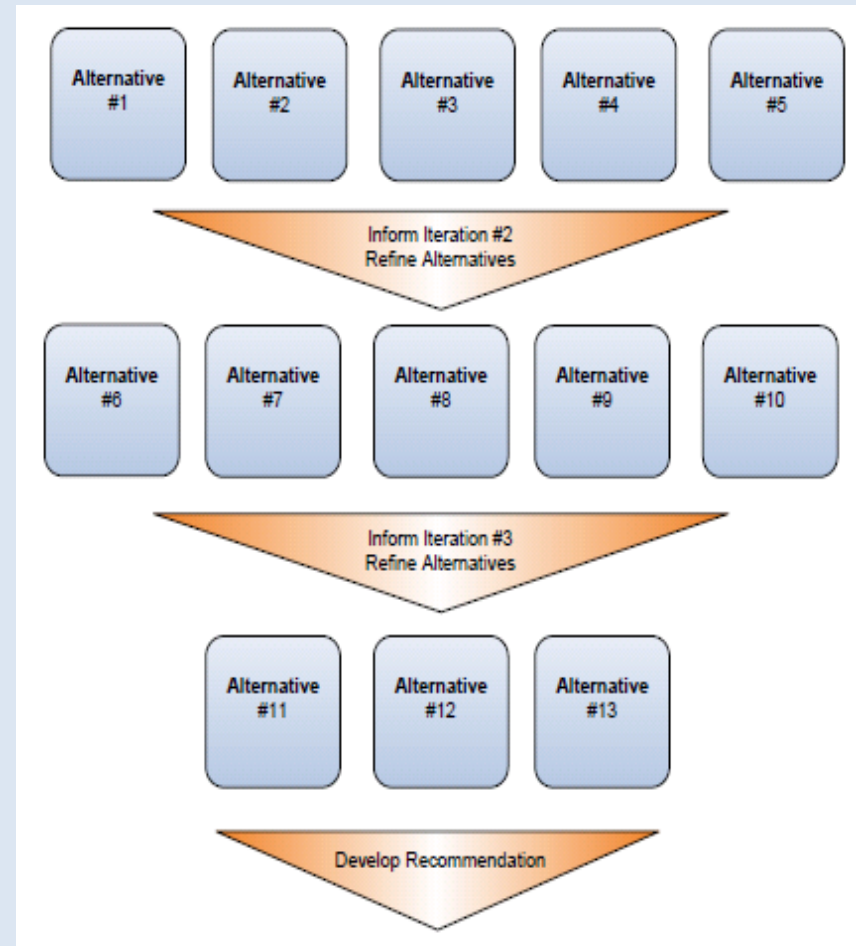
- Can the current Treaty meet those needs?
- Does the Treaty need to be changed?
- Are the changes so significant that we have to start over with a new Treaty?

## 3. Arrive at that determination by:

- Collecting information
- Evaluating the results
- Assessing impacts on various river interests

## Mechanics, con't...

- 1) Evaluation takes place over three “iterations.”
- 2) Each iteration tests a number of scenarios or “alternatives.”
- 3) Information from each iteration used to refine approach and build alternatives for the next iteration.



## Mechanics, con't...

- 1) Iteration One has just been completed.
- 2) First round of studies: very fundamental assumptions.
- 3) Four alternatives:
  - A reference or “base case” scenario.
  - 4 alternatives to the base case:
    - Compare and contrast physical impacts of system ops
    - Based on results of hydroregulation models
    - Focused primarily on reservoir ops and downstream flows

# Columbia River Treaty 2014/2024 Review

## Program Scope

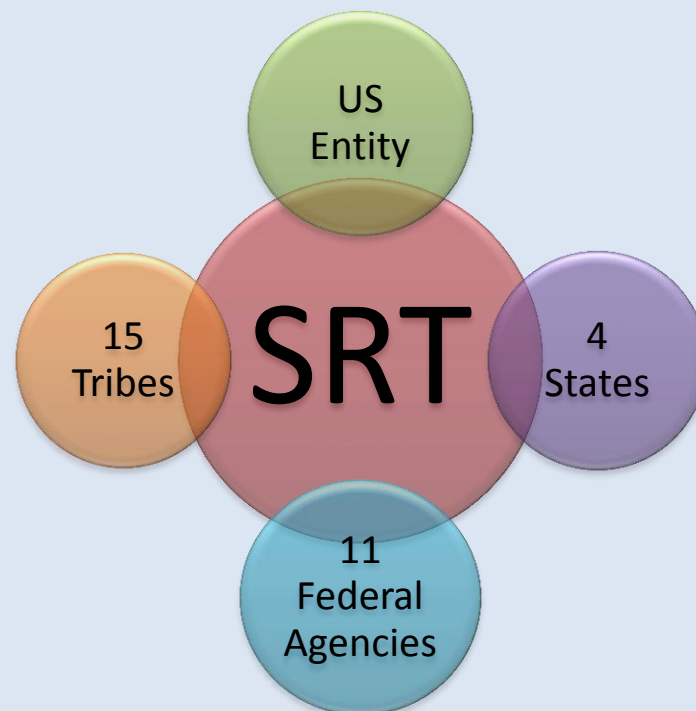
- **Work Completed to Date**
  - Phase 1: U.S./Canadian Entities Joint Technical Studies (public release July 2010)
  - U.S. Entity Supplemental Studies (public release Sept 2010)
  - Iteration 1 Studies complete (public release June 2012)
- **Work Currently Underway & Planned**
  - Regional Engagement with Sovereign and Stakeholder Interests
  - Coordination with U.S. Departments of State, Energy, and Defense
  - Additional Technical Analysis
  - Evaluation of Treaty Alternatives
- **Regional Recommendation**
  - Expected to be issued by the U.S. Entity to Department of State, governments in the Fall of 2013.

