



To: WEI Participants

From: Tanya Guenther and Rahul Ray

Date: May 18, 2022

Re: Final Rio Tinto WEI Table Meeting 26 (Videoconference) Summary, April 6, 2022

A videoconference for the Rio Tinto Water Engagement Initiative (WEI) was held on Wednesday, April 6, 2022, from 9:00 a.m. to 1:00 p.m. The videoconference was held instead of an in-person Main Table meeting to promote social distancing in response to COVID-19, while making progress on aspects of the WEI.

This document is a summary of the videoconference and 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. Zishan Shah, EDI, participated as a member of the facilitation team. Tanya Guenther, from EDI, took notes during the meeting and prepared this summary. Jayson Kurtz (JK) from Ecofish Research participated as the Technical Working Group (TWG) coordinator. Katie Healey from Ecofish was present as technical support. Michael Harstone (MH), from Compass Resource Management, participated as a decision analyst. Clayton Schroeder (CS), also from Compass Resource Management, participated as technical support.

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

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

- Agenda, Meeting Summary, Action Item Update
- Rio Tinto Operations Update:
 - Smelter operations
 - T2
 - Potential 2022 operations
- Court case discussion
 - Court Case Status
 - Appeal
 - WEI Participant Question Scoping
 - Options

- Updates
 - Climate Change Studies, Operational Modelling Update
 - Issues Scoping and Technical Memo Updates: Issue Highlights
 - Sturgeon Update
 - Southside Working Group
 - Indigenous Community Engagement
- SDB Process Path
- Bookend Alternative Development
 - Structuring Alternatives and Concepts for Phased Bookend Alternatives
 - Learning, Draft SDM Workplan and Schedule
- Next Steps and Meeting Dates

Table 1 lists the participants that were involved in the videoconference and the organizations they represent.

Table 1. April 6, 2022—WEI Videoconference Participants

Individual	Organization
John Alderliesten	Public participant
Casey Bell	Not identified
Stephen Dery	UNBC
Gerd Erasmus	Public participant
Jennifer Howell	District of Fort St. James
James Jacklin	BC Government
Donna Klingspohn	Public participant
Ray Klingspohn	Public participant
Phillip Krauskopf	BC Government
Taddea Kunkel	Regional District of Bulkley-Nechako
Clint Lambert	Regional District of Bulkley-Nechako
Gina Layte Liston	Public participant
Kevin Moutray	District of Vanderhoof
Mark Parker	Regional District of Bulkley-Nechako
Jerry Petersen	Regional District of Bulkley-Nechako
Ray Pillipow	BC Government
Tim Plesko	Public participant/Southside representative
Mike Robertson	Southside representative / Cheslatta Carrier Nation
Wayne Salewski	Public participant / NEWSS
Carrie Smith	MLA John Rustad's Office
Maria Sotiropoulos	Department of Fisheries and Oceans
Dan Sneep	Department of Fisheries and Oceans
Denis Wood	Public participant
June Wood	Public participant
Not identified	Nechako Watershed Roundtable

Henry Klassen	Public Participant
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The following provides a summary of the topics discussed during the videoconference.

Agenda, Meeting Summary, and Action Items Update

- The agenda was reviewed as presented and the following item was added at the end of the Rio Tinto updates:
 - Water Release Update for Spillway at Kenny Dam (Mike Robertson)
- The WEI Process Guiding Principles were reviewed and discussed.

The WEI Process is intended to provide a vehicle to share interests, review information, develop alternative operating options, and select a preferred option for Rio Tinto to implement in the Nechako region. This option will remain responsive, rather than a plan that “sits on a shelf.”
- The WEI Meeting Ground Rules were reviewed.
 1. Be respectful
 2. Listen actively and be attentive
 3. Try to understand other participant’s perspectives, even if you disagree with them
 4. Be collaborative
 5. Focus on the future
 6. Stay on topic and be concise
 7. Give others a chance to speak
 8. Turn off your electronics
 9. Speak about your interests
 10. Respect the facilitator’s requests

Discussion included:

- Participants are always free to ask questions to understand what the experts are sharing.
 - It was agreed that participants will ask questions about the data, information, or the science, but will not attack or call into question the integrity or professionalism of an individual.
 - Goal is to concentrate on areas of harm (essentially flows of the river and the ecosystem) and how to fix it.
 - Need to remember that the experts are brought in to support Main Table efforts.. This table/initiative/TWG has invited them. The Main Table is driving the process.
- Actions items were reviewed. Updates included:
 - **Action: Rahul to work with WEI Main Table to scope an information session on the court case.**

Rahul sent an email to WEI participants on March 1, 2022. He suggested that WEI participants review some of the legal opinions on the court case available on the internet. Additional discussion will be held on this later in the agenda.

- **Action: Dan Sneep to provide information on all the seasonal salmon runs, not just those affected by the STMP.**

Information provided by Dan was shared in the meeting pre-reading package. If there are any questions about the data, please reach out to Dan.

Discussion included:

- There was a question about how the data will be used to assist with our decision making.
 - For historical context, when the application was submitted to the Energy Board it included the term “no net loss” and included off-site hatcheries in the equation.
 - Need to concentrate time and effort to question over and over again just how much modification can be made to flows based on what is happening politically, socially, etc.
- **Action: WEI representatives to reach out to the Nechako First Nations to see if they are interested in participating in the WEI in some way.**

Efforts have been made to reach out to each First Nation with Territory in the Nechako watershed. There have been some meetings held already with additional meetings planned. The intent is to better understand the interests of each community to shape the flow options.

Rio Tinto Operations Update

- Smelter Operations

Andrew (AC) gave a presentation that included information regarding the current watershed data (precipitation and elevation) and a freshet forecast looking to the spring and next steps.

<https://www.getinvolvednechako.ca/wp-content/uploads/2022/04/WEI-Presentation-20220406.pdf>

Discussion was held following the presentation and included:

- Question from Gerd Erasmus (GE): Does the early snow melt that is draining off affect the ultimate water supply in the river when the snow is gone?
 - AC: Yes. The Nautley watershed is just slightly below average for this year. Nautley River flows are lower than they have been in the last couple of years. All information is factored into the projections.
- There were addition questions about the snowpack:
 - Denis Wood (DW) noted that while feeding the swans on the river twice a day, the river level has gradually increased over the last 2 to 3 weeks, in the range of 6 inches

- across the river. He suspects this reflects the low-level snowpack on the assumