



COLUMBIA RIVER TREATY REVIEW

PUBLIC CONSULTATION REPORT



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1. Introduction

1.1 Columbia River Treaty Background

In 1964, Canada and the United States (U.S.) ratified the Columbia River Treaty (Treaty), a transboundary water management agreement. The impetus for the Treaty was the disastrous flood of 1948 which devastated the City of Vanport in Oregon and cost many lives, along with growing power demand in the Pacific Northwest. In exchange for providing flood control and for an equal share of the incremental U.S. downstream power benefits, Canada agreed to build three dams – Duncan, Hugh L. Keenleyside and Mica - in British Columbia and allowed the U.S. to build a fourth dam, the Libby Dam, that flooded into Canada. The Canadian facilities vastly reduced flood risk in B.C. and the U.S. The Treaty also enabled the construction of hydroelectric projects in B.C. that provide approximately half of the potential generation in the Province, as well as providing for the production of significantly more electricity at U.S. hydropower facilities.

The Canada-British Columbia Agreement (1963) allocated most Treaty rights, benefits and obligations to the Province. Although this agreement retains Canada’s constitutional jurisdiction for international treaties, it requires Canada to obtain the concurrence of the Province before terminating or amending the Treaty

The U.S. prepaid Canada \$64 million for 60 years to provide assured flood control operations which resulted in reduced flood damage and increased safety for U.S. citizens. The U.S. also committed in the Treaty to paying Canada half of the incremental power potential that could be produced because of the new flow regimes made possible by the Treaty coordination.

The Treaty dams and reservoirs inundated 110,000 hectares (270,000 acres) of Canadian ecosystems, displaced more than two thousand residents as well as First Nations, communities and infrastructure, and impacted farms, tourism and forestry activities. First Nations and public consultation and mitigation at the time could be considered inadequate to non-existent by today’s standards, and feelings of hurt remain to this day.

The Treaty has no end date but either country can unilaterally terminate the Treaty from September 2024 onwards provided that at least 10 years notice is given. This ability to terminate the Treaty, and the changing flood control provisions that will occur post-2024 whether the Treaty is terminated or not, have prompted both countries to undertake a review of the Treaty to determine its future.

1.2 Overview of the Columbia River Treaty Review

The Province has initiated a Treaty review process to evaluate future decision options, including possible continuation, amendment or termination of the Treaty. The Ministry of Energy and Mines is the coordinating agency for the review and established a Columbia River Treaty Review Team (Treaty Review Team) in fall 2011 to undertake analysis and provide recommendations to Cabinet in 2013.

Canada has supported British Columbia's lead role in the Treaty review, and is collaborating with the Province throughout the process.

The purpose of the Province's review is to determine whether British Columbia should recommend that Canada exercise its right to terminate the Treaty, or alternatively what the Province's position should be in discussions with the United States on any new arrangements within the Treaty or amendments to the Treaty.

The Treaty review includes a number of initiatives in order to support future decisions including:

1. Economic, environmental, social, legal and hydrological analyses;
2. Meeting the Province's constitutional obligations to consult, and if necessary accommodate, First Nations potentially impacted by any decision on the Treaty;
3. Consulting Columbia Basin residents on decision options and identifying regional concerns, interests, and expectations; and
4. Analyzing U.S. economic, environmental, social and legal interests in order to understand U.S. positions on termination or revision of the Treaty post-2024.

The Treaty review public consultation is guided by four engagement principles: Be Inclusive, Transparent and Honest; Create Capacity to Participate; Facilitate Constructive Engagement; and Close the Loop.

1.3 First Nations

The provincial Crown has a legal duty to consult potentially affected First Nations when decisions by the Crown may impact aboriginal rights and title. First Nations were not consulted when the Columbia River Treaty was established and aboriginal rights and title in the Basin remain unresolved. In light of this, the Province has been consulting separately with the relevant First Nations in order to meet constitutional obligations and to understand and address First Nations interests. This process is conducted on a government-to-government basis and is not public.

1.4 Columbia River Basin

1.4.1 Map

Please see Appendix 1 for a map of the Columbia River Basin showing Treaty dams, major non-Treaty dams, Treaty reservoirs and communities.

1.4.2 Population

There are approximately 160,000 residents in the Canadian Columbia River Basin (Basin) area identified for public consultations.

1.4.3 Stakeholder Groups

In addition to Basin residents and local environmental and community organizations, the Treaty Review Team interacted with the following stakeholders:

Columbia Basin Trust (CBT)

- CBT provided general education and awareness to Columbia Basin residents on the Treaty and held a number of community based information sessions prior to the Province's public consultation. The Treaty Review Team attended CBT's fall 2011 information sessions.
- CBT co-developed an MOU with the Province's Treaty Review Team which lays out each agency's roles and responsibilities regarding Columbia Basin residents and the Columbia River Treaty review (see Appendix 2 for the MOU between the Treaty Review Team and CBT)
- CBT provided advice and input on the Province's public consultation process and provided feedback on key Treaty review documents.

Columbia River Treaty Local Governments' Committee (Local Governments' Committee)

- The Local Governments' Committee is a sub-committee of the Association of Kootenay Boundary Local Governments (see Appendix 3 for Local Governments' Committee Terms of Reference).
- The Local Governments' Committee provided feedback and advice to the Treaty Review Team on the public consultation process. Early advice included not overly narrowing the scope of Treaty review and to provide residents with an opportunity to talk about historical grievances. The Local Governments' Committee also suggested asking Basin residents how they wished to be consulted.
- Committee members or the Executive Director participated in all of the community and Sounding Board meetings.
- The Treaty Review Team continues to provide regular updates and engage in dialogue with the Local Governments' Committee.
- Based on the summary reports from Treaty review public consultation events and CBT public education events on the Treaty, the Local Governments' Committee developed a list of Basin residents' issues which was submitted to the Treaty Review Team. The Treaty Review Team asked the government ministries and agencies that form the Columbia River Treaty Cross-ministry Committee to respond to the concerns raised by Basin residents and stakeholders. A compilation of the responses can be found in Appendix 4.

BC Hydro

- The Treaty Review Team met with BC Hydro regional community relations staff in the Kootenay region and provides Treaty review material for distribution at BC Hydro community events in the Basin. The Treaty Review Team regularly communicates with BC Hydro community liaison staff to seek input/feedback and to ensure there is no overlap of community events.
- The Treaty Review Team works with BC Hydro Treaty review technical team on the modelling and analysis of future Treaty options and to develop and deliver material for community consultation events.

Columbia Power Corporation (CPC) and FortisBC (Fortis)

- The Treaty Review Team met with CPC and Fortis staff to provide updates and to seek their respective views and interests regarding the future of the Treaty.

Columbia River Treaty MLA Committee

- The Treaty Review Team meets with the chair of the Committee, the Honourable Bill Bennett, and provided briefings to Columbia Basin MLAs.

2. Community Consultation

2.1 Pre - Consultation

A consultation strategy was initially developed by the Treaty Review Team and later refined based on feedback from the Local Governments' Committee, CBT and attendees at the first round of community consultations. The feedback led to identifying two main audiences and approaches.

A large number of people wanted to be kept informed of the overall progress of the Columbia River Treaty review on both sides of the border and favoured evening workshops held in communities. Another group, of which many had a long and continuing interest in the Treaty and hydro operations in their region, wanted more detailed information and an opportunity to question experts, including BC Hydro's technical team, on the analysis being undertaken as part of the Treaty review. A number of informed residents also wanted an opportunity to share their local expert knowledge and to engage in a discussion on the key elements the Province should consider as part of the future of the Treaty. This latter group was in favour of at least one conference on the Treaty and the formation of a cross-Basin group of local experts, which became the Columbia River Treaty Sounding Board, to provide direct feedback to the Treaty Review Team.

The Treaty review used the various consultation events as an opportunity to gather feedback from Basin residents on the values and interests they wanted considered in future decisions regarding the Treaty. The values and interests gathered were reviewed by the Treaty Review Team, Local Governments' Committee and Sounding Board Group and were divided into those interests that could be addressed domestically outside of the Treaty, and those that could be impacted by the strategic decision on whether to continue or terminate the Treaty.

Almost everyone the Treaty Review Team consulted expressed concern about youth participation in the Treaty review process. The Treaty Review Team developed a multi-pronged approach to engage youth including the use of Social Media.

The Treaty review utilized Columbia Basin goods and service providers as much as possible in developing and delivering consultation events. Over ninety percent of materials used for the community consultation events were printed in either Trail or Cranbrook. Local contractors helped develop and deliver the community consultations and conference and all but two of the summary reports. Venue

rentals were almost all community-owned facilities and catering was supplied by small local caterers, coffee shops or community groups.

2.1.1 Social Media – Online Engagement

Website

The Treaty review website was launched in early May 2012. The website supports the consultation process by providing a single location where Basin residents can find historical information about the Treaty and ongoing reports and discussion papers produced as part of the Treaty review process. The website provides information about upcoming consultation events and is a repository of the presentations, handout materials and summary reports of all the Province’s Treaty review public consultation sessions. The website also has features that allow Basin residents to submit questions to Treaty Review Team and, through the website blog <http://blog.gov.bc.ca/columbiarivertreaty/>, engage in discussion with other Basin residents.

E-Newsletter

The first Columbia River Treaty Review e-newsletter was published in August 2012. Starting with approximately 300 interested Basin residents, there are now over 550 subscribers. The e-newsletter keeps Basin residents and others informed about upcoming events and the outcome of these events, and about new reports or discussion papers prepared by both B.C. and U.S. Treaty review teams. Each month it also features an in-depth explanation of a frequently asked question on the Treaty. Anyone can subscribe here: <http://blog.gov.bc.ca/columbiarivertreaty/review/updates/> and review all previous issues.

Twitter

The Columbia River Treaty Review’s Twitter presence, @CRTreaty, began in August 2012. The Treaty Review Team tweets bi-weekly in order to keep a growing number of followers, currently around 225, informed about the latest news in B.C. and the U.S. on the Treaty review. One enthusiastic follower tweeted:



Facebook

The Columbia River Treaty Review Facebook page began in early October 2012 (see <https://www.facebook.com/pages/Columbia-River-Treaty-Review/471508369560835>). While the page has over 100 likes, the information posted on the Facebook page often reaches more than 200 people, with one recent post about the Treaty Review Team discussion paper, *U.S. Benefits from the Columbia River Treaty – Past, Present and Future: A Province of British Columbia Perspective*, reaching over 270

viewers. Facebook was recommended by Basin residents as a way to engage Basin youth in the discussions around the Treaty. Facebook was also suggested by a First Nations representative as a way to provide information to First Nations. Facebook advertising has also been used for some events.

2.2 Phase 1 Community Consultation Workshops – Collecting Views

Phase 1 of the Treaty review public consultation process was carried out in May and June 2012. Sessions were held in seven communities selected by the Treaty Review Team with guidance from CBT and the Local Governments' Committee: Jaffray, Creston, Nakusp, Castlegar, Valemount, Golden and Revelstoke. The events were advertised in 23 local papers at least twice during the two weeks prior to community sessions. CBT mailed out post cards with information about the sessions to rural communities not serviced by a local newspaper. BC Hydro provided information about the sessions at their community update meetings and to their email distribution list. Service BC offices in the region displayed handbill posters of the sessions and the posters were provided to the Local Governments' Committee for display at local government offices. Information about the sessions was included on the provincial Treaty Review website and e-Newsletter and in CBT's e-newsletter.

Over 360 people attended the seven community sessions. Participants were provided with a folder of materials to use during the evening and to take away with them. The folder included frequently asked questions, Treaty highlights, an overview of the Treaty review, a pre-paid postcard to send comments or questions, a compilation of community interests assembled from previous water planning processes, and a discussion document to identify how people want to be consulted going forward.

