

Appendix A
Columbia River Treaty Virtual Town Hall
QUESTIONS AND ANSWERS
February 24, 2021

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Introduction

This document includes a list of the questions received before and during the Columbia River Treaty Virtual Town Hall on February 24, 2021. Some questions were answered by panelists during the session and, due to time constraints, others were not. The presenters deeply appreciate the level of interest and thoughtfulness exhibited by all who submitted questions and have provided answers to each of them below. If you do not see the issue you raised addressed, please let us know.

Further questions or comments can be sent to the B.C. CRT Team at columbiarivertreaty@gov.bc.ca

Questions and Answers

Canada – U.S. Negotiations

1. **Is the Canadian comprehensive proposal available to read now, or must we wait until the negotiations are complete?**

A: Because details of the negotiations are confidential, the Canadian proposal and U.S. framework are not public and are unlikely to be made public. However, we can share that the Canadian proposal covered the range of issues that have been discussed since negotiations began in 2018, such as flood-risk management, power generation, ecosystem function, Libby Dam coordination and increased flexibility for Canadian operations. The proposal drew on input that negotiators have received over the years from a wide range of voices in the Columbia Basin, including those of Indigenous Nations, the [Columbia River Treaty Local Governments' Committee](#), the [Columbia Basin Regional Advisory Committee](#), and residents who have attended the Province's many Columbia River Treaty community meetings since 2012. The proposal also reflects Canada's expectations that, to be successful, a modernized Treaty must be mutually beneficial to both Canada and the U.S.

B.C. has committed to consulting with Basin residents on a draft modernized Treaty before finalizing any agreement with the U.S. See question 3.

2. Will the Canadian negotiators advocate for those who lost land and a way of life behind the dams built in the basin?

A: The Canadian negotiating team is very aware of the impacts caused by the building of the Treaty dams and is committed to advocating for a modernized Treaty that reflects the interests and needs of Basin residents.

3. When do the people of the Basin get to have a say before the team makes a final decision?

A: The B.C. CRT Team has committed to engaging with the people in the Basin before a final agreement is reached, so residents can clearly understand what the modernized Treaty being proposed will contain. There is currently no timeline for when that will happen; however, we will communicate it broadly once that time has been set.

4. How frequent are the negotiations between U.S. and Canada side?

A: Negotiation sessions typically take place once every two to three months; however, there has been a longer span of time between September 2019 and March 2020, and again since the last round in June 2020. The Canadian negotiating team is awaiting indication from the U.S. negotiating team on scheduling the next round. Given that the U.S. has undergone a federal election and subsequent change in administration, it's not unusual for there to be a longer gap between negotiations rounds.

5. Are the minutes of negotiations meetings available for public viewing? Will any of the proceedings of the modernization process (domestic and/or international) be made available to the historical record at any point after negotiations conclude? Even perhaps years later?

A: The specifics of the negotiation discussions are confidential, so minutes are not publicly available. However, after each round of negotiations, the B.C. government issues a statement, news release or information bulletin which includes details that can be made public, such as a list of topics negotiators have discussed. Members of the Canadian negotiating team also provide updates on the negotiations during community engagement sessions.

6. How are disputes resolved should Indigenous tribes not agree with Canada and B.C.? Is a mechanism in place?

A: Yes, there is a dispute resolution process within the Negotiation Framework Agreement, signed by Canada, B.C. and the Ktunaxa, Secwepemc and Syilx/Okanagan Nations, which guides the five governments on how they will work together during the Treaty negotiation process. To date, the discussions have been positive and productive, so there has not been a need to use that mechanism.

7. How long is the next agreement going to last?? 60 years is about 50 years too long!

A: The Treaty does not have an end date and can be unilaterally terminated only with a 10-year notice from either country. However, Canada, B.C. and Indigenous Nations have discussed the need to incorporate adaptive management into a modernized Treaty, to help ensure the agreement is flexible and can accommodate future changes in climate, technology, environmental conditions, and Indigenous and societal objectives.

8. Does the U.S. agree that the Treaty can be altered by exchange of diplomatic notes when and if this may be required?

A: The mechanism to ratify a modernized Treaty will depend on the scope and extent of proposed changes to the current agreement. In Canada, changes to the Treaty can be approved by the executive branch of the federal government after debate in parliament.

9. How can the BC Power Authority, BC Hydro, be expected to not give undue importance to power generation as the only important treaty issue?

A: BC Hydro is mandated, through the B.C. Hydro and Power Authority Act and other legislation, to generate power to meet the needs of British Columbians. BC Hydro is key in providing technical support during the negotiations. However, while power considerations are part of Treaty discussions, there are other priorities factored in as well, including ecosystems, Indigenous cultural values and socio-economic interests in the Basin.

10. Virtual currencies like bitcoin consume a lot of electricity. Is this a problem to be taken into account in the renegotiation process?

A: Not it is not. This would be a domestic power demand issue.

11. How could open-sourced environmental data between Canada and the U.S. aid in Treaty renegotiations?

A: Most non-commercial, non-proprietary data is available to, or shared between, the two countries in order to negotiate from a common baseline.

12. What is the name of Sylvain Fabi's counterpart in the U.S.?

A: Jill Smail, who is an employee of the U.S. State Department.

13. Can you shed light on what the Americans are wanting to change in the treaty's terms and conditions?

What are the relative weights that the U.S. attributes to the three areas of focus of the Treaty: (1) Flood control; (2) power generation; and (3) ecosystem services. What are Canada's weights?

A: Details of negotiations, such as the weighting of specific interests, are confidential. However, for the U.S., flood-risk management remains a very important issue, as is power generation. Some U.S. representatives and stakeholders have stated publicly that they believe the U.S. pays too much for the additional electricity generated from the Treaty regime and that the Canadian Entitlement¹ is too high.

It's also worth noting that the environment and ecosystems are important elements in the new roadmap for Canada-U.S. relations and, for that reason, environmental considerations could become more important in the Treaty discussions.

