

# THE COLUMBIA RIVER TREATY

*Past, Present and Future*

**PROCEEDINGS AND OUTCOMES**

**OCTOBER 7, 2015 WORKSHOP  
SONORA CENTRE, OSOYOOS, B.C.**

*Hosts: ACT (Adaptation to Climate Change Team), SFU and CWRA-BC*



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Water  
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# OVERVIEW

**This ambitious one-day** workshop reviewed the history, purpose and scope of the 51-year old Columbia River Treaty (CRT). It evaluated where the Treaty stands today in the context of hydro-electric power generation and downstream flood control, and where it may go in the future, given the unanticipated impacts and changes in values that have occurred over the past 51 years and the many new realities and uncertainties such as climate change, public involvement expectations, and First Nations rights and expectations on both sides of the U.S./Canada boundary.

Set in the south Okanagan valley community of Osoyoos, British Columbia, the presentations and discussions addressed the unique socio-economic situation of the Okanagan Valley as a sub-basin of the Columbia, as well as the social, economic, legal and environmental concerns, anomalies and impacts of this aging international treaty on the wider Columbia River Basin. Although the presentations illustrated the many scientific, legal and political complexities surrounding the Treaty, every effort was made during the discussion periods to ground these issues in everyday language, and in the Okanagan context.

The workshop was organized and hosted by the B.C. Branch of the Canadian Water Resources Association (CWRA) and the Adaptation to Climate Change Team (ACT) at Simon Fraser University. Other key supporters and sponsors included the Okanagan Basin Water Board (OBWB), the Real Estate Foundation of BC, the University of British Columbia (UBC), the Town of Osoyoos, Associated Engineering B.C. Ltd., and Summit Environmental Consultants Inc.

The organizers invited interested parties from the Okanagan Valley and beyond to come and participate in a rare opportunity to hear some of the most notable experts on the topic, and contribute local and regional knowledge to the discussions. Turnout was exceptional, with a sold-out room, including dignitaries from First Nations and local governments as well as Ph.D. students from both countries, community members, industry representatives, non-governmental organizations (NGOs), and academic experts.

# OPENING CEREMONIES

**Brian Guy**, former Director of co-host organization the CWRA, Vice-Chair of the Okanagan Water Stewardship Council, and Workshop Co-Chair opened the workshop on behalf of CWRA and co-host ACT.

**Pauline Terbasket**, Executive Director of the Okanagan Nation Alliance, welcomed us on behalf of **Chief Clarence Louie** of the Osoyoos Indian Band. Pauline honored an elder of her nation who had recently passed away, and then offered a blessing.

Her worship **Sue McKortoff**, Mayor of Osoyoos, then welcomed participants to the city and region and underscored the importance of the Columbia River Treaty to the future of the Basin.

Dr. Guy then outlined the agenda and introduced the moderators on the program before describing the course of the waters of the Columbia from its headwaters to the sea. He outlined the history and conditions of the Columbia River Treaty and acknowledged the mutual desire of both countries to continue the Treaty, as well as the changed contemporary circumstances in which the Treaty is embedded.





**SESSION  
ONE**  
SETTING  
THE  
STAGE



JAY JOHNSON, KATHY  
EICHENBERGER, BARB COSENS, DEB  
KOZAK AND RICHARD PAISLEY

**Anna Warwick Sears**, Executive Director of the Okanagan Basin Water Board, chaired Session One, which focused on the current state of the Treaty. Dr. Sears began by describing the work of the Okanagan Basin Water Board, highlighting the high level of awareness and engagement on water governance issues that already exists in the region.

The first presentation was by **Kathy Eichenberger**, Executive Director of the Columbia River Treaty Review Team of the B.C. Ministry of Energy and Mines. Ms. Eichenberger began by outlining the origins of the Treaty in the need for flood control and the opportunity for hydropower development, and reminded those present that the goal of the Treaty was to create benefits that would be shared by both countries. She noted two unique features of the agreement: one, that the Province of B.C. has had a critical role in defining the relationship between Canada and the U.S. since 1963, and two: that the Treaty may be modified at any time by the mutual consent of the official Entities. Some conditions, however, specifically flood control, expire in 2024.

Ms. Eichenberger outlined the elements of the Treaty review process presently being undertaken by the B.C. Ministry of Energy and Mines and described the benefits of the Treaty to the U.S., which include flood control and increased power production, but also fisheries enhancement and low flow protection ensuring seasonal water supply and reliable navigation conditions. After four years of consultation, in 2013, the Province released a report reflecting input from First Nations, local governments and the public and announcing that their decision was to continue the treaty and seek improvements in the existing framework.