The afternoon sessions began with a CBT open house followed by in-depth discussion facilitated by the CBT and the Treaty Review Team on topics identified in previous CBT workshops. After dinner provided by CBT and a welcome by local government leaders, the Province began its first phase of the consultation on the Treaty with an overview of the Columbia River Treaty Review process followed by a presentation by BC Hydro on known Basin interests that have previously been identified through other initiatives such as the Fish and Wildlife Compensation Program, Columbia and Duncan Water Use Plans, and Non-Treaty Storage Agreement discussions. The Province also shared information on the future Treaty scenarios being analysed, technical studies planned and underway, and preliminary B.C. and U.S. perspectives. The Province and BC Hydro's presentations in Golden were videotaped and, together with the PowerPoint presentations and all the material distributed, made available to the public on the Columbia River Treaty Review website: gov.bc.ca/columbiarivertreaty.

Prior to the community consultation sessions, the Treaty Review Team had assembled a list of interests and issues already identified by Basin residents in other planning processes such as the BC Hydro Water Use Plans, Environmental Assessments, and more recently the Non-Treaty Storage Agreement. The Treaty Review Team asked participants to identify what was missing from the list. Participants confirmed the interests listed and identified new interests: some were specific to reservoir operations, while others were more general and regional in nature.

The Treaty Review Team heard a number of interests and concerns that were common across the Basin. Overall, most people are interested in balancing competing land use needs, managing water (water

levels, quantity and quality) for a range of interests, and understanding and adapting to climate change. Many residents are keen to see full implementation of the Water Use Plans, and to establish a “water use plan like” process for the Kootenay system that is influenced by Libby Dam operations. Participant interests can be broadly categorized as follows: recreation and transportation; water levels (including flood control and erosion); First Nations and cultural heritage; environment and climate change (including impact on sustainability and ecosystem function, wildlife and vegetation, fish and aquatic resources); economic opportunities and costs (including Columbia River Treaty provisions and distribution of benefits); and engagement and collaboration in water management and the Treaty review process.

See http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Community-session-summary_final_Oct-30.pdf for the Phase 1 Consultation Summary Report – Spring 2012.

2.3 Phase 2 Community Consultation Workshops – Reviewing the Analysis

Phase 2 consultation workshops were held in November 2012 in eight communities: Jaffray, Creston, Trail, Nelson, Nakusp, Revelstoke, Golden and Valemount. The Trail workshop was live-streamed, providing an additional opportunity for public participation by interested British Columbians living inside and outside the Basin. The Treaty Review Team also held two meetings, in Cranbrook and Castlegar, with regional district and municipal elected officials.

The community events were advertised in 21 local newspapers at least twice during the two weeks prior to the sessions. Facebook advertising was also used. CBT mailed post cards with event information to some rural Basin residents without access to local newspapers. The community events were posted on the Treaty review website event calendar and on Twitter and were featured in the September and October Treaty review e-newsletters which were emailed to approximately 450 email addresses. Handbills with event information were provided to the Local Governments’ Committee for distribution and for posting in local government offices, and CBT included event information in their e-newsletter and on their website. Information about the community events was also distributed by BC Hydro during their regional update meetings and in their update emails. The Treaty Review Team also sent emails about the events to Selkirk College and College of the Rockies instructors of relevant courses and telephoned high schools in some communities where the sessions were held.

Approximately 360 people attended the fall community sessions and LiveStream option. Participants were provided with information folders that included frequently asked questions, Treaty highlights, an overview of the Treaty review, a pre-paid postcard to send comments or questions, and copies of the reports that were reviewed during the consultation workshops. A feedback form and pre-paid envelope were also provided. The sessions began with an open house that included three videos produced by CBT explaining the basics of the Treaty and display material, and Treaty Review Team members were available to answer questions. Following a welcome by a Local Governments’ Committee representative, the Treaty Review Team provided an update on the Treaty review process, studies completed and underway, and a timeline of the Treaty review. The sessions also included presentations on two reports commissioned by the Province in response to questions and issues raised by residents during the spring Phase 1 consultation process - *A Review of the Range of Impacts and Benefits of the Columbia River*

Treaty on Basin Communities, the Region, and the Province (see <http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/A-Review-of-the-Range-of-Impacts-and-Benefits-of-the-Columbia-River-Treaty6.pdf>) and *Libby VARQ Flood Control Impacts on Kootenay River Dikes* (see <http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Libby-VARQ-Flood-Control-Impacts-on-Kootenay-River-Dikes2.pdf>). In Valemount and Golden the Treaty Review Team reviewed a BC Hydro high level report on the *Feasibility of Kinbasket Reservoir Dams* (see: http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/CRT_KinbasketReservoir_ver01.pdf).

The sessions continued with BC Hydro presentations on the outcomes of modeling three key Treaty scenarios (Treaty Terminate, Treaty Continue, Treaty Continue Plus Improvements), including financial, social, and environmental impacts, benefits and trade-offs. The evening sessions ended with small group discussions on key issues identified by Basin residents that could potentially be related to the Treaty. Presentations and handout material used during the November community workshops are available at the Treaty review website at <http://blog.gov.bc.ca/columbiarivertreaty/community-sessions/>.

Stable water levels for recreation and ecosystems, First Nations involvement, attention to environment and ecosystems, equitable compensation, and economic development were key topics heard at the majority of the consultation sessions. Many concerns and much advice brought forward were directly related to continuing, amending, or terminating the Treaty, but others were often long-time issues that residents felt had no other avenue for expression. Some of those issues were not related to the treaty, but may be addressed through other processes.

A detailed description of the information collected by the Treaty Review Team, Phase 2 Consultation Summary Report – November 2012, can be found at

<http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Treaty-Review-November-2012-Public-Consultation-Summary-Report1.pdf>

2.4 Phase 3 Community Consultation Workshops – Options and Interests

During Phase 2 community consultation workshops, the Treaty Review Team committed to returning for further discussions if invited by a community. Golden and Nelson took up the offer and the Treaty Review Team held evening community session in Golden on March 20, 2013 and in Nelson on March 21, 2013.

Newspaper and other advertisements and invitations to the two communities evening sessions were combined with the advertisements about the Treaty review technical conferences planned for Golden on March 20 and Castlegar on March 22. Print ads ran twice over generally two weeks in 21 local papers approximately one month prior to the events. Online ads were also used and ran on nine local paper websites each day for the two weeks prior to the events. A notice about the Golden evening session and conference was displayed on the marquee of the Golden Civic Centre for 2 weeks prior to the events. Information about the March 2013 community events and conferences were featured on the Treaty review website event calendar, e-newsletter, Facebook and Twitter sites. Information was also

included with update emails distributed by BC Hydro, CBT and the Local Governments' Committee. CBT also included information about the community sessions in its newsletter.

Although the March 20 conference in Golden was cancelled due to very low registration, approximately 35-40 residents from Golden, Invermere and the surrounding areas attended the March 20 evening event at the Golden Civic Centre. Approximately 20 residents from Nelson, Kaslo and surrounding areas attended the March 21 evening event in Nelson. Information folders from the November 2012 community consultations were available and pre-paid postcards for comments were handed out.

The Local Governments' Committee worked with the Treaty Review Team to identify agenda topics tailored for the Golden and Nelson evening sessions. The Treaty Review Team provided attendees with an update on the Treaty review process and U.S. perspectives on the Treaty from their respective review process. The Treaty Review Team also provided information on the Treaty's strategic decision options and the potential impact on broad Basin interests. A presentation on Basin-wide and local interests that could have solutions that did not involve the Treaty led to discussions about domestic solutions.

A key concern raised by numerous attendees in Golden is the impact the creation of Kinbasket reservoir has had on the local forestry industry. The main issue discussed was about the loss of public and low cost transportation links that led to increased timber harvesting costs, causing permanent job losses, and resulting in the weakening of the forestry industry in the area. Another key concern was the lack of recreation and boat launch sites on the Kinbasket Reservoir, infrastructure the community says was promised when the reservoir was created. Other interests discussed were the need to more closely link distribution of Treaty-related benefits to impact on communities and the return of salmon to the Upper Columbia River.

Discussions in Nelson focused on: mitigating the ecological and fisheries impacts caused by the dams and the fluctuating water levels in reservoirs; reclaiming agricultural land lost to reservoirs; including climate change in future scenario analysis; and shortening the time frame of any future Treaty agreements. The relative merits of removing Hugh Keenleyside and Duncan dams were also discussed.

A summary of the Golden and Nelson evening sessions can be found at:

<http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Golden-and-Nelson-Community-Consultations-Summary-Report-March-2013-rev1.pdf>

Strong local interest also prompted a subsequent all day community workshop hosted by the Treaty Review Team in Fauquier on June 15, 2013. Approximately 75 people attended with several attendees coming from outside the Burton-Fauquier-Edgewood-Nakusp area. The workshop was advertised locally through mailed postcard invitations and posters in the community. It was also advertised at least twice in two regional newspapers and included on the Treaty review website event calendar.

Working closely with a group of interested local citizens, workshop topics and guest speakers and agenda were chosen by consensus. The workshop began with a welcome by the Vice-Chair of the Columbia River Treaty Local Governments' Committee and was followed by a presentation on a report commissioned by the Province - *A Review of the Range of Impacts and Benefits of the Columbia River Treaty on Basin Communities, the Region, and the Province* (see

<http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Fauquier-Review-of-the-Range-of-Impacts-and-Benefits.pdf>

The next presentation, on water governance and issues affecting future transboundary water management, was followed by an update on the Columbia River Basin Fish and Wildlife Compensation Program. The Treaty Review Team then gave an overview of the fall 2013 strategic decision and the results of the BC Hydro modeling and analysis of the implications of the two key scenarios: Treaty Continue or Treaty Terminate. The last presentation was a review of work commissioned by the Province examining Arrow Lakes Reservoir options after 2024. Four options were presented. The workshop concluded with a two hour question and answer session with a panel that included all the presenters and a BC Hydro representative.

Discussion during the Fauquier workshop centered around: distribution in Basin communities of benefits arising as a result of the Treaty; ecosystem, fisheries and wildlife impact and appropriate mitigation and future consideration under the Treaty; public and, in particular, First Nation participation in future Treaty discussions and operations; the benefits of stable Arrow Lakes Reservoir levels, preferably at mid-elevation; and flood plain management. There was considerable discussion on whether terminating the Treaty or negotiating changes under the Treaty was the best approach to getting the results attendees wanted. In contrast to other community workshops where most Basin residents were in favour of seeking improvements under the Treaty, a straw poll in Fauquier showed two-thirds of attendees favoured terminating the Treaty.

Further details regarding the June 15, 2013 Fauquier meeting can be found in the summary report at www.gov.bc.ca/columbiarivertreaty/community-sessions/

2.5 Further Consultation: Examining the Details

2.5.1 Columbia River Treaty Review Technical Conference

Basin residents were asked in Phase 1 how they wished to be consulted. Many residents wanted the Province to host a conference that would allow interested parties to review the technical results of Treaty review technical studies and receive more-in depth information on the modeling and operational alternatives.

Two Columbia River Treaty Review technical conferences were planned for March 2013 - in Golden on March 20 and Castlegar on March 22, with a LiveStream option available for the Castlegar conference. The conference in Golden was cancelled due to low registration (seven people), and those people who had registered were offered travel cost assistance to attend the Castlegar conference. A few people took advantage of the offer and several Golden residents opted to participate via LiveStream. A bus was provided to assist residents from areas heavily impacted by the creation of Arrow Lakes Reservoir - Edgewood, Fauquier, Burton, Arrow Park, and Nakusp - to attend the conference. Approximately 120 people attended the Columbia River Treaty Review Technical Conference at the Castlegar Sandman Inn.

The conference began with BC Hydro presenting an overview of the technical studies and the rationale and modeling analysis undertaken to assist the public, stakeholders, First Nations and government

decision makers in examining the Treaty Terminate versus Treaty Continue strategic decision options in fall 2013. Following the BC Hydro presentation, attendees participated in two rounds of breakout sessions where details of the technical studies results were discussed by sub-region: Kinbasket and Arrow Lakes Reservoirs; Lower Columbia River; and, Kootenay System.

Lower, stable water levels at Arrow Lakes Reservoir were a main topic of discussion in the Kinbasket and Arrow Lakes Reservoirs breakout sessions. There was extensive review of the 2012 high water levels and subsequent flooding during the Lower Columbia River breakout sessions. Discussion also focused on: fish (sturgeon, whitefish, trout) and fish habitat; ecosystem impacts (with fluctuating water levels being attributed the most negative impact); and dam safety. A Kootenay Water Use Plan, return of salmon, and flood risk management were the main topics in the Kootenay System breakout sessions.

An update on the Treaty review work underway in the U.S. was presented by the U.S. co-chairs of the Columbia River Treaty Operating Committee. Attendees also participated in breakout sessions on topics suggested by Basin residents during Phase 1 and Phase 2 of the consultation process: archaeology performance measures for power system planning; return of salmon in the Upper Columbia River; climate change impact on the Columbia River; and flood management operations and bylaws.

A feedback form and pre-paid envelope were provided at the end of the conference. Further details can be found in the conference summary report at:

<http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/Summary-Report-CRT-Review-Technical-Conference-March-22-2013.pdf>

2.5.2 Columbia River Treaty Review Workshop for Basin Environment Leaders

An all day Treaty workshop attended by local watershed and ecosystem experts received support from the Treaty Review Team. The workshop included a presentation on hydrological and climate issues and a presentation on climate implications for the Kootenay region. The workshop also included facilitated discussions exploring various environmental considerations that could be included in the future of the Treaty.

2.6 Focused Consultation: Identifying Key Elements for Recommendation

2.6.1 Sounding Board

The twenty-eight members of the Sounding Board were invited by the Treaty Review Team to form a geographically balanced representation of Columbia Basin residents with knowledge of dam/reservoir planning and operations and/or recognized in their communities as knowledgeable in one or more key areas of interest. Sounding Board members are expected to provide a broad perspective and contribute positively to discussions on Treaty-related matters.

The purpose of the Sounding Board Group is:

1. To act as “sounding board” on Treaty reports and other information, providing feedback, opinions and suggestions for improvement;

2. To provide feedback to key Treaty review questions, in particular regarding Basin interests (e.g. environment, socio-economic, domestic); and
3. To help inform recommendations to government on the future of the Treaty.

The Sounding Board kicked off with an April 11, 2013 teleconference where the terms of reference, process and objectives, community engagement, and expectations of the Sounding Board members and the Province were discussed.

The first Sounding Board face-to-face meeting took place in Nakusp on June 3, 2013, with twenty-four members in attendance. The Sounding Board reviewed nearly 100 Basin residents' interests/issues that had been collected by the Treaty Review Team during public consultations to determine whether or not the interest/issue was directly, indirectly, or not affected by the strategic decision to continue or to terminate the Treaty. In the end, Sounding Board members concluded that just a fraction of the issues was directly affected by the strategic decision and most of the interests/issues could potentially be addressed without involving the Treaty.

Sounding Board members also reviewed the results of the Treaty review technical studies and questioned whether the bookend alternatives modeled in the technical studies showed the full range of physically possible operations under the two key scenarios for the strategic decision and challenged the technical studies team to expand the bookends.

The second Sounding Board face-to-face meeting was held on July 5, 2013 in Cranbrook with twenty-two members attending. Sounding Board members discussed whether the preferred outcomes for Basin residents were more likely to come about if the Treaty were terminated or, if the Treaty continued, whether Basin interests could be included in negotiations and result in an improved Treaty. Some members thought terminating the Treaty would result in the best outcome for ecosystems in Arrow Lakes Reservoir while not increasing impacts on Kinbasket Reservoir while other members were concerned about potential impacts to Kooecanusa Reservoir and to the Kootenay River system if the Treaty were terminated.

Generally, Sounding Board members felt consideration should be given to continuing the Treaty and negotiating enhanced B.C. benefits, while keeping open the option to terminate the Treaty if no progress can be made. Sounding Board members also identified and prioritized key elements of Basin interests they felt should be considered in the recommendation to Cabinet and negotiations for an improved Treaty.

A third Sounding Board face-to-face meeting was held on November 7, 2013 in Castlegar with 14 members in attendance. Sounding Board members discussed the results of the BC Hydro addendum studies. They felt further analysis and fine tuning of the two scenarios was needed as well as an "optimal for B.C." scenario. Almost all Sounding Board members supported the draft recommendation and guiding principles. They also supported the creation of an advisory committee, with broader membership and scope than the Sounding Board, which could support the Province through any future Treaty negotiations. Sounding Board members also noted the need for more youth education and involvement in the future of the Columbia River Treaty.

The Sounding Board held a final teleconference on December 20, 2013 where the success of the group and the fulfillment of its mandate were reviewed and members thanked for their considerable contribution to the public consultation and the future of the Treaty.

Further details regarding Sounding Board meetings can be found at <http://blog.gov.bc.ca/columbiarivertreaty/sounding-board/>

2.7 Phase 4: Closing the Loop

Phase 4 consultation workshops were held in November 2013 in six communities: Jaffray, Cranbrook, Golden, Nakusp, Castlegar and Valemount. The Cranbrook meeting for regional district and municipal elected officials was also attended by the public. At the request of the community there were two meetings in Nakusp, one in the afternoon and the other later in the evening. The Castlegar workshop was well attended by young adults, many students at Selkirk College, and had a LiveStream option. The option chosen by the Valemount community was to have a workshop via videoconference.

Advertisements about the community workshops were placed in twenty-two local newspapers and nine online publications two weeks prior to the sessions. Notice of the community workshops was included with the mid-October news release on the Province's draft recommendation and the news release by the Local Governments' Committee on their draft recommendations to the provincial and federal governments. Workshop information contained in both news releases was reported by most Basin newspapers. Details regarding the community workshops were posted on the Treaty review website, featured in the October 2013 Treaty review e-newsletter sent to approximately 550 email addresses, and posted on Twitter and Facebook. Handbills about the workshops were provided to the Local Governments' Committee for distribution and posting in local government offices and were also distributed at an October 2013 CBT symposium attended by over 300 Basin residents. CBT also included information about the workshops in their e-newsletter and on their website.

Approximately 230 people attended the November 2013 community sessions and LiveStream option. Participants at the sessions were provided with the following documents: the Columbia River Treaty Review draft B.C. recommendation and principles; draft public consultation report including Appendix 5 – Provincial Government Response to Issues Raised by the CRT Local Governments' Committee; the addendum report to the Columbia River Treaty Review Technical Studies Report; a Columbia River Treaty: Now and in the Future flyer; and information about the Columbia River Treaty classroom project. A feedback form for participants' comments on the draft recommendation and principles and public consultation report was provided along with a pre-paid envelope for completed feedback forms. A pre-paid postcard for later comments or questions was also provided although attendees were encouraged to complete the feedback forms and provide comments before leaving the community events.

Following a welcome by a Local Governments' Committee representative, BC Hydro provided an overview of the analysis contained in the Technical Studies addendum report. One study, modeling Arrow Lakes Reservoir at stabilized mid-elevation, had been requested by a community group. The other study, modeling ecosystem function scenario, was requested by First Nations and others from across the Basin. After a question and answer period, the Treaty Review Team presented the key

findings contained in the draft public consultation report followed by a review of the draft B.C. recommendation and principles that was informed by the consultation report. Small group discussions on whether anything was missing from the draft public consultation report and draft recommendation and principles were recorded by the Treaty Review Team. This concluded the Province's portion of the community workshops and was followed by the Local Governments' Committee-led review of the Committee's draft recommendations.

Most workshop attendees wanted the Province to continue the Treaty and pursue improvements within the Treaty framework. Most wanted improvements in operations that allowed more stable water levels for recreation and social benefits and, in particular, better management of ecosystems. They also want to see Libby Dam included under the Treaty framework. A few attendees felt the preferred strategy to address ecosystem issues in their area was to terminate the Treaty. Most attendees supported the principles although some felt stronger or more fulsome language was needed. Most attendees felt the draft public consultation report generally reflected the views of Basin residents although some attendees wanted to see more in the report about impacts to agriculture.

During the workshops, many residents spoke about more benefits from the Treaty coming to the Basin and how the benefits should be distributed according to the level of impact. Many workshop attendees felt the future of the Treaty was about water supply for multiple needs and the future value of this water and not just about managing water flows for a narrow range of interests such as power or flood control. Many residents felt that compensation for managing flows to address climate change impacts, including drought and floods, needed to be included in any future negotiations. Basin residents wanted the Province to ensure that U.S. payments reflected the impact on the Basin of providing water flows to meet the multiple U.S. interests.

A number of issues that could be addressed domestically, including the need for economic development, improving fisheries other than salmon, and providing better infrastructure for community access to the reservoirs, were raised during the workshops. Some workshop attendees called for a formal process to address these types of issues.

Most Basin residents were concerned about any future negotiations and wanted to ensure that the B.C. negotiation team was tough, well prepared and well supported, including having access to a negotiation advisory committee that included Basin representation so that Basin views would be considered.

Further details regarding the November, 2013 community meetings can be found in the summary report at <http://blog.gov.bc.ca/columbiarivertreaty/community-sessions/>

3. Other Columbia River Treaty Review Engagement

3.1 Youth

Basin residents who attended community consultation meetings, the Local Governments' Committee and CBT were concerned about youth participation in the Treaty review, urging the Treaty Review Team

to engage youth in the process. Some younger Basin residents were in turn concerned that their voices may not be heard equally alongside older generations in the Treaty review; that the dominant perspectives at community meetings would focus on grievances of the past rather than aspirations for future generations.

Responding to suggestions from Basin residents on how to connect with Basin youth, the Treaty Review Team included Twitter and Facebook in their engagement strategy. The Treaty review website also has a Youth Engagement page that includes Treaty information and activities.

The Treaty Review Team contacted instructors at Selkirk College and College of the Rockies who were teaching courses that might relate to the Treaty, including courses on environment, land use planning, history, and fish and wildlife by email and provided information about upcoming Treaty review sessions in or near their communities. Approximately 20 Selkirk College students attended the November 2012 community session in Nelson and approximately 25 attended the November 2013 community session in Castlegar. The Treaty Review Team also telephoned local high schools in a few communities and several students attended the November 2012 community session in Creston.

In coordination with Kootenay Association for Science and Technology (KAST), the Treaty Review Team made a presentation to Selkirk College students attending the 2013 KAST Environmental Networking Lunch at the College's Castlegar campus. The Treaty Review Team also hosted a Columbia River Treaty booth at the March 2013 East Kootenay Regional Science Fair at College of the Rockies in Cranbrook. Over the two days, the Treaty Review Team talked to close to 100 young people and approximately 100 teachers and parents.

The Treaty Review Team worked with Columbia Basin Environmental Education Network and the Local Governments' Committee to engage an educator to develop and deliver a free classroom presentation on hydroelectricity and the Columbia River Treaty that also supports learning outcomes for the B.C. science curriculum on electricity. Thirty classroom presentations across four school districts will be delivered in late February, March and early April of 2014, reaching approximately 600 Basin students.

The Treaty Review Team designated four spots for youth/young adults on the thirty-member Sounding Board and will include similar representation in any future Treaty review related committees.

4. Basin Residents Key Areas of Interest/Concern

The following is a compilation, roughly in order of priority, of the key issues and concerns Basin residents shared with the Treaty Review Team during the community evening sessions and workshops, technical conference, Sounding Board meetings, website blog posts, emails and Canada Post mail, and private conversations. The term "Basin residents" and "residents" is used throughout the following sections, however, the perspectives of Basin residents who shared their views with the Treaty Review Team do not necessarily reflect the views of the entire Columbia River Basin population.

