A Policy Analysis of the Columbia River Treaty

Using Value-Focused Thinking and Integrative Bargaining to Create Value When Renegotiating the Treaty

by

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1.0 Executive Summary

The Columbia River Treaty is an agreement between Canada and the United States for management of an international river Basin. The Treaty has been successful for the purposes in which it was intended, but there is criticism that it fails to properly address some of the costs associated with implementation and that it lacks flexibility to address changes in values and uses of the river Basin over time. An opportunity is approaching in the near future to terminate or renegotiate the Treaty. Discussions on this are beginning on both sides of the border. The issues and challenges surrounding this opportunity are tremendous. The Treaty itself provides no guidance for how this event should be managed.

This project examines the Treaty, the history leading to ratification, identifies the major provisions of the Treaty, and discusses the effects termination would have. It highlights some of the issues that have arisen since ratification that stakeholders wish to see addressed in managing the Basin. From this, the project attempts to provide some insight and analysis on structured decision-making and negotiation strategies that may enable the parties to create the best agreement possible on this complex issue.

1.1 Summary of the Treaty

Canada and United States ratified the Columbia River Treaty in 1964.[1] The goals of the Treaty are straightforward and clearly expressed in the Treaty; create upstream storage in Canada and share with the United States the increased hydro-electric power and flood control benefits that are achieved downstream. To achieve these goals, the Treaty required the construction of

[1] The full name is "The Treaty Between Canada and the United States of America Relating to Cooperative Development of the Water Resources of the Columbia River Basin."

three storage dams in Canada on the Columbia River and a major tributary, and allowed a fourth dam to be built in the U.S. [2]

The Treaty Dams

Source: COE BPA Columbia River Treaty History and 2014/2024 Review

Both countries benefit from the presence and operation of the dams. In return for constructing these storage facilities, Canada is entitled to one-half of the additional power that is capable of being generated by American hydroelectric plants downstream from releases from this storage. However, Canada, particularity British Columbia, and specifically the Columbia Basin residents bear the greatest costs associated with these dams and reservoirs, as all the dams flooded Canadian valleys, changing the topography and the ecology of the area, and the lifestyles of the residents of the Basin (Columbia Basin Trust, 2008). Additionally the Libby Dam on the Kootenai River in Montana backs up water 67 kilometers into British Columbia.

[2] The Treaty *required* the construction of the three Canadian dams, while it *allowed* the U.S. to construct Libby Dam in Montana. The benefits and obligations between them differ as well, as will be discussed later.

The issues and complexities surrounding the Columbia River watershed have changed since the Treaty was ratified and the dams were completed. Changes have occurred to the river system, as well as the populations that inhabit the Basin. In recent years, a number of ecological and social issues have surfaced which are not adequately addressed by the Treaty. There has also been significant legislative and policy changes in environmental practices, fish and wildlife management and natural resource management that impact how the watershed is, and should be managed. The Treaty lacks formal provisions for integrating other resource concerns or potentially conflicting uses with existing power and flood control priorities. Several groups have been vocal in their dissatisfaction with the current management regime for the Columbia River, representing interests such as aquatic and terrestrial habitats, fisheries, water quality, recreational uses, and cultural and historic traditions. While operational adjustments can be made to accommodate some of these concerns, such changes must be compensated for if they reduce potential power production. This restriction limits the ability to make "non-power" related trade-offs for issues arising that are beyond the original scope of the Treaty. This challenges both countries in satisfying diverse stakeholder groups, plus in some situations, in complying with domestic legislation.

The Treaty has no set termination date. It continues indefinitely unless it is terminated. Either party can terminate the Treaty 60 years after initial ratification, upon providing at least 10 years notice. Thus, the earliest termination date is 2024. Notice can be given at any time, but if a party seeks the earliest termination date, notice must be provided for no later than September 2014. With this date approaching, there is considerable interest being generated by various stakeholders and interested parties about the opportunities being presented to address concerns or inadequacies in the Treaty.

The Treaty is silent on how the parties should proceed if wish to renegotiate.[3] There is no guidance for the issues to be considered, the parties to be involved, or what the final product should include. The initial Treaty negotiations were lengthy, complex, sometimes contentious, and some observers believe the end result, while favorable in many aspects, was not the optimal solution available (Krutilla, 1967; Waterfield, 1970). If similar pitfalls can be avoided in the future, then a better serving public process, as well as better serving agreement, may be achieved.

Terminating the Treaty would present substantial challenges and would create great uncertainty. However, it would also provide an opportunity to address the concerns that exist regarding any shortcomings in the Treaty, or issues for better managing the watershed. Successfully addressing the underlying issues surrounding the Treaty could have profound impacts on both substantive issues, as well the relations between the parties. Conversely, the failure to adequately address these issues or to properly engage the stakeholders could squander this opportunity and result in an agreement, or lack of agreement, that creates tension and hostility between the parties and stakeholders, and fails to optimize the values of this resource.

1.2 Purpose of this Project

The research question being addressed is how to create value in future Columbia River Treaty negotiations so that the parties can achieve the best possible agreement. To address this, I have looked at the Treaty and its supporting documents, reviewed the literature commenting on the Treaty, examined some of the

While I am uncertain of the chain of events leading to 2014, and through 2024, I am fairly confident the Treaty will be renegotiated in some fashion. Whether it will be a complete revision, seeking to address the multitude of

[3] The Treaty has no provision for renegotiation. While the parties may be able to negotiate without a Notice of Termination, any additional terms or amendments require the same ratification processes as a new Treaty. For the purposes herein, I may use termination and renegotiation interchangeably.

competing values and interests that exist over the resources of the Basin, or whether it will be more of a refinement of the current provisions, is less clear. The structure of this project is based on this assumption, and thus emphasizes negotiation strategies and tactics that can maximize the benefits that can be gained in a new agreement.

This project is intended for stakeholders whose interests and values are not reflected in the current Treaty, and want to see them captured and formalized in a new Treaty. To accomplish this, the project reviews the history of the Treaty, examines the operating framework and several key provisions, and identifies the consequences and risks associated with terminating the Treaty. The project then identifies some strategies that stakeholders may consider, first in the language and structure of the Treaty itself. Finally, it considers some strategic and tactical approaches to decision-making and negotiation that may be useful in achieving their objectives.

The project is not intended specifically for the Entities, as they are well staffed and well versed in Treaty operations and implementation, and have specific mandates in law and policy they must follow. Nonetheless, they may benefit from adopting, or at least considering the principles and ideas outlined in this project. I fully expect the Entities to be very focused on the issues of power generation and valuation for the downstream power benefits. These deliberations may be extremely difficult, and possibly contentious, and could set the stage and establish the tone for the entire negotiation process. Applying the strategies set forth in this project may provide an avenue for all the parties to reach a favorable agreement that wraps this issue in with the other issues on the table.

This project is important because the time to incorporate important values and interests into the Treaty is approaching, and another opportunity may not occur for decades, or even generations. The terms that are struck in this next agreement, if there is one, may the terms that dictate management of the resource for years to come. The international component, as well as the

complexity of the operations necessitates a long-term agreement with a high degree of certainty.

To assist the reader in understanding this project and knowing what to expect, it may be useful to discuss the structure of this report. The first part of the report looks at the structure of the Treaty, and some of the controversy surrounding it. It explores some of the more important terms of the Treaty, and what might happen if the Treaty is terminated. It examines the strengths of the Treaty, and addresses areas where the Treaty has failed to adequately meet the challenges presented in managing the resource.

The remainder of the report considers some of the opportunities presented with possible termination. It analyses the consequences of doing nothing, or electing to terminate the Treaty, the uncertainties that would be created by pursuing these paths, and attempts to suggest some options for the parties to consider. Finally, the report provides some strategies for how the parties can structure a decision process on the Treaty that creates value and maximizes the benefits for both parties, and provides insights and suggestions on some negotiating strategies the parties that may increase their chances of reaching the best agreement available.

This is a huge topic. The sheer size and dynamics of the Columbia River Basin alone poses tremendous management problems. When adding in the complexity of international management, changes in the values of the population and communities using the resources, dozens of involved stakeholders and user groups, more stringent but not parallel legislation on both sides of the border, and the uncertainties surrounding climate change and energy policy, the difficulties are compounded. This paper only begins to touch the surface of these issues. The analysis can go much deeper, and there are groups and organizations on both sides of the border that are addressing these challenges. I have drawn heavily on their work and accomplishments. I hope I have done them justice.

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2.0 Introduction

2.1 History of the Treaty

The Columbia River Treaty was ratified in 1964. Its goals are to create upstream storage in Canada and share the increased hydro-electric power and flood control benefits that are achieved downstream in the United States. To achieve these goals, the Treaty required the construction of three storage dams in Canada on the Columbia River and a major tributary, and allowed a fourth dam to be built in the U.S.

Both countries benefit from the presence and operation of the dams. In return for constructing these storage facilities, Canada is entitled to one-half of the additional power capable of being generated by American hydroelectric plants downstream from releases of this storage. However Canada, particularity British Columbia, and specifically the Columbia Basin residents bear the greatest costs associated with these dams and reservoirs, as all the dams flooded Canadian valleys, changing the topography and the ecology of the area, and the lifestyles of the residents of the Basin (Columbia Basin Trust). Additionally the Libby Dam on the Kootenai River in Montana backs up water 67 kilometers into British Columbia.

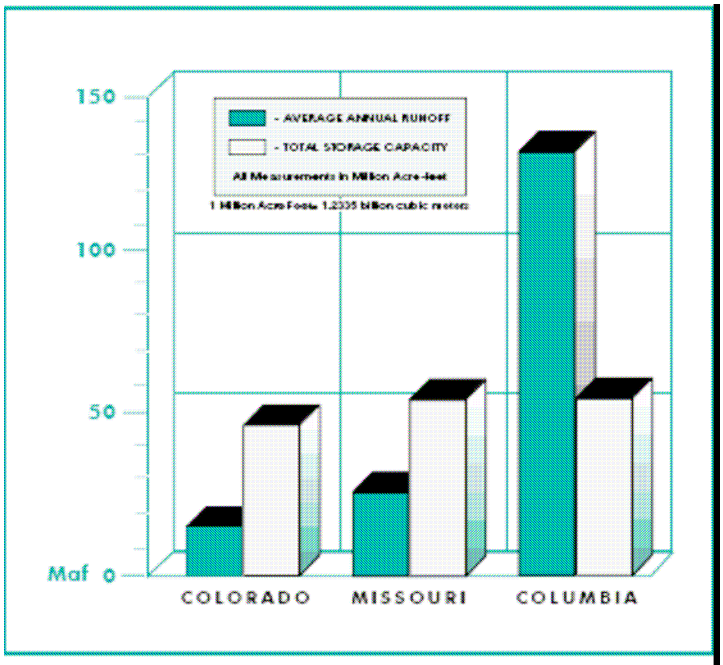
The Treaty dams themselves are not significant power producers compared to other power generating assets throughout the Basin (only two Treaty dams have power plants, and one was just completed in 2002). However, their reservoirs located in the upper reaches of the Columbia River Basin provide significant storage and energy potential, and when timely released, significantly increases energy production at U.S. power plants downstream.

2.2 Physical Attributes of the Columbia River Basin

To better understand the international management issues in the Basin, it is useful to describe the physical attributes of the watershed, as well as discussing how the present management system came into place.