Having described the principles by which ongoing reconsideration will be advanced, which include increasing adaptability to changing conditions and incorporation of ecosystem considerations, Kathy then outlined areas of current disagreement such as the value of flood control and appropriate responses to climate change effects, and reintroduction of anadromous salmon to the Upper Columbia, which lies outside the scope of the Treaty under the current provincial and federal positions. Finally, she outlined next steps, which include full valuation of U.S. benefits.

Next to present was **Dr. Barbara Cosens**, Professor at the University of Idaho School of Law, who spoke on U.S. perspectives on the CRT and its potential future. Dr. Cosens began by noting that she is an academic and did not and could not speak for the United States. She then outlined the main factors about the Columbia Basin that have changed since the Treaty was ratified in 1964, all of which were reflected in the U.S. Regional Review – the final recommendation of the U.S. Entity for the future of the Columbia River Treaty after 2024, which was delivered to the U.S. Department of State on December 13, 2013. The Department of State will use this document to begin a federal policy review process to determine whether to proceed with a Treaty modernization effort with Canada. The main factors include:

- » U.S. energy demand, which did not grow as expected in 1964. The projection at that time

was that we would have needed to develop substantial new thermal (nuclear) power by now and hydropower would only be used for peaking power – substantially reducing the value of the system, but the oil embargo of the early 70's changed everything. Conservation led to a flattening in the growth of demand and hydro remains a substantial portion of the baseload, with new sources primarily in the renewable category.

- » Climate has changed and will continue to do so, creating a water deficit as well as affecting the timing of run-off as the system is changing from being snow-dominated to rain-dominated
- » Impact of dams on the ecosystem, with significant impacts on fish species

The biggest story with regard to change in the Basin, according to Dr. Cosens, is the changes in values, empowerment and capacity of Basin residents to influence reconsideration of the Treaty. For instance, 15 U.S. Tribes have established a common view of the future of the Columbia Basin.

In 2013, regional treaty reviews were passed from the Regional Congressional Delegation to the United States Department of State that revealed gaps between these regional U.S. recommendations and the results of the B.C. review. For instance, the Columbia flow has exceeded 450,000 cubic feet per second (cfs) on more than 86 occasions since 1974, yet no study has been done to determine if local and non-structural measures in the U.S. can manage flood control when the shift to “called-upon” flood control comes into force in 2024. There are also differences in the viewpoints regarding the extent to which the Canadian Entitlement payments should be based on the value of incremental power that is not generated when U.S. dams release water specifically for fish health. Two other areas for consideration are the fact that treaties must be negotiated at the executive level in the U.S., meaning that ratification must follow the protocols of executive congressional decision-making, and that there is division in U.S. politics over the recognition of ecosystem values.

**Stu Wells**, former Mayor of Osoyoos, observed that there are issues associated with the fact that the Okanagan River system, while in the Columbia Basin, is not covered under the Treaty. Eichenberger explained why this is the case. Panelists acknowledged that this matter remains an open question that needs to be explored. Cosens added that the Okanagan probably doesn't want to be part of the flood control and power production elements of the Treaty, but that the Okanagan should be involved, however, in matters related to trans-boundary ecosystem values.

The third presenter in Session One was **Dr. Richard Paisley**, Director of the Global Transboundary Water International Waters Research Initiative and Research Associate with the Institute of Asian Studies, UBC. Paisley opened with three observations:



1. The Columbia is only one of many international issues between Canada and the United States.
2. We are dealing with water, which means there are complex legal issues and multiple sovereigns, NGOs and others who have a broad range of rights and responsibilities, each of which has different procedural and psychological interests.
3. Finally, international waters are governed by international water law and are not owned by any single country. Each country has the right only to a reasonable, equitable share of the beneficial uses of water across boundaries.

With regard to flood control, the meaning of a reasonable and equitable share of beneficial use will change by 2024. The potential exists for much greater extreme weather events due to climate change.

The Treaty remains one of the world's best examples of equitable sharing of beneficial uses. That is the genius of the Treaty, and we don't want to throw the baby out with the bath water. The U.S. is unhappy, however, because they are required to pay the Canadian Entitlement even when domestic laws demand downstream water releases for fish that are not used for power generation.

Dr. Paisley concluded with two thoughts: The Treaty is only one of 276 international treaties and we should learn from other examples. There is much to be said for moving forward on a bi-national basis and Paisley said he would like to see U.S. Tribes and B.C. First Nations contribute significantly to a bi-national approach to governance in the Basin. He referred to this as a Track Two diplomatic process that considers overall river basin governance above and beyond the CRT.

Dr. Sears then acknowledged the presence of **Grand Chief Stewart Phillip** of the Okanagan Nation, President of the Union of B.C. Indian Chiefs; and **Chief Byron Louis** of the Okanagan Indian Band, and opened the floor for comments and questions to the Session One presenters.

