



To: WEI Participants

From: Tanya Guenther and Rahul Ray

Date: February 2, 2023

Re: Rio Tinto WEI Table Meeting 29 (Videoconference) Summary, November 16, 2022

A hybrid meeting for the Rio Tinto Water Engagement Initiative (WEI) was held on Wednesday, November 16, 2022, from 9:00 a.m. to 4:00 p.m. The hybrid meeting was held to offer participants the option of meeting in person or virtually in response to COVID-19. The WEI Main Table will continue to adapt meeting options for participants and will follow current public health guidelines for meetings or gatherings.

This document is a summary of the meeting and is not word-for-word “meeting minutes.” The information presented highlights the topics raised, key discussions, and identified action items.

The facilitator was Rahul Ray (RR) from EDI. Tanya Guenther, from EDI, took notes during the meeting. Colin Parkinson and Zishan Shah, from EDI, attended to provide support. Jayson Kurtz (JK) from Ecofish Research participated as the Technical Working Group (TWG) coordinator. Katie Healey and Kirsten Lyle from Ecofish were present as process technical support. Michael Harstone (MH), from Compass Resource Management, participated as a decision analyst. Clayton Schroeder (CS), also from Compass Resource Management, participated as SDM support. John Russell from Russell Audio-Visual provided AV technical support.

Andrew Czornohalan (AC), Rio Tinto Operations Director - Power and Services, Kitimat and Kemano participated as a WEI Table member. Andy Lecuyer (AL), Senior Environmental Advisor, Communities & Social Performance Advisor, also from Rio Tinto, participated in the videoconference as support. Quinten Beach and Aman Parhar, Rio Tinto, also participated.

A draft agenda was included in the invitation and outlined the anticipated meeting topics.

Table 1 lists the participants attending in person and Table 2 lists the participants joining via videoconference.

Table 1. November 16, 2022—WEI Main Table meeting In-Person Participants

Individual	Organization
Andrew Czornohalan	Rio Tinto
Clint Lambert	Regional District of Bulkley-Nechako
Denis Wood	Public participant
Gerd Erasmus	Public participant
James Jacklin	Ministry of Forests
Jerry Peterson	Public participant
Jim D’Andrea	Cheslatta Carrier Nation
Kevin Moutray	District of Vanderhoof
Linda Sjodin	Public Participant
Loreen Ngwenya	Northern Health, EHO student
Mike Robertson	Cheslatta Carrier Nation
Phillip Krauskopf	FLNRORD
Wayne Salewski	Public participant

Table 2. November 16, 2022—WEI Videoconference Participants

Individual	Organization
Alyssa Bourgeois	
Chelsea Josue	
Paul Mozin	
Dan Sneep	Department of Fisheries and Oceans
Maria Sotiropoulos	Department of Fisheries and Oceans
Jennifer Howell	District of Fort St. James
Jennifer Pollard	LWRS
Anna Huang	Northern Health
David Creighton	Northern Health, EHO
Loreen Ngwenya	Northern Health, EHO student
Donna Klingspohn	Public participant
Gina Layte Liston	Public participant
Henry Klassen (telephone)	Public Participant
June Wood	Public participant
Ray Klingspohn	Public participant
Tim Plesko	Public participant
Justin Greer	Regional District of Bulkley-Nechako
Mark Parker	Regional District of Bulkley-Nechako
Zishan Shah	EDI
Lyla Brophy	Nechako Regional Cattlemen’s Association

The following provides a summary of the topics discussed during the videoconference.

WELCOME AND UPDATE

Attendees were welcomed to the meeting and a roundtable of introductions was completed with in-person and online attendees.

AC provided his apologies for having to leave the last meeting abruptly. He was in the control room running emergency power operations. There was a site-wide blackout. This was the first time that this happened in three years and was a very significant event. The recovery went well and contingency plans were well executed. The site recovered power quickly.

Review and Update

- The agenda shared in the pre-meeting package was reviewed with no requested changes or additions.
- Action items from Main Table Meeting 28 were reviewed and included the following updates:

Updates included:

- Action Kevin and Andrew to provide more detail on transmission line capacity discussion:
 - The smelter load remains reduced after the labour dispute last year. The energy export in winter is 400 MW.
 - The question posed at the last meeting was, in high water events, would increased transmission capacity make a difference?
 - Typically, the export limit is in play. If we were able to increase production by 100 MW, it would mean approximately 15 m³/s would be required. As far as the reservoir and flood management, an additional 15 m³/s is a negligible change. Impacts downstream are on the marginal side.
 - For flood management, generation is a small driver, due to the efficiency of the powerhouse. It is the highest efficiency powerhouse in North America.
 - Currently running generation at 800 MW. At times, the Rio Tinto operations is powering Vanderhoof, Prince George and beyond, to northern BC.
 - Question: Can we confirm that all eight generators at Kemano are running?
 - The number of generators is not the limiting factor.
 - Discussion was continued with differing viewpoints including:
 - The amount of water we use could mean the difference between damage versus no damage.
 - If there was a catastrophic failure at Kemano and there was no water consumed by the generators, then we could be in real trouble.
 - The transmission line is a limiting factor. Concern if the transmission is upgraded, then is there a chance that there would be less water going down

the river at any time? We don't want basements to flood, but we probably need more water in the river, not less.

