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The United States Wants a New Columbia River Treaty, What Should Canada Do?

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Documents commented on: (1) [The Columbia River Treaty and Protocol, 1964](#) and (2) Columbia River Treaty Review, Draft Regional Recommendation, September 20, 2013 available [here](#)

Interesting times lie ahead for the Columbia River Treaty (CRT) of 1964 between Canada and the United States. The CRT provides for the cooperative development of the upper Columbia River and the Kootenay River for two purposes, flood control and power. Under the terms of the treaty Canada agreed to build and operate three dams: Duncan, Mica and Arrow/Keenleyside. The treaty also authorized the United States to construct Libby dam on the Kootenay River in the United States. Libby dam created Lake Koocanusa (Kootenay/Canada/USA) which backs up into British Columbia (hence the need for treaty authorization). In return for all of this, Canada received a \$64 million dollar lump sum payment for the first sixty years of flood control offered by the Canadian dams, and 50% of the incremental power and capacity made available at US mainstem dams as a result of the new storage. The mainstem dams are existing dams on the Columbia, some owned by the US federal government (e.g. Grand Coulee and Chief Joseph), and some owned by public utility districts (e.g. Wells, Rocky Reach, Rock Island, Wanapum and Priest Rapids). The Canadian storage improved the efficiency of these dams by firming up capacity (i.e. providing stored water when installed generation would otherwise be running at less than full capacity) and storing water when the same dams might otherwise be spilling water. These power benefits currently have an average annual value of about \$202 million. Canada/British Columbia also receives other benefits from the treaty facilities including local flood control (for communities like Trail and Castlegar) and on site generation at Mica, Revelstoke (not a treaty dam, but a facility which benefits from the regulation provided by Mica) and Keenleyside. For maps of the basin and dam locations and more information about the treaty see the website of the Columbia Basin Trust [here](#).

The treaty has no fixed termination date but either party may terminate the power benefits provisions of the treaty by giving ten years notice to terminate beginning in 2014. Notice to terminate will not affect the flood control provisions of the treaty but the flood control provisions change automatically in 2024 (regardless of what the parties do with respect to the power provisions). There is no agreed interpretation of the scope of the flood control provisions that will kick-in in 2024 (for detailed analysis see Bankes, "The Flood Control Regime of the Columbia River Treaty: Before and After 2024" (2012) 2 Washington Journal of Environmental Law and Policy 1-74 (available [here](#))) but it is clear that they offer less protection, and less certain protection, to downstream interests in the United States than the provisions which are in place until 2024.

It is important to recognize the implications of the separate and asymmetrical manner in which the treaty deals with termination in relation to power and flood control. Since Canada cannot terminate its changed flood control obligations it has little interest in terminating the power provisions of the treaty from which it receives benefits. It would prefer to continue to receive those benefits indefinitely. By the same token, since the United States can relieve itself of its obligation to share the power benefits associated with upstream storage without prejudicing its post-2024 changed flood control entitlement, it follows that the US has a considerable incentive to terminate those power provisions as soon as possible (unless of course the US concludes that continuing the prescribed power operation delivers not only power benefits but also flood control benefits that might justify continuing to share the incremental energy and capacity with Canada).

Both the United States and Canada (British Columbia) have put in place processes to inform what course of action each should take in 2014 and beyond. The US process (informed by the “Sovereign Review Team” comprised of affected states, federal entities and the tribes) is described [here](#). That process contemplates the draft regional recommendation that has just been released which is to be followed by a final recommendation to the State Department by the end of the year on a proposed course of action. British Columbia’s process is described [here](#).

This post examines the Draft Regional Recommendation published by the Army Corps of Engineers and the Bonneville Power Administration (collectively the US Entity under the CRT) on September 20, 2013. “Entity” is the term that the treaty gives to the parties actually responsible for the day-to-day implementation of the treaty. BC Hydro is the principal Canadian entity. The post then offers some thoughts on possible responses from Canada to this US position on the assumption that the State Department will end up confirming a version of a future vision for the treaty that looks much like this draft regional proposal.

THE DRAFT REGIONAL RECOMMENDATION

As noted above, the treaty itself contains only two options: continue the entire treaty (which requires no action) or terminate the power provisions of the treaty. The flood control provisions change automatically.