**Kris Kauffman**, one of the longest standing members of the International Osoyoos Lake Board of Control, observed that the Columbia River is the largest river flowing into the largest ocean in the world. He also asked who the leaders would be to drive bi-national governance in the Basin. Paisley put forward the fact that he looks to young leaders, particularly in the Aboriginal community, for leadership in the future. He also observed that he knew of no current sitting politicians who appear to be on top of the Treaty issue. Another audience member, **Kell Petersen**, commented that science must inform politics in this case.

After a coffee break, the morning resumed with a presentation by **Jay Johnson**, Senior Policy Adviser to the Chiefs' Executive Committee of the Okanagan Nation Alliance (ONA), who spoke on the topic of the Columbia River Treaty and the Okanagan Nation. Johnson outlined the extent of the historic ONA territory and then detailed the enormous negative impact the Treaty has had on the Okanagan peoples, particularly with regard to salmon. He also described the strength of the relationship that Okanagan First Nations have with salmon.

Mr. Johnson told us that the ONA aims for revitalization of an Okanagan fishery and their traditional existence as Salmon People, and said that First Nations will have a monumental influence on how their lands are managed. He explained that the Columbia River Treaty could not be negotiated in its present form today, as it would be illegal under the constitutional rights now granted to First Nations in Canada. He noted that on July 15<sup>th</sup>, 2010 the Okanagan Nation reunified politically with the Colville Confederated Tribes, and the Sinixt Nation members who reside within both, via an agreement titled the Declaration of Unity, which confirmed the CCT as affiliate members of the ONA.

Johnson then detailed the ecosystem and erosion damage brought about by operation of the dams and reservoirs, including damage to sacred burial sites and the profound effects this has had and continues to have on descendants of those buried there. He explained that the Okanagan Nation has not surrendered its title, rights nor interests on its 69,000 square km territory. Aboriginal title is real and has meaning; it is territory-wide and can exist over large tracts of land. Aboriginal title includes the vesting of full and beneficial economic interest in the land to the group that holds it, and consent is required for the Crown or industry to use

that land. However, no consent exists for the current Treaty, and whereas impacts have been experienced, no benefits have flowed to the Okanagan Nation. The law therefore demands that consent and collaboration will be part of the Columbia River Treaty reconsideration.

Impacts that need to be addressed include habitat loss, flooded lands, and the blocking of salmon from the upper reaches of the Columbia. The ONA are experts on these matters, having now established more scientific staff and capacity in the region than federal agencies such as the DFO. Johnson noted evidence suggesting that salmon, although vulnerable, are resilient. He also observed that the Track Two governance approach proposed by Dr. Paisley (i.e. a broader trans-boundary agreement) is supported by the ONA, and that there are no legal barriers that prevent U.S. Tribes and B.C. First Nations from being at the negotiating table.

The final speaker in Session One was **Deb Kozak**, Mayor of Nelson and Chair of the Columbia River Treaty Local Governments' Committee, who spoke on local government perspectives on the Columbia River Treaty. Mayor Kozak began by outlining her engagement in the Treaty review process. She then illustrated the ongoing impacts of "industrial reservoir" development in the area surrounding Nelson. Flooding was substantial, with much agricultural land and many public spaces lost to what is now a sea of stumps and dust storms on the mud flats that appear during low pool conditions when the reservoirs are drawn down for flood control. Water level fluctuations cause further erosion, diminishing tourism opportunities and the area has seen measurable fish and wildlife declines.

Ms. Kozak noted that there were benefits driving the development of dams, and of course the larger benefits of electricity production and flood control. She observed, however, that local people, who were not included in the original Treaty discussions, continue to pay the cost of those benefits on behalf of others who benefit from them. In conclusion, Kozak noted that First Nations have a more direct influence on the Treaty reconsideration process than municipalities, and that her municipality supports the inclusion of ecological values in that process. Kozak concluded that collaboration and working together are key to the future, and that a better agreement is possible.

Before opening the floor to questions, Dr. Sears drew attention to the Columbia River Treaty Primer published in 2014 by **Jon O'Riordan**, **Bob Sandford** and **Deborah Harford** of event co-host ACT (the Adaptation to Climate Change Team) at SFU. She also acknowledged all the university students present.

Kell Petersen noted the importance of government and the on-going public influence on their actions.

**Theresa Marshall** asked about ecosystem inclusion by the individual U.S. states, notably Idaho, which rejected the principle. Barbara Cosens noted that Idaho is only one state and does not represent the U.S. Kathy Eichenberger observed that jurisdictions on both sides of the border are beginning to embrace ecosystem values, a view shared by Jay Johnson. Deb Kozak told of conversations with officials in Idaho regarding the extreme heat and dry conditions that

occurred this past summer, which are reshaping public opinion.