Of the interests and concerns shared by Basin residents with the Treaty Review Team, some were related to operations under the Treaty while many of the issues could have solutions that do not involve the Treaty. A more detailed list of Basin residents' issues and concerns and how the Province has responded can be found in Appendix 5.

The issues raised can be generally organized under the following categories:

1. Ecosystems including salmon restoration
2. Flood control and Libby Coordination Agreement/Koocanusa
3. Power generation and the Canadian Entitlement
4. Socioeconomic issues: community health, recreation, economic development, agriculture, transportation, distribution of benefits, climate change adaptation
5. Governance

4.1 Ecosystems

Most Basin residents believe recommendations for the future of the Treaty need to address ecosystems. Many residents feel ecosystems, flood control and power generation (and return of downstream benefits) should be equally important, while other residents strongly believe that ecosystems deserve the very highest priority in the implementation of the Treaty going forward. Other residents, particularly those that may be at risk of flooding, maintained that while ecosystem health is an important objective, flood control is paramount.

During Columbia River Treaty Review public consultation events, discussions on ecosystems focussed on wildlife and vegetation, fish and aquatic resources and sustainability - including food security. Some Basin residents felt that the ecosystem focus in BC should be terrestrial in nature rather than aquatic (as appears to be the focus in the U.S.) and identified a need to regain significant portions of wildlife habitat and agricultural land. Some questioned whether the value of improved ecosystems and concurrent improvements in agricultural opportunities would compensate for power generation losses that may occur if operations changed to benefit these values.

Wildlife and vegetation interests encompass floodplain ecology, grasslands, protected areas, riparian zones, floating islands, river valley habitat, wetlands, shorelines, wildlife forage, and wildlife and bird nesting habitat. Some suggested wildlife and vegetation objectives were maximizing vegetative growth in the drawdown zone (river valley habitat), and maximizing wildlife and nesting habitat. Maximizing abundance and diversity of wildlife populations for hunting interests and viewing was also noted as an objective by many Basin residents.

Many Basin residents felt there should be more focus on wetland protection and enhancement, although the opinion that wetlands were not needed around Arrow Lakes Reservoir was also voiced. Several Basin residents felt that higher water levels inundate wetlands, reducing nesting and water fowl habitat while at the same time increasing mosquito habitat and the cost of mosquito control. The negative impact of early springtime high water levels on nesting was voiced by many at community workshops.

A number of residents felt water levels should also be managed to minimize the flooding impacts on protected areas like the Creston Valley Wildlife Management Area (CVWMA), although others pointed out that water level impacts on CVWMA were caused by tributaries rather than by Libby Dam operations impacting Kootenay River water levels.

Many residents, particularly around the Kooacanusa and Arrow Lakes Reservoirs, were interested in having low water levels in reservoirs in order to maximize vegetation and floodplain ecology and support commercial ranching and dairy, grain, fruit and vegetable production. Other residents wanted high water levels in the reservoirs to support local recreation and to grow the tourism industry as well as to increase reservoir productivity and reduce health issues due to blowing dust. A mid-level constant pool was suggested by some residents as a way to meet many ecosystem needs as well as provide power generation and some flood control (further discussion on the mid-level constant pool can be found in the Flood Control section).

Some residents noted wildlife had been pushed out of the river valleys and were now in conflict with wildlife higher up mountainsides. They suggested that wildlife was also in conflict with forestry operations which were being managed on a smaller land base.

In addition to salmon, discussed in the following section 4.1.2, fish and aquatic ecosystem interests include rainbow trout, white sturgeon, cutthroat trout, bull trout (Dolly Varden), kokanee, whitefish, and burbot populations as well as the habitats to sustain them. Many Basin residents would like to see more initiatives undertaken that maximize the abundance, diversity and condition/size of priority species, and that mitigate the negative effects of hydro operations on fish and their habitats. Some Basin residents questioned reservoir productivity, including phytoplankton growth and pelagic zone health, and the effectiveness of current fertilization programs and hatcheries to mitigate the impact of reservoir operations. Other residents wanted fertilization programs put in place in other locations, such as Kooacanusa Reservoir and Kootenay River.

Access to tributaries and shorelines for spawning when reservoir levels were low was identified as a barrier to achieving sustainable fish populations. Entrapment of fish and habitat impacts due to fluctuating water levels was also identified as a problem, as was fish passage past dams to and from spawning areas. A number of people expressed concern that nutrients collect in the sediment behind dams causing negative impacts on aquatic ecosystem productivity downstream. Inadequate water flows for spawning fish in the lower Columbia River was identified as an issue by some residents, while others were concerned that too strong winter flows reduced habitat availability.

Many Basin residents feel that the apparent conflict between high water levels for fish access to tributaries for spawning and low water levels to benefit wetlands, riparian areas and grazing habitat could be resolved with infrastructure solutions to create tributary access. Reducing fluctuating water levels or approximating normative flows was seen by many residents as key to achieving environmental goals as well as minimizing bank erosion leading to property damage.

Most Basin residents believe there is a deficit in restoring ecosystems that were and are impacted both historically and by ongoing operations. Some residents felt there should be compensation for historical fish and wildlife losses while others acknowledged that no environmental assessments had been done at

the time of dam construction and that it was difficult to clearly distinguish between foot print and operational impacts on the environment. Some residents feel the cumulative effects of the impacts should be considered and that mitigation needed to be followed by restoration.

Many Basin residents were not aware of programs in place to compensate for dam and reservoir footprint impacts, such as the Columbia Basin Fish and Wildlife Compensation Program (see:

http://www.bchydro.com/about/sustainability/environmental_responsibility/compensation_programs/columbia_region.html)

or measures being undertaken to address ongoing operating issues through monitoring, research, flow regulation and physical works under the Columbia Water Use Plan implementation program (see http://www.bchydro.com/search.html?site=bchydro-com&client=bchydro-com&proxystylesheet=bchydro-com&output=xml_no_dtd&q=Water+Use+Plan+Columbia

Even for Basin residents familiar with the Fish and Wildlife Compensation Program (FWCP), most are not aware of the work completed, underway or planned and are not aware of the level of funding available to the Program and to communities. Of those Basin residents who are familiar with these initiatives, most feel more funding is needed for the Program overall. Many felt Kinbasket Reservoir in particular was underfunded and that some efforts, such as re-vegetation and bird nesting, have not been pursued with sufficient tenacity. Many people felt strongly that a fish and wildlife compensation-type program is needed for Kooconusa Reservoir and the Kootenay River above Libby Dam [It should be noted that in March 2013 a Kootenay-Kooconusa Fish and Wildlife Compensation Program was announced]. Some people wanted to see a Basin-wide fisheries management plan created although a concern was expressed that biologists were singularly focused on increasing populations and that too much was being spent to achieve this goal. A number of residents feel current programs, particularly for fish enhancement under the FWCP, have not been successful.

Many Basin residents feel FWCP's funds are not fairly distributed amongst the reservoirs and that project funding is too small and projects are not strategically located. Many residents around Kinbasket and Kooconusa Reservoirs feel the reservoirs are the most impacted yet a disproportionate amount of funds go towards other reservoirs (for recreation and restoration), while other residents feel funding reflects the fact that many more people access Arrow Lakes Reservoir and Kootenay Lake than Kinbasket and Kooconusa Reservoirs. Some residents also feel that the FWCP uses their limited funds for projects they hope will provide a higher return, such as the Arrow Lakes Reservoir fertilization project, rather than where there is the most need, such as the Kinbasket Reservoir re-vegetation project. Many feel the Arrow Lakes Reservoir fertilization project has met its objectives.

Full implementation of existing water use plans was identified by many Basin residents as an important step in addressing ecosystem impacts. A number of Basin residents also felt a water use plan-like process was needed for Kooconusa Reservoir and for the Kootenay River, including Kootenay Lake. Some Basin residents were interested in how the storage covered under the Non-Treaty Storage Agreement could be used to further enhance Basin ecosystems and other values.

While there was a lot of discussion at community consultation events around a watershed-wide ecosystem approach to ensure that Canada and the U.S. do not undermine each other's initiatives but rather create transboundary synergies, many Basin residents feel a Basin-wide watershed based ecosystem approach may not be realistic, particularly as many believe that opportunities for ecosystem benefits in B.C. are terrestrial based rather than aquatic as is perceived in the U.S. Many residents question the value for B.C. in contributing to ecosystem enhancement downstream in the U.S. One issue many felt would benefit from a broader ecosystem approach was the management and eradication of invasive species in waterways.

Some residents expressed concern that jointly managing the Columbia system for endangered species in the U.S. could potentially negatively impact environmental priorities in B.C. The U.S. Entity representatives presenting at the technical conference in Castlegar noted they were not aware of ecosystem issues in Canada and therefore these issues had not been considered in U.S. Entity draft recommendations regarding ecosystems.

There were discussions during a Sounding Board meeting on whether a monetary value should be calculated for fish and wildlife habitat and ecosystems. Some members were of the opinion that putting a dollar value on habitat and ecosystems would mean that they would lose when compared to power generation, while others believed that if a dollar value wasn't specifically assigned, the default would be zero, which could impair any potential future negotiations on changes to the Treaty. The use of assigning historical dollar values versus projected values was also discussed. Some Sounding Board members anticipate that if carbon pricing becomes the norm, green energy will increase in value and that, in the future, as supply and availability decreased, agricultural land and ecosystems would also increase in value.

The impact of climate change on the ecosystem is a concern to most Basin residents. Climate change will accelerate glacier recession which many believe will in turn exacerbate the warming of water in rivers in lakes. Many residents feel this phenomenon will negatively impact fisheries, in particular future salmon viability, although some feel that the ability to adaptively manage reservoirs and modify stream flows could compensate for some of the anticipated climate change impacts to the ecosystems. Others suggested that climate change and increased temperatures will increase ecosystem productivity. Regardless of future projections, most Basin residents want to ensure that climate change considerations are explicitly included in any future implementation of the Treaty.

4.1.2 Salmon

The issue of restoring salmon to the Canadian Columbia River system was raised at almost every community workshop. The issue was posted to the Treaty review blog and at the March 2013 technical conference there was a well attended workshop on salmon restoration, where a proposal for an initial study into the feasibility of returning salmon was discussed. Restoration of salmon runs in the Upper Columbia was also discussed at Sounding Board meetings where some felt that while this outcome would be desirable, the return of salmon was a lower priority compared to other ecosystem issues.

Many who attended community consultation workshops thought recommendations for the future of the Treaty should include salmon restoration and that these recommendations should apply to both sides of

the border as the feasibility of returning salmon to the upper reaches of the Columbia River would require a joint Canada-U.S. investigation into habitat and fish passage all along the river. Many people cautioned that each country should be responsible for their own costs to restore habitat and passage, warning that Canada should not be responsible for paying to address barriers, such as Grand Coulee dam, which stopped salmon passage to the upper Columbia River many years before the Treaty was signed.

Some people think it is impractical to expend resources on salmon restoration unless salmon "... were knocking at the Hugh Keenleyside dam." Others suggest efforts to restore salmon passage would likely only benefit the Okanagan River system and not the Canadian Columbia River system, while a few people note that Mica Dam was a significant, if not insurmountable, barrier. Some people believe that there are too many biological challenges to make the return of salmon feasible, noting that there were barely enough nutrients in Arrow Lakes Reservoir to support a healthy kokanee population. Other residents express concern about the biological feasibility because of changing water temperatures, receding glaciers and climate change that could lead to inhospitable habitats for salmon and other fish. Some people believe that while fish passage and other transport mechanism could result in salmon in the Upper Columbia, the greater challenge would be for salmon smolts to migrate back to the ocean through a gauntlet of reservoirs and dams with slow moving water rather than river flows. Many Basin residents acknowledge the understandable desire by Basin residents, and in particular First Nations, to have salmon return to the Canadian Columbia River ecosystem, however they question whether this was realistic or whether this should occur at any cost. Many would like to see attention paid to other ecosystem improvements, not just salmon.

4.3 Flood Control

A flood can be defined as high water flows causing material damage and risk to safety. Flood control is one of the two drivers that lead to the creation of the Treaty. Half of the water storage along the entire length of the Columbia River is in B.C., providing significant flood risk management in B.C. and south of the border.

Many Basin residents believe flood control should be equal in priority to ecosystem health and power generation in any discussions concerning the future of the Treaty. Many other Basin residents feel flood control should be the highest priority noting costs associated with flooding private property and municipal property and infrastructure, especially around vulnerable areas such as Kootenay Lake, the Lower Columbia River (from Castlegar to the border), Creston dikes area, and to some extent around Arrow Lakes and Koochanusa Reservoirs. Many residents appreciate that the incidence and severity of flooding has been greatly reduced as a result of the implementation of the Treaty. Reflecting on the successful management of the extreme high water levels in 2012, they want coordination and communication between BC Hydro, local governments, community members and the U.S. Entity to continue, including notifying residents in high hazard zones of potential flooding.

Other Basin residents feel flood control should be a low priority in B.C., arguing that rivers naturally have high flow periods and that high damage is due to lack of planning. Noting increasing property development on floodplains since the Treaty was implemented, in particular in the U.S. and around

Kootenay Lake, and the trade-off between protecting floodplain infrastructure and ecosystems, they question whether ecosystems should suffer due to inappropriate zoning and whether enabling development and prosperity in the U.S. comes at the expense of prosperity and healthy ecosystems in B.C. Many people argue for a long term plan for building smarter and/or moving infrastructure off floodplains, an issue within the purview of local, regional and provincial governments. Some Basin residents also expressed an interest in maintaining available flood plain land for agricultural products such as dairy, grains, fruit and vegetables.

Basin residents' views on flood control seem, to some extent, to be a reflection of where they live. Property owners around Arrow Lakes Reservoir and Kootenay Lake feel they shouldn't have to bear the expense of property damaged because of reservoir operations to minimize high water impacts elsewhere in the system or because of erosion due to operations. If damage occurs (from flooding and debris impacts), they feel affected communities and property owners should be directly compensated and that performance measures for economic damage, and not just water levels, should be included in any Kootenay system water use plan. Many local residents want the impact and frequency of flooding reduced on Kootenay Lake and Arrow Lakes Reservoir, and feel that Kooconusa and Kinbasket Reservoirs should be managed to reduce flooding and water level fluctuations around the more populated Kootenay Lake and Arrow Lakes Reservoir areas, for which impacted residents around Kooconusa and Kinbasket Reservoirs should be compensated. Many residents also feel that dredging Grohman Narrows near Nelson would help reduce flood risk along Kootenay Lake.

Many residents around Kooconusa and Kinbasket Reservoirs, on the other hand, want flood control impacts on those reservoirs reduced. Operating these reservoirs to provide downstream flood control impacts recreation opportunities as well as ecosystems. Deeper reservoir draw downs to manage spring freshet inflows can result in slower re-fill times and the potential for June water levels to be too low for swimming and boating access. Resulting low water levels can also lead to unaesthetic foreshores, dust storms, erosion and overexposed archaeological sites, and reduced shoreline spawning and tributary access for fish. Maintaining higher water levels at certain times of the year to ensure recreation opportunities, on the other hand, can increase flood risk downstream, can result in more water being spilled over the dams which can impact fisheries, and on occasion lead to surcharging the reservoirs with the resulting erosion and impacts to archaeological sites and properties.

Downstream from Kooconusa Reservoir, most Basin residents feel erosion, due to high water levels and water level fluctuations, will continue to weaken the Creston dikes, increasing the risk of flooding and loss of land and crops. A high water table results in flows under the dikes and into farmers' fields. Many residents in the area feel they should be compensated for impacts from Kooconusa flood control and fisheries operations.

Some residents feel Duncan Dam should be managed to minimize flooding around Kootenay Lake and downstream Kootenay River noting that while Libby Dam has a bigger role in flood control for this area and that the frequency and scale of flood damage has decreased since Libby Dam was built, Duncan Dam provides significant flood control support, especially when Kooconusa Reservoir is full. Some residents are not aware that changes to Libby operations impact Kootenay and Duncan Lakes. Many

residents want to see hydroelectric generation facilities added to the dam while other residents feel Duncan Dam should be decommissioned for ecosystem benefits.

Most Basin residents feel the negative impacts to Arrow Lakes Reservoir are due to fluctuating water levels, duration and timing. Some residents feel that if Arrow Lakes Reservoir was operated at a constant mid-level pool, and Kinbasket Reservoir took over more flood control, downstream flooding would be prevented and there would be considerable ecosystem benefits in the Arrow Lakes Reservoir. Some residents are not aware that improving levels and fluctuations in one reservoir means other reservoirs have to work harder. Some residents, particularly property owners, want higher water levels for aesthetic and water access reasons.

Some residents believe higher water levels during freshet and periodic flooding due to extreme water conditions such as occurred in 2012 is acceptable and that cottonwoods growing in the flood plain could survive an occasional couple of weeks of flooding. Other residents stated that they were in favour of operating Arrow Lakes Reservoir at a constant full pool but noted that the reservoir would then be unable to provide flood control downstream in Trail and in the U.S. Some residents argue that if the Treaty is terminated there would be more flexibility for having a stable Arrow Lakes Reservoir without having to use Kinbasket Reservoir to compensate for loss of flood storage. Many residents feel the U.S. should do more on their own to address flood control.

Many Basin residents advocate for a better flood management plan than the Called Upon Flood Control regime post-2024, even if the Treaty is terminated. They feel there is a need for Columbia River-Kootenay River system-wide flood control planning, especially during high water years when flood risk management requires cooperation between the B.C. and U.S. Entities to minimize flood damage on both sides of the border. Basin residents believe that this will become even more important in order to adapt to climate change predictions of more frequent extreme events. As a result, many residents want more involvement in discussions around reservoir management and dam operations in B.C. and also with their counterparts in the U.S.

4.3.1 Libby Coordination/Koocanusa

Many Basin residents are unhappy that the U.S. unilaterally change operations at Libby dam without B.C.'s consent. Even though Basin residents are impacted by the flood control and power generation its operations provide to U.S. citizens, they feel they have no say in Libby Dam operations. Many Basin residents want to have better communication and cooperation between residents, local governments and the B.C. and U.S. Entities around Libby Dam operations.

Most residents feel the Libby Coordination Agreement is insufficient and that Libby Dam operations and Koocanusa need to be managed within the Treaty in the same manner as the other Treaty dams. They feel the Kootenay System is capable of being operated in a manner to address Koocanusa Reservoir and Kootenay Lake issues and Canadian interests but that this does not occur under the current Treaty. They are concerned that the Libby Coordination Agreement, even though it is not working well, will not work at all without the Treaty.

A number of Basin residents identified four key concerns relating to current operations downstream from Libby Dam to Kootenay Lake that could benefit from better communication and cooperation: flood risk to infrastructure in floodplains; impacts from river level fluctuations on diking infrastructure; impacts/benefits of the U.S. fertilization program; and management of the Creston Valley Wildlife Management Area and surrounding wetlands.

Future flooding around the Kootenay River system and Koocanusa Reservoir is also a concern of many Basin residents who would like to see Libby Dam operations included in any future Columbia River Treaty arrangement. They are concerned that the post-2024 Called Upon Flood Control regime may result in changes to Libby Dam operations that will lead to greater drawdowns in Koocanusa Reservoir. Residents are also concerned that Called Upon Flood Control may result in more extreme fluctuations in water levels and more erosion to downstream dikes, noting that there is no source of funding available to maintain and repair this infrastructure.

4.4 Power Generation

Many Basin residents want to see measures to benefit ecosystems that will result in less power generation. They feel many of the negative impacts to ecosystems around the reservoirs are caused by fluctuating water levels to meet Treaty flow requirements for power. They feel that in the future the value of water management for power will decrease as the value of water management for ecosystems, agriculture, water supply, navigation and other uses increase. Some residents feel reservoirs should be operated so there are fewer and smaller fluctuations in water levels while some residents feel that decommissioning dams should be the long term goal, in particular Duncan and Hugh Keenleyside Dams, as this would provide the greatest environmental benefit. However many residents, particularly property owners downstream of Duncan, Hugh Keenleyside and Libby Dams, do not want the dams decommissioned. They feel the dams play a critical role for flood control and they want flood risk decreased, not increased. Duncan and Libby Dams also provide the water flow management for power generation on the Kootenay River system. People have commented that, in addition to BC Hydro, FortisBC and Columbia Power Corporation, a significant portion CBT's income that is shared across the Basin is dependent on the power that can be generated as a result of operations of dams.

Some residents feel operating Arrow Lakes Reservoir/Hugh Keenleyside Dam as a mid- water level, constant pool, run of river type operation is an option that would allow some power generation and would have significant ecosystem benefits around Arrow Lakes Reservoir. This option could, however, increase impacts to the ecosystem around Kinbasket Reservoir. Many residents from areas around Kinbasket Reservoir also want less frequent and smaller water level fluctuations and suggest weirs near Valemount and Golden could help maintain stable levels and provide better water access. These residents do not want to see more and deeper fluctuations and the further impacts to the area's ecosystems which are feared if this reservoir had to compensate for changes to Arrow Lakes Reservoir operations. A number of residents feel that if changes to Kinbasket Reservoir operations to improve surrounding ecosystems are not feasible due to the contribution of the Reservoir to the Province's electrical generation, then increased compensation to residents and ecosystems around Kinbasket Reservoir is needed. Some residents feel the U.S. should adapt their operations to compensate for less

fluctuation at Arrow Lakes Reservoir, although other residents noted this would impact the amount of the Canadian Entitlement received.

Many Basin residents feel maximizing power generation should be a high priority, noting that British Columbians had been promised power as an outcome of the Treaty. Some residents observe that the power generation will continue whether the Treaty is terminated or not.

Many other residents believe that existing dams and reservoirs should be better utilized to increase electricity generation, with many residents in favour of adding power generation to Duncan Dam and at Surprise Rapids in Kinbasket Reservoir, and with Mica and Revelstoke expansions. Some residents urged an analysis of the Kootenay Diversion provisions of the Treaty.

Many residents question where the new electricity would come from if power generation in the Columbia Basin was decreased. They do not want to see negative environmental impacts elsewhere in the Province as a result of creating new generation to replace lost generation in the Columbia Basin. While alternative power sources such as wind, solar, bio-energy, conservation and geothermal were identified, it was acknowledged by many that some of these sources require back-up power generation. Many residents identified hydroelectricity as a green energy source and noted the environmental/greenhouse gas reduction and revenue benefits of this renewable energy to the Province. Some Basin residents estimate that the value of green energy will increase in future due to climate change, particularly if carbon pricing is implemented throughout North America.

Some Basin residents note that power generated because of the Treaty dams benefit the majority of electricity customers in the Province, that the damage has already been done to the Columbia Basin, and that stakeholders and the Province are finding ways to mitigate these impacts. Many residents believe that the water use planning process is a significant factor in changing BC Hydro operations to consider other values than just power. They feel that the 2022 formal review of the Columbia Water Use Plan and a suggested new Kootenay Water Use Plan-like process could address many issues that the Treaty review was not designed to do. A number of residents feel that initiatives like the Fish and Wildlife Compensation Program need to benefit more from the distribution of wealth generated by all of the Canadian power generation, including by industrial power companies.

Many Basin residents appreciate that the construction and operation of Treaty dams and power generation facilities, and of the other dams and facilities that Treaty projects have made possible, have provided jobs and economic growth to many communities. It was suggested that local governments could benefit further through the taxation of reservoirs and transmission lines.

Most Basin residents feel that because they live with the impacts of the Province's hydroelectric generation, they should pay less, not more, for the electricity they use. Residents around Kinbasket Reservoir would like to see improved connection to the electric grid to reduce the need for diesel generated electricity.

Many Basin residents are concerned about the North America Free Trade Agreement and how this may impact future flexibility to generate or not generate power on the Columbia River system.

4.4.1 Canadian Entitlement

Most Basin residents strongly believe that the Canadian Entitlement is the only benefit Canada receives as a result of the Columbia River Treaty. Some Basin residents identify a trade-off between the Canadian Entitlement and ecosystem gains. They feel that if water flows at the border were altered to benefit ecosystems, less power would be generated both in Canada and in the U.S. and, since the Canadian Entitlement is calculated based on the incremental power generation potential in the U.S., the amount of the Entitlement would decrease. Many residents question whether the Province could afford the loss of Canadian Entitlement power or the approximately \$100 -300 million value it generates if the Treaty is terminated.

Many Basin residents feel that the Canadian Entitlement should reflect the environmental and economic losses that resulted and continue to result from Treaty operations. Some residents want to see B.C. maximize the dollar value of the Entitlement and feel it should also reflect non-power benefits to the U.S. such as irrigation, recreation, navigation and endangered species. Many residents suggest that the Non-Treaty Storage Agreement should be included in future options for the Treaty.

A number of residents question whether the Basin receives a fair share of revenues from power generation¹, downstream benefits (Canadian Entitlement) and Non Treaty Storage Agreement revenues. They feel that a lesser portion of these revenues should be retained by the Province and more funding should go to communities, the Fish and Wildlife Compensation Program, research on climate change and ecosystem improvements, building fish passage for salmon, and be generally used to mitigate local issues that arise due to operations, such as dike maintenance. Many residents believe the benefits from revenue shares should be linked to the region that was impacted.

4.5 Socio-Economic

Socio-economic concerns for Basin residents include historical and current direct and indirect impacts to people and communities from the construction of the Treaty dams and reservoirs and from their ongoing operation. Many Basin residents feel the level of compensation received does not adequately match the level of impact, that there are insufficient measures in place to mitigate the effects, and that the distribution of benefits within the Basin does not adequately compensate directly affected areas.

Many Basin residents feel that the hardships to residents and communities that were impacted by the implementation of the Treaty have not been adequately acknowledged. Some residents feel that the compensation to residents that were bought-out or relocated due to the reservoirs was insufficient. Some residents would like to be given an opportunity to buy back expropriated land that was not used, while other residents would like to see more evidence of environmental stewardship on the lands held by BC Hydro.

Agriculture and food sustainability is an important issue to many Basin residents. Some Basin residents are of the opinion that the agriculture industry was significantly impacted when fertile farmland in valley bottoms were inundated by the creation of the reservoirs. Other Basin residents feel that, in the past,

¹ BC Hydro, FortisBC, Teck, Columbia Power Corporation and Columbia Basin Trust

available agricultural land in the region was not overly utilized, and the agriculture industry was in decline, but that in the future, as food security becomes more urgent, the loss of the inundated lands will become more important. Some Basin residents believe that reservoir water levels should be kept lower so that more agricultural and ranching land is available for use while other residents feel that in some areas the inundated organic soil is eroded or stripped of nutrients and no longer valuable for agriculture, although re-vegetation could increase availability of land for grazing and wildlife use over the longer term. Some residents want recognition that B.C. water storage benefits U.S. agricultural interests and that providing further flows to the U.S. in the July – September growing season could impact B.C. potato, vegetable and tree fruit growers.

Some Basin residents estimate that the flood control provided by the Treaty dams has increased the value and availability of agricultural land although many Basin residents are concerned that fluctuating water levels due to reservoir operations are impacting the dikes that protect farmland and feel that, in addition to programs and projects carried out by the diking districts, measures should be in place to ensure the security of this infrastructure. Some Basin residents are of the view that there should be more financial and marketing support for regional agriculture from the Province and CBT, including more support for opportunities to enhance local farming. Some Basin residents note the trade off between land for agriculture and land for terrestrial ecosystems.

Most Basin residents around Kinbasket Reservoir and many residents around Koochanusa and Arrow Lakes Reservoirs think that the forestry industry was severely impacted by the implementation of the Treaty. Basin residents believe that the negative impact was not only due to the loss of easily accessible quality timber in the valley bottoms, but that the inundation also disrupted transportation links causing many forest resource roads as well as public roads utilized by the forest industry to be lost. Basin residents estimate that this had the effect of driving harvest costs significantly upward, reducing the competitiveness of local companies. Basin residents consider the resulting loss of a large number of well paying forestry jobs as a great negative impact on the small communities that depended on forestry for their economic base, and that many of those communities have never fully recovered. Many Basin residents believe that there was not sufficient compensation to communities for these losses.

A number of Basin residents feel reservoir operations and, in particular the debris in the reservoirs, are compromising current efforts to use water ways as an economical means of transporting timber and for other commercial uses. Many residents feel that forestry infrastructure should be supported by the Province as this will stimulate economic growth in the area. Without this, they believe that current harvest decisions made by local forest companies will lead to no forestry industry in the area in the next decade or two.

Numerous Basin residents believe the loss of transportation infrastructure also reduced the opportunity for economic development more broadly. Many residents feel that quality of life and economic growth, including business and property development, would be facilitated by the Province's support for infrastructure such as a fixed link at the northern end of Arrow Lakes Reservoir, a secure highway between Burton and Fauquier, transport corridors and ferry between Revelstoke, Valemount and Golden, connection to the electrical grid around parts of Kinbasket Reservoir, and road access to the southeast portion of Koochanusa Reservoir. Many residents believe that more Crown land around

reservoirs should be made available for recreational properties. On the other hand, some Basin residents do not want increased development, as they feel this will negatively impact the quality of life that draws many people to settle in the region, and will result in more ecological damage.

Water and shore-based recreation is important to almost all Basin residents, both from a quality of life perspective and to counter economic decline through tourism growth. Most Basin residents feel more measures are needed to increase the usability of beaches and access to water. Some residents believe reservoir water levels should be lower in the summer months to increase the amount of beach accessible. Conversely, other residents argue that at lower water levels beaches are muddy and unsightly and result in dust storms that affect health and property. Many residents are concerned that low reservoir water levels encourage ATV use which creates negative impacts such as noise and dust, however other residents feel that ATV use on reservoir draw down areas should be encouraged as negative aspects can be managed and the activity provides tourism dollars and prevents ATV use in more environmentally sensitive areas. Some residents are concerned that in certain areas low reservoir water levels results in water currents too fast for swimming safety.

Many Basin residents prefer higher water levels to allow better access for boats, houseboats and waterfront businesses although too high levels eliminate beaches decreasing shore based recreation opportunities and impacting private property. Some Basin residents predict that recreational fishing would benefit from higher water levels. Many residents feel that reservoir operations have resulted in fewer and smaller fish, and that more measures should be put in place to support fisheries in the reservoirs and Columbia and Kootenay Rivers, both to increase the quality of life for residents and to provide opportunities for tourism. Many feel the loss of salmon to the system was a big economic and cultural loss, although the blockage of salmon migration was due to Grand Coulee Dam and not the Treaty. Many also feel there needs to be more of a balance between the attention and funding for salmon and sturgeon and fish that can be caught by Basin residents.

Some residents believe that higher reservoir levels create a warmer microclimate that brings rain and not the snow needed for ski tourism. Many other residents feel that lower reservoir levels would increase habitat for birds, waterfowl and wildlife and that this would provide tourism opportunities for wildlife viewing and hunting.

Most Basin residents say that more stable reservoir water levels would greatly improve recreational and environmental opportunities and that there is a need for an increased commitment by the Province to improving recreational opportunities and infrastructure, compatible with ecosystems, at all reservoirs. Many Basin residents around Valemount and Golden think some dredging is needed in Kinbasket Reservoir and weirs/dams built to provide stable water levels near their communities. Other residents note that small changes in water fluctuations might be possible in the future but that Basin residents need to accept that water levels in reservoirs go up and down. Some Basin residents feel there should be local government involvement in changes in provincial legislation that could make more property available around Kootenay Lake. Many other Basin residents feel there should be less or at least no further development in floodplains so that there is greater flexibility in managing flood risk and providing benefits for other land uses such as agriculture and ecosystems.

Many Basin residents are concerned that reservoir draw downs are required to provide room to store spring freshet flows and that earlier high water levels for recreation could increase flood risk downstream of the reservoirs.

Basin residents north of Duncan Dam believe that too high water levels increase mosquito breeding in the wetlands and results in higher costs to the region for mosquito control. Many residents feel that too high water levels also interfere with ferry docking on Kootenay Lake, while too low levels prevent navigation. There is too much debris in the reservoirs according to most Basin residents. They consider this an extreme safety hazard for all boating and cause of damage to property, particularly during storms. Floating debris, together with changing water levels, is blamed for damage to water intake pipes and water sewage infrastructure for both private property owners and municipalities. Basin residents feel that more resources need to be put towards debris removal, particularly during years when reservoir water levels are unusually high.

Many Basin residents feel that during initial discussions regarding the Treaty, they were promised lakes and facilities for recreation. However deep reservoir draw downs prevent water access for portions of the year and the recreation infrastructure such as boat ramps, docks, breakwaters, recreational sites and campgrounds never materialized or are inadequate to deal with the low water levels or the demand in some locations. Most Basin residents note that if these infrastructure deficits and maintenance of infrastructure were addressed, there would be more tourism activity that would provide jobs and economic sustainability to communities.

Most Basin residents say that the region as a whole is looking for ways to promote commercial opportunities and further investments that will create sustainable employment. Some residents believe more should be done to mitigate the decline in the local economies that resulted from the implementation of the Treaty, while others feel that their communities have benefitted economically from the Treaty projects and the further hydroelectric developments that were made possible.

A number of Basin residents have concerns around dam maintenance and safety and the lifespan of dams. Certain residents wonder whether there is significant siltation behind the dams, particularly those on the Columbia River and ask that more information be made public. Some Basin residents argue that not enough has been done to protect dams from potential seismic events or to put in place emergency plans for residents and communities downstream of the dams.

Many Basin residents maintain that more benefits due to Treaty dam operations, such as the Canadian Entitlement and the Non-Treaty Storage Agreement, should come to the region because they have been impacted by these operations. Others state that living near power production facilities impacts residents and therefore they should not have to pay more for their electricity than people living further away.

A number of residents consider grants/payments in lieu of taxes paid by BC Hydro inadequate given the impact of reservoirs on communities. A large number of Basin residents also question the amount and distribution of the BC Hydro grants in lieu of taxes. Some local government officials note the loss of taxation revenue due to inundation of property and businesses and believe taxes should be available from reservoirs and transmission lines, even though they are on Crown land. Many Basin residents feel

that the grant distribution does not reflect the impact of BC Hydro operations on specific communities. Some residents note the financial “windfall” that has accrued to some towns while other communities deal with the impact of reservoir fluctuations on their doorstep but without adequate funds to mitigate the impacts. Many Basin residents feel that the grants and other financial benefits should be aligned with severity of the negative impacts and not population size.

Many Basin residents have questions around the allocation of CBT funding. While there are some social and economic development funds available to compensate for impacts from the implementation of the Treaty, some residents maintain that they are invested elsewhere in the Columbia Basin rather than in the areas where actual Treaty-related impacts occur. Other residents suggest that compensation as a result of the Treaty has been a boon for some communities outside the immediately impacted areas. They find that communities with the greatest impacts tend to be more remote, with lower populations and, as a result, any meaningful and sustainable economic development has been challenging. Many residents feel CBT funding should be distributed more in correlation with the impact to communities and residents. Many others believe that CBT is only now producing returns from investments that can be distributed throughout the Basin to make a real difference (\$20M in 2013, doubling by 2017) and that residents should get involved in the CBT’s planning activities.

Many Basin residents appreciate all the work CBT is doing in the Basin and highly value the organization while others want CBT to do more to stimulate economic growth in impacted Basin communities. Some residents feel CBT does not provide sufficient funds for wildlife, aquatic and environmental impacts and would like to see more investments like the recently announced fish and wildlife program for Kooconusa-Kootenay area. However, a large number of residents appear not to know the CBT mandate, revenue sources and amounts, what programs are available and how to access them.

Basin residents expressed concern for future generations on numerous occasions. Many residents are concerned about present and future training and employment. Most Basin residents want to see more youth involved in the review of the Treaty and suggest providing Treaty information to students in the K-12 school system[Note: a Columbia River Treaty Review project to provide Treaty information in Basin classrooms will be delivered in early 2014]. Some residents feel CBT could do more to educate youth about the Treaty. Some Basin youth question whether there may be a tendency for Basin residents to use the Treaty review process as an opportunity to air past grievances rather than as an opportunity to fulfill future aspirations.

Basin residents were concerned that First Nations voices are heard during the Treaty review. While most Basin residents are satisfied that First Nations’ interests and concerns, particularly regarding archaeological sites, would be part of a separate Treaty review First Nations consultation, some residents feel the information exchanged with First Nations should be public. Many Basin residents also feel the Sinixt should be included in the First Nations consultation.

Most Basin residents believe that climate change must be taken into account in the analysis regarding the future of the Treaty. Some residents are concerned that climate change could affect socio-economic conditions in the Basin and therefore impact the benefits and costs associated with the Treaty. They maintain that adaptation to climate change will increase the value of agricultural land, ecosystems and

water in the Basin and decrease the value of other resources and infrastructures. Many Basin residents suspect that the flood protection provided by Canadian storage will increase in value as the region experiences more rain and more severe fluctuations in weather. Many residents would like to see adaptive management for climate change included in discussions on the future of the Treaty.

4.6 Governance

Many Basin residents are interested in public engagement and collaboration in water management as a whole, and in the Treaty review process. They feel that the Treaty review has presented an opportunity to examine how to do things differently, including having more inclusive and ongoing discussions on how dams and reservoirs are operated.

Most Basin residents would like to see better communication between residents, local governments and BC Hydro. Many Basin residents appreciated BC Hydro's communication during the extreme high water flows in 2012, and would like to see similar communication during future high water events. Many residents feel there needs to be local input, especially from those most impacted, to decision-making on BC Hydro operations that may negatively impact local communities, as well as local input to regular reservoir management and dam operations. Some residents point to the inclusive water management discussions that are part of the water use planning process and would like to see some kind of dialogue between local residents and BC Hydro continue on a regular basis, and a similar process for the Kootenay system. Some Basin residents believe the dialogue should include representation from throughout the Basin so that the whole system is considered.

Many Basin residents feel there should be more consultation and greater communication between the Province, BC Hydro, Basin residents and First Nations on agreements and management plans, including flood risk management and water use plans, which will impact the Columbia River and the Kootenay River, noting that ensuring good relations between these groups is as important if not more important as ensuring good relations between the Canadian and U.S. Entities.

Many Basin residents, in particular residents around Koochanusa Reservoir and the Kootenay River, would also like more local involvement in discussions between the Canadian and U.S. Entities around coordination of water levels and reservoir and dam operations at Libby Dam. Some Basin residents feel that achieving Canadian Entity and local involvement in the governance of the Kootenay system would be a solid win in any future Treaty arrangements.

Many Basin residents feel discussions leading to agreements with the U.S. should involve a board of advisors and not just BC Hydro, noting BC Hydro's mandate is focussed on power production, and agreements in the future need to consider other values as well as power. Basin residents would like to ensure that payment from the U.S. reflects the impact on the Basin of providing the water flows to meet U.S. interests. Some Basin residents believe that BC Hydro should not be the sole developer of hydroelectricity along the Columbia River and that management should include First Nations.

The Columbia River Treaty Local Governments' Committee and some Basin residents have expressed that there should be local government representation during negotiations with the U.S. on the future of the Treaty. Some residents maintain that there should be broader public involvement in the negotiation

process. Others feel that the Treaty review process should also include engagement with residents of British Columbia outside of the Columbia Basin as they may also be impacted by future Treaty options.

Many Basin residents, especially youth, feel cross-border communication is important so that residents in Canada and the U.S. fully understand the impacts of the Treaty. Basin residents also feel climate change adaptation, ecosystems, invasive species and return of the salmon are issues that would benefit from a more system-wide planning.

Many Basin residents are interested in a transboundary conference to explore issues of mutual interest. Some residents feel the time for such a conference should be after recommendations are made to Canada and to the U.S. Department of State.

Many residents would like to see Basin-wide management of the ecosystem, although some Basin residents question how useful this would be in reality given the size, breadth and diversity of the Columbia Basin and the U.S. focus on aquatic ecosystems while the B.C. focus is more on terrestrial ecosystems. Some residents feel there may be an opportunity for a future Treaty option to include a third objective of inclusive governance nested with ecosystem values. They are, however, concerned that pursuing such a radical change could invalidate the Treaty. Some Basin residents feel people are disenchanted by how things are done, not disenchanted with the Treaty.

5. Conclusions

As the previous sections illustrate, there doesn't appear to be definite Basin-wide consensus on most issues raised during public consultation, and perhaps nor should there be as each part of the Basin experiences impacts, benefits, opportunities and challenges differently, depending on a whole host of circumstances. One key finding from this is that, while there are synergies across the region and sub-regions, communities expect to be treated in a manner that respects their own identity and aspirations. However, there are areas of general agreement or trends that can serve to guide the provincial government in considering options on the future of the Treaty and opportunities deriving from those decisions.

Decision to Terminate, Continue or Modify the Columbia River Treaty

The vast majority of Basin residents who participated in the Treaty review expressed the opinion that the Treaty should continue and improvements to the Treaty should be negotiated with the U.S. Inherent in the negotiation process is continued and effective engagement with residents and local governments in some form.

Most residents have clearly indicated that no further significant impacts to the Basin should be accepted. They have also indicated that if an issue can't be improved, prevented or mitigated, adequate compensation must be provided.

Flood Control

Basin residents recognize that the Treaty has been effective in minimizing the frequency and severity of flooding and has increased public safety and protection of private and public property. However Basin

residents want to see even better planning on both sides of the border to minimize flood damage and mitigate ecosystem and social impacts from flood control.

Basin residents maintain that B.C. must secure benefits for the provision of flood control services to the U.S., as the 60 years of pre-paid flood control expires in 2024.

Provincial, regional and local governments need to work together and more effectively to prevent further development in floodplains so that greater flexibility in managing flood risk can benefit other land uses such as agriculture and ecosystems.

Libby Dam

BC communities along Koochanusa Reservoir and downstream along Kootenay River are impacted by Libby Dam operations without any ability to influence operations. Many residents believe the Province should negotiate an alternate Treaty arrangement so that Koochanusa Reservoir and Kootenay River flows are managed collaboratively between the two countries.

Power Generation

Most Basin residents recognize that power production was an integral part of the Treaty, and that the Basin provides approximately half the generation capacity of the Province. There is further appreciation that this source of energy is virtually green house gas free, and as such is expected to become more valuable over time. Furthermore, a significant reduction of energy production would in time require the development of other sources of energy elsewhere, with associated social and environmental impacts.

That being said, the magnitude of reservoir fluctuations continues to produce negative impacts to ecosystems, infrastructure, recreation, tourism and other values. Most residents would like to see a reduction of the frequency and degree of water level changes, even if at the expense of power generation.

Residents in several communities appreciate the jobs and economic opportunities resulting from the ongoing upgrading and maintenance of the hydroelectric system in the Basin.

The majority of Basin residents believe that the value of the Canadian Entitlement should be maintained or increased, as the benefits to the U.S. are increasing over a broad range of interests. Revenue from the Canadian Entitlement should also be shared more equitably with affected areas.

Ecosystems

The majority of Basin residents strongly believe that ecosystem health should be an important if not equal consideration to power and flood control in Treaty implementation and domestic hydroelectric system management. Desired outcomes are improved and expanded wildlife habitat, wetlands, riparian vegetation and fish population and diversity. Three main opportunities are identified:

- enhance effectiveness, scope and funding of the Fish and Wildlife Compensation Program,
- establish stable reservoir levels, and
- communicate and build on the monitoring and findings from the Water Use Plans.

Stable reservoir levels would allow the re-establishment of vegetation and wildlife habitat, including nesting sites. Desired stable elevations ranged from mid-pool to 5 metres below full pool. The strongest desire for a stable reservoir level was from residents around Arrow Lakes Reservoir, which is promoting a mid-elevation reservoir level, while residents near Kinbasket reservoir recognize that the importance of the reservoir for power production might limit operational changes. Residents recognize that currently B.C. has little if any influence on operations of Kootenay reservoir but are pleased with the investment by CBT in a Kootenay-Kootenay Fish and Wildlife Program.

Many residents support the aspirational goal of the return of salmon to the Canadian Columbia Basin, although the feasibility of achieving this goal is in question.

Socio-economic

The majority of people engaged in the Treaty review feel that there are insufficient measures to mitigate effects from historical and ongoing impacts from the Treaty projects and the hydroelectric system as a whole. Many pointed out the inequity that, in some cases, communities most impacted have received the least benefits.

Many residents appreciate the creation of CBT and their mandate of supporting the environmental, social and economic well-being of the Basin. Given the growing amount of available funding, many expressed the hope that CBT remains a viable presence in the Basin and that the disbursement of CBT's funding will make a real difference to communities in the Basin.

Depending on the community and its location in the Basin, residents urge the Province, local government and CBT to work together to create capacity and opportunities for economic development to ensure the sustainability of those communities. Agriculture and tourism were a particular focus.

Climate Change

Most Basin residents want climate change planning and adaptation to be explicitly integrated in Treaty implementation.

Governance

The majority of residents in the Kootenay sub-basin who participated in public consultation sessions made a strong recommendation for a water use plan, or a similar process, for the Kootenay/Kootenay system. Residents feel there are inherent benefits to going through such a planning process, as observed in the Columbia Water Use Planning process.

Many Basin residents want to receive timely information on hydroelectric system operations in a form and manner that they can understand, and have the ability to provide input and influence decisions on hydro operations in the Basin, including decisions related to the implementation of the Treaty. [Note: BC Hydro, the Local Governments' Committee and the Treaty Review team are working together to develop an engagement schedule and process for interacting with Basin residents]

Most attendees at the November 2013 community meetings were satisfied that consultation of Basin residents on the future of the Treaty was meaningful and comprehensive. Most Basin residents who participated in the consultation process felt that they were heard, and that the Treaty Review Team captured their views and perspectives. Many wanted similar engagement to continue during the course of any future Treaty negotiations.

Appendix 1: Columbia Basin Map



Appendix 2: Ministry of Energy and Mines – Columbia Basin Trust Memorandum of Understanding

MINISTRY OF ENERGY AND MINES– COLUMBIA BASIN TRUST
MEMORANDUM OF UNDERSTANDING
COLUMBIA RIVER TREATY PUBLIC ENGAGEMENT

This Memorandum of Understanding (“MOU”) executed this 1 day of JUNE, 2012.