The Columbia River is a transboundary watershed shared by the Canada and the United States. It is the predominant river system in the Pacific Northwest (Federal Columbia River Power System, 2001). It is the fourth largest river in North America as measured by average annual flow (Bonneville Power Administration, 2003). It is the most powerful river in North America, as measured by flow times change in elevation, because a large portion of the river flows from high mountain lakes and tributaries (ibid). In this regard, the River is fairly unique in having more annual runoff than storage capacity (Federal Columbia River Power System).

Figure 1. Columbia River Runoff and Storage Comparison



The Columbia River has high runoff and a small amount of storage compared to two other large river systems, the Colorado and Missouri.

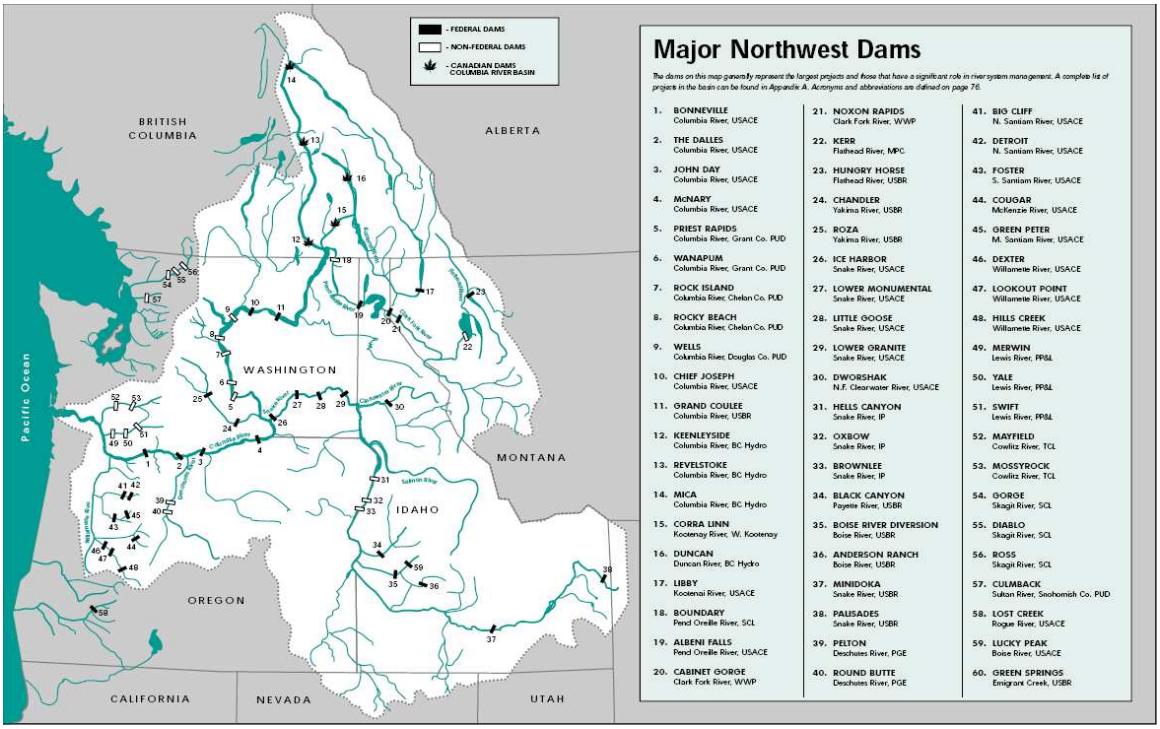
Source: The Federal Columbia River Power System

The Basin drains 567,000 square kilometers in seven Western states and an additional 102,000 square kilometers in British Columbia. While only about 15% of the physical drainage Basin is in Canada, about 38% of the average annual flow and up to 50% of the peak flood flows come from Canada (Bonneville Power Administration).

The Columbia River's main stem only crosses the international border once. However, the Kootenay River, a major tributary graced with two Treaty dams, follows a more complex route. It begins in British Columbia, flows south into the United States, then turns west and north, returning to British Columbia before joining the Columbia River near Castlegar. River management under the Treaty thus involves upstream and downstream issues for both countries.

To manage this flow and harness the potential for power production, dams have been constructed on the river and its tributaries for over a century. The Basin is the most hydroelectrically developed river system in the world, with 13 dams on its main stem and over 400 on its tributaries (ibid).

Major Dams on the Columbia River watershed



Source: The Federal Columbia River Power System

2.3 Uses of the Columbia River System

The Columbia River watershed is a tremendous natural resource providing multiple services and benefits to Basin residents. Some examples of these are flood control, fish migration, wildlife habitat, power production, navigation, irrigation, recreation, reliable quality water, and cultural resources (Federal Columbia River Power System). Of these services, only flood control and hydro power production are expressly provided for in the Treaty. The importance of these other uses has risen over the past decades. However efforts to address them are hindered when they conflict with the terms of the Treaty. Where possible, some of these concerns have been addressed by the Treaty entities. However, many feel the Treaty constrains the parties from being able to address these issues to the level that is appropriate. With the possibility for terminating the Treaty approaching, many groups are focusing on this as an opportunity to address these issues. Managing this process will be a critical aspect leading up to and through any Treaty talks. How these concerns could be addressed is a major focus of this paper.

2.4 The Events Leading to Ratification

In 1944, the International Joint Commission (IJC) established the Columbia River Engineering Study Group to determine the optimum use of the whole Columbia River drainage Basin on both sides of the border with specific reference to power, flood control, irrigation, domestic water and fish spawning streams (McDonald, 1993). Their report, the Columbia Basin Study took 15 years to complete and was delivered in 1959. In 1960, the governments of Canada and the United States directed the IJC to begin negotiations on a treaty that would ultimately permit the United States to store water on the Columbia River in Canada for power and flood control below the international border (Ibid).

The United States and Canada signed the Treaty in 1961. It was quickly ratified by the United States Senate. However, Canada did not ratify the

Treaty until 1964, as British Columbia had concerns on determining and managing Canada's share of the downstream power benefits that would be generated. These concerns lead to adopting the Canada-British Columbia Agreement (actually two agreements). The Canada-BC Agreement created the framework for implementing the Treaty and the disbursement of the Canadian downstream benefits arising under the Treaty. A critical provision of the Agreement was allowing British Columbia to sell its Canadian Entitlement in the U.S. (Bankes, 1996). Under the Agreement, all proprietary rights, title, and interests arising under the treaty were granted to British Columbia. At the same time, British Columbia, and specifically, B.C. Hydro, as the Canadian Entity, became responsible for the construction, operation, and maintenance of the treaty dams and reservoirs (ibid). With this agreement in place, the Treaty was quickly ratified and became effective September 16, 1964.

3.0 Relevant Terms of the Treaty

3.1 Structure of the Treaty and Major Provisions

While the Treaty is a stand alone document, there are several related documents that should be considered as part of it. These include two Annexes, and the Protocol with its accompanying attachments.[4] All these documents should be considered in any discussions on termination, or renegotiation of the Treaty. That said, this is not a considerable volume of material.

The Treaty itself is not extremely lengthy. It is only about 12 pages, comprising 21 Articles, and its preamble. It includes by reference two additional documents, Annex A and Annex B (Treaty, Art. I, 1(n)). Annex A addresses procedures for technical operations and Annex B provides details on how downstream benefits are determined. The Columbia River Treaty

[4] One could argue that the agreements between Canada and British Columbia should be included, as they were necessary for ratification and have relevant provisions related to termination or renegotiation. However, I will not delve into this issue in this paper.

Protocol, dated January 22, 1964, addresses operating principles in more detail, and includes a series of exchange of notes allowing for sale of the Canadian Entitlement and distribution of the revenues.

The Treaty is a technical agreement, rather than a sweeping principles and policies type document. It is very specific on siting locations, reservoir capacities, and construction timetables. Annexes A and B are also technical, prescribing specific operation guidelines and procedures. Perhaps this degree of certainty is necessary for such a large-scale technical and financial agreement. However, this certainty does not lend for much flexibility. If other issues less quantitative are to be considered in any future Treaty talks, a better balance of certainty versus flexibility may be necessary.

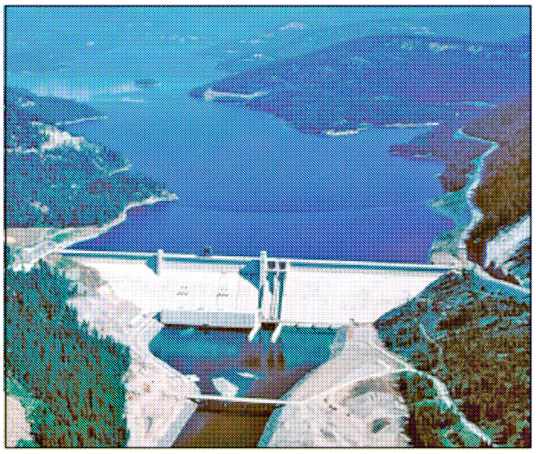
The Columbia River Treaty Protocol ("Protocol") was executed after the Treaty and provides means for implementing the Treaty. It contains 12 articles that clarify conditions and responsibilities. It includes an "Attachment Relating to Terms of Sale" of the Canadian downstream entitlement. The "Attachment" is an attachment to a diplomatic Exchange of Notes that sets forth the specific terms of sale. Two other noteworthy clarifications in the Protocol are that either party may divert water for consumptive use (Art. 6) and that Canadian storage is determined on a whole, not three separate storage reservoirs, giving British Columbia discretion on managing water releases and storage (Art. 7.2).

The Treaty required British Columbia to develop huge reservoirs in the higher reaches of the Columbia Basin. British Columbia was to provide 15.5 Maf (Million acre feet) of storage on the river, which was achieved by constructing three dams. The Canadian storage projects are Duncan, Keenleyside (also known as Arrow Lakes) and Mica. Duncan was the first Treaty dam built, started in 1965 and operational in 1967, while Mica was completed in 1973. Libby, also completed in 1973, has 4.98 Maf of useable storage. Mica was built higher than required by the Treaty to provide an additional 5 Maf of non-Treaty storage. Non-Treaty storage must be operated so as not to decrease the potential U.S. power benefits from Treaty storage (Treaty, Art IV, §.5).

The Treaty allowed the United States to construct the Libby project on the Kootenai River in Montana for flood control and other benefits. The benefits from the Libby project accrue to each country and are not subject to the "Downstream Benefits" provisions of the Treaty (ibid, Art. XII). These four dams more than doubled the storage capacity of the Columbia River Basin at the time (Bonneville Power Administration).

The Treaty Dams

Keenleyside Dam



Libby Dam

Mica Dam

Duncan Dam

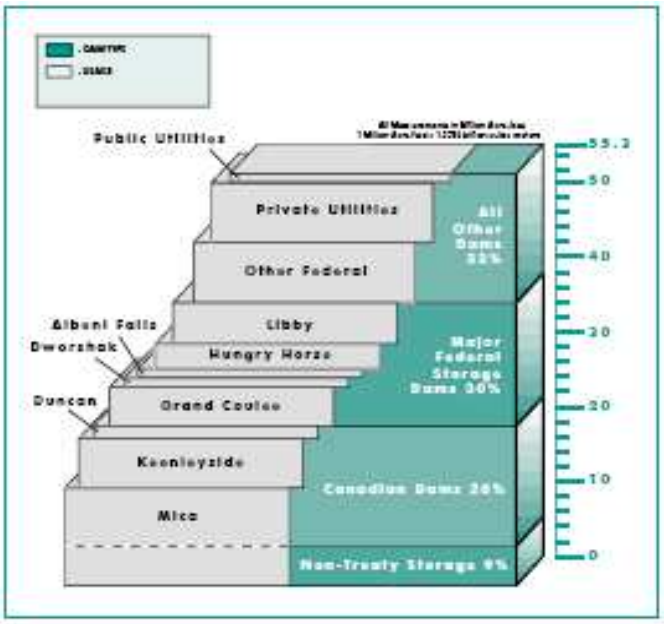
Source: BPA Columbia River Treaty 2014/2024

With the exception of Mica, which was designed with a powerhouse that began production in 1978, the Canadian projects were built solely for storage.