**Jon O’Riordan** noted that there was little discussion with regard to controls such as reservoir levels and asked if such discussions could help advance Track Two governance collaborations. Ms. Eichenberger responded that yes, discussions on limiting reservoir level fluctuations are ongoing. Mr. Johnson also said yes, but remarked that we have to make sure we do not fix issues in one place only to produce problems elsewhere. Dr. Cosens agreed with Mr. Johnson in his evaluation of the fact that the Columbia is a complex system, and that a holistic approach is required.

Dr. Paisley made it clear, however, that we have to realize that there will have to be trade-offs, which is not something we easily accept. He went on to urge us to be careful what you wish for in terms of the unintended impacts of the benefits of what we decide we want.

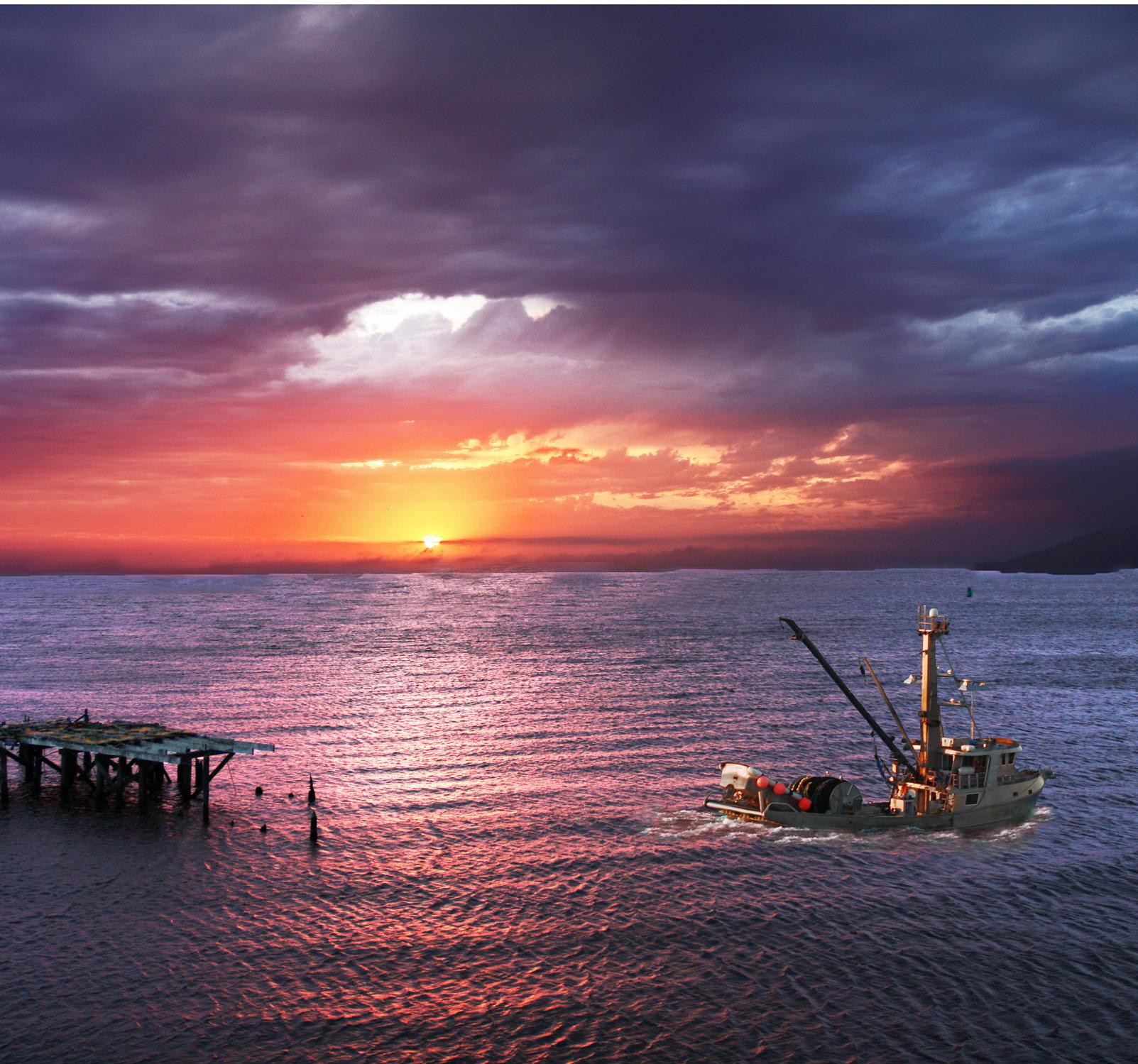
**Chief Louis** rose to bring up the sense of jurisdictional fragmentation in both countries and between the U.S. and Canada. The Chief noted that progress could be made possible by breaking down such fragmentation at the sub-basin level. He reminded the conference that the Okanagan Nation are a salmon-based people and that the Nation has been patient on this matter, but will not stand for the continued violation of their legal rights. He stated that part of the Treaty will include ecosystem values related to salmon; the ONA will not permit otherwise.