Between:

MINISTRY OF ENERGY AND MINES (“Ministry”)

and

COLUMBIA BASIN TRUST (“CBT”)

I. COLUMBIA RIVER TREATY BACKGROUND

1. The Columbia River Treaty (Treaty) was ratified in 1964 in order to:
 - a. Coordinate flood control in the US and Canada;
 - b. Optimize hydroelectric energy production in the United States (U.S.) and Canada; and,
 - c. Share the flood control and enhanced electricity production benefits between both countries.
2. Key elements of the Treaty include:
 - a. Canada was required to build and operate three dams in the higher-elevation reaches of the Columbia River Basin and also allowed the U.S. to construct Libby Dam in Montana with a reservoir extending into Canada.
 - b. The Treaty prescribes two primary types of flood control provisions: Assured Annual Flood Control and On Call Flood Control.
 - c. The Assured Annual Flood Control provision of the Treaty expires automatically in 2024 and flood control specified under the Treaty changes to a Called Upon operation.
 - d. The On Call Flood Control provision remains in effect as long as the Treaty dams exist, even if the Treaty is terminated. After 2024, the On Call Flood Control provision will be referred to as Called Upon Flood Control.
 - e. As a result of the flow regulation provided by storage in Canada under the Treaty, additional power can be generated in the U.S. This is referred to as downstream power benefits. Canada’s half share of the downstream power benefits is called the Canadian Entitlement. Under the 1963 Canada-British Columbia Agreement, these benefits are owned by the Province of British Columbia (Province).
 - f. When the Treaty was ratified in 1964, the Province sold the first 30 years of its Canadian Entitlement to a consortium of utilities in the U.S. for \$254 million. That agreement expired in phases and the Province now receives a Canadian Entitlement worth approximately \$120 - \$300 million annually, depending on power market prices
 - g. The Canadian Entitlement is energy and capacity; not money. Over the last ten years (2000-2010) the annual Canadian Entitlement energy averaged approximately 1,300 megawatts of capacity (about 11% of BC Hydro’s total capacity) and approximately 4,540 gigawatt hours of energy, delivered to the British Columbia border.

3. Under the 1963 Canada-BC Agreement, Canada transferred most Treaty rights, obligations and benefits to British Columbia and the Province recommended that BC Hydro be designated as the Canadian Entity.
4. The year 2024 is the earliest date either Canada or the U.S. may unilaterally terminate most provisions of the Treaty, provided a minimum of 10 years' advance notice is given (2014).

The Ministry and CBT have distinct mandates and roles in regard to education, engagement and consultation on the Columbia River Treaty 2014 Review (Treaty 2014 Review) (See Section II)

The Ministry and CBT (hereinafter collectively referred to as "the Parties") agree to collaborate in the development of public engagement initiatives associated with the Columbia River Treaty and the Treaty 2014 Review.

II. ORGANIZATIONAL MANDATES:

Columbia Basin Trust (CBT):

CBT was created in 1995 by an act of provincial legislation in recognition of the impacts to the region from the construction and operation of the Treaty dams and associated reservoirs. A binding agreement was established in which a \$321 million endowment and \$2 million per year from 1996 to 2010 for operations was provided by the Province in order to deliver long-term benefits to the residents of the Columbia River Basin (Basin) through Columbia Basin Trust.

CBT has a unique mandate to support the efforts of the people of the Basin to create a legacy of social, economic, and environmental well being, and to achieve greater self-sufficiency for present and future generations in the region most affected by the Treaty.

CBT's primary role with respect to the Treaty is to act as an information resource for Basin residents and local governments. CBT is not a decision maker on the future of the Treaty and CBT's role is not to "consult" with Basin residents on the future of the Treaty - consultation is a Provincial responsibility. CBT has three objectives for Treaty education and engagement activities:

1. To raise awareness and understanding of the Treaty past, present and future among Basin residents.
2. To develop the capacity of residents to engage in discussions related to any potential operational and other changes to the Treaty.
3. To provide advice on meaningful consultation to the Provincial government as well as communicate provincial information on the Treaty to Basin residents.

Ministry:

The mandate of the CRT 2014 Review Team is to make recommendations to the provincial government by September 2013 on potential decision options regarding the future of the Treaty. As part of its implementation strategy, the CRT 2014 Review Team will:

1. Conduct a series of analyses on the implications of continuing, amending or terminating the Treaty on values and interests in Canada and the U.S.;
2. Consult with Basin residents on decision options, and identify regional concerns, interests, and expectations, ensuring all voices are heard and views are respected; and

3. Consult with First Nations potentially impacted by any decision on the Treaty, ensuring that the Province's legal duties are met and aboriginal interests are considered.

III. PURPOSE & SCOPE

Over the past several years, CBT has undertaken extensive Treaty education and engagement activities in the Basin to implement CBT's Columbia River Treaty mandate (Section II) and will complete most of these efforts in spring 2012. CBT's future education and engagement activities will be determined as required in response to residents' CRT education needs. In 2011, the CRT 2014 Review Team was formalized and has committed to conduct a Treaty 2014 Review process (which includes education, engagement and consultation) in the Basin. With the formation of the CRT 2014 Review Team, and the completion of CBT's extensive education and engagement process, the purposes of this MOU are to:

- a. clearly describe the roles and responsibilities of each party as they relate to engaging Basin residents in Canada around the Treaty
- b. ensure a shared understanding and smooth transition from CBT's education and engagement activities in the Basin to the CRT 2014 Review Team leading and implementing their Treaty 2014 Review Process.

The Parties wish to establish a process whereby they will work cooperatively to coordinate activities to facilitate the effective education and engagement of Basin residents that enables Basin residents to assess and consider the implications of potential decisions regarding the future of the Treaty after 2024.

In particular, this MOU will encourage cooperation that will:

- a. support an effective public engagement process;
- b. facilitate coordination of the activities of the Parties related to engaging Basin residents; and
- c. prevent misunderstanding and confusion regarding the roles of the Parties in engaging Basin residents around the Treaty and the Treaty 2014 Review.

IV. GUIDING PRINCIPLES:

The Parties agree to a core set of guiding principles to support the successful implementation of the MOU which include:

- a. Working collaboratively, where appropriate, to benefit Basin residents and the Province;
- b. Seeking opportunities to cooperate on initiatives, activities or projects that meet both Parties' mandates;
- c. Respecting the differences between the mandates of the Parties; and
- d. Where possible, make efforts to avoid duplication of initiatives, activities or projects intended to facilitate the education and engagement of Basin residents.

V. ROLES AND RESPONSIBILITIES OF THE PARTIES UNDER THIS MOU:

The Ministry will undertake the following roles and responsibilities under this MOU:

- a. Lead a public consultation and engagement process that enables Basin residents to understand and consider the implications of potential future decisions regarding the future of the Treaty after

2024. This process will be designed and implemented in keeping with best practices in public consultation and engagement (Appendix 1);
- b. Work cooperatively with CBT in the public engagement process and capitalize on the education and awareness building work that CBT has already delivered in the region;
 - c. Seek the advice of CBT in the design of the public consultation and engagement process;
 - d. Implement a coordinated and efficient Treaty 2014 Review process in a manner that minimizes consultation fatigue.

CBT will undertake the following roles and responsibilities under this MOU:

- a. Continue CRT education and awareness building activities and where appropriate coordinate these activities with the Province's public consultation and engagement process;
- b. Provide advice and any feedback CBT receives to the CRT 2014 Review Team on how best to conduct the public consultation and engagement process given CBT's knowledge of the region and the interests of Basin residents;
- c. Raise awareness of the Province's Treaty 2014 Review process with Basin residents; and
- d. Encourage Basin residents to engage in the Treaty 2014 Review process.

VI. EXECUTIVE ENGAGEMENT:

In order to prevent disputes or issues arising in the implementation of this MOU both Parties are committed to cultivating a collaborative approach amongst all relevant staff, based on open communication, mutual respect and interest based problem solving. Parties agree to engage their management and executive as required to ensure the successful implementation of the MOU.

VII. MODIFICATION, TERMINATION AND EXPIRY:

The Parties may amend or waive any provision of this MOU by written agreement at any time.

Either Party may terminate this MOU after providing 30 days written notice to the other Party.

This MOU is expected to expire after the closing of the Treaty 2014 Review public consultation and engagement process.

VIII. NO LEGAL OR FINANCIAL OBLIGATIONS CREATED:

This MOU does not create legally binding obligations or any kind of legal relationship between the Parties.

Nothing in this MOU shall be construed so as to affect the jurisdiction or mandate of any of the Parties. Nothing within this MOU shall preclude either Party from undertaking activities or partnerships related to the Treaty that fall within their mandate.


IX. EFFECTIVE DATE AND SIGNATURE:

This MOU shall be effective upon the signature of the Parties.

This MOU may be signed in counterparts.

The Ministry and CBT indicate agreement with this MOU by their signatures.

On Behalf of Columbia Basin Trust


Neil Muth, President and CEO

June 1, 2012
Date

On Behalf of the Ministry


Les McLaren, Assistant Deputy Minister

May 8, 2012
Date

Appendix 3: Columbia River Treaty Local Governments' Committee Terms of Reference

Columbia River Treaty Local Governments Committee Terms of Reference August 2011

Background

Whereas:

1. The Columbia River Treaty (CRT) ratified by Canada and the USA in 1964 provided benefits for Pacific Northwest region as a whole but has specific regional and local impacts to the area known as the Canadian Columbia Basin (the Region).
2. Consideration is currently being given by US and Canadian Entities based on an opportunity to renew, amend or terminate the CRT and some of its sub-agreements.
3. Local governments within the Region (Local Governments) have expressed a desire to actively and meaningfully engage in decisions around the future of the CRT on behalf of the residents of the Region (Basin Residents).

Therefore:

Local Governments have agreed to work together in creating the **Columbia River Treaty Committee** (CRT Committee) to assist Local Governments and Region residents to engage in decisions around the future of the CRT and work collaboratively with Columbia Basin Trust (CBT) on this issue.

1. Role:

The CRT Committee will provide a coordinated venue to:

- Ensure Local Governments of the region are actively engaged in CRT related issues.
- Create opportunities for dialogue and consultation with Canadian Provincial and Federal agencies around CRT related issues
- Work with CBT to create education and awareness activities in the Region to increase Local Government and Basin Residents understanding around CRT related issues.
- Work to help Canadian Provincial and Federal agencies to understand regional views, values and interests with respect to the CRT.
- Create mechanisms that consider Basin Residents' views in any discussions related to the future of the CRT and where appropriate, advocate for specific interests of the region.

CBT will provide support and expert advice to the Committee as required and agreed to between CBT and the Committee.

2. Responsibility:

- a) The CRT Committee will be responsible for developing a workplan that identifies specific actions to address the items identified in section 1 above.

- b) Members of the CRT Committee will be responsible for reporting back to the Local Government that appointed them to the Committee.
- c) Participation by Local Government representatives on the Committee does not preclude any Local Government from taking independent action with respect to any CRT matter.

3. Authority:

The CRT Committee's authority is limited to the roles identified in section 1 above and the tasks and projects outlined in the CRT Committee workplan that is to be developed.

The CRT Committee, and members of the Committee, will not represent the interests of the individual Local Governments unless explicit authority is provided by these entities.

4. Membership:

Initial CRTC membership (Members) will consist of 10 Members appointed as follows:

- 2 by Regional District of Central Kootenay
- 2 by Regional District of East Kootenays
- 2 by Regional District of Kootenay Boundary
- 2 by Columbia Shuswap Regional District
- 1 by the Village of Valemout
- 1 by the Association of Kootenay Boundary Local Government

Membership may be expanded to include other Local Governments, including First Nations, as and when determined by the Committee.

The Committee will select its own Chair and Vice Chair.

Members do not necessarily have to be elected officials.

5. Appointment and Removal Process

Appointments to the CRTC will be for a term of 3 years and may be renewed by the respective Local Governments.

Members may be removed or replaced at the discretion of each Local Government.

The CRT Committee may request to the respective Local Government that individual Members be replaced.

6. Membership Commitment:

Members will be expected to

- a) Attend a minimum of 4 annual meetings in person (generally held in the Region).
- b) Attend teleconferences and other meetings as required and schedule permits.
- c) To the best of their abilities assist in carrying out the roles and responsibilities of the CRT Committee as identified in Sections 1 & 2 above.

7. Financial Remuneration:

Members will be reimbursed for all travel, accommodation, meal and phone/fax expenses incurred while carrying out the work of the CRT Committee by and in accordance with the policies of the Local Government that appoints the member.

Appendix 4: Province's Response to Canadian Columbia Basin Dam & Reservoir Related Issues

Please visit

<http://blog.gov.bc.ca/columbiarivertreaty/files/2013/09/APPENDIX-4-CRT-Issue-Table-BC-Response2.pdf>