The Draft Regional Recommendation effectively rejects this binary view of the future and instead paints a radically different vision of a new Columbia River Treaty which will better serve downstream interests and ecosystem function in the lower basin than does the current treaty (at least as it will change in 2024). The Draft Regional Recommendations contain three main ideas. The first is that the post-2024 legal regime for the Columbia River needs to add improved ecosystem function to the values of flood control (now, in the argot of the Army Corps of Engineers, flood risk management) and power that animated the original treaty. Second, the Draft recommends that the power provisions of the treaty should be amended to ensure that the US only shares with Canada the actual benefits that accrue to the US as a result of coordinated power operations. At the present time, benefits are shared with Canada on the assumption that US mainstem facilities are actually operated to optimize generation when in fact the operation of these facilities is constrained by orders issued under the US *Endangered Species Act*, 16 USC 1531. Third, the Draft recommends that the post-2024 should offer the same level of flood risk management as the current regime.

In order to achieve these objectives the Draft recommends that the “the United States government make a decision by mid-2014 to proceed with a renegotiation of the Treaty with Canada in order to modernize the Treaty by incorporating the objectives in this regional

recommendation. Further, the region recommends the United States government seek to complete that effort by no later than 2015.”

While some parts of the Draft are carefully couched in terms of mutual and reciprocal benefits (e.g. at 4: “A modernized Treaty should recognize and minimize adverse effects to Tribal, First Nations and other cultural resources in Canada and the United States”), much is written in unilateral terms. For example, the detailed flood risk management provisions of the Draft contemplate (at 5 – 6) that “The United States and Canada should establish a common understanding of the methods and procedures for post-2024 ‘called upon’ flood control, but only on the basis of the United States Entity White Paper: Columbia River Post-2024 Flood Risk Management Procedure, September 2011 (an annotated version of the paper is available [here](#)). In other words, let’s have an agreement but only on the basis of our interpretation of what the treaty text says about the post-2024 flood control rules. Equally remarkable and unilateral is the proposal that the scope of US influence over upstream management of Canadian dams and reservoirs should be expanded post-2024. Thus, one of eight “key principles” (# 5) of the Draft is that “The United States and Canada should integrate both Treaty and Canadian non-Treaty storage into the Treaty to increase the flexibility to, and benefits of, meeting ecosystem-based function, power, flood risk management and other authorized water management purposes in both countries.” Under the current arrangements the CRT rules only apply to certain amounts of designated storage at the three Canadian treaty facilities. Other facilities and the non-treaty storage at Mica are not subject to the treaty (except in the case of a flood control emergency – the current incremental on-call flood control operation which has never been triggered). Principle # 5 suggests that the US is interested in greater rather than less control of storage in Canada post-2024. But note that there is no suggestion that US facilities such as Libby or Grand Coulee be brought more explicitly under the terms of the new treaty.

SOME POSSIBLE RESPONSES

If we assume that the State Department ultimately confirms the policy position embedded in the regional recommendation, what are some possible responses? In reflecting on this question we should recognize that the province and the federal government (Canada) may have different views as to how to proceed. The relations between the two governments are governed in part by two federal-provincial agreements of 1963 and 1964 (for the text of those agreements see [here](#) (at p 103 and 107)). As a matter of law, the federal government takes the lead on treaty negotiations; as a matter of practice, most of the necessary expertise to appreciate the trade-offs associated with these negotiations lies with the province and the Canadian operating “entity” BC Hydro.

1. The US position on sharing the power benefits associated with Canadian storage

Given the asymmetry of the termination provisions of the treaty, Canada’s position on the power benefits is weak. As a matter of international law, the United States is free to terminate these provisions as of 2024 by giving notice in 2014. British Columbia has tried to make the case for continuing the power benefits of the treaty but it is clearly an uphill battle. For some elements of BC’s arguments see [here](#).

If the US does terminate the power benefits of the treaty, Canadian storage will no longer be under the day-by-day, week-by-week control of the treaty. BC Hydro will be free to operate that storage as it sees fit to maximize benefits for British Columbia, subject only to the constraints of domestic law such as the federal *Fisheries Act*, RSC 1985, c. F-14 and the provincial *Water Act*,

RSBC 1996, c. 483 (including any current or future water use plan). This may mean, for example, that BC Hydro elects to keep Arrow Lakes high in order to maximize generation at the Keenleyside dam. This might in turn cause the US to draw down Grand Coulee to provide replacement flood protection which would reduce generation at that site (lower head = less energy produced) and increase pumping costs for irrigators in the United States. But whatever Canada's preferred operation the key point is that what the US loses if it terminates the power provisions of the treaty is predictability in downstream flows.