**John Sirois**, Chairman of the Colville Business Council of the Confederated Tribes of the Colville Reservation, asked what kind of progress has been made in the establishment of common language with regard to ecosystem values in collaborations to date, and asked if traditional knowledge was being incorporated into the crafting of these definitions. Dr. Cosens responded by observing that those issues more clearly need to be accommodated in future discussions on the Treaty and that, while majority opinion favours such values, they need to be more clearly articulated. Deb Kozak noted that she lives in a place and time with no knowledge of the pre-dam conditions, and that the reality of what we have now is different than what we had pre-Treaty.

Jay Johnson concluded the morning by cautioning that we have to get ecosystem values right, and warning against side agreements citing legal reasons. He closed by saying that we have to do this together, for the benefit of all.



**CHIEF BYRON LOUIS**



## **SESSION TWO**

ISSUES  
TO BE  
CONSIDERED  
IN A  
MODERNIZED  
TREATY



**NELSON JATEL, DON DOBSON,  
JOHN WAGNER, HOWIE  
WRIGHT, DEBORAH HARFORD**

**Brian Guy** opened the *afternoon* session by thanking those who provided coffee and lunch and A/V support, and thanked the volunteers and sponsors. **Don Dobson**, former Chair of the Okanagan Water Stewardship Council, chaired Session Two.

The first speaker was **Dr. John Wagner**, Associate Professor of Anthropology at UBC Okanagan, who spoke about agricultural issues in a modernized Treaty. He proposed that the Treaty considerations should reflect agricultural best practices, and noted that the Treaty favoured U.S. agriculture at the expense of agriculture in Canada. He also observed that the Treaty quite unexpectedly improved sub-surface hydrological circumstances in at least two places in the U.S.. Meanwhile, 25,000 acres of arable land were flooded in Canada's Arrow Lakes region, and 2,000 people displaced, and farm families were not adequately compensated for these losses.

Wagner asked what the value of agricultural land is in an increasingly food insecure and water scarce world, and asked whether food security requires the existence of sustainable rural communities. He noted that the 1952 "Columbia Basin Project" irrigates 671,000 hectares via 2,000 miles of canals, with all the attendant benefits, due to the Grand Coulee dam. He then cited a 1994 study by Wendy Holm assessing the effect of Columbia River Treaty dams on downstream Washington agriculture, which includes an increase in late summer irrigation that Washington farmers were able to take advantage of. This contribution is sufficient to provide two acre-feet of irrigation water to each of 532,000 acres, thus ensuring secure late summer supply.

Productivity went up 219% in areas irrigated with CRT water versus 39% in the rest of Washington State, and enabled farmers who benefited to grow higher value crops – for instance, the area planted with apples grew from 484 to 27,000 acres. Furthermore the water pumped onto irrigated lands aggregates in two places – the Quincy Mound and the Pasco Mound, which are now additional storage areas for irrigation water. The value of just 15 new pumping permits was in the millions of dollars. This water also supports expanded wetland complexes further down the system, so that, in addition to electricity production, Canadian CRT water provides several other benefits to the US.

Wagner closed by asking how we should integrate agriculture into a comprehensive, basin-wide governance model, and suggested that we should utilize the reconsideration of the

CRT to more equitably share the agricultural benefits associated with Canadian storage with farmers in B.C.

The next speaker was **Howie Wright**, Fisheries Program Manager with the ONA. Howie offered a Syilx perspective on the relationship of salmon to the CRT, and noted that Okanagan salmon make up 75% of all salmon in the Columbia Basin. He outlined current ONA programs aimed at improving salmon survival as they migrate through the Columbia system, noting that current survival rates remain far lower than desired despite extensive restoration efforts. Howie pointed out that, in reconsideration of the CRT, there is an opportunity to determine how Canadian water storage and survival of Okanagan salmon are linked, and how survival rates can be improved, and commented that we need a mitigation process in Canada for reducing “uncontrollable losses” similar to those employed by the US.

Howie said that next steps include continuing the ONA bilateral processes with the federal and provincial governments, with support from BC Hydro, and that transboundary collaborations will continue on assessments. He noted that there is collective responsibility, and that there are legal and traditional reasons, why salmon restoration must be part of a revised CRT.

The final speaker in Session Two was **Deborah Harford**, the Executive Director of ACT, the Adaptation to Climate Change Team at SFU, who spoke on climate change issues for a modernized Treaty. Deborah began by observing that, no matter what we do in the short-term to reduce emissions, we are now committed to global warming to which we must adapt. She showed projected changes in snowfall versus rainfall in the Columbia Basin that will impact the U.S. portion of the Basin dramatically, shifting it from a snow-dominant regime to a rain-based one, and quoted US researcher Alan Hamlet, who projects complete loss of Washington’s snowmelt dominant basins by the 2080s, which will lead to more severe summer low flow periods and more frequent days with intense winter flooding.