Not until 2002, about 35 years after completion of Keenleyside, was the Arrow Lakes Generating Station completed.

The Canadian reservoirs built and operated under the Treaty represent almost half the water storage on the Coordinated Columbia River System (Federal Columbia River Power System).

Figure 2. Columbia River System Storage Space



The importance of the Treaty storage capacity for flood control and power production in the Columbia system is reflected in this chart. Note the significant contributions from Mica, Keenleyside, and Duncan (the bottom of the chart). Libby is also a major contributor.
Source: Federal Columbia River Power System

3.2 Benefits from the Treaty

3.2.1 Flood Control

Article IV of the Treaty requires British Columbia to manage storage for flood control in British Columbia and the United States. The U.S. made a lump-sum payment in 1964 of $64.4 million for one half of the estimated future flood damages prevented by the operation of Canadian Treaty projects. The U.S. Army Corps of Engineers has estimated the operation of Treaty storage reduced actual flood damage in the U.S. by over $200 million in each of the 1972 and

1974 floods (Bonneville Power Administration). More recently, damage from severe flood events in the U.S. Pacific Northwest in 1995 and 1996 was significantly reduced by upstream Columbia River storage (U.S. Army Corp of Engineers, 1996).[5]

3.2.2 Downstream Power Benefits

Downstream benefits are addressed in several parts of the Treaty (Art. V; Art. VII; Art. VIII; Annex B; Protocol). Simply put, the "downstream benefits" are the additional electrical energy that can be generated in the U.S. due to the Treaty storage in British Columbia. The downstream benefits are shared equally between the two countries. The "Canadian Entitlement" of the downstream benefits is owned by British Columbia (Art. V; Canada-BC Agreement). However, concerning Libby, the flood control and benefits belong to the country in which they occur (Art. XII).

Under the Treaty, British Columbia[6] is entitled to one half of the potential Downstream Power Benefits (DSBs) generated by the management of the Treaty storage (the difference in U.S. energy production with and without the Canadian storage) (Treaty, Annex B). In January 1964, British Columbia agreed to sell its full entitlement to downstream power benefits generated from the Treaty projects to the U.S. for 30 years after each project went into operation (Krutilla). This money covered most of the costs of constructing the three Canadian dams.

[5] I did not find a breakdown for reduced flood damage specific to Treaty storage. The information for this flood period, provided by the U.S. Army Corps of Engineers, lumps flood control costs and savings for the Columbia and Snake river Basins. They show a $2.77 billion dollar investment in the Basins (adjusted) prevented $3.6 billion in damages. The contribution of Treaty storage to these savings should be available within the data, and I would think the parties to negotiations would make sure they are calculated.

[6] While Canada is the signator to the Treaty, most of the terms and conditions apply to British Columbia. The federal government and the province executed the Canada-British Columbia Agreement of August 8, 1963, which in effect transferred all the benefits and responsibilities under the Treaty to the Province. Accordingly, the Downstream Power Benefits accrue to the province, or entities within it, as well as the flood control responsibilities.

The province now takes the DSB both in kind and in value. The revenues from the DSBs vary, but range from about $250-300 million annually (Ministry of Finance, Budget and Fiscal Plan, 2008).

The actual U.S. power benefits from the operation of the Columbia River Treaty are unknown and can only be roughly estimated. Treaty storage has such a large impact on the U.S. system operation that its absence would significantly affect operating procedures, non-power requirements, loads and resources, and market conditions, thus making any benefit analysis highly speculative (Canada and United States Entities, 2007).

3.3 Other Important Terms and Conditions

3.3.1 Treaty Operations

Both countries may divert water out of the Columbia River system, but only for consumptive uses (Protocol, Par. 6, 1964). Hydropower production occurring in British Columbia on the Columbia River system after the Treaty must not be at the expense of meeting Treaty water flow obligations at the border.

The Treaty requires the United States and British Columbia to annually prepare an Assured Operating Plan (AOP) for the operation of Canadian Treaty storage six years in advance of each operating year. The AOP is designed to achieve optimum power and flood control operation in British Columbia and the U.S. The AOP is used determine the amount of Canadian Entitlement to be delivered for that year (Annex A; Art.9).

An important note should be made on the role of downstream benefits and the AOP concerning future negotiations on the Treaty. The downstream benefits are determined based on the optimal amount of power that can be produced; not the amount power that is actually produced. The U.S. can use or release water (Canadian storage or its own) for other purposes, such as agriculture, habitat restoration, or navigation. However, the U.S. cannot unilaterally reduce the province's downstream benefits because of this use, nor

can it require British Columbia to alter its storage in conflict with the optimum levels established by the Treaty and in the AOP. British Columbia must produce at the border the amount of water required by the Treaty or the AOP. This system is a constraint on water use other than flood control and power.

The Treaty also requires the entities to prepare detailed operating plans (Art. XIV, §14(2)(k)). Detailed Operating Plans (DOP) are prepared annually for the upcoming year. The Treaty allows the entities to develop DOPs that may produce results that may be more advantageous to both countries. Objectives such as managing the resource for fish and recreation could be addressed in this manner, and this may be an avenue to explore in future Treaty talks. The Libby Coordination Agreement is an example where the "Entities" (discussed in more detail below) were able to adjust reservoir releases to address U.S. concerns over sturgeon populations, within the confines of the Treaty provisions and AOP on power production (Record of Decision, 2000). However, this agreement is more the exception than the rule. There is no requirement for DOPs to address these issues, they require the concurrence of both parties, and are developed ad hoc. Unless the parties have a common interest at stake, there seems little incentive to reach agreement on a broad range of issues.

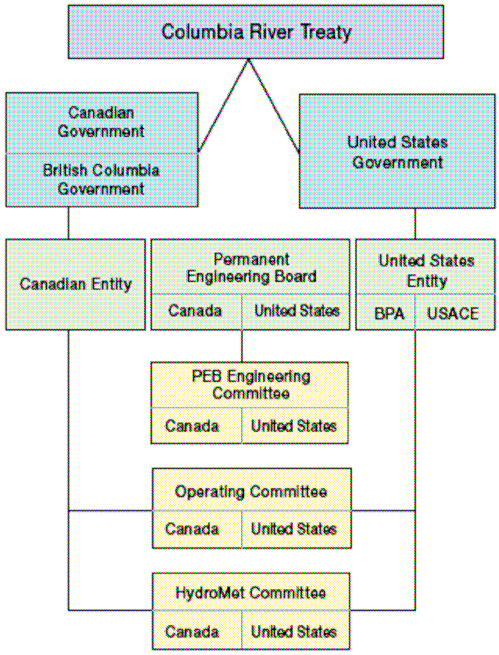
3.3.2 Treaty Implementation

The Treaty creates very few authorities for management and implementation. Article XIV requires each party to designate "entities" to implement the Treaty. The "Canadian Entity" is the British Columbia Hydro and Power Authority (BC Hydro) (CRT 2014/2024, 2008). The "U.S. Entity" is two agencies with shared responsibilities. They are the Bonneville Power Administration (BPA) and the U.S. Army Corps of Engineers (Corps). BPA is delegated the task of marketing power from treaty projects, while flood control and other physical works on the Columbia River are handled by the Corps (ibid; Executive Order No. 11177, 1964).

Article XV of the Treaty established the Permanent Engineering Board (PEB). The PEB monitors and reports on the results being achieved under the

Treaty, and assists in reconciling differences concerning technical or operational matters that may arise between the Entities (CRT 2014/2024). While the PEB may assist in reconciling differences, it has no authority to interpret the Treaty to bind the Parties.[7]

Figure 3. Columbia River Treaty Organization Chart



Source: Columbia River Treaty History and 2014/2024 Review

The PEB has four members. The two PEB members for the U.S. are appointed by U.S. Secretaries of Army and Energy. The governments of Canada and British Columbia, respectively each appoint a Canadian member.

Dispute resolution mechanisms are provided for in the Treaty. Disagreements over flow control or operating plans are first referred to the Permanent Engineering Board (PEB) (Treaty, Art. XV). If the issue is beyond the PEB's mandate, either party may refer the matter to the International Joint Commission (IJC) (ibid, Art. XVI). If the IJC does not render a timely decision,

[7] This is a summary of the powers and responsibilities of the PEB. Specific duties can be found in Art XV, Annex A and the Protocol.

the parties may agree on other processes for settling differences, such as submission to the International Court of Justice for binding arbitration (Ibid).

3.3.3 Treaty Termination

The Treaty has no set termination date. However, 60 years after ratification (September 16, 2024), the Treaty can be terminated by either party upon 10 years advance written notice (Treaty, Art. XIX, § 2). Thus, Notice of Termination can be issued in 2014.[8] Unless it is terminated, most of the Treaty provisions continue indefinitely

The Treaty has no provision for "renegotiation." It seems renegotiation could be addressed in either of two formats. One, a "Notice of Termination" would be provided and the parties would then engage in negotiations. The other would entail the parties negotiating new or additional terms, and then seeking approval through ratification. Neither approach is spelled out in the Treaty. Regardless, to adopt any revised or additional terms would require the same formalities as required for a new treaty.

The Treaty is silent as to whether a Notice of Termination, once issued, can be withdrawn. This may not be a major issue, as it seems the parties could either agree to allow withdrawal of the Notice, or if they cannot agree on this, the other party could issue its own Notice of Termination.

While the U.S. and Canadian Entities have broad powers and discretion to implement the Treaty, they are not authorized to modify or terminate the Treaty. Those powers rest with the highest levels of each respective government. In the U.S. the Department of State assists the U.S. government in foreign relations matters and is primarily responsible for international negotiations. The ultimate authority over international treaties rests with the president, who must seek the advice and consent of the U.S. Senate. (U.S. Constitution, Art.II, §2). In Canada, international treaties are within the

[8] The Treaty requires at least 10 years notice for termination. It is silent whether a greater period of notice can be provided, but there seems to be no reason why it could not. Thus, notice of termination for the earliest possible date, September 16, 2024, could be provided at any time before September 16, 2014, including now.

prerogative of the executive branch of the federal government. In some cases, a treaty may be ratified by parliamentary resolution (CRT 2014/2024). In the present case, the Canada-B.C. Agreement requires Canada to obtain the consent of the Province of British Columbia before Canada issues a termination notice for the Treaty (Canada – BC Agreement, 1963).

3.3.4 Impacts from Termination

Whether the Treaty terminates or continues, the terms for flood control automatically change in 2024. After 2024, Canada will still be required to provide flood control operations for the U.S. However, if the U.S. requests flood control measures from Canada, the U.S. must compensate Canada for its potential for power production, as well as the operational costs in providing the service (Art. IV, §3; Art. VI). If the treaty remains in place, there is no change in the computation of downstream benefits.

