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CENTRAL ASIAN LEADERS ASSESS US-CANADA CROSS BORDER AGREEMENTS ON ENERGY AND WATER

**EXECUTIVE EXCHANGE WITH U.S. ARMY CORPS OF ENGINEERS; BONNEVILLE POWER
ADMINISTRATION; US BUREAU OF RECLAMATION; AND BC HYDRO**



Delegates from Kazakhstan, Tajikistan and Uzbekistan with Colonel Robert Tipton, Deputy Commander, U.S. Army Corps of Engineers, Northwest Division.

Government officials, energy and water management experts from Kazakhstan, Tajikistan and Uzbekistan responsible for international transboundary energy and water issues traveled to Portland, Oregon the week of January 26 – February 2, 2013 for an in-depth study of the **Columbia River Treaty** between the United States and Canada. The Columbia River Treaty is widely recognized as one of the most successful long-term transboundary energy and water agreements and an excellent model for international energy and water cooperation.

The one-week program provided the delegates with a thorough overview of the Columbia River Treaty from both the U.S. and Canadian perspectives. Meetings were conducted with all of the U.S. and Canadian organizations involved in implementing the treaty including the **Northwest Division of the U.S. Army Corps of Engineers (USACE)** and the **Bonneville Power Administration (BPA)**, which jointly serve as the U.S. Entities for the treaty, and **BC Hydro**, which serves as the Canadian Entity. Meetings were also held with many of the various governing, regulatory and planning bodies in the region including the **Northwest Power Pool**, the **U.S. Bureau of Reclamation**, the **Pacific Northwest Utilities Conference Committee**, the **Columbia River Federal Caucus**, and the **Columbia River Inter-Tribal Fish Commission**.

The most important result of the program was the opportunity the delegates were given to see first-hand how the U.S. and Canada successfully collaborate to implement effective integrated energy and water resource management along the Columbia River basin while at the same time addressing the various upstream and downstream water demands.



Map of the Aral Sea Basin.

Issues Facing the Aral Sea

The Central Asia region is experiencing significant energy and water usage challenges in the Aral Sea Basin. The Aral Sea, whose borders include the Central Asian nations of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, has been steadily diminishing over the past half century due to a combination of environmental impacts and extensive economic demands for water usage in the region for irrigation, hydropower generation, and water storage purposes. As a result, according to some estimates, the surface area of the Aral Sea is now only approximately 10%-20% of what it was in the first part of the 20th century.

The countries in the region each have their own national economic interests with regard to the utilization of energy and water resources. The countries upstream (Tajikistan, Kyrgyzstan) are interested in maximizing hydropower generation to reduce the need to import power at high international market prices. Downstream countries (Turkmenistan, Uzbekistan, Kazakhstan) are interested in maximizing irrigation for agricultural purposes, primarily cotton production, which is one of their main exports. Increasing the hydropower production upstream will disrupt the winter water storage now used downstream for irrigation in the summer months. The environmental impacts and sustainability issues, while widely acknowledged as vital for the region, have been largely overshadowed by the economic situation in the region.

Overview of the Columbia River Treaty

During the early and middle part of the 20th century, the Northwestern region of the U.S. experienced significant population growth and economic development. This increased the demand for electric power generation and heightened the need for additional flood control. The United States sought the Columbia River Treaty to create additional water storage capacity to regulate water flow for flood control purposes and to maximize downstream hydropower power generation.

Key Provisions of the Treaty

Under the terms of the Treaty:

- Canada agreed to build three large dams to provide usable reservoir storage.
- The U.S. was permitted to build a fourth dam whose reservoir would partly extend into Canadian territory.
- The U.S. is required to provide Canada on an ongoing basis one-half of the estimated increase in U.S. downstream electric power benefits called the Canadian Entitlement. This estimate is calculated on an annual basis.
- The U.S. also agreed to make a one-time monetary payment to Canada for one-half of the estimated value of the future flood damages prevented in the U.S. during the first 30 years of the Treaty as payment to Canada for building the three dams.

Negotiating the Treaty

The treaty itself required nearly three years of deliberation before both countries gave final approval - mostly due to Canada's internal uncertainties on how to finance the three dams and also on how to accurately calculate the appropriate payments from the U.S. The treaty negotiation process was of high interest to the delegation.

The program included a presentation from a local historian on the Treaty, who was working for the USACE at the time it was negotiated. He reviewed the negotiation process and highlighted the numerous studies that were undertaken by each country both individually and jointly during the decade before the treaty was officially proposed.