Ms. Harford then summarized projected climate trends in the Basin, which estimate that flows will shift to earlier peaks with less water available in the summer, and warn that 70% of glacier ice in B.C. could disappear by the end of the current century, which, along with rising temperatures, is projected to affect salmon production throughout the Columbia River. She noted that these impacts are already apparent in both the extreme droughts and wildfires across the Pacific Northwest in the summer of 2015, and the mass die-off of Columbia and Okanagan salmon due to the heat.

Deborah also noted the essential role of ecosystems in climate change adaptation, especially given the current rate of species extinction, and pointed to recent work by ACT on valuing the presence of healthy ecosystems in the Columbia Basin. She closed with a summary of the work being done by ACT on the nexus between water, food, energy and biodiversity in a changing climate, which examines these issues in the context of the Columbia Basin.

**Nelson Jatel**, Water Stewardship Director at the Okanagan Basin Water Board, then

assumed the role of moderator for Session Two.

**Pindar Dhaliwal** of the B.C. Fruit Growers Association commented on the disparity between benefits of the Columbia River Treaty enjoyed in Washington State compared to the situation for farmers in the B.C. portion of the Basin. Wagner responded that, in his view, Canadian farmers are owed compensation over the past 40 years.

Chief Louis then pointed out that aquifer protection matters in terms of both drought and flood mitigation and commented on the significant economic value of salmon. **Rick Simpson** cited concerns about a local issue – the barriers preventing reintroduction of salmon into Okanagan Lake, which is the subject of a 10-year research study by the ONA – to which Howie responded by citing issues such as technical challenges, jurisdictional problems, and changing staff and urged patience.

**Jim Heffernan** noted that dam and reservoir operations are currently focused primarily on achieving power generation and flood control, and that if we wish to also achieve ecosystem function requirements, the operations will have to change. He also provided an astute differentiation between two possible concepts of ecosystems – the choice of which would influence the value we place on them: the term “ecosystem services” considers ecosystems in the context of the value they provide for human uses, whereas the term “ecosystem function” implies a broader definition and value based on the totality of the work done by ecosystems. If we are going to get anything better than what we have now, he said, we have to change the way the system operates. Jim also commented that the current Treaty prevents consideration of ecosystem function.

In response, Harford commented that a study recently completed by ACT shows that the ecosystem goods and services supported by the water flows in the Columbia Basin, currently valued at zero in the Treaty, amount to billions of dollars, and that ACT is currently working to assess how such values might be attributed to flows governed by the Treaty. Chief Louis added that First Nations’ loss of access to traditional foods such as salmon could be characterized as a significant economic cost.

Jon O’Riordan asked Nelson Jatel what work had been done in the Okanagan Similkameen with regard to climate impacts. Jatel cited major reports and noted that climate change is real, and that effects projected to occur in 2020 are already happening. The Okanagan Basin Water Board is already tackling many of the ecosystem resilience and climate change issues now facing the rest of the Columbia Basin.

**Mike Miles** observed that we need to be thinking now about what we are going to do when the CRT dams reach the end of their design life.



**SESSION  
THREE**  
OTHER  
MODELS  
AND  
FUTURE  
DIRECTIONS

**Chaired and moderated by** Deborah Harford, Session Three examined international precedents for successful transboundary water treaties and winning conditions for a modernized CRT.

**Bob Sandford**, EPCOR Chair, Water Security, United Nations University Institute for Water, Environment & Health, and Senior Water Policy Author and Advisor with ACT opened the final session with his presentation on other models of national and international management agreements.

Sandford began by noting that perhaps the most important realization to have emerged since the Columbia River Treaty came into force is that we cannot continue to damage Earth system function as we are now doing and sustain human presence as we know it today on this planet. He then noted that the United Nations was about to focus the energies, activities and policies of its 193 member states on a coordinated, common agenda aimed at sustainable development for all and observed that sustainable development as we have defined in Canada it is not enough. If we want continued economic and social prosperity, development must be restorative as well as sustainable.

Sandford summarized the 2030 UN Transforming Our World sustainable development agenda and noted that the great and urgent challenge facing us now is to make these goals and targets a priority at the national level. He outlined the challenges we face in achieving the aims of this agenda; and drew attention to the fact that the water-related goals all rely on the principles of integrated water resource management and adaptive management to achieve their ends. He concluded that we have to make Integrated Water Resource Management (IWRM) work, and noted that the biggest difference between IWRM and traditional forms of water governance is that the former seeks to build resilience by giving consideration to the full hydrological cycle and changes that might take place within it.