- Linda read from a letter dated 1949 from International Pacific Salmon Commission sharing some of the history of the reservoir.
 - The group agreed that we are here to move forward. This group is trying to respect and understand the history and work to make things better from where we are today.
 - AC shared there is currently some work that BC Hydro is undertaking. Currently have a project plan to increase transmission capacity from PG to Terrace. Series of capacitor banks (Vanderhoof, Burns lake, and Terrace). This is the first phase of the project. (<https://www.bchydro.com/energy-in-bc/projects/pgtc.html>)
- Southside Working Group Update
 - Buoys have been received and locations mapped out. They will be installed in the spring.
 - Wisteria boat launch project is moving forward.

Rio Tinto Operations Update

AC provided an update on Rio Tinto operations.

Action: A request was made that to use the name Cheslatta Lake System instead of Murray-Cheslatta Lake System. It was agreed we would make this change moving forward.

Technical Working Group (TWG) work

The TWG has met three times since the last main table meeting with a focus on refining the PMs. The refined PMs will be discussed later in this meeting.

Meeting overview and objectives

MH provided an overview and the objectives for today's meeting, which was also included in the pre-reading package.

On November 10, 2022, a training session was offered to review the AltaViz and HydroViz tools.

Discussion points arising from the meeting overview:

- Question: We have 60 years of data, but would 20 years not be more accurate to consider with the impacts of climate change?
 - We are using the past 30 years, which is what is recommended currently to look at include considerations for climate change.

- Concern was raised by a member that by starting with Phase 1 items and not going directly to infrastructure (such as a release facility at Kenney Dam). We will be using valuable time if we further delay taking action. The group had a fulsome discussion. In May, it was agreed to start with Phase 1 (things that Rio Tinto can do immediately without any infrastructure changes. Phase 2 will next move ahead and then Phase 3 (physical works projects). **There was agreement and confirmation by members of the WEI Main Table that this is the sequence to follow.**
- Concern was raised that the bookend alternatives are not extreme enough. Extremes would be shutting down Kemano and return the river to what it was, with the other extreme of drying up the river completely and dealing with the consequences. The member felt that we may be picking from a range of options for managing inadequate amounts of water, and a concern that they were going to be asked to vote for things that are not even close to what we need. Would like to see some samples of flow regimes, what they would look like, and what the consequences might be if we had more water coming down the river.
- A member noted that when WEI started there was mistrust, anger, and frustration. We all jumped in to work together. We are contemplating a variety of options here and need to be open-minded and have patience to follow through. All concerns will be tabled and discussed throughout the three phases. Let's all roll up our sleeves and jump on for the ride.

PRELIMINARY PHASE 1 BOOKEND FLOW ALTERNATIVES

Review of flow alternatives—Phase 1, Phase 2, and Phase 3

MH provided an overview of the flow alternatives for each phase: https://www.getinvolvednechako.ca/wp-content/uploads/2022/12/WEI_Table_Meeting_29_presentation_Nov16_2022_Assess_BookendAlts_DRAFT1.pdf

AC provided clarification on Tier 1 energy. Tier 1 is the energy block that BC Hydro considers integral to their network vulnerable times. Typically it is scheduled in late November through to March. The volume of energy is fixed at a certain gigawatt hours. It can be scheduled by BC Hydro as required.

JK provided an overview of the process to develop and review the PMs, reviewed box plots and the median line, understanding the variability https://www.getinvolvednechako.ca/wp-content/uploads/2022/12/WEI_Table_Meeting_29_presentation_Nov16_2022_Assess_BookendAlts_DRAFT1.pdf

Michael and Clayton worked through the “Assessing Bookend Alternatives-Hydrology” section of the presentation slide deck.

They then provided a refresher on the tools we will be using including HydroViz

Katie and Clayton outlined the process to assess bookend alternatives, using shortlisted performance measures. They then described the use of consequence tables.

Michael and Clayton then worked with WEI Participants to walk through a mock alternative ranking exercise. As outlined in their presentation, the purpose of the exercise was to:

- To test out the draft PMs for helping to inform our assessments
- To get a better sense of people’s priorities
- To explore and highlight what we like and don’t like about the bookend alternatives
- To gain insight towards building the first round of Operating Alternatives

A reminder about the Bookend Alternatives was given: They were predicated on LEARNING and not for any one of them to reach agreement on!

In the mock exercise, across all PMs, Alternative 1 had the highest rating. Alternative 1 does well across the swing, then alternative 4 is universally performing well based on absolute swing weighting scores. Alternatives 3 and 5 are both bad based on swing weighting scores.