In addition, or alternatively, it may be possible for BC Hydro and the operators of US mainstem dams to reach ad hoc commercial agreements in the future on the coordination of Canadian releases pursuant to which the parties may agree to share the benefits of those coordinated operations. These arrangements would fall outside the treaty and be subject to ordinary commercial law. They would likely be modeled on the existing non-treaty storage agreements (NTSA) (as to which see [here](#)). The province has poured cold water on this idea suggesting that such an arrangement would be difficult to negotiate. But difficult is a relative term and a short term commercial agreement or a series of such agreements looks a lot more achievable than a global (re-)negotiation that brings in a whole new set of variables (ecosystem benefits). But such short-term commercial arrangements will not fully compensate for the predictability offered by an assured operation and in particular will be unlikely to help on the flood control side of things or in providing firm capacity in critical low flow years.

In sum, the treaty allows the US to terminate the power provisions of the treaty but in doing so the US loses predictability and increases its risk level. The US will want to maintain some level of predictability but at a lower cost (sharing actual benefits rather than larger hypothetical benefits). There is likely some room to reach a middle ground on this point.

While the above discussion of the termination of the power provisions speaks to the position as a matter of treaty law (international law), a decision to give notice to terminate the power provisions of the treaty may also raise complex question of US domestic law. I will leave it to others to explore these issues with more authority but it seems possible that a decision to terminate may require US agencies to prepare biological opinions under the *Endangered Species Act* (ESA) and/or an environmental assessment under *National Environmental Policy Act*, 42 USC 4321 (NEPA) before any such notice to terminate can be finalized. If this is correct the United States will not be in a position to issue a termination notice any time soon. This may weaken the US' bargaining position.

2. The US position on flood control

Canada's response to the US position on post-2024 flood control is much stronger than Canada's position on power benefits. The flood control operation changes automatically in 2024 and while the details are contentious the overall result is not: the post-2024 is less favourable to the US. Consequently, when the regional Draft recommendation suggests that the region should seek to obtain a flood control regime that is as effective as the current regime then the question becomes what might Canada seek in return?

One possibility is that Canada might adopt the US position on sharing the benefits of incremental power associated with the storage operation. That position is a "with and without you" position i.e. here's what we generate without coordination and here's what we can generate with coordination (and we'll share those incremental benefits according to some agreed formula, perhaps the current 50:50 sharing or perhaps some other formula). In the context of post-2024

flood control the approach translates as follows: here's the flood related damage that we avoid by using practically and legally available US storage plus a called-upon operation (the default position under the treaty post-2024) and here is the incremental damage that we avoid by negotiating an assured Canadian storage operation. And then, once again, there must be further agreement on the sharing of that incremental benefit. Thus, under this scheme there might be two types of payments to Canada. The first would be full indemnification for the costs and foregone benefits associated with the called-upon operation; the second payment would be based on sharing the benefit (the incremental avoided flood damage) associated with any negotiated post-2024 assured flood control operation. A more aggressive Canadian negotiating position might be to also seek a "share-the-benefits" payment for the called upon operation, but that is not what the treaty currently provides for post-2024.

This "sharing the benefits" approach informs the pre-2024 flood control regime but it disappears from the post-2024 regime. The argument here is that if the US seeks a post-2024 arrangement on flood control that is just as effective as the current arrangement then it should compensate Canada on a similar basis. Canada should be open to negotiations along these lines i.e. agree to provide some measure of assured protection in return for a share of the benefits/avoided costs.

3. The US position on ecosystem function

I am guessing that the gut reaction of most people will be that of course we should build ecosystem function into the treaty. The treaty was negotiated in the bad old days of the 1960s when we didn't understand these things, but times have changed and now we take ecosystem values seriously.