2014 / 2024 Columbia River Treaty Review

Although the Treaty has no specified end date, either country can terminate most of the Treaty provisions as early as 2024, with 10 years' prior written notice (2014). The timing of the program was advantageous in that both the U.S. and Canada are undertaking comprehensive reviews of the Treaty to determine if some of the provisions should be discontinued after 2024.

The program included detailed discussions on the highly structured and deliberate review processes each country is currently undertaking which provided the delegates a current analysis and perspective on the treaty including the environmental, wildlife and tribal stakeholder impacts which were not taken into consideration when the treaty was first entered into in 1964. The environmental and wildlife studies and the current best practices being implemented in the basin were of high interest to the delegation and would be useful to address in any potential follow-on activity.



In front of one of the original generating turbines at the Bonneville Dam and Lock which went into operation in 1937. The project, located less than an hour outside of Portland, OR, plays an integral role in the Columbia River Basin providing hydropower generation, flood control, and navigation.

U.S. – Mexico Cross Border Agreements

The water scarcity issues being addressed in the Colorado River basin are similar to many of the issues being faced in Central Asia and would also be useful to address in potential follow-on activities.

At the end of the program, the Deputy Chief of the U.S. Bureau of Reclamation Boulder Canyon Operations Office presented an overview of energy and water management best practices in the Colorado River basin. The Colorado River basin, located in the Southwestern United States and parts of northern Mexico, is in the midst of a 12 year drought. The agency is attempting to balance the flood control, hydropower generation, and irrigation demands with limited water resources similar to the Aral Sea basin.

Results and Recommendations

- The Central Asian delegates all expressed a strong interest in conducting a follow-up program in Central Asia to provide an opportunity for representatives from the countries who were unable to participate in this program including Kyrgyzstan, Turkmenistan and Afghanistan, to learn about the Columbia River Treaty. The U.S. and Canadian representatives all indicated a similar willingness to participate in any future activities.
- The delegates received the following documents and materials from the U.S. and Canadian organizations regarding the treaty and energy and water management policies including:

- A copy of the recently published book (late 2012) “The Columbia River Treaty Revisited – Transboundary River Governance in the Face of Uncertainty” which provides a detailed analysis of the treaty from both the U.S. and Canadian perspectives. A synopsis of this book can be found here: <http://muse.jhu.edu/books/9780870716928>
- Documents detailing the roles and responsibilities of each of the entities under the treaty along with the structure and operating rules of the various U.S. and Canadian individual and joint operating committees and oversight boards that implement the treaty;
- Detailed studies and analyses that have been undertaken during the current Treaty review process; Presentations provided during the week in Russian and English (available presentations are attached to this report.)
- Copies of presentations provided during the week in both Russian and English (www.usea.org/event/central-asia-cross-border-energy-water-management-exchange-visit)

Utility Exchange Program Participants

Kazakhstan

1. Darkhan Nursadykov, First Secretary, Central Asia Department, Kazakhstan Ministry of Foreign Affairs
2. Saghit Ibatullin, Chairman, Executive Committee of the International Fund for Saving the Aral Sea, Correspondent-Member, Kazakh Academy of Agricultural Sciences
3. Demessin Nurmanganbetov, Deputy Chairman, Executive Committee of the International Fund for Saving the Aral Sea; Director, Agency for the Implementation of the ASBP
4. Murat Bekniyazov, Representative, Republic of Kazakhstan, Executive Committee of the International Fund for Saving the Aral Sea

Tajikistan

5. Yunusov Toliboy, Post Deputy Head, Information and the Press, Foreign Policy Analysis and Planning, Ministry of Foreign Affairs, First Secretary of Tajik MFA Law Department
6. Anvar Kamolidinov, Leading Scientific Expert, Tajik Branch, Scientific and Information Center of the Interstate Commission for Water Coordination (SIC ICWC)

Uzbekistan

7. Dinara Ziganshina, Deputy Head, Scientific and Information Center, Interstate Commission for Water Coordination
8. Timur Rakhimov, Head of Division, Department for USA and America Affairs, Ministry of Foreign Affairs of Uzbekistan
9. Rakhmatulla Nurimbetov, Head of Section, Department for Cooperation with structures of CIS, CSTO and SCO, Ministry of Foreign Affairs of Uzbekistan



Panel Discussion with Greg Delwiche, Senior Vice President, Power Services, BPA (standing); Doug Robinson, Canadian Entity Secretary; and Rick Pendergrass and Jim Barton, US Section Co-Chairs of the Columbia River Treaty Operating Committee.

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