The most significant event from Treaty termination is the disappearance of downstream benefits and the Canadian Entitlement. British Columbia will operate Mica, Arrow, and Duncan for their own benefit, as will the U.S. with Libby. Incremental benefits that either party gains from the operations of the other party are retained by that party.

Upon termination the following provisions remain effective. As previously noted, British Columbia remains committed to providing on-call flood protection (ibid). The reservoir behind Libby Dam can continue to impound water in British Columbia for the useful life of the dam (Art. XII). British Columbia retains Kootenay River diversion rights (Art. XIII).

Besides these specifics, the parties are restored to pre-Treaty legal status (Art. XVII). The provisions of the Boundary Waters Treaty, if still in place, will apply to the Basin and international river management (Ibid).

If the Treaty is terminated, the value of the loss of the most visible asset, the downstream benefits, is measurable and determinable. The U.S. no longer pays the cost and British Columbia no longer receives the revenue.

However, other impacts are not as certain or measurable. This may be equally or more significant.

Power will still be generated from the storage. However, as each country manages their reservoirs for their own benefit, the timing of receiving upstream storage will be less predictable. Power production may be reduced, or become less firm. Similarly, managing flow for non-power purposes will be less certain.

Termination may impact the relationship between the parties. There is a long history of cordial relations between the countries, an especially between the Entities over Basin management. There is daily contact between the representatives, and many issues have been amicably resolved over the life of the Treaty. Operating without the Treaty would likely provide some level of uncertainty and sense of tension between the parties, not just on Columbia River Basin issues, but other issues in the region and along the border.

However, termination of the Treaty would not be catastrophic. The Boundary Waters Act and the IJC would provide forums for management and dispute resolution. Both parties are familiar with them and they are experienced in watershed management outside the Columbia River Treaty.

The parties manage other major transboundary tributaries in the Columbia River Basin watershed that operate outside the current realm of the Treaty. The Pend O'Reille and the Okanagan are transboundary river systems that are part of the Columbia River Basin, but not subject to the Treaty. By most accounts, the parties have been successful, if not at least cordial, in addressing the issues presented in these watersheds. If nothing else, there is a system in place that provides the necessary tools to implement resource decisions.

Further, both the Columbia and Kootenay Rivers have non-Treaty assets and management plans in place (Revelstoke; Arrow Lakes Generating Station; IJC Corra Linn/Kootenay Lake Board of Control, et al) within the boundaries of the Treaty assets. Not every project on these rivers is a Treaty project. Thus, there is a considerable body of authority and plenty of experience outside the

Treaty framework for the parties to draw upon. Termination of the Treaty would provide an atmosphere of uncertainty, but not destitution.

However, it is hard to imagine the Treaty will not be renegotiated, for the very reasons stated above. The Treaty provides certainty in the management of a valuable resource. The Basin is a tremendous asset, and its reliable, firm power production is a key economic driver for both British Columbia and the Pacific Northwest. There is too much at stake to jeopardize this reliable source of power.

Flood control is also an important interest. While this obligation continues despite the Treaty, if it can be repackaged in a comprehensive agreement, both parties are probably better served.

At least two challenges will be present. One is whether the parties can find an acceptable agreement for determining the value of the downstream benefits, as well as flood control. This will be the major substantive issue for the entities. The other challenge will be is addressing the increased value society places on other water uses, such as environmental quality and sustainability, the wide range of interests and several different stakeholders have in the resource and crafting an acceptable agreement that satisfies the parties. As we have seen, several of the outstanding interests seem in direct conflict with managing the resource for optimum power production. If the optimum result is to be achieved, creative solutions in negotiating will be necessary. This will be part of the challenge for the Treaty negotiators.

3.4 Comments on the Treaty and the Process

There is a considerable body of literature written both before and after the Treaty on the relative merits, benefits and cost associated with the Treaty. Much of the literature addresses the economics of the Treaty, while other authors look the political maneuvering involved, and what impacts this had on the final product. There is also a large body of work examining the social, cultural and environmental costs of the Treaty.

3.4.1 Benefits Gained From the Treaty

Few would argue that there have been significant direct benefits to Canada and the United States from the Treaty. These include:

- on-site power generation at Treaty dams;
- increase in dependable capacity at downstream projects in Canada and the United States from assured flows;
- increase in firm energy and usable nonfirm energy at downstream projects in Canada and the United States;
- flood damage reduction in both countries; and
- substantial revenue and increased power for British Columbia.

(CRT 2014/2024)

A number of indirect economic benefits and developments were also made possible by the Treaty. There have been several power plants developed in Canada and the U.S. after the Treaty that may not have been possible otherwise. Some British Columbia examples are the Revelstoke Dam and related powerhouse, the Kootenay Canal plant, and more recently the Brilliant expansion and Waneta Dam project. In the U.S. expansion of a third powerhouse at Grand Coulee, along with several other powerhouse expansions, were possible because of the Treaty (ibid).

The construction of the dams and the sale of the Canadian Entitlement in the U.S. allowed creation of a transmission intertie that remains a vital component of the North American western power grid, providing continuing enhanced reliability and power trading benefits to western Canada and the western United States (ibid).

3.4.2 Criticisms of the Treaty

Notwithstanding the benefits, there was severe criticism of the Treaty. Some detractors claim economic optimization in site selection and project sequencing was sacrificed for social or political considerations (Muckleston, 2003; citing Krutilla, and Swainson, 1979).

The Treaty dams also caused huge social, cultural and environmental impact to the residents of the Canadian Columbia River Basin. The Libby Dam in the U.S. flooded 67 kilometers of productive fertile valley in the eastern Kootenays. The three Canadian dams resulted in significant losses of river valley and agricultural land. While the U.S. paid a great sum for these activities, the permanent loss of these unique resources, without much community input or compensation, angered and frustrated many residents (Columbia Basin Trust). A frequent criticism of the Treaty process is that there was no meaningful consultation with the residents of the Basin (ibid).

Of the four dams, the Keenleyside Dam was the most contentious and bitterly fought, and the most destructive of habitat and communities. (Waterfield, 1973). The dam drowned about 230 kilometers of the inhabited valley floor between Revelstoke and Castlegar. It raised the lake level 40 feet above the normal high water line, and results in a total rise and fall of 70 feet. The flooding caused the two natural lakes, Upper Arrow Lake and Lower Arrow Lake, to become one. Over 20,000 acres of arable land was flooded, 50 miles of beaches were destroyed, and over 2,000 people had to be evacuated and relocated (ibid).

During the Treaty negotiations, the B.C. Department of Agriculture released a report on the economic potential of the Arrow Lakes valley, rating the Valley third for agriculture in the whole of B.C. behind the Lower Fraser and the Okanagan valleys. The lack of adequate road transportation was the only factor preventing agricultural development (McDonald). Construction of the dam made this point moot, as the valley floor was lost.

Perhaps adding even more insult to injury, when Keenleyside was built and for about 40 years thereafter, no on-site power was generated from this dam or the reservoir behind it. Only in 2002 was the Arrow Lakes Powerhouse finally added. Finally, Krutilla (1967) adds more fuel by musing whether Arrow Lakes could not have been completely avoided, had the whole thing been thought through better.

In 1995, the Columbia Basin Trust was established to address some of the social, environmental and economic hardships inflicted on the residents of the Canadian Columbia River Basin from the consequences of the Treaty (Columbia Basin Trust). The Trust is a well-funded, well-established organization in the Canadian Columbia River Basin, heavily involved in providing social, economic and environmental programs, as well as supporting and funding educational and other outreach programs. They are active in promoting and facilitating community involvement is resource use and management issues affecting the Basin, including Treaty issues.

In recent years, the Treaty has garnered significant attention not because of what in contains, but because of what it lacks; its emphasis on hydroelectricity and flood control, and nothing else. Groups in both the U.S. and Canada have concerns with management of the Columbia River Basin in general, as well as specific concerns with Treaty operations, and have expressed interest in changing in the management of the resource. Many view the Columbia River Treaty process as an opportunity for direct involvement in future decisions on this resource (Canadian Columbia River Forum, 2006; CRT 2014/2024).

It is quite clear the primary purposes for Columbia River Treaty were flood control and increased power production. The Preamble "…recognize(s) that the greatest benefit to each country can be secured by cooperative measures for hydroelectric power and flood control, which will make possible other benefits as well." However, the title of the Treaty is a "Treaty Relating to the Cooperative Development of the Water Resources of the Columbia River Basin." This gives rise to two comments that should be considered in future Treaty talks.

The first relates to "cooperative development of the water resources." While the Treaty emphasizes flood control and power, an argument can be made that the overall intent of the Treaty is cooperative development of the water resources, and that flood control and power generation are just two components of water resources. Thus, the Treaty envisions that other

development issues, namely agriculture, recreation, industry, and community development are envisioned for in the Treaty, but for whatever reasons, were not expressly incorporated at the outset.

The second point relates to the geographical scope of the Treaty. The title references the Columbia River Basin. There is no definition in the Treaty on the boundaries of the Basin. The Treaty terms on flood control and power generation are specific to the Columbia main stem and the Kootenay River system, but there is nothing in the Treaty that limits its scope or application to these particular segments of the Basin. There are other international rivers in the region that are part of the Columbia River Basin but are not subject to the current terms of the Treaty. Two examples are the Pend O'Reille system and the Okanagan system. If new Treaty talks begin, and issues besides flood control and power are discussed, one of the earliest and most important decisions may be defining the scope of the Treaty and the parties to be involved. This would be a huge challenge in itself and may set the tone for the remainder of the process.

With the above in mind, it is time to look at how to structure the process to begin preparing for negotiating the Treaty.

4.0 Value-Focused Thinking

Value-focused thinking is a particularly useful approach for making values and value trade-offs explicit during decision making. Value-focused thinking essentially consists of two activities: first deciding what you want and then figuring how to get it. In the more typical approach, often referred to as alternative-focused thinking, you first figure out what alternatives are available and then choose the best of the lot. A decision is framed by the alternatives and values considered in making that decision. The major shortcomings of alternative focused thinking are that viable alternatives, possibly much better than the considered alternatives, are not identified, (2) the objectives identified are often only means to the consequences that are of fundamental concerns; and (3) there is not a logical match between alternatives and objectives (Keeney, 1992). In short, the thinking is too narrow. With value-focused thinking, you should end up much closer to getting what you want (ibid).

The decision context and the fundamental objectives together provide the decision frame. The decision context defines the set of alternatives appropriate to consider for a specific decision situation. The fundamental objectives make explicit the values that one cares about in that context (Ibid, 30).

Values of decision makers are made explicit with objectives. An objective is a statement of something that one desires to achieve. It is characterized by three features: a decision context, an object, and a direction of preference (ibid). In the Treaty, an example is to minimize flood damage.

There are two types of objectives; fundamental objectives and means objectives. A fundamental objective characterizes an essential reason for interest in the decision situation. A means objective is of interest in the decision context because of its implications for the degree to which a fundamental objective can be achieved. Simply put, the means objectives are

important because they are means to achieve the fundamental objectives (Ibid).

The Canadian Columbia River Forum (CCRF) has initiated efforts to determine the objectives for managing the Canadian portion of the Columbia River Basin and identifying water management issues in the Basin. The CCRF consists of 16 members[9] drawn from of federal, provincial, municipal and aboriginal governments and agencies who have policy-level involvement in water and watershed management within the Columbia Basin (CCRF, 2007). A primary purpose of the CCRF is to provide an information sharing forum for participants to collaborate on initiatives and processes that affect the Canadian portion of the Columbia River Basin (ibid). They assert collaboration will serve the following objectives:

- enhancing the working relationship among the participants;
- seeking common awareness of the issues;
- sharing perspectives and values for dealing with transboundary issues;
-develop mechanisms for staying abreast of the relevant ongoing and emerging transboundary issues; and
- providing a forum and process for promoting Basin education, access to information and public process on Columbia Basin issues.

(CCRF MOU)

These same objectives are stated (albeit a bit differently) in their *Background Paper* (CCRF, 2006).

Using the framework provided by Keeney, these are well articulated objectives. They are statements of desires to be achieved, and they contain the three features of a decisions context, an object and a direction of preference. It is more difficult to determine whether they are fundamental or

[9] The members (as of February 14, 2007) are BC Hydro, BC Ministry of Environment, BC Ministry of Energy, Mines and Petroleum Resources, Canadian Columbia River Inter-tribal Fisheries Commission, Foreign Affairs and International Trade Canada, Columbia Basin Trust, Environment Canada, Ktunaxa Nation Council, Natural Resources Canada, Okanagan Nation Alliance, Shuswap Nation Tribal Council, Regional District of East Kootenay. Regional District of Kootenay Boundary, Regional District of Central Kootenays, Columbia Shuswap Regional District, and Regional District of Fraser Fort George. The MOU contains a provision (§5.0) for expanded participation, but does not provide the mechanism for how an entity would join.

means objectives. One method to distinguish between fundamental and means objectives is to simply ask "Why?" until you cannot go further (Hammond, 1999). Once you reach the point that you can answer 'Why" for its own sake without going further, you have reached a fundamental objective (ibid).

Applying this method to the objectives listed above, I suggest that these are means objectives, and not fundamental objectives.

For instance, why are these objectives important? Because pursuing them will provide a better understanding of the issues being faced in the Basin, as well as an orderly process to educate and communicate amongst the stakeholders.

But why is this important? Because an opportunity is approaching to change the management system of the Columbia River Basin.

Why is this important? Because changes in river management may improve the ecosystem of the Basin.

Why is this important? Improving the ecosystem may improve the quality of life for residents of the Basin, and the general population.

Why is this important? It just is.

The answers provided are merely an example, and may not portray the true objectives that exist. Also, they are fairly simplistic, and do not fully reflect the complexity of the subject. However, the point being made is that to allow for the best possible decision in the Treaty context, a value-focused thinking approach will likely help the parties identify their fundamental objectives, which will allow them to create the greatest range of alternatives available.[10]

[10] The above is a very simplistic analysis of the ideas and concepts behind value-focused thinking and its application to structured decision-making. This is a complex subject, and its application to decisions less difficult than the Treaty would be a considerable work. To fully address the subject would require identifying a complete list of fundamental and means objectives, developing alternatives, determining the consequences of the alternatives, and a method to compare the alternatives, and how to make the necessary tradeoffs between the alternatives. Addressing this subject here would significantly extend the length and complexity of this project. For information on value-focused thinking and structured decision-making, an excellent introduction to the subject is found in *Smart Choices*. For a higher level of analysis, I suggest *Value-Focused Thinking* and *Decisions with Multiple Objectives: Preferences and Value Tradeoffs*.

Using their list of objectives, the CCRF applies the *Background Paper* to the Treaty, stating that the Treaty should be used as a focal point or model to foster a collaborative approach amongst Canadian organizations (ibid). The *Paper* identifies existing and emerging water management issues in the Canadian Columbia Basin. The following is their list:

4.1 British Columbia Treaty Issues

1. Fish
   - Impact of reservoir operations on fish species (including but not limited to sturgeon, salmon and resident fish).
   - Impacts on freshwater fish from development pressure, mining, transportation infrastructure, foreshore development, and introduction of exotic species.

2. Watershed Issues
   - Domestic watershed issues (land use conflicts).
   - Drinking water protection.
   - Regional population and tourism growth and impacts on water supply and quality.

3. Recreation
   - Reservoir access.
   - Conflicts with other uses.

4. Water Quality
   - Dissolved gas concentrations which are high and harmful to fish.
   - Impacts from industrial use and development.
   - Point source issues: industrial and municipal effluent.
   - Non-point source issues: urban growth, agriculture, forestry.

5. Hydro Power/Flood Control
   - Managing the system for a range of values.

6. First Nations
   - Salmon restoration.
   - Implications of asserted aboriginal title and rights.

7. Climate Change
   - Uncertainties and information gaps.
   - Changes to snowpack, temperature and precipitation patterns.
   - Potential impacts and adaptation activities.

8. US expectations and needs
    - Increased need (fish, power, municipal and agriculture) for water.
    - Increased expectation that these needs can be met by altered Canadian storage and regulation.

(CCRF, Background Paper)

Flood control along with hydro power, the only issues that are currently addressed under the Treaty, are listed at number five. The rest are all impacted to some degree by Treaty operations, but presently there is no mechanism in the Treaty to address these concerns if they conflict with Treaty flood control or power operations.

This list of issues is an impressive start. While the forum currently lacks authority to represent the province or the nation on these interests, they are keenly aware of the issues. Its members are experienced dealing with Basin issues. For the purposes herein, we will use this list to develop a process for how these issues should be considered. Let's see how they stack up with some of the issues facing the United States.[11]

4.2 United States Treaty Issues

The U.S. faces similar, but not identical issues as British Columbia over management of the resources of the Basin.[12] Their issues include:

1. Flood Control;
2. Fish Migration;
3. Fish and Wildlife Habitat;
4. Electrical Power Generation;
5. Navigation;
6. Irrigation;
7. Recreation;

[11] There is much more to the *Background Paper* that the sections referenced above. It is well organized and discusses the objectives behind forming the CCRF, some of the interests that are involved in the Basin, some strategies on how to coordinate and implement some of the initiatives, and why this process is important. The *Paper* clearly states that it merely provides background information, is meant for reference material only, and does not assert that these are the issues on the table or that the forum is the group that will determine the process and structure for any Treaty, or Columbia River Basin management decisions.

[12] The U.S. should also go through a structured decision-making process using value-focused thinking. It would be a similar process as discussed above, but may yield strikingly different results. Again, that would be an extensive topic beyond the scope of this project.

8. Water Supply and Quality; and
9. Cultural Resources.

(Federal Columbia River Power System)

As with the British Columbia example, while this may not be a definitive statement of the issues and concerns over the Basin, these are well known concerns on the U.S. side of the border. Other groups and organizations may have other issues they want addressed, and the importance of each may rise and wane over time. In both countries, there are dozens of agencies, utilities, organizations, and coalitions that use the river and its resources and will want to be involved in any management decisions or forums established to address these issues.

A quick glance reveals that many of the U.S. issues are similar to the Canadian issues. The parties can use these shared interests to create value in negotiations. There are also some different issues between the parties, notably the issues of irrigation and navigation in the U.S. The parties may be able to use the differences to create trade-offs that benefit both parties. This is addressed in greater detail later.

5.0 Negotiating the Treaty

5.1 General Principles of Negotiation

Parties negotiate to resolve a dispute. There is an element of conflict between them that they are attempting to resolve; hopefully better than if they proceeded without an agreement. Thus, for each party the basic test of a proposed agreement is whether it offers higher subjective worth than that side's best course of action absent an agreement. This is true in the present case. While international management of the river Basin and Treaty operations have been in place for decades, differences exist between the countries on how the resource should best be managed. Thus, a dispute exists between the parties, which form a basis for negotiation.

It is often important to distinguish parties' underlying interests from the issues under negotiation, on which positions are taken. However, the connection between positions, issues and interests is rarely a simple one. In virtually all cases, an important first analytical step is to probe deeply for interests, distinguish them from issues and positions, and to carefully assess tradeoffs (Sebenius, 1992).

In examining a negotiation, one should analyze each party's perception of its own-and the others' evaluation of their–alternatives to a negotiated agreement (ibid). That is, they must determine their BATNA (Best Alternative to a Negotiated Agreement). Fisher and Ury brought fame to this acronym in their work *Getting to Yes (1981).*[13] The BATNA is important because its value is the negotiator's lower bound for determining the minimum outcome required for a negotiated agreement. We should prefer any negotiated agreement that provides more value to us than our BATNA; likewise we should decline any negotiated agreement that provides less than our BATNA. Reservation points can also be referred to as the party's BATNA (Bazerman, 2006). A key negotiation skill is determining the other parties' reservation point and aim for a resolution that is barely acceptable to the other party.

This assessment logically determines the negotiator's reservation point (or indifference point) – the point at which the negotiator is indifferent between a negotiated agreement and impasse (ibid). In a complex negotiation such as the present case, a monumental challenge will be determining an "alternative", or the "best alternative" to a negotiated agreement, much less determining the proper reservation point. Thus, before issuing any Notice to Terminate, the parties should consider what they will do if they fail to reach an agreement.

[13] "Getting to Yes" articulates a method of principled negotiation that, in a nutshell, focuses on interests, not positions; develops options for mutual gain, uses objective criteria as a measurement, and emphasizes knowing and developing your BATNA. The ideas offered in Getting to Yes are noble and positive, and definitely have merit. When these principles are applied in negotiations, it is likely that a better solution will be generated than in their absence. They are applicable in simple disputes, as well as here. However, complex issues such as the subject at hand require more sophisticated techniques, in addition to the concepts set forth in Getting to Yes.

It is hard to imagine the Treaty will not be renegotiated. There is growing attention on both sides of the border to the upcoming opportunity to re-open the Treaty. The Entities have begun joint technical studies looking at future scenarios regarding the Treaty (2014/2024). The Canadian Columbia River Forum is looking at Treaty issues with stakeholders beyond the Entities. The Northwest Power and Conservation Council is doing similar work on the U.S. side. Even if the parties want to retain the same terms as the current Treaty, they may wish to go through a negotiation process simply to reaffirm the working relationship. There is so much linkage between the countries in managing the watershed that some structured agreement on continued management of the resource seems inevitable. Not just the number of agreements linked to the Treaty, but the daily communications between the Entities over the past several decades leads to this conclusion.

However, renegotiating the Treaty does not guarantee the parties will agree on the optimum terms for future operations. Unless the process and the negotiations are well planned and properly prepared, the parties may reach a sub-optimum agreement. As previously mentioned, a Treaty requires three agreements, and the agreement each party strikes with its members may not be the agreement that is ultimately reached. Considering the resources at stake and the possible shared benefits that can be derived, in order to avoid a stalemate or sub-optimum agreement, one approach the parties should consider is to identify or create positive bargaining zones and use an integrative bargaining approach to create value for both parties. However, before exploring these ideas, it is necessary to provide some additional comments on negotiating characteristics that may be applicable in this Treaty situation.

5.1.1 Some General Characteristics of Negotiations

Raiffa (1982) identifies some important characteristics that should be considered in resolving or negotiating any dispute. The following are several of them that are applicable in this case, and worthy of greater discussion.

Are the parties monolithic?

Often in a dispute each party may comprise of people who are on the same side, but whose values differ, perhaps sharply (ibid). This creates a potential for internal conflict and a challenge in developing and presenting a unified, coherent position.