But hold on a minute. This is hardly a pristine ecosystem. This is an ecosystem that has been seriously compromised by the construction of many dams on the mainstem of the Columbia. Perhaps the most damaging of those dams is Grand Coulee, immediately downstream of the border in the United States. It is that dam (authorized and built long before the CRT) which cuts off the escapement of salmon and steelhead to the entire upper Columbia Basin in Canada, including Columbia and Windermere Lakes. That dam is not authorized by the Columbia River Treaty.

While we can all celebrate the idea that salmon may one day be restored to the upper Columbia we may need to temper that ambition and think more modestly and from Canada's perspective about ecosystem function upstream of Grand Coulee in terms of resident rather than anadromous fish populations. ("Anadromous fish populations" refers to species of fish born in fresh water the young of which migrate to the ocean where they spend most of their adult lives before returning to their natal streams to spawn. Dams constructed without fish passages, such as Grand Coulee, preclude returns to natal streams and make sub-populations extinct. The anadromous fish at issue here include the various species of Pacific Salmon (chinook, coho etc) and steelhead trout). The implications of this are profound in terms of possible arrangements with the United States for two related reasons. First, if, as the upstream state, we focus on resident fish populations upstream of Grand Coulee then we manage flows principally for those and other important domestic purposes (e.g. bird habitat, recreational interests as well as local flood and power generation at Canadian dams) rather than to provide downstream flows for anadromous fish. Second, as the upstream state we will be in a better position to manage for the above interests outside the terms of the treaty rather than within. In other words, there is little incentive for Canada to want to insert ecosystem function as a new value within the treaty. It can meet these

interests regardless of a treaty; a treaty will likely make it more difficult to meet these interests since a treaty will constrain Canada's liberty to operate its storage as it sees fit.

This suggests that Canada's position in relation to ecosystem values in relation to the basin as a whole might look more like Canada's position on flood control than it does on the power side. In a nutshell, the current treaty says nothing about ecosystem function. Grand Coulee currently severs the Columbia River ecosystem. For so long as that barrier remains in place it is disingenuous to talk about a shared ecosystem and if there is no shared ecosystem then the "with and without you model" may also be applicable. It might work this way: here are the opportunities that the United States has to enhance ecosystem function in the downstream part of the basin without a coordinated operation of Canadian storage, and here are the enhanced opportunities that might be possible with a coordinated operation. Further agreement would be required on how that enhanced benefit would be shared (or paid for). Such discussions would likely be very complex since they might require monetization of the benefits and in some cases coordinated operation might also produce offsetting ecosystem benefits in Canada which would have to be factored into any sharing formula.

One way to simplify the discussions might be to build on current practices under the treaty rather than the more ideological position that the treaty text has to be amended to specifically address ecosystem function. What do I mean by that? Simply that while it is true that the current treaty text does not mandate operations for ecological purposes, neither does it preclude operations for such purposes. And indeed it is well known that the two entities have for decades negotiated detailed operating agreements and supplementary operating agreements which do in fact provide flows to benefit anadromous fish and resident fish and for a variety of other purposes. The entities make these agreements when each perceives a benefit (again a with and without you calculation measured against the default assured operation, but one in which there is no further sharing of costs and benefits). While such operations and flows are not assured in advance, the practice suggests that even as written the treaty does offer a mechanism that permits ecosystem function to be taken into account. The non-treaty storage agreements provide additional flexibility. It may be better to build on those flexibility procedures rather than engaging in radical restructuring of the treaty and making yet more storage subject to the prescriptive terms of the treaty.

4. The implications of upping the level of ambition

To adopt a phrase that is common in climate change negotiations (although never applied to the domestic policies of either the US or Canada) the level of ambition displayed in the Draft is remarkably high. While the original negotiations for the treaty took many years even though those negotiations were confined to two sets of values which generally worked harmoniously (flood control and power), the US regional proposal is that the negotiations should expand to include ecosystem function and to subject all Canadian storage to the terms of the new treaty. We can therefore reasonably anticipate that the proposed negotiations will be even more time consuming than the original negotiations, and may be far too complex to succeed. Failure is a realistic possibility. Risk of failure may lead some interests in the US to want to simultaneously provide a notice of termination of the power provisions so that negotiations occur in the shadow of that threat; offsetting that risk is the reality that the US domestic law considerations alluded to above (NEPA and ESA) may make it difficult to pursue such a risky approach, and that may redound to Canada's benefit.

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