# Regional Engagement Strategy

1. Collaboration with Regional Sovereigns
2. Consultation with Regional Stakeholders and the public
3. Coordination with federal and congressional representatives

# Collaboration with Regional Sovereigns

- Sovereign Review Team (SRT)
    - 4 States
    - 15 Tribes (5 representatives)
    - 11 Federal Agencies
  - Sovereign Technical Team
    - Technical leads and staff representing SRT members
- Each team has been meeting at least monthly since Fall 2010.



# Sovereign Accomplishments

## Accomplishments To-Date Include:

- Agreement on sovereign participation and process.
- Development of alternatives, metrics, evaluations tools.
- Creation and agreement on modeling iterations and work programs.
- Review and consensus on Iteration 1 modeling results.



# Coordination with Regional Stakeholders

- **2011 Listening Sessions**
  - Portland: February
  - Spokane: June
  - Portland, Spokane, Boise: September - October
- **2011 -12 SRT Panel Sessions**
  - June: Hydropower
  - August: Ecosystem Function and Flood Risk Management
  - February 2012: Water Supply
- **2011-2012 Presentations**
  - 40 Presentations and Discussion Sessions

# Stakeholder Influence on Treaty Review

## Stakeholders have requested and identified:

- Transparency and clarity at each step
- To participate in scoping, metrics and methodologies
- A realistic schedule for development of regionally-supported recommendation
- To participate in development of draft regional recommendation
- Robust study of hydropower, ecosystem, and flood risk concerns
- Robust study of irrigation, water supply, navigation and recreation interests

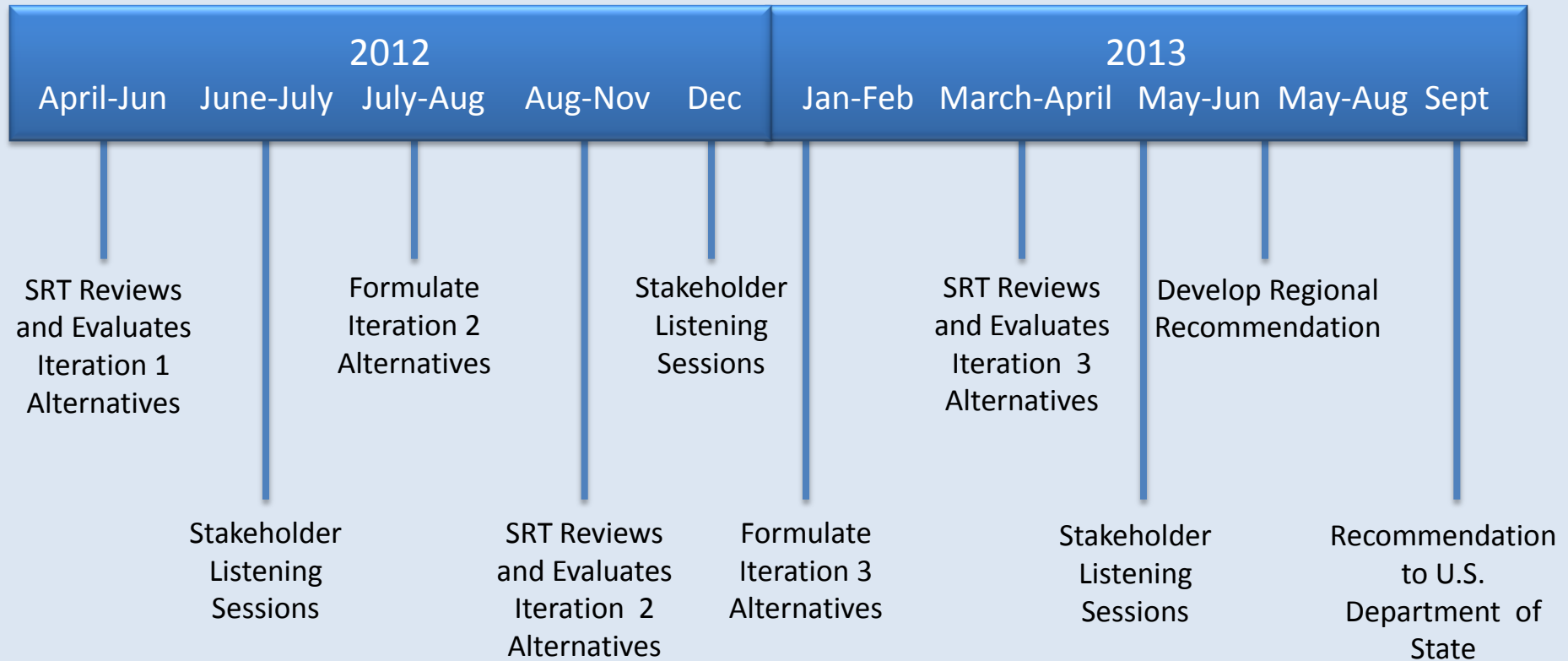
## Stakeholder Influence, con't...

- Concern for incorporation of climate change and renewable energy
- Fair representation of all interests across large geographic area of the basin
- Increased understanding of Canadian interests and perspectives
- Important questions to be answered by Treaty Review.
- Recommendations for technical studies
- Importance of balancing ecosystem, flood risk, hydropower and other interests

# Coordination with Federal and Canadian Authorities

- National Level
  - U.S. Department of State
  - Interagency Policy Committee (IPC)
  - Regional Federal Agency Coordination
  - Congressional Delegation
- Coordination with Canada
  - Canadian Roles and Responsibilities
  - Regular Ongoing Treaty Implementation
  - Treaty Review Coordination with respect to possibilities within the framework of the Treaty

# Where Do We Go From Here?



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