Raiffa notes, when parties are negotiating treaties, they are not internally monolithic (ibid). While it is presently undetermined what parties will actually negotiate, it is safe to say there likely will be a diversity of values and interests at the table. Certainly issues of flood control and power production will be discussed. Just as likely, revenue generation, conservation, agricultural, recreation, local government concerns, will likely be considered as well. While the members of each party will all be on the same side, it is likely that their values may differ, perhaps sharply. Even if each party negotiating team is limited to a bare minimum, the potential for internal conflict exists. This is not to say successful negotiations cannot occur. This is more than likely the norm, rather than the exception for complex negotiations. However, it is important to be aware of the challenges of internal or external dispute during negotiations. It is a delicate and highly intricate matter to be able to synchronize external and internal negotiations.

In this case neither party is monolithic. Each party will have its own negotiating team, and perhaps a lead negotiator. However, that individual may not necessarily represent as well a defined set of values and objectives as the party seeks to obtain. There are diverse and often conflicting interests amongst the stakeholders for each party, and the negotiators will be hard pressed to project views and positions that satisfy each member of their team.

This issue may be more complex for the United States than British Columbia. While each party has multiple stakeholder interests within their group, British Columbia really has only one sovereign party in its group; the province. While the federal government is a necessary party to Treaty talks, and First Nations and local governments will be involved, the province should be able to speak as the final word for Canada.

In the U.S. however, several states that have an interest in the outcome of the Treaty. Four of these states (Washington, Oregon, Idaho, and Montana) have representatives on the Northwest Power and Conservation Council. The Council has statutory authority to provide advice and recommendations on managing the Columbia Basin watershed. Accordingly, this structure and this authority which should provide these states legitimate seats at the table. However, the interests of each state may differ from the others, and each state has other groups and parties that may have interests that differ from the "official" positions on the Council. The U.S. federal government, through the Secretary of State, will be the primary negotiator for the U.S., and federal issues will play a major role in identifying the U.S. interests and establishing their positions. However, the interests and the roles of the several states with a stake in the process will likely make the U.S. positions difficult to determine, to articulate and to keep consistent over the negotiating period. The parties definitely are not monolithic and they must recognize this and its potential consequences.

Is the game repetitive?

Repetitive negotiations are cases in which the bargainers will bargain frequently together in the future and in which the atmosphere at the conclusion of one bargaining session will carry over to influence the atmosphere at the next bargaining session (ibid). With repetition, the parties may negotiate in a manner designed for long-term benefits, rather than short-term rewards. Thus, the atmosphere may be cooperative and open, rather than simply trying to grab the best deal. This case seems to be repetitive, in that the parties have worked closely together for years prior to any negotiations, and sill be linked closely together after. Additionally, the parties have many other resource management agreements, as well as other trade and cultural exchanges, than lend themselves to a repetitive process. This should be a favorable situation for the parties. However, a risk is, if the parties are tainted by some activity in this negotiation it could carry over to other dealings

between the parties, or conversely, friction between the parties on another agreement could impact these discussions.

Are there linkage effects?

As discussed above, there are other agreements, either directly or indirectly linked to the Treaty. Raiffa suggests that linkage can be used creatively to break impasses in negotiations (ibid). This approach, combined with creating value (discussed below) may be a successful negotiating strategy.

Is there more than one issue?

The presence of more than a single issue complicates negotiations, especially when some the issues are economic, others political, and others cultural. As previously discussed, it becomes increasingly difficult to examine and measure tradeoffs when multiple issues are involved. However, as will be discussed in greater detail below, the presence of multiple issues is an opportunity to create value and generate an agreement that is better than if the parties were negotiating over a single issue. We do not have to treat this as a zero-sum dispute, where what one gains the other loses. The complexity and diversity of the issues can enable the parties to create a better agreement if they recognize this at the outset.

Is an agreement required?

Another important aspect to consider is whether an agreement is necessary? I would submit that the answer is yes. If a Notice of Termination is given and the parties fail to reach an agreement, the Treaty terminates at the end of the period. It does not continue indefinitely until an agreement is reached. Granted, there is a ten year period between termination notice and the effective date, but there is no language in the Treaty to toll or extend this period. It is a lengthy period of time, but it could run out. The failure of the parties to reach an agreement, and negotiations lingering for an extended period would create a certain level of tension and anxiety. An interim agreement would be difficult as it would require the same formalities as the Treaty.

Is ratification required?

Ratification is required because this is a treaty. This is a significant, issue the parties must constantly consider, as the negotiating parties do not have the final say whether their agreement, if reached, will be ratified by their respective governments. As we saw with the initial Treaty, it was agreed to in 1961, but not ratified until 1964, as additional issues had to be resolved. Ratification changes the mix and atmosphere of the negotiations and injects uncertainty into the process. The parties must be prepared for this, and should approach their negotiations with this in mind. A deep reflection on their BATNA, and knowing the absolute minimum terms they can accept is necessary and appropriate before commencing Treaty negotiations.

Are there time constraints or time-related costs?

An argument could be made both ways on this topic. A Notice of Termination must be given 10 years before it becomes effective. From a cursory look, this seems more than an ample time frame to cobble together an agreement. However, when looking at the history of the original agreement, it took over 15 years from the start of the IJC investigations on transboundary management of the Columbia River Basin to reach an agreement on a Treaty, and another three years to ratify it. So 10 years to develop an international agreement for managing a natural resource is not necessarily that long. On the flip side, the difficult decisions of dam siting and reservoir capacity do not need to be revisited, so there should be ample time. From a certainty standpoint, if disputes arise, there are mechanisms in place to resolve them, whether it be the Treaty, which would remain in place for 10 years, or the Boundary Waters Act if the Treaty is terminated.

Are the negotiations public or private?

Another important aspect is whether the Treaty negotiations are public or private. Most parties, including the public and the several stakeholder groups involved, consider the resource at issue, the Columbia River watershed, a public resource. Most of the input and participants that will be involved in setting the stage the stage for negotiations, as well as the negotiations

themselves are public employees, or represent public interests. Arguments raised or positions taken by the negotiating parties at the table, could likely surface during the ratification process. This could have an effect on the negotiation process. The fact that any agreement will need ratification from elected officials highlights the public nature of the issue.

A public announcement of one's position increases one's tendency to escalate nonrationally (Bazerman, citing Staw, 1981). Once the general public becomes aware of the commitment, it will be much more difficult to retreat from the previously announced position. This suggests that escalation can be reduced if negotiators and third parties avoid setting firm public positions. However, implementation of this recommendation runs contrary to everything known about how negotiators behave when they represent constituencies. A firmly set public position is typically perceived as necessary to build constituency support and allegiance. Thus it may be that what is best for the constituency is not necessarily what the constituency rewards (Bazerman).

5.2 Creating Value

5.2.1 Creating Value and Claiming Value

Negotiators are sometimes categorized into one of two camps: value claimers or value creators. Value creators tend to believe that, above all, successful negotiators must be inventive and cooperative enough to devise an agreement that yields considerable gain to each party, relative to no-agreement possibilities (Lax, 1986). The parties create value by finding joint gains (ibid). Sebenius (1992) identifies three distinct classes of factors that are at the core for all possible mutual benefits from cooperation that form the raw material from which negotiators can create value.

First, apart from pure shared interests, negotiators may want the same settlement on some issues, and their mere agreement may be able to produce it. Examples are a continued good relationship, or shared visions.

Second, the presence of economies of scale, or alliances among bargainers can create value. Examples are stakeholders on both sides with similar interests or similar power or influence working together.

Third, though many people seek common ground and worry about the conflict that develops from differences, often these differences can form the basis for creating value. The key is finding the characteristics of the difference that allows it to be converted into mutual gain. In short, negotiated agreements may improve on the alternatives by: (1) cultivating shared interests, (2) exploiting scale economies, and (3) dovetailing differences (ibid).

Value claimers, on the other hand, see negotiation as hard, tough bargaining. The object of negotiation is to convince the other party that he wants what you have to offer more than you want what he has. To "win" at negotiating – and thus make the other party lose – one must start high, concede slowly, exaggerate the value of concessions, conceal information, argue forcefully on behalf of principles that imply favorable settlements, and be willing to outwait the other party. At the heart of this adversarial approach is an image of a negotiation with a winner and a loser: "We are dividing a pie of fixed size and every slice I give you is a slice I do not get; thus I need to claim as much of the value as possible by giving you as little as possible" (ibid).

Both of these images of negotiation are incomplete and inadequate, and there is an essential tension in negotiations between them. Value that is created must still be claimed. If the pie is enlarged by creating value, it must still be divided. One is a cooperative activity; the other is competitive. The essence of effective negotiation involves managing this tension, creating while claiming value (ibid). How to do this under the Treaty is a key to a fair, effective agreement.

Negotiators often fail to reach agreements that create maximum value for both sides. One reason is the fixed-pie assumption, a fundamental, intuitive bias in human judgment that distorts negotiator behavior. When individuals approach negotiations with a fixed-pie mentality, they assume their interests necessarily and directly conflict with the interests of the other side.

Metaphorically, they believe they are both fighting for the biggest piece of the pie (ibid).

Agreements in diplomatic situations are frequently blocked by the assumption that the parties' interests are diametrically opposed. Creative agreements occur when the participants discover tradeoffs across issues – but individuals will not search for these trades if they assume the size of the pie is fixed (Bazerman). Thinking simultaneously about multiple issues is the best way to break the mythical fixed pie and create value in a negotiation (ibid).

A key strategy for the parties to employ is to not let price bulldoze other interests. Four important non-price factors to focus on are the relationship, the social contract, the process and the interests of the full set of players (Sebenius, 2001). Consideration of these factors is worth further review, and how they can be used to create value and develop other interests.

The Relationship. There is a long-standing, well established relationship amongst the parties. The relationship extends beyond the Treaty and the management of this resource. With respect to the Treaty and the Basin, regardless of the outcome, both parties will need to continue working closely with each other in managing the resource. While difficult to ascertain, the value and importance of a friendly professional working relationship should not be understated. Focusing on the specifics of the transaction at the expense of the relationship could have negative consequences for either or both parties. The importance of this relationship should be emphasized

The Social Contract. Going beyond a good working relationship, the social contract governs people's expectations about the nature, extent and duration of the venture, about the process, and about the way unforeseen events will be handled (ibid). Establishing goodwill and negotiating a positive social contract can help secure a negotiated agreement.

The Process. The manner or process in which the agreement is reached may be as important as the terms of the deal. Sustainable results are more often reached when all parties perceive the process as personal, respectful,

straightforward and fair (ibid, *citing* Kim and Mauborgne, 'Fair Process: Managing in the Knowledge Economy," HBR July-August 1997).

The Interests of the Full Set of Players. The importance of this consideration should not be overlooked. Clearly, a few key stakeholders will have primary responsibility for these negotiations. The government representatives with authority to negotiate treaties, as well as the Entities, will clearly be involved. They may dominate the process. However, there will be many stakeholders involved, with diverse interests, which may have the ability to affect ratification, or implementation. The failure to acknowledge and address their concerns could be disruptive, even if a good deal has been struck.

If the parties can include these factors in the negotiations, it should increase the chances for a favorable agreement. This is not saying the parties satisfy these factors at the expense of a good deal. Rather, if the parties set the stage for a cooperative, open negotiation, it is more likely to become one. If the parties can establish the price of the downstream benefits as an important and relevant, but not dominant factor in the negotiations, they may be able to craft trade-offs amongst different issues to better satisfy their interests. A method to achieve this may be by creating value using integrative bargaining.