Mr. Sandford observed that it might be useful, in the context of reconsideration of the Columbia River Treaty, to examine other regions that have recently faced inadequate or exhausted relations with surrounding countries or jurisdictions over matters related to shared water resources that needed to be renewed. He offered two case studies as examples: first, the Great Lakes Water Quality Agreement of 1972; second, the recently negotiated bilateral agreement between the Northwest Territories and its upstream neighbours Alberta and British Columbia regarding management of the Mackenzie River system. Sandford remarked that it was the sense of community created by the agreement process that drove the political will of the Canadian and U.S. federal governments to meet the obligations of the 1972 Great Lakes Water Quality agreement. Differences between then and now include the facts that the population of the Great Lakes Basin has grown dramatically; agricultural production in the region has increased; the introduction of invasive species has complicated the eutrophication



problem; and changing hydro-meteorological conditions have resulted in more frequent flooding which is mobilizing more nutrients.

The most critical difference, however, is that the bi-national integration processes created through strong leadership in that process have been weakened by over-representation of provincial and state interests at the expense of partnership and favourable regional and bi-national relations. Sandford observed that this is a trend that must be reversed if reconsideration of the Columbia River Treaty is to produce meaningful change. He outlined the reasons that the Government of the Northwest Territories, in partnership with Aboriginal government and federal agencies, was so successful in crafting its Northern Voices, Northern Waters water stewardship strategy and in making its central principles the foundation for groundbreaking bilateral agreements with its much more powerful upstream neighbours.

By their example, Sandford concluded, the Northwest Territories and the other signatories of the bilateral agreements

## CHRISTINE METTLER



concerning the Mackenzie Basin have shown that the road is open for using water treaties as a means of reconciliation with Aboriginal peoples; for correcting the mistakes of the past; and for collaboration on a better, more secure, more just, and ultimately far more sustainable future for all. The NWT example therefore deserves attention in the context of the reconsideration of the Columbia River Treaty.

**Jon O’Riordan**, former Deputy Minister of Sustainable Resource Management at the Government of B.C., and currently Senior Policy Advisor with ACT, concluded the final session with a presentation on a modernized Columbia River Basin Management Treaty. He summarized the governance structures of the past and outlined their limitations, notably, limited consultations with residents and First Nations, and no consideration of ecosystem values, including fisheries. He then offered alternate governance models, including:

- » Modification of the CRT
- » Incremental trans-boundary agreements on specific items such as controlling invasive species
- » A statement of principles for a Framework Agreement that would provide the context for a transboundary agreement for the entire Columbia Basin (including, for example, the use of both modern science and Traditional Knowledge)
- » Formal sub-basin agreements, such as regulating the Arrow Lakes and trans-boundary management of the Okanagan/Similkameen system

Dr. O’Riordan also outlined pre-conditions for success that have been observed as common elements in other effective treaty agreements, which include, but are not limited to:

- » Committed lead institutions
- » A rallying principle—such as water security under a changing hydro climatic regime
- » Identified champions—political leaders who have a vision
- » Support of First Nations and U.S. Tribes
- » Informed and engaged public
- » Local scale projects to restore ecosystem values
- » Coalescence of science and modeling on hydro-climatic change
- » Adequate reliable funding

**Christine Mettler** asked how we value adaptation actions and nature when the future is so uncertain. Bob Sandford responded that despite their expertise, politicians and economists are unable to predict even such enormous social disruptions as economic crashes. He observed that the Northwest Territories is a good example of a region that identified a

problem and didn't want to wait, and identified effective water management as an approach that transcends uncertainty, and advised the group not to be distracted by what you can't control. Jon O'Riordan commented that even the Governor of the Bank of England, Mark Carney, is predicting that climate change is clearly on the horizon and must be tackled if major economic disruption is to be avoided. Mr. Sandford then noted that climate impacts are already driving de-development in countries like Pakistan, and will cause debts for provincial and national budgets. It will be important to establish standards and values for the treatment of water and ecosystems before population displacement from other countries and areas within Canada begins shifting our priorities and the pressures on ecosystems.

Chief Louis then commented on the involvement of First Nations in Osoyoos Lake and the fact that the IJC is able to make transboundary decisions. Dr. O'Riordan advised that we should plan for a climate-changed future, incorporating First Nations fisheries knowledge and Traditional Knowledge of previous extreme weather events. He suggested that we create scenarios that warn of what might happen if we fail, champion successes, and draw a picture of failure to adapt to changing circumstances as a motivating factor.

Mike Miles asked if we have done enough science to know what the effect of the CRT has been. He commented that B.C. has not done anything on the scale of the work the U.S. Army Corps of Engineers has done in the U.S. in terms of analysis of B.C. floodplains, for example. Miles suggested that we need cost sharing on monitoring, and that we have not done enough field science.