This would suggest that Alternatives 1 and 4 would be the ones to start with based on what members are weighing their performance measures on.

Comments:

- Question was asked whether Rio Tinto has considered other types of power generation (i.e., solar, etc.) AC responded that they have undertaken general desktop wind studies. The results gave some interesting results, but nothing that has been developed to the magnitude of a deliverable at this stage.
- Gerd stated that we were asked to rank how to distribute insufficient water. It is interesting, but does not approach what we want the river to look like. He says that it is important “to remember we are stuck between Clinton and Trump...neither are a desirable choice, but we may need to step outside of these constraints to find a better solution.”
- Michael commented that the playing field we have with this exercise today is small and may not be addressing all of the points. We need to stick with the priority sequence of looking at Phase 1 (things we can do right now) and then shift gears to the bigger questions (water balance, infrastructure, water release facility, dredging, etc.)
- Michael commented on the most preferred and least preferred. Alternative 3 was not preferred even though it is meant to be better for the core interest of sockeye migration and temperature issues.

NECHAKO SITE TOUR PRESENTATION

JK provided an overview of the observations and highlights of a recent tour

Discussion

- Henry expressed concern, similar to Gerd, that we know from historical flows to current flows (status quo), that the flows supporting the productivity of sturgeon, salmon and riparian habitats is inadequate. He does not like the idea of having people state arbitrary preferences and making choices based on their interests outside of the health of the river. We need to be aware of what the sturgeon recovery group is doing. If we are going to put weight on preserving sturgeon, then we need to provide the habitat of them to survive. We can have debates as many times as we want to, and for as long as we want, but we could get to the point of having no sturgeon left. We need to be a little bit more frank about what we have on the ground. With all respect for the work everyone is doing, including Rio Tinto, it is the provincial government and all of us who are allowing this to happen and are ineffective in making any changes. If I come across now as an angry or frustrated person, I talk on behalf of the sturgeon. We need to get out of the flood plain and let the river do the work.
- Mike commented that he appreciates Michael and the team for putting all of this together. I look forward to your interpretation and being able to translate it. I live on the Chestlatta. Every day I see and feel the impacts on the river and lake system. Mike worked for decades on solutions (primary the water release facility at Kenney Dam). I look forward to Phase 2 and 3 of this exercise when we can honestly address some options. The Cheslatta system has a lot of potential to be rehabilitated. Some of these measures do lessen the impacts on the archaeological sites and erosion. We have to work toward implementing alternatives and design a water prescription based on a natural hydrograph and redistribution of water downstream. I have faith in this. It is just challenging sometimes from my perspective and geographic area.
- Michael thanked everyone for their comments.
- JK commented that he has been in discussion with the sturgeon recovery group. They do not know the cause of sturgeon decline. From the SDM point, it is a bit of a pause. We are getting some new information and will continue to evaluate it at upcoming TWG meetings. There are other things we can do without a PM for sturgeon. Things like adaptive management.
- MH commented that his company works with groups regarding sturgeon. They have done flow experiments. If you bring back the flow, it does not bring back the sturgeon. By the virtue of the fact that there are dams, the turbidity has changed. It is not just flow. It is flow turbidity, habitat, and other factors. which are key drivers for success.
- AC commented that adaptive management is critical.
- MH commented that he is hearing that people want to talk about longer-term changes. He doesn't want to push people down a process down a road you do not want to do go down.

- AC commented that he believes nothing breeds success like success. Let's get rolling and continue to build on that. Phase 2 and 3 are not that far behind.
- James cautioned about skipping ahead to Phase 2 and 3. I think everyone is in agreement that the river requires more water, habitat, and better function for salmon and sturgeon. These processes take time. These are multi-year processes. This is an opportunity to make incremental benefits right away. We should leverage that opportunity recognizing that more needs to be done, but let's focus on what we can have in place in a year, then let's redirect efforts to the longer-term vision for the watershed, system, etc.
- Dennis commented that we have to remind ourselves that unlike the Columbia River, the Nechako is diverted, which leaves us with a big challenge. We need the assistance of the provincial and federal governments.
- Comments about the usefulness of having Jon and the audio-visual set up. Request to have this at future hybrid meetings.
- RR asked if there were any objections to staying with the Phase 1, 2, 3 approach?
- Comment that as long as we know Phase 2 and 3 are coming, then the speaker is good to stay with Phase 1 right now to start.
- Henry commented that he would like us to stay on the Phase 1, 2, 3 approach.
- **There was general agreement to stay with the Phase 1, 2, 3 approach.**
- MH asked if there are changes participants would like to make to the alternatives. MH said that we would send out a form to participants and then compile comments and then make revisions. There were no objections to this approach. Deadline for feedback: December 1 for submission of feedback.
- RR said that the next Main Table meeting would be at the end of March.
- The meeting was adjourned at 4:08 p.m.