The value of the downstream benefits is a huge factor on the table. Its annual worth to British Columbia is between $250-300 million. While this is an important issue, focusing primarily, or even exclusively, on this issue (i.e., price) could turn a potentially cooperative process into an adversarial exercise and could leave potential joint gains unrealized. Of course, it is better to strike as good a bargain as one's bargaining position permits. The worst outcome is when, by overreaching greed, no bargain is struck, and a trade that could have been advantageous to both parties does not come off at all (Raiffa, 1982, quoting Benjamin Franklin).

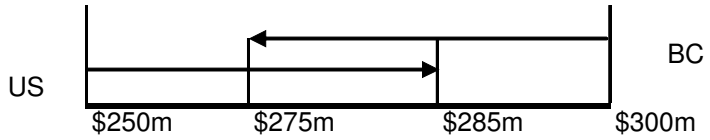
5.2.2 Example of Claiming Value versus Creating Value

A typical scenario of claiming value is when a single issue is in dispute. Any gain by one party is a concession by the other. In the present case, an example of claiming value would be negotiations focused solely on the value of the increased downstream benefits from the Canadian storage. The two parties have directly opposing goals on this issue. British Columbia wants to receive the maximum amount of money for these benefits, while the U.S. wants to pay the minimum. Under this scenario, what one party gains the other party loses.

The parties may find or create a positive or a negative bargaining zone. The bargaining zone concept assumes that each party has a reservation point above (or below) which the negotiator would prefer impasse to settlement.

A positive bargaining zone exists when there is a set of resolutions that both parties would prefer over impasse. Under this scenario, a rational model of negotiation would dictate that the negotiators should reach a settlement.

Figure 4. Positive Bargaining Zone Example (Over Single Issue)



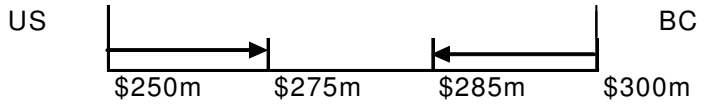
In this case, a positive bargaining zone exists. There is an overlap between the two party's reservation points. All points between $275 million and $285 million are preferred to an impasse.

As a hypothetical, suppose the U.S. offers $250 million annually as the value for the Canadian share of the downstream benefits. British Columbia counteroffers with $300 million. Both sides believe their offers are fair and properly valued, but both parties want to reach an agreement. The U.S., while not offering this, is willing to pay $285 million annually. British Columbia is willing to accept $275 million rather than lose the opportunity for an agreement. When a positive bargaining zone exists, a rational model of negotiation would dictate that the negotiators will reach a settlement (Ibid).

However, the existence of a positive bargaining zone does not mean that the best agreement will be achieved. It does not even guarantee an agreement will be reached. In the hypothetical, if the U.S. holds back below $275 million, or British Columbia sticks above $285 million, the parties may arrive at an impasse, even though there was a possible agreement within the positive bargaining zone.

Even if a bargain is struck, it may not be the optimum under this scenario. If the U.S. can convince British Columbia to accept $276 million, an amount within its reservation point, the U.S. would minimize its costs. Similarly, if British Columbia can instead convince the U.S. to pay $284 million, the U.S. will accept the deal. Either way, an agreement has been struck, but it may not be the optimum. It is a zero-sum game; the gain for one party is a loss for the other. This is an example of claiming value.

Figure 5. Negative Bargaining Zone Example (Over Single Issue)



In this case, the parties would prefer impasse to agreement. In a multi-issue negotiation, a negative bargaining zone on a major issue could be a deal breaker unless the parties have a willingness and strategy to move past it.

If this was a single issue negotiation, i.e., the value of the downstream benefits (one could argue that was the setting for the initial discussions on the Treaty; valuation of downstream benefits plus value of flood control), the parties might be in a zero-sum game. If one party receives a higher price for the value of the benefits, the other party pays more. The parties will likely each have a reservation price for the value of these services, and if this is the sole or even major issue for discussion, and it dominates the negotiations, it has the potential to leave other gains on the table, not to be explored or realized, or worse, to halt the process, or create an atmosphere where no agreement can be reached.

5.3 Using Integrative Bargaining to Create Value

However, the complexity of the issues over the resources of the Basin beyond the current scope of the Treaty offers an opportunity for integrative bargaining. In integrative bargaining, there are many values and interests at play in the negotiation, from both sides. In some areas there are common grounds or parallel interests. In other areas there may be large differences. Through an integrative bargaining approach, the parties may be able to build on both these common areas and the differences to develop gains for both parties.

In integrative bargaining, the several issues or interests of the parties are considered together. They can be addressed all at once, or they can be addressed in sequence. The important thing is that the parties have multiple interests, can determine and are aware which ones are more important to them, and can find the ability to trade off less important interests for more important ones. In complex negotiations where several issues may be in dispute, an agreement may be crafted by trading off issues with different degrees of importance to each party (Bazerman).

In the single issue dispute over the value of downstream benefits used above, the parties may or may not reach agreement, depending on their respective reservation points, and whether they can find an acceptable value. Even then, it may not be the best alternative available. However, if they expand their discussions to include their other common interests, as well as differences, as previously discussed, they may be able to create value in the negotiations. A positive bargaining zone may be realized by considering and incorporating each other's interests, not just stated positions (ibid).

Table 1 incorporates the issues raised by British Columbia and the United States on Basin management previously listed and applies them to Sebenius' three factors that can form the core for creating mutual benefits. As we can see, most of the issues reflect shared interests on both sides of the border.

The parties may want the same settlement on these issues, and this may be enough to reach agreement.

Table 1. Issues over Columbia River Basin Management

Shared Interests	Economies of Scale/ Alliances	Differences
Flood Control	Entities	Navigation
Power	Entities	Irrigation
Fish/Habitat	CBT/NWPCC/others	Climate Change
First Nations/Cultural	CBT/NWPCC/others	
Water Quality	CBT/NWPCC/others	
Recreation	other stakeholders	

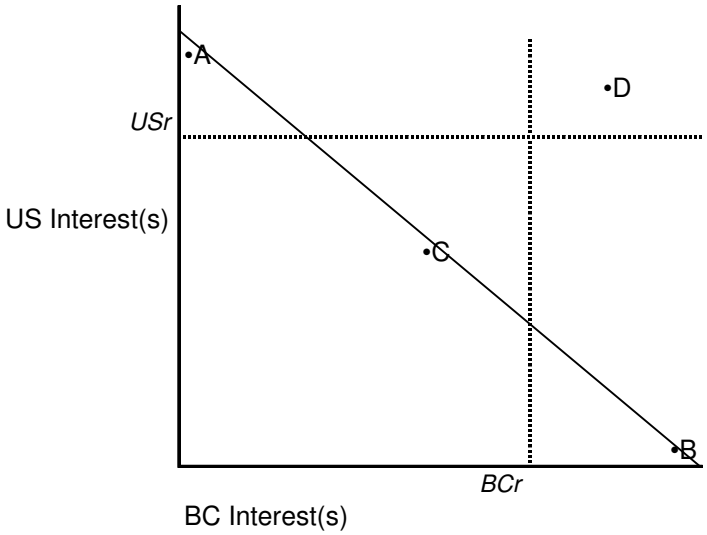
Regarding the economies of scale and/or alliances, stakeholders on both sides may be able to work together to forge agreement on their issues. The example above is a very simplistic grouping of the stakeholders and their allliances, and the lines between the groups are obviously not as clear. However, certain stakeholders should be able to form strategic alliances that help create value for reaching agreement on important issues.

Finally, the list of differences identifies some areas for trade-offs. Again, this list is generated from the issues listed above, is not well articulated, and may not accurately reflect the actual differences or the scale of them, between the parties. However, there will be some differences when the parties negotiate, and if they are creative, the may be able to use the differences to craft a better agreement.

For instance, stakeholders on both sides are interested in protecting fish habitat, water quality issues, and recreational use of the Basin. Bundling these issues into the discussions on the value of power production and flood control, may allow the parties to make gains on the issues more important to their stakeholders, while conceding value on other issues. Bundling does not necessarily mean the issues all have to be considered at once. They can be sequential. What is more important is that they somehow be linked and build off each other.

Figure 6 (below) uses the example of the downstream benefits and the fisheries issues, to explain how creating value and using integrative bargaining can allow the parties to negotiate a better agreement. Point A is the U.S. position on the value of the downstream benefits. They want the lowest value so that they pay the least. Conversely, Point B is B.C.'s position; they want the highest value. Point C represents a straight compromise, within the positive bargaining zone. *USr* and *BCr* reflect each party's reservation point.

Figure 6. Integrating Interests to Improve the Agreement Possibilities



However, using integrative bargaining the parties may be able to create value, either through their shared interests or from tradeoffs related to their differences. They may be able to achieve a solution somewhere in the area of D. It may be beyond their initial reservation point for the single issue of price, or could fall short of it. Regardless of the exact point of agreement, successful use of this strategy allows for an agreement beyond the compromise point on the single issue.

Going a little deeper however, we find the fisheries issue has several layers of complexity to it. For example, both countries are concerned on fish habitat for sturgeon, with pressure coming from their respective governments,

amongst other stakeholders. The Entities, we recall, addressed this issue with some success within the operating confines of the Treaty. On this issue, the parties have shared visions, as well as similar interests on this issue. The timing of reservoir releases to accommodate sturgeon may affect potential power production. This is a tradeoff, but the shared interests of the parties on this issue, as well as furthering a good working relationship may create enough value, that the parties can reach an effective and fair agreement.

However, salmon restoration is a fisheries issue that poses different challenges. Restoration efforts may pose constraints not only on power production, but may also impact recreation, navigation and irrigation activities in the U.S. Changing the timing of storage releases will not effectively restore salmon populations. Creating and claiming value in this scenario may be quite different that other fisheries or habitat issues. This issue could also reflect differently in regard to the fundamental objectives involved. Salmon restoration reflects First Nations and aboriginal values, as well as fish habitat and recreation interests. This may be an area where dovetailing differences could be effective in creating value. Perhaps easier said than done.

5.4 Factors that Favor Successful Negotiations

While there are many uncertainties the parties will face if they reopen the Treaty, several factors favor successful negotiations by the parties. One is openness. There is a history of dialogue between the parties, and particularly on these issues that will arise. There is a long operating history under the Treaty. The Treaty requires, and the parties have developed mechanisms for reporting, consultation, and dispute resolution. There is a common understanding between the parties.

A second factor is the shared resource at issue. Both countries benefit from the resources provided by the Columbia River watershed. It is in each party's interest to maximize these benefits. The initial Treaty, with its mutual gains concerning flood control and power generation, demonstrates the parties can be successful through a cooperative approach.

There are predecessor documents in place. The Treaty itself serves as a template for how to proceed with further negotiations. The Boundary Waters Treaty, as well as the prior works of the IJC provide sources of stability and framework for how to proceed. Additionally, the several agreements that have been consummated after the Treaty, and rely on the Treaty, in some form or another, provide models and frameworks for the parties to use

While there are potentially several difficult issues that could arise in future Treaty talks, a couple of the issues present at the original negotiations are no longer issues. This is the siting of the dams and the reservoir capacities. While there may always be discussions whether the dams were properly sited, or how large the reservoirs should be, those issues are resolved. The dams and reservoirs are in place. Operating issues may arise concerning them, but the key issues of infrastructure are no longer present.

Finally, the similar culture and negotiating styles of the parties should be a benefit to forging an agreement. Differences in culture can contribute to confusion and misunderstanding in cross-border negotiations (Sebenius, 2002). In this case, the parties are neighbors, share a common language and many similar negotiating traits, and have a long history of reaching agreement on many issues. While some challenges of cross border negotiations will be present is this case, should not be as imposing as other international negotiations might be.