The group then discussed shifts in and perceptions of values, and the usefulness of educating the public through showcasing small-scale pilot projects and their outcomes. There was general agreement that we need coordination all along the Columbia, and perhaps the formation of a neutral Columbia Citizens' Council. All present agreed to set milestones for next steps and track progress.

The workshop concluded with a wrap up and summary of the day's presentations, discussions and key conclusions from **Dr. R. Bruce MacLock**, former National President, CWRA and Workshop Co-Chair, and **Bob Sandford**, who presented the top of mind takeaway messages from the day.

**Grand Chief Stewart Phillip** made closing remarks to the backdrop of a photograph of his 22-day old grandson. He noted that, although participants arrived as separate interest groups at the beginning of the day, through committing to the discussions and hearing each other's points of view they had become a community. He emphasized that we must all work together for the sake of future generations to develop approaches that can help us survive climate change and other pressures.

Following the workshop, the hosts composed a communique that was published in a number of news outlets, summarizing the key messages and outcomes of the day:



GRAND CHIEF STEWART PHILLIP



DR BRUCE MACLOCK



**TEXT OF THE  
COMMUNIQUE**  
SUMMARY  
AND  
OUTCOMES

## COLUMBIA RIVER TREATY WORKSHOP CONCLUDES THAT AGRICULTURE, CLIMATE CHANGE, FIRST NATIONS AND FISHERIES SHOULD BE PRIORITIES IN A MODIFIED TREATY

**A public workshop** on the future of the Columbia River Treaty held in Osoyoos has concluded that the Treaty needs to be modified to meet the needs of First Nations, growing population numbers, increasing competition for water, fisheries health and environmental values, as well as negative impacts on Canadian agriculture and the impacts of a changing climate.

The workshop took place Oct. 7 at the Sonora Centre in Osoyoos and was organized by the Canadian Water Resources Association (CWRA) and the Adaptation to Climate Change Team (ACT) at Simon Fraser University.

It featured presenters from local and provincial government, First Nations, and academia; and the audience included a diverse mix of federal, provincial, and local government officials, Canadian First Nations, Native American Tribal Organizations, non-governmental organizations, local businesses and members of the public.

Stewart Phillip, Grand Chief of the Okanagan Nation and President of the Union of B.C. Indian Chiefs, summarized the meeting by concluding that an opportunity now exists to renegotiate the aging treaty in

a spirit of collaboration across international boundaries, with First Nations at the table to ensure First Nations' participation and ultimately consent, as is now required based on the June 2014 Canadian Supreme Court Tsilqot'in decision.

"In the face of the devastation of climate change, it is crucial for the sake of our grandchildren and their grandchildren that the eco-system, including ensuring salmon passage to the Upper Columbia, become central to any new Treaty," urged Grand Chief Phillip.

Workshop co-organizer Dr. Brian Guy of the CWRA noted that First Nations were excluded from the original treaty, and the assessment of impacts at the time greatly underestimated the loss to fisheries and ecosystem values.

Co-convenor Deborah Harford, Executive Director of ACT, added, "The prospect of a changing climate will have profound effects on the timing and quantity of river flows such that overall water security will become a paramount issue on both sides of the international border."

Dr. John Wagner of University of British Columbia reported on recent research

showing that, not only was Canadian agricultural land flooded by Treaty dams, but also controlled water releases from Canadian storages continue to provide unintended benefits worth millions of dollars and thousands of jobs annually to the U.S.

The expanded U.S. agricultural capacity created by Canadian-sourced irrigation water also allows U.S. farmers to outcompete Canadian farmers. Dr. Wagner suggested that we should take this opportunity in renegotiating the treaty to more equitably share the agricultural benefits of Canadian storage with farmers in B.C.

Other key points agreed to by workshop participants include:

Renegotiation of the Columbia River Treaty needs to be an inclusive process, involving local populations and First Nations on both sides of the border;

The Columbia River Treaty needs to have enough flexibility to address climate and hydrologic change;

Fisheries, fish passage, and fish habitat must be enhanced throughout the Columbia River Basin (including the Okanagan River);

There is an opportunity to broaden discussions for an international agreement

that covers the entire Columbia Basin, including the Okanagan and Similkameen River Basins, based on the successes achieved with other international agreements such as the Great Lakes Water Quality Agreement, and the recently concluded Northwest Territories-Alberta transboundary agreement on the Mackenzie River.

Panelists and convenors agreed that the current Treaty is likely too narrow a basis on which to govern an international river basin, and that therefore careful consideration of Columbia River Basin governance beyond the Treaty's parameters will be key for all in the region going forward.

The consensus of workshop participants was that a neutral convenor, perhaps in the form of a new citizens coalition – could play a useful role in monitoring progress on treaty negotiations to ensure that the concerns and interests expressed today are respected and considered. A progress report on this initiative will be reported to a national CWRA meeting focusing on trans-boundary agreements in 2017.



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