From Canada's perspective, flood-risk management and power generation remain key priorities, as do ecosystems, Indigenous cultural values, adaptive management, socio-economic objectives, increased flexibility in the Treaty for Canadian domestic operations, enhanced co-ordination of Libby Dam, and other benefits to the U.S. that are not considered in the current Treaty, such as navigation, recreation, irrigation and fisheries.

14. Has Article 13 (regarding Diversions) been negotiated and decided upon during these discussions? Specifically, the concern is over any changes to the diversion of water from the Kootenay River in the vicinity of Canal Flats to the headwaters of the Columbia River, and the cubic feet per second of water flow. Are any modifications in discussion to this section of the Treaty?

A: The Canadian negotiating team is aware of Canada's right in the Treaty to divert some of the Kootenay River flow to the Columbia, which would substantially increase power production in the Canadian Columbia River system, but has not considered enacting it at this time.

¹ The Canadian Entitlement is half of the additional potential hydroelectric power that could be produced in the U.S. as a result of Treaty operations. It is calculated in advance using formulas included in the Treaty. The U.S. returns this power to Canada in the form of electricity at Canada-U.S. the border. Powerex, the marketing and trading subsidiary of BC Hydro, sells the Canadian Entitlement at market value to either BC Hydro or utilities in Alberta or United States. Revenues from the Canadian Entitlement are paid to the Province and go into its general revenue fund.

15. Is there a planned Zoom meeting for the joint U.S./Canadian Entities?

A: The Canadian Entities (BC Hydro for Treaty operations) and the U.S. Entity (U.S. Army Corps of Engineering and Bonneville Power Administration) meet on a regular basis to coordinate the implementation of Treaty operations. If the question refers to Canada/U.S. negotiating delegations, there are no planned virtual meetings at this time.

Indigenous Representation and Reconciliation

16. First Nations "observer" status is confusing me. Sounds like they're participating, which is great, and not simply "observing".

A: Correct, the Indigenous Nations are participating in every aspect of negotiations. "Observers" is the term that has been used; however, their role encompasses a lot more than that.

Representatives of the Ktunaxa, Secwepemc, and *Syilx* Okanagan Nations are present in the negotiating room and are full participants in caucus meetings with Canada and B.C. during negotiating sessions. They are also full participants in preparatory meetings with Canada and B.C. before each round of negotiations and debrief meetings after each round of negotiations. Equally if not more important, the Indigenous Nations collaborate with B.C. and Canada in developing negotiating positions and proposals.

17. Is the U.S. involving Tribes in their negotiation team?

Are Indigenous groups represented on the U.S. Treaty Negotiation team? There would surely be some common ground amongst these peoples.

I am a U.S. citizen who is a technical representative of several Tribes in the Columbia River Basin. I am pleased to hear the Canada is involving their First Nations in negotiations; however, it is not clear to me that the U.S. is involving tribal interests. Can you please enlighten the group on U.S. Tribal involvement?

Is there scope of involvement of local tribes directly impacted by the part and parcels of the CRT?

How are the Indigenous communities of Bands of American Indians of the Columbia River being factored into this treaty as some of us are still sought for extermination to date.

A: That is a question for the U.S. State Department; however, we can say that during the last three negotiating sessions, the U.S. delegation was joined by expert advisers representing U.S.

Tribes, who provided expertise regarding the extensive ecosystem work that the U.S. has undertaken in the Basin, including transboundary efforts.

18. In the wake of British Columbia creating and implementing Bill 41 in 2019, the Declaration on the Rights of Indigenous Peoples Act, and in considering that the Columbia Basin Trust Act, which created the Columbia Basin Trust, is in receipt of the downstream benefits of the Columbia River Treaty, on entirely unceded Indian Land as per the Royal Proclamation of 1763, will British Columbia and Canada recognize Articles 3 and 4 of the United Nations Declaration on the Rights of Indigenous Peoples, in particular, the right to self-determination and to fund their own institutions and in so doing, make substantial and meaningful changes to the Columbia Basin Trust Act so that the Indigenous peoples will be, in part, reconciled with, for example, equal partners/recipients in ALL of the downstream benefits; whereas, the Indigenous peoples will be able to freely choose how those funds are used without interference?

A: The Province is fully committed to implementing the United Nations Declaration on the Rights of Indigenous Peoples. The five governments on the Canadian negotiating team – Canada, B.C. and the Ktunaxa, Secwepemc and Syilx Okanagan Nations – are having discussions about sharing benefits relating to the Columbia River Treaty and other domestic matters.

The Province invested over half a billion dollars in the Columbia Basin Trust and Columbia Power Corporation in the 1990s. Each year, the Trust is able to return more \$60 million in direct benefits back into the Basin region, which is more than half the normal value of the Treaty's downstream power benefits (Canadian Entitlement²). There is Indigenous representation on the Trust's Board.

19. Am I hearing you right? That all the Nations you reference have not finalized the treaty negotiations process with the federal government?

A: If this is referring to Indigenous Nations treaties with Canada and B.C., that is correct.

20. To the Indigenous representatives, as a government observer to the Columbia River Treaty, in your opinion under the legislation of [B.C.'s Declaration on the Rights of Indigenous Peoples Act](#) and "free prior and informed consent" in B.C., does any negotiation that does not address salmon recovery (or any other First Nation priority) constitute a veto on the negotiations as a whole even though the Treaty is a federal issue?

² The Canadian Entitlement is half of the additional potential hydroelectric power that could be produced in the U.S. as a result of Treaty operations.

A: The Ktunaxa, Secwepemc and *Syilx* Okanagan Nations are full participants on the Canadian negotiating team. The objective is to reach an agreement on a modernized Treaty that has the support of all five governments.

Efforts to investigate the feasibility of reintroducing salmon to the Upper Columbia are happening in parallel with the Columbia River Treaty negotiations. In 2019, the Ktunaxa, Secwepemc and *Syilx* Okanagan Nations, Canada and British Columbia signed a Letter of Agreement to collaborate on exploring the feasibility of reintroduction of Pacific anadromous salmon into the Canadian portion of the Upper Columbia River Basin. The governments of Canada and B.C. have been working with the Indigenous Nations as they lead these efforts. Visit ColumbiaRiverSalmon.ca to follow progress.

21. If the upcoming Supreme Court of Canada decision recognizes the Sinixt, would they also be included at the negotiating table since most of their territory is within the Canadian portion of the Columbia River Basin?

A: The Supreme Court of Canada did recognize the Lakes Tribe of the Confederated Tribes of the Colville Reservation as a successor group to the Sinixt people, with Aboriginal rights in the Arrow Lakes region. The Province will consult with the Lakes Tribe on how they would like to be engaged on a number of issues, including the Columbia River Treaty. These discussions are still in their early stages. However, the Confederated Tribes of the Colville Reservation are being consulted by U.S. Treaty negotiators on the Columbia River Treaty.

Cultural Values and History

22. I have often wondered about the grave sites where Flagstaff - Tobacco Plains used to be, which is now flooded over by Koochanusa.

A: There are also grave sites which have been inundated by the Arrow Lakes Reservoir, and perhaps other grave sites within the Koochanusa Reservoir as well. There is a Columbia River Treaty Cultural Values Working Group led by Ktunaxa Nation representatives, which is working to identify Ktunaxa cultural values, interests and knowledge that are affected by the operation of the Treaty reservoirs. Grave sites are part of this work. The group is also working to identify if and how the operations of the reservoirs might be changed to reduce impacts to cultural values, etc., including to grave sites.

This also relates to a project the B.C. CRT Team initiated regarding honoring stories of the Basin and from people and communities that have been impacted by the Treaty. [The Columbia River Treaty Heritage Project](#) is a proposed touring route linking key locations throughout the Basin. At each location, diverse interpretive elements will tell place-based stories about Indigenous and non-Indigenous people and communities impacted by the Columbia River Treaty. This project is one way to acknowledge what was lost when the Treaty dams were created.

23. The Columbia Basin Institute of Regional History has worked hard for over two decades, and counting, to record, preserve, collect and present the lost history of the Columbia Basin communities and peoples. Has there been recognition, in a meaningful way, that this non-profit Society needs to be supported in its efforts?

A: The B.C. CRT Team is aware of the Institute's work. It speaks to the value of their efforts that the Institute is sponsored in part by the Columbia Basin Trust, federal and provincial governments, Columbia Kootenay Cultural Alliance, Regional District of East Kootenay and others. Anyone with an interest in aspects of Basin history is advised to visit their website at <https://basininstitute.org/home/>

Salmon and Impacts on Fish

24. What is the website of the Columbia River Salmon initiative?

A: Bringing the Salmon Home: The Columbia River Salmon Reintroduction Initiative
ColumbiaRiverSalmon.ca

25. What efforts are going to be made or included in the Treaty to restore the return of the salmon run along the Columbia River?

The loss of salmon in the Columbia has had cultural and economic impact to the area. Exploring the reintroduction of salmon should be a priority in the Treaty. As we look forward, sustainable food supplies will continue to play a greater role in planning for our area. How will the Treaty address or compensate for the loss of this special species?

A: We can't discuss the details of the confidential negotiations but can say that salmon restoration has been raised in negotiations. In fact, at the 8th round of discussions in September 2019 in ?aq'am, representatives of the Ktunaxa, Secwepemc and *Syilx* Okanagan Nations were asked by Canada to make a presentation to the U.S. delegation on reintroducing salmon to the Upper Columbia.

Outside of negotiations, there are collaborative efforts between Indigenous Nations, B.C. and Canada to study the feasibility of returning salmon to the Upper Columbia River. In July 2019, the Ktunaxa, Secwepemc and *Syilx* Okanagan Indigenous Nations, Canada and British Columbia signed a Letter of Agreement to collaborate on exploring the reintroduction of Pacific anadromous salmon into the Canadian portion of the Upper Columbia River Basin. That has since grown into the Columbia River Salmon Reintroduction Initiative – a new website has recently launched to share details of that work (ColumbiaRiverSalmon.ca). More details can be found in the answers below.

26. What is being planned for fish passage up not only on the Columbia River into the Arrow Lakes and beyond presumably, but also the Kootenay River system? Is there a plan to have salmon once again run? What technologies are being explored for fish passage?

A: Fish passage is being addressed both within the Treaty modernization process and in the parallel Columbia River Salmon Reintroduction Initiative (CRSRI). The CRSRI Technical Working Group has begun addressing technical issues with respect to fish passage, including methods like the [Whooshh passage portal](#), as well as fish ladders, and trap and truck methods. One important component of fish passage relates to river flows to support both upstream and downstream fish passage and survival. This is being incorporated into the Treaty ecosystem function studies. It is important to note that anadromous salmon have never moved up the Kootenay River beyond Bonnington Falls; however, they definitely spawned and reared throughout the Slocan River system.

27. Will the British Columbia and United States Governments build a fish ladder on the Grand Coulee Dam so the salmon will return in the Kootenay River stream?

Is the Whooshh Innovations salmon canon still being considered as a viable option for getting salmon over the dams on the U.S. side and allowing for migration to spawning grounds in Canada?

A: U.S. Tribes and agencies are working actively on fish passage at Chief Joseph and Grand Coulee Dams. For upstream movement, fish ladders or the [Whooshh passage portal](#) may be future solutions, but in the near future fish passage will likely rely on a simple technology called 'trap and truck' where salmon swim into a trap and then they are moved into a water tank truck, driven upstream and released upstream of the dam. This has been done on an experimental basis by the Colville and Spokane Tribes in the U.S.

On the Canadian side, the five-government Columbia River Salmon Restoration Initiative (CRSRI) has started work exploring which fish passage technologies might work at least for the initial set of impassable dams: Keenleyside, Brilliant and Waneta.

There are other fish passage challenges as well: (i) moving smolts (young salmon) downstream safely past hydro dams; (ii) fish flows to help young salmon move downstream quickly and safely through reservoirs and river reaches; and (iii) fish flows to help adults move upstream.

For context, there are nine dams on the Columbia River that currently have fish passage facilities (mostly fish ladders but also downstream passage facilities for young salmon), from the Bonneville Dam (furthest downstream) to Wells Dam. Some of the salmon that pass the Wells dam swim up the Okanagan River, now even as far as Okanagan Lake; but they are blocked by the Chief Joseph Dam from going further up the mainstem of the Columbia River.

Currently, impassable dams are:

- Chief Joseph (furthest downstream)
- Grand Coulee
- Keenleyside (blocks into the Arrow Lakes and beyond);
- Brilliant (blocks almost all of the Kootenay and the Slocan);
- Waneta and Seven Mile (blocks the Pend d'Oreille and Salmo Rivers);
- Revelstoke and Mica, upstream of Keenleyside and the Arrow Lakes.

28. Is anything being considered to increase natural nutrient cycling? i.e., allowing sediment/nutrients trapped behind dams to cycle downstream and into the estuary?

A: The Treaty ecosystem function studies are addressing the issues of nutrient retention and cycling within and downstream of reservoirs. In addition, the [Fish and Wildlife Compensation Program](#) has an Arrow Lakes and Kootenay Lake Nutrient Restoration Program.

29. What can be done to restore the decline and extinction of some fish species in this affected area (i.e., improve shoreline spawning, remove dams like the old Goat River Dam in Canyon, BC, redirect creeks)?

A: The decline and extirpation of some fish species is of great concern to the Treaty ecosystem function team and others. The team is examining how river flows, reservoir levels, and nutrient conditions can be improved through modified Treaty operations to benefit fish. Comprehensive efforts are underway as part of the Indigenous-led ecosystem work, to look at the decline and extirpation of fish species and how these are affected by factors such as flows, reservoir levels, nutrients, and tributary access. For example, the ecosystem function work is considering how flows could be improved to benefit endangered white sturgeon.

30. Fish beyond Salmon. Main stem Elk River selenium levels and impact on trout populations? Continuous scientific and transparent monitoring required urgently to protect threatened cutthroat (SARA). Fording River fish collapse a serious red flag. Kootenai style study needed for corroboration. <https://www.thestar.com/amp/vancouver/2020/03/08/coal-miner-teck-baffled-by-fish-collapse-downstream-of-british-columbia-mines.html>

A: Since the scope of the Treaty is limited to flows and reservoir levels, water quality with respect to contaminants is not addressed in the Treaty. However, B.C., the Ktunaxa Nation, the State of Montana and other stakeholders are involved in ongoing discussions to address this issue.

Modeling of Dam Operating Scenarios

31. Does the expanded modeling initiative examine scenarios for reservoir operations on both sides of the border? Or just Canada?

A: The computerized model has been set up to explore a range of alternative Treaty operating scenarios for the Canadian reservoirs and is currently Canadian focused.

32. Does modeling consider impacts on Canadian hydropower generation? It doesn't appear as a priority to Canadian negotiators.

A: The modelling includes the effects of different dam operation alternatives on power generation, in addition to flood risk management, ecosystems, Indigenous cultural values and socio-economic interests. GHG-free power is very much of importance to B.C. and Canada.

33. Is there a notion in Ecosystem Function proposals for bringing in maximum and minimum flow rates in the remaining riverine sections of the Columbia and Kootenay rivers?

A: As the Indigenous-led ecosystem function work progresses, the Ecosystem Function Subcommittee will consider flows that best support a healthy ecosystem. The team has undertaken a study on flow requirements and developed flow-related performance measures that are being incorporated into Treaty scenario modelling. There will also be consideration of other interests in the Basin, such as what flows can best support cultural values, hydro power, flood protection, recreation, tourism, property owners, etc.

34. Are human health risk and ecological assessments being performed as a method to quantify the pros and cons of each proposed alternative?

A: Yes, performance measures for ecosystems and socio-economic interests, which include human health risk such as dust events, are being developed for this modeling initiative.

Benefits and Impacts

35. How many British Columbians are immediately affected by the Treaty? Secondly, over the past almost 60 years, what and how much have we lost? Specifically, how has the Treaty affected: (a) past and present communities; (b) travelling and travel corridors; (c) agricultural lands; (d) logging lands; (e) mining lands; (f) recreational lands; (g) wildlife habitat and numbers; (h) climate changes due to the large reservoirs. Lastly, have we been adequately compensated for all of these that I perceive as losses?

A: The population of the B.C. portion of the Columbia Basin is approximately 164,000. Of course, not all residents have been affected by the Treaty.

In terms of negative impacts, the Treaty dams and reservoirs inundated 110,000 hectares (270,000 acres) of Canadian ecosystems, displaced more than 2,000 residents as well as Indigenous Nations, communities and infrastructure, and impacted agriculture, tourism and forestry activities in the Columbia Basin.

More detailed information about the Treaty's impacts can be found in the 2012 report: [A Review of the Range of Impacts and Benefits of the Columbia River Treaty on Basin Communities, the Region and the Province](#).

The Treaty has brought many benefits to B.C. as well, also described in the report. It plays a significant role in providing clean hydro power to B.C., contributing to approximately half of the potential generation in the province. The Columbia River power system, which is operated by BC Hydro, generates about 21,900 gigawatt-hours a year of renewable energy, about 48% of BC Hydro's annual generation. It also provides protection from floods, such as the 1948 flood that caused significant damage in British Columbia.

The Treaty typically returns between \$120-150 million each year, through the sale of Canada's share of the downstream power benefits. These revenues are deposited in the Province's Consolidated Revenue Fund, which helps support key government programs and essential services, including health care and education in communities all across B.C.

The Columbia Basin Trust, which was created in recognition of the impacts of the Treaty, generates about \$85 million in revenue annually (over 85% from power investments) and returns over \$60 million in direct benefits back to the region through services, programs, initiatives, and investments.

All that being said, Canada, B.C. and Basin Indigenous Nations recognize the past and ongoing impacts of the Treaty on the people and ecosystems of the Basin, and are committed to negotiating an agreement that is in the best interest of the Basin. In addition, the B.C. CRT Team is seeking to address some Treaty-related community interests outside the Treaty negotiation process.

- 36. The Review of the Range of Impacts and Benefits publication is almost 10 years old. I will read it but is there anything more current? 10 years is a long time, and many issues arise over time. I would like to know where we want to be in 20 years, where can we be, and what is the plan to get there.**

A: While much of the information in the publication remains current, the B.C. CRT Team intends to update sections that require it. With regards to our objectives for a modernized Treaty, these are referenced in the [2014 B.C. Decision](#), which includes 14 principles that guide British Columbia in any discussions on the future of the Treaty. Key elements of the Decision's

principles include: acknowledge the Treaty's ongoing impacts to the Canadian Columbia Basin and that the primary objective of the Treaty should be to maximize benefits to both countries; account for all downstream U.S. benefits, including navigation, irrigation, recreation and fisheries; consider ecosystem needs in the planning and implementation of the Treaty; enable the ability to adapt Treaty operations to future unknowns, such as climate change; seek increased coordination of Libby Dam operations; and consult with Basin Indigenous Nations³ and communities throughout the Treaty negotiation process. For more information, please visit <https://engage.gov.bc.ca/columbiarivertreaty/bc-decision/>

37. It is reasonable to estimate that the \$376 million payment from the B.C. government that endowed the Columbia Basin Trust in 1995 represents well under 10% of the revenue that the province has received from the U.S. under the Treaty to date? Negative local impacts of the treaty are ongoing and, even with improvements, will likely continue to some degree under a modernized Treaty. Will the modernized Treaty provide additional funds specifically for the Basin either through the Trust or another mechanism?

A: B.C. has invested over half a billion dollars in the Columbia Basin Trust and Columbia Power Corporation since the Trust's inception. Columbia Basin Trust has invested this endowment wisely, including in hydropower projects in the Basin. In 2020/21, the Trust recorded over \$88 million in revenues and expensed and recorded over \$58.2 million in grants through its Delivery of Benefits programs and initiatives.⁴ The current Canadian Entitlement revenue is typically \$120 – 130 million per year. There are no current plans for additional funds to be allocated to the Basin.

38. The B.C. Government, at the request of the Ministry of Energy, arranged with the accounting firm of Ernst and Young for a study of the Benefits and Impacts resulting from the Columbia River Treaty. The Columbia River Treaty negotiating team has kept that study confidential since talks with the U.S. began and has not released the study to First Nations or the Local Governments Committee. Why has the Treaty negotiating team not already shared the above study to these groups? Does the Treaty negotiating team intend to provide a summary version of the Ernst and Young study to Basin residents?

A: The B.C. government commissioned this study to inform our negotiating positions with the U.S. Releasing the information would disadvantage the Canadian negotiating strength. A [study completed by George Penfold in 2012](#) gives a comprehensive review of the benefits and impacts of the Treaty and can be found on the B.C. Columbia River Treaty website under [Technical Studies](#).

³ Canadian Columbia Basin Indigenous Nations are fully involved in the Treaty negotiation process beyond the Crown's duty to consult. See questions related to Indigenous Representation and Reconciliation, starting on page 6, for more details.

⁴ See the [Columbia Basin Trust 2020/21 Annual Service Plan Report](#), p.12, for the most recent Financial Report.

39. Canadian based generation that uses Columbia River Treaty water supplies about 50% of BC's electricity. This has been a great boon to the province, at least economically*. However, in the context of Treaty renegotiation, our reliance on Treaty water for domestic power production is a liability. Has this unfortunate reality been recognized by the broader Canadian community hoping to substantially improve the CRT?

***It is widely recognized that the economic benefits have come at considerable environmental and social cost.**

A: Regulation of Columbia and Kootenay River flows to meet downstream Treaty requirements also enables, to some extent, the generation of domestic power through Mica/Revelstoke Dams and Kootenay power plants. However, achieving downstream power benefits under the Treaty does result in constraints to BC Hydro's hydropower system. The Canadian Entitlement forms the basis for addressing this imbalance. Columbia and Kootenay river flows will generate power regardless of Treaty "encumbrance".

There is broad recognition from the Basin public and Canadian negotiators of the social, economic and environmental impacts caused by the Treaty. Canada, B.C. and Basin Indigenous Nations are committed to negotiating an agreement with the U.S. that is in the best interest of B.C. That is why the ecosystem function work and the socio-economic work are taking place. There are many competing priorities for a modernized Treaty, and these continue to come to light through in-depth studies, consultation with Indigenous Nations, local governments and Basin residents.

40. When are those flooded out going to get the benefits they deserve instead of all the cities and places that benefited from the dam construction and not flooded to any extent?

A: While it's recognized that nothing can bring back what was lost, there are a number of mechanisms in place that seek to bring benefits to those who have been impacted by the Treaty.

The original process in which decisions were made to enact the Columbia River Treaty by the provincial and federal governments did not allow for adequate consultation with Basin residents in Canada. As a result, residents did not have the opportunity to provide input into a decision that had a major impact on their lives and life in the Basin.

Columbia Basin Trust was created in 1995 in recognition of the negative impacts of the Treaty on the entire Basin region – not as compensation for them. The Trust's purpose, carried out through the Columbia Basin Trust Act and guided by the direction from Basin residents, is to support Basin residents to enhance the future social, economic, and environmental well-being of the region. The Trust accomplishes this work through 70 active programs and initiatives.

The Trust has committed \$4.2 million per year to the Community Initiatives and Affected Areas

Programs, which is divided amongst local government and Indigenous partners. Communities immediately adjacent to reservoirs created by the operation of the Columbia River Treaty dams receive Affected Areas funding: these include communities around the Arrow, Kinbasket, Duncan and Koochanusa reservoirs. This funding is not compensation for historic or ongoing impacts from the operation of the Treaty dams, but rather supports community efforts to create a better future.

The B.C. CRT Team has also been seeking ways to potentially address Treaty-related issues and concerns raised by residents throughout the Province's public engagement on the Treaty. Some of these projects include:

- A proposed Columbia River Treaty Heritage Project touring route, which would include information stops at key locations in the Basin, designed to acknowledge what was lost as a result of the Treaty dams;
- A collaboration between the Village of Valemount and the Ministry of Environment and Climate Change Strategy to look at Kinbasket Reservoir air-quality issues;
- Work with diking authorities in Creston Valley to address dike maintenance and construction challenges; and
- A discussion paper and call for public feedback, issued by the B.C. CRT Team, that seeks to identify gaps in addressing Basin agriculture interests and concerns.

These are just a few of the many projects underway. Updates on these and other initiatives are shared in B.C.'s Columbia River Treaty Newsletter, which can be found on the [B.C. Treaty website](#).

41. What can be done to rectify (from the Canadian point of view) the facts that the three Canadian Treaty dams are managed for the mutual advantage of the partners while the U.S. Treaty dam is managed to the American advantage?

A: The Canadian negotiating team is advocating for increased coordination of Libby Dam in its discussions with the U.S. More broadly, one of the key purposes of the current negotiations is to reach an agreement that is fair and equitable to both the U.S. and Canada.

42. Will reparations factor in at some point in the Treaty process?

A: The Treaty states that each country is responsible for addressing Treaty-related impacts in its own country. That is why: B.C. established the Columbia Basin Fish and Wildlife Compensation Program to mitigate footprint impacts; the B.C. water management branch directed certain mitigation measures under the Water Use Plans; and, currently, investigations led by Indigenous Nations are exploring alternative Treaty operating scenarios to enhance ecosystem function and Indigenous cultural values.

Reservoir Level Fluctuations

43. What are BC Hydro's plans to mitigate significant bank erosion along the Arrow Lakes Reservoir caused by water fluctuations?

What efforts are going to be made to keep the water levels consistent along the Arrow Lakes?

A: Concerns have been raised about bank erosion in BC Hydro-owned property along the Arrow Lakes Reservoir. This is why the B.C. CRT Team commissioned a preliminary study to explore the benefits and drawbacks of a more stable Arrow Lakes Reservoir. Further investigation of the possibility of reducing those fluctuations is being considered as part of the Indigenous-led ecosystem function work, as well as the socio-economic work being led by the Local Governments Committee.

44. If BC Hydro has no concrete plan to reduce the effects of erosion, is there a plan to provide some form of subsidy to support property owners in protecting their own waterfront by putting in place erosion controls and bank stabilization methods such as boom sticks, gravel, vegetation or rocks?

A: The erosion process on Arrow Lakes Reservoir was anticipated when the reservoir was created. Arrow Lakes Reservoir shorelines are geomorphologically relatively young, and it was expected that it will be many years before the shoreline fully stabilizes. To address this, BC Hydro purchased flowage easements and/or Statutory Right of Way (SRW) agreements for the vast majority of private reservoir frontage properties, which are registered on property titles. These easements and agreements allow BC Hydro to operate Arrow Lakes Reservoir within their licensed limits.

Man-made efforts to stabilize the Arrow Lakes Reservoir shoreline can be both expensive and ineffective. It is recommended that property owners review the BC Hydro flowage easement or SRW rights on the title of their property as there may be limitations or additional permits required for any proposed shoreline protection works.

45. Will the Section of the Columbia River below the Hugh Keenleyside Dam be able to have less dramatic flow changes under the new Treaty? Presently the flow changes are set on a weekly basis and can see drops of water levels of up to 1 meter over a 24-hour period. If this was done over a three-day time period, there would be much less damage to the aquatic entomology that thrives along the 43km river shorelines. Also, it would reduce fish stranding that occurs on a regular basis.

A: The Indigenous-led ecosystem function work will consider flows that best support a healthy ecosystem. The ecosystem function team has undertaken a study on flow requirements and developed flow-related performance measures that are being incorporated into Treaty dam

scenario modelling initiative. There will also be consideration of other interests in the Basin, such as what flows can best support cultural values, hydro power, flood protection, recreation, tourism, and property owners.

46. When is the Arrow dam going to be removed or at least the levels stabilized? Erratic changes up to 50 ft are not acceptable!

I would be in support of de-commissioning the Hugh Keenleyside Dam, and bringing it back to its natural state. Flooding is a natural occurrence but also can be mitigated by the Mica and Duncan dams to an extent and maybe allow some natural flooding to occur, (good for ecosystem and fish). The loss of hydro electric power generated from this particular dam is small in comparison to Mica and Revelstoke and won't be terribly missed, especially with Site C coming up in the next few years.

A: Canada and the Province acknowledge the significant impacts that occur in the Basin as a result of Treaty operations. However, as long as the Treaty is in place, the Keenleyside Dam is an integral component and is not being considered for de-commissioning at this time.

Climate Change and Adaptive Management

47. How is climate change being addressed as part of the negotiations, given the likelihood of more intense storm events, potential for drought, increasing demand for renewable electricity, etc.?

Will you include provisions to protect Canada from changes in water flows which will be inevitable as a result of climate change?

A: Climate change considerations are a factor in the Indigenous-led ecosystem work being undertaken in B.C., and are also interwoven in Canada-U.S. negotiations. Both the [B.C. Decision](#) and the [U.S. Entity Regional Recommendation](#) on the future of the Columbia River Treaty – which guide the Canadian and U.S. negotiating teams, respectively – address the need to provide for adaptive management in consideration of Basin climate change impacts. The Canadian team – Canada, B.C. and Basin Indigenous Nations – are exploring how to increase flexibility in the Treaty to manage for future unknowns, including changing climate, power needs, and societal values.

48. Climate change modelling seems to forecast little decrease in water quantity in the Basin. How is increased demand for water being incorporated into the planning regime? Look at the Rio Grande.

A: Climate change projections indicate the same or a slight increase in total inflow in the Canadian portion of the Basin, due to a lesser but still important snowpack and greater rainfall contribution. Given the population and industrial base of the Canadian Columbia Basin – even with potential significant growth – and the size of the reservoirs, there is no concern regarding domestic water supply.

49. With climate change and other drivers of future uncertainty, water resource management scholars and experts strongly agree that it is inappropriate to implement a static system under a renegotiated Treaty. Instead, we need to employ an “active adaptive management” process that proactively and continually evaluates management to respond to changing conditions and ensure goals are being met. To what degree is this approach guiding B.C.’s (Canada’s) efforts to modernize the Treaty?

A: Although the specifics of the current negotiations are confidential, adaptive management is being discussed at the negotiating table. Seeking additional flexibility for Canadian Treaty reservoir operations to facilitate active adaptive management is one of the goals raised as part of the ecosystem function work being led by the Ktunaxa, Secwepemc and Syilx Okanagan Nations. Furthermore, one of the principles of the [B.C. Decision](#) is that adaptation to climate change should be incorporated in Treaty planning and implementation. The B.C. Decision principles guide British Columbia in any discussions on the future of the Treaty.

50. To what extent do you envision that the Treaty will create ongoing funding support for the research needed to undertake active adaptive management?

A: It is clear that implementation of an adaptive management regime will require ongoing support, though the scope of a modernized Treaty must be determined before mechanisms can be considered.

Ecosystems and Environmental Impacts

51. Who speaks for the River?

A: The many voices in the Basin who have provided input into this process.

52. What can the Treaty do to reverse the decline of wildlife, especially considering the majority of wildlife inhabits the valley bottoms that have been affected by resource extraction (vs. higher elevation)?

How can the Treaty ensure the Kootenay and Columbia Rivers' banks (along with subsidiary rivers) have healthy biodiverse ecosystems and riparian zones? Presently, agriculture is creeping into the water, and herbicides and pesticides are leaching into the high-water table ground. Also, agriculture deer fencing is blocking herds of elk, to name a few agriculture-related issues.

A: The Indigenous-led ecosystem function work, in conjunction with the Columbia River Salmon Reintroduction Initiative, is exploring how Treaty dam operations might be varied to improve floodplain, wetland and riparian ecosystems, and overall ecosystem productivity, which includes wildlife habitat. The Treaty does not include agricultural management practices or water quality contaminants.

53. How is contamination from historical and current releases from the TECK Cominco Trail facility as well as Hanford Nuclear Reservation being considered in the impact studies of the various operational alternatives.

A: Water quality is not part of the Columbia River Treaty. These important issues are being addressed in other areas of government.

54. (follow up to previous question) Operation of the Treaty dams will impact human health and the environment of those who hunt fish and gather on the Columbia River. If such impacts are not evaluated, the alternative that is finally selected by an uninformed decision maker could be hazardous to human health and the environment. Since the decision was made and supported by all the king's horses and all the king's men on both sides of the border, it would be a major embarrassment to have to re-visit the issue. Finally, the U.S. EPA is selecting remedial action alternatives based on assumptions of future operations. How is EPA being involved in these discussions? How are ecosystems not affected by water quality?

A: Ecosystem and socio-economic interests that are affected by Treaty dam operations are a high priority for the Canadian negotiating team and are primary factors in the dam operation scenario modelling. However, the modelling is focused on river flows and reservoir levels, not water quality. Water quality is within the mandate of the Ministry of Environment and Climate Change Strategy.

55. In the United States, the US Army Corps of Engineers, Bonneville Power Administration, and Bureau of Reclamation completed a Record of Decision in September 2020 pertaining to an Environmental Impact Statement in response to the need to review and update management

of Columbia River System Operations. In what ways does the Treaty consider these newly altered hydro-operations downstream?

A: It is presumed that the 2020 Columbia River System Operations Environmental Impact Statement is being considered by the U.S. negotiating delegation.

56. Is the Caribou situation in the upper Columbia being considered in the discussion?

A: No, this is being addressed within other government processes.

Libby Dam and Koochanusa Reservoir

57. To what degree have Treaty negotiators discussed bringing Libby Dam and Koochanusa Reservoir operations into the Treaty framework?

A: Increased coordination of Libby Dam operations is a priority for Canadian negotiators and has been raised at the negotiating table with the U.S.

58. What is Canada's opinion on the proposal (and validity) of an earthen dam built just north of the 49th parallel? This proposal would do many things such as stabilizing water levels in the Koochanusa reservoir, protecting ecosystems and bank erosion, providing economic benefits by way of recreation but most importantly to protect and control our natural resource - water. You have made mention of many things that the U.S. is concerned with, but those same concerns are felt north of the border as well. We have seen arbitrary decisions from the U.S. Supreme Court that circumvent the US Army Corps of Engineers and BC Hydro.

A: In response to concerns raised by local residents, the B.C. CRT Team commissioned an [independent feasibility study](#), which outlines preliminary costs, benefits and impacts of building the proposed weir/dam. That study was made public in January 2021 and was the subject of further discussion at a virtual town hall shortly after, in which the pros and cons of building a dam were highlighted. The B.C. CRT Team sought input on this issue from the public, local governments and special interest groups, including the Build a Weir Committee.

UPDATE: The B.C. CRT Team published its conclusion on the proposed weir/dam in May 2021. After detailed and careful review of the preliminary engineering report and all feedback received, the Team has determined that the best way to address concerns about Koochanusa Reservoir water levels at this time is to advocate for increased co-ordination of Libby Dam operations during Canada-U.S. negotiations on the Columbia River Treaty. View the [summary report](#) and appendices on the [B.C. Columbia River Treaty website](#).

59. Will the U.S.A., the Canadian Federal Government, and the Province of British Columbia guarantee a stable minimum water level on Lake Kooconusa of 2450 feet during June, July, August, and September? If not, Canada should build a weir, that provides centuries of economical and recreational benefits.

A: Outcomes of the negotiations cannot be guaranteed in advance. The Province recognizes that water levels on Kooconusa Reservoir are a serious concern for many residents, farmers, business owners and local government officials. After detailed and careful review of the preliminary engineering report and all feedback received, the B.C. CRT Team has determined that the best way to address concerns about Kooconusa Reservoir water levels at this time is to advocate for increased co-ordination of Libby Dam operations during Canada-U.S. negotiations on the Treaty.

60. At the beginning of tonight's Town Hall meeting, you mentioned the Libby Coordination Agreement. I assume this is for the operation of Kootenay River for hydro and flood control and for fish flows on the U.S. side, but will the LCA be revised to include consideration of the Creston Valley floodplain and its potential for climate change induced flooding and its effect on socio economic impacts to agriculture on both sides of the border?

A: The Libby Coordination Agreement (LCA), signed in 2000 under the Columbia River Treaty between the Canadian Entity (BC Hydro) and the U.S. Entity (Bonneville Power Administration and U.S. Army Corps of Engineers), facilitates the U.S. Entity to operate Libby Dam to meet U.S. fisheries legal obligations, updates flood risk management operations and provides options for BC Hydro to self-compensate for the resulting loss of power production. The LCA expires in 2024. Coordination of Libby Dam, and climate change more generally, are part of discussions with the U.S.

Governance

61. In addition to reforming the Treaty to include ecosystem function as a primary purpose and to prioritize other non-hydropower, non-flood risk values, it has been widely suggested that accompanying governance reforms to Treaty entities and the committees that implement the Treaty are needed. Can you share any information about what the governance structure of a modernized Treaty may look like? How does the need for reconciliation with Indigenous peoples influence this? What kind of mechanism(s) for public engagement will the modernized governance system include?

How can we democratize the system of governance of the Columbia River and its future legal regime? By what practical mechanisms?

A: The Negotiation Advisory Team, which includes representatives of Canada, B.C. and the Ktunaxa, Secwepemc and *Syilx* Okanagan Nations is exploring potential governance models for Canadian domestic governance in a modernized Treaty. In this process, one of the fundamental principles is that any proposed governance models should be consistent with the United Nations Declaration on the Rights of Indigenous Peoples. This process is in its early stages and will take time. It will be a collaborative process, including consultation with Basin Indigenous Nations, local governments, and others. We will provide more information as the process progresses.

62. Does the scale of the "watershed" have a specific scope in improving the cross-border governance of the Columbia River? Is it useful to mobilize notions like "inclusive governance" to improve the legal regime of the Columbia river (in terms of actors, factors and functions)? Some authors believe that it is necessary to go beyond international law to think in a more inclusive way the governance of the Columbia River: can we imagine a permanent "transnational forum" bringing together actors of various statuses?

A: Negotiations between Canada and the U.S. are still ongoing, and it's too early to speculate exactly what will come out of this process. All elements of a future modernized Treaty would have to be agreed upon by both countries. Transnational governance already exists in the current Treaty; however, as a first step to exploring Canadian domestic governance options, the Negotiation Advisory Team, as described in a previous answer, has directed that a consultant be hired to look at potential Canadian domestic Treaty governance models. More information will be provided as this process develops.

Agriculture

63. How can the modernization of the Columbia River Treaty compensate for the damage done to B.C. food sovereignty and plan for a healthy industry into the future - on both sides of the border?

A: The Treaty asserts that each country is responsible for addressing Treaty-related impacts within its own boundaries. The Province's public engagement on the Columbia River Treaty, Basin residents have spoken of agricultural losses sustained when valley bottoms were first inundated after construction of the Treaty dams. Many people have indicated that increased support is needed for areas such as accessing land, financial aid for sustainable farming, irrigation, and dikes. The B.C. CRT Team is exploring ways to increase support for the Basin agriculture sector outside of the Treaty.

As a first step, the B.C. Columbia River Treaty Team published a discussion paper in May 2021 summarizing programs and initiatives available to the Columbia Basin agriculture sector and is seeking feedback to learn where there may be gaps. For more information, please visit the [B.C. CRT website](#).

64. The Protocol to the Columbia River Treaty agreed to in 1964 contains a paragraph #10 that proposes a method of calculating how electricity used for pumping water into Banks Lake should be included in base loads required for determining the Canadian Entitlement. Banks Lake is the source of irrigation water for the benefit of Washington state farmers. Why does the BC Ministry of Energy continue to deny this irrigation project is a Treaty issue?

A: Once water crosses the Canada-U.S. border, the U.S. can manage the flows to meet their domestic interests. The Treaty does not affect water for irrigation, industrial or public consumption in either country. The electricity for pumping water into Banks Lake is included in the load and resource balance used to determine the Canadian Entitlement, however it makes up a very small amount of the total load (or electricity demand) in the Pacific Northwest. As a result, it does affect the Canadian Entitlement in a minimal way.

Treaty Dam Maintenance

65. The Treaty dams are at an age where they require larger quantities of ongoing maintenance in the interest of safety. How is this being addressed?

A: BC Hydro, as owner of the Treaty dams, is responsible for ongoing maintenance. They have a [comprehensive dam safety program](#) for all their facilities that is recognized as one of the best in the world.

66. Have feasibility studies been done on Treaty dams' output as a base for electrical needs?

A: Treaty dams are included in BC Hydro's Integrated Resource Plan (IRP) that projects 20 years ahead what energy and capacity resources are needed to meet future provincial electricity demands. More information on the IRP can be found on [BC Hydro's website](#).

Water Commodification

67. With water now being traded on the markets, does the Negotiation Advisory Team anticipate the commodification of water adding new element to negotiations?

A: The Columbia River Treaty is a flood risk management and power generation treaty. The Canadian team is keen to look for opportunities to enhance ecosystem elements in a modernized Treaty. The commodification of water is not, and will not be, an element of the negotiations.

A few days ago, BC Knowledge Network aired a documentary on water in which they revealed that the Americans have commenced the process of turning water into a saleable commodity. Do you see this as a process which could very well affect the future of the Columbia River and

this Treaty and will you open a line of inquiry to address the possible affects of this development?

A: The commodification of water is not, and will not be, a Treaty issue. The [Water Protection Act](#) protects B.C.'s water by reconfirming the Provincial authority for surface and groundwater, clearly defining limits for bulk water removal, and prohibiting the large-scale diversion of water between major provincial watersheds and/or to locations outside of the province.

Further, the 1909 [Boundary Waters Treaty](#) between Canada and the United States requires that levels in waters that pass between the two countries must not be altered without the approval of the responsible government and the [International Joint Commission \(IJC\)](#). The related Federal [International Boundary Waters Treaty Act](#) prohibits bulk removal of boundary and transboundary waters from Canada by any means, including by pipelines, canals, tunnels, aqueducts or channels.