5.5 Factors that Hinder Successful Negotiations

While there are many factors that favor successful negotiations, there are some obstacles for which the parties should brace themselves.

This is an international issue. Negotiating a treaty is not the same as developing a water use plan or approving a complex domestic resource development project. Ratification creates a large degree of uncertainty for each party knowing the deal they strike may not be ultimately accepted. The parties must constantly remember this as a real obstacle to reaching a deal.

Closely related to this is the necessity to understand any cultural differences between the parties. While both parties are western democracies, neighbours, and have a history of joint management of the resource in question, there are some subtle differences in their processes and customs that, if overlooked or not addressed, could jeopardize, or at least protract, the negotiation process. Sebenius (2002) suggests that for international negotiations, at a minimum the parties map the players and the process, so they know who the extra players are, what their roles are and who owns the decision, and what the informal influences are that can make or break a deal, and adapt your approach to address these cultural differences. In this setting the risks may be reduced, based on the long working relationship of the parties. Nonetheless, these risks are real, they can complicate the process, and the parties should be prepared to recognize and address them.

Will the parties focus on the specifics or the overall deal? The original Treaty is very technical and specific. It defined the number of dams to built, the specifications and deadlines for construction, the amount of reservoir storage to be created, and was specific in the prices and values to be accorded. The Protocol was adopted in part to address some of the specifics in implementation. It appears it made sense to be so specific at the time, and there is little argument from the actors about the approach.

However, the issues at the time were flood control and power generation. Both subjects lend themselves to specifics and quantification. The issues surrounding the watershed are now more complex and not as easily quantified. The interests have grown, the issues are more complex, and there are more players involved. North American negotiators tend to seek agreement on specifics first, building up towards an overall deal (ibid). However, with such diverse interests, positions and issues involved this time, it may be more difficult to structure a comprehensive deal in this fashion. The process could result in piecemeal negotiations with the parties hoping to cobble together a reasonably acceptable agreement. An alternate approach may be attempting

to initially focus on some broad principles that form the basis to structure an overall deal that encompasses the key interests and values of each party.

Finally, the success of the Treaty and the close working relationship of the entities could hinder Treaty negotiations. There may be a reluctance to bring change and uncertainty into the equation. Despite its criticisms, the Treaty works quite well. It provides certainty in flood control and power production. The power is part of the economic engine of the region. The Province receives a substantial amount of reliable revenue from its downstream benefits. Any perceived threats to this may be viewed skeptically.

In this vein, the influence the Entities will have in any negotiations will likely be significant. They will have over a half century of the technical expertise in implementing the Treaty to bring to the table. They will have stacks of reports and experts available to address the scientific and technical issues that develop. Their views on how issues may impact operations may be quite persuasive, and they may have the ability to simply impose their views. However, their experience, their values, and their mandates, lean heavily toward power and flood control issues. Their issues are easy to quantify, and they can provide stacks of reports, projections, and analysis on power and flood data. They may be very dominant and successful in structuring the negotiations and influencing the results.

However, there is good reason to believe that Treaty negotiations will at least address, if not incorporate, other interests and values besides flood control and power generation. There is widespread support and awareness of the other interests at play. The organizations and stakeholders that hold these views are legitimate and accepted. Some of the interests are established or mandated in legislation and are advocated by government agencies. The Entities themselves are in discussions and committed to forums that are exploring and advocating for addressing their interests. So, the political and social will of including this wide range of interests exists. The key will be structuring a process to capture them and incorporate them into an agreement. An approach that begins with value-focused thinking and structured decision-

making, and a negotiation process that works to create value with integrative bargaining may be a successful path.

6.0 Conclusions and Recommendations

The Columbia River Treaty has been a very successful agreement for providing flood control and enhanced hydro-electric power production in the river basin. However, these benefits have come with environmental, cultural, and social costs that were not well understood or anticipated at the time, and the Treaty has demonstrated shortcomings in its ability to adequately and creatively address these concerns. There is considerable and growing interest on both sides of the border to see these interests addressed. The termination provisions of the Treaty provide an opportunity for this in the not too distant future.

It is hard to imagine that the Treaty will not be renegotiated. There is enough attention raised to the opportunity by stakeholders in the Basin as well as the Treaty Entities that it is almost a given that a negotiated agreement will be pursued. Likewise, it is difficult to envision that it will be terminated with no agreement to replace it. The parties will strike an agreement; the issue will be not just whether it is a good agreement, but rather is it as good of an agreement as was possible, and was the process fair and open, and allowed for the diverse interests and values over the Basin's resources to be considered?

The Treaty focuses almost exclusively on flood control and power production. Flood control as necessary, but power production on a daily basis. The power production is an economic giant in British Columbia and the western United States. It is the area of expertise of the Treaty Entities, and it has the potential to dominate negotiations on a new Treaty.

However, if the parties allow the negotiations to focus primarily on the economic and financial issues related to power production, they may miss the opportunity to reach the best agreement that is available. Single issue negotiations can result in a process of positional bargaining, where if one party

wins the other party loses. Such a narrow approach for such a great opportunity on such a large and important public resource could have negative consequences on the relationship between the parties, as well as between the parties and their stakeholders.

To increase the chances of reaching the best agreement possible, the parties should use value-focused thinking to establish a fundamental set of objectives. If they can successfully accomplish this, they have a strong foundation for identifying their interests, creating and comparing alternatives, and weighing tradeoffs. As they begin negotiate over issues, they will be able to place their issues in proper perspective with their interests.

The parties can use integrative bargaining to create value in their negotiations, to arrive at a better agreement. Where they have similar issues, stakeholders can use their shared interests to work cooperatively and persuasively to reach agreements on these issues. Where there are differences, the parties can use them to find trade-offs that are acceptable. Hard choices and difficult decisions will still be necessary. For an agreement of this nature, certainty in terms is required, and claiming value at some point on the issues will have to occur. However, if the parties can successfully create value through integrative bargaining, the pie may be bigger, or the vision a little brighter, making the hard choices that must be made a little less difficult.

I am not saying this will be easy. It will likely be a long, complex, and difficult set of negotiations, first within each country and then between the two. However, if the parties address it well from the outset, incorporating some of the ideas set forth above, they stand a much better chance of reaching a quality agreement that satisfies the parties and their stakeholders.

7.0 References

Bankes, N. (2001). *The Columbia Basin and the Columbia River Treaty: Canadian Perspectives in the 1990's.* Northwest Water Law and Policy Project. http://www.law.ucalgary.ca/files/law/Columbia%20River%20Treaty%20Lewis%20&%20Clark%20paper%20Bankes9504-1.pdf

Bazerman, Max H. (2006). *Judgment in Managerial Decision Making.* Sixth Edition. John Wiley & Sons, Inc. New Jersey.

Bonneville Power Administration. (January 8, 2003). *Columbia River Treaty Summary.* Bonneville Power Administration - DOE

Bonneville Power Administration and U.S. Army Corps of Engineers (April 2008). *Columbia River Treaty, History and 2014/2024 Review.* Retrieved August 18, 2008 from: http://www.bpa.gov/corporate/pubs/Columbia_River_Treaty_Review_-_April_2008.pdf

Canada and United States Entities. *2007 Annual Report of the Columbia River Treaty.*

Canadian Columbia River Forum. (November 2006). *Background Paper.* Retrieved June 18, 2008 from: http://www.cbt.org/files/CCRFbackgroundpaperfinal.pdf

——————— (February 14, 2007) *Memorandum of Understanding.* Retrieved June 18, 2008 from: http://www.cbt.org/Files/CCRFMOUEng.pdf

Columbia Basin Trust (2008). Retrieved November 3, 2008 from: http://www.cbt.org/About_Us/

Columbia River Treaty Protocol and Related Documents. (1964). Departments of External Affairs and Northern Affairs and National Resources. Queen's Printer and Controller of Stationery, Ottawa, Canada.

Federal Columbia River Power System. (April 2001). *The Columbia River System Inside Story, Second Edition.* Bonneville Power Administration, U.S. Army Corp of Engineers, U.S. Bureau of Reclamation.

Fisher, R. and Ury, W. (1991). *Getting to Yes, Negotiating Agreement Without Giving In.* Penguin Books, New York.

Hammond, J.S., Keeney, R.L., and Raiffa, H. (1999). *Smart Choices*. Harvard University Press, Cambridge, Massachusetts.

Johnson, L.B. (1964). Executive Order No. 11177, *Providing for Certain Arrangements Under the Columbia River Treaty*. September 19, 1964.

Keeney, R.L. (1992). *Value-Focused Thinking: A Path to Creative Decisionmaking*. Harvard University Press, Cambridge, Massachusetts.

Keeney, R.L. and Raiffa, H. (1976). *Decisions with Multiple Objectives: Preferences and Value Tradeoffs*. John Wiley & Sons New York.

Krutilla, J.V. (1967). *The Columbia River Treaty, The Economics of an International River Basin Development*. Johns Hopkins Press, Baltimore, Maryland.

Lax, D.A. and Sebenius, J.K. (1986). *The Manager as Negotiator*. The Free Press, a Division of Macmillan, Inc. New York.

McDonald, J.D. (1993). *Storm Over High Arrow, the Columbia River Treaty (A History)*. Hall Printing, Trail, British Columbia.

Ministry of Finance, Province of British Columbia, Budget and Fiscal Plan 2008/09 – 2010/11. February 19, 2008. http://www.bcbudget.gov.bc.ca/2008/bfp/2008_Budget_Fiscal_Plan.pdf

Muckleston, K.W. (2003). *International Management in the Columbia River System*. UNESCO-IHP, Paris, France. http://unesdoc.unesco.org/images/0013/001332/133292e.pdf

Raiffa, H. (1982). *The Art and Science of Negotiation*. Harvard University Press. Cambridge, Massachusetts.

U.S. Entity. Record of Decision, Libby Coordination Agreement. 15 February 2000. http://www.bpa.gov/corporate/pubs/rods/2000/Libby_Coordination_Agreement.pdf

Sebenius, J.K. (1992). *Negotiation Analysis: A Characterization and Review*. Management Science, Vol. 38, No. 1, pp. 18-38.

——————— (April 2001). *Six Habits of Merely Effective Negotiators*. Harvard Business Review. pp. 87-95

——————— (March 2002). *The Hidden Challenge of Cross-Border Negotiations*. Harvard Business Review. pp. 4-12.

Swainson, N.A. (1979). *Conflict over the Columbia, The Canadian Background to an Historic Treaty*. McGill-Queen's University Press, Montreal.

Treaty Between Canada And The United States Relating To Cooperative Development Of The Water Resources Of The Columbia River Basin (with Annexes). Signed January 17, 1961. Instruments of Ratification Exchanged September 16, 1964. Entered into Force September 16, 1964. Departments of External Affairs and Northern Affairs and National Resources. Queen's Printer and Controller of Stationery, Ottawa, Canada.

U.S. Army Corps of Engineers. *The Northwest's Great Storms and Floods of November 1995 and February 1996*. Northwest Division, Pacific Region,, Engineering and Technology Directorate, Waste Management Division, Hydrologic Engineering Branch, Portland, Oregon.

Waterfield, D. (1970). *Continental Waterboy; the Columbia River Controversy*. Clarke, Irwin and Company Limited, Toronto/Vancouver.

———— (1973). *Land Grab: One Man Versus the Authority*. Clarke, Irwin and Company Limited, Toronto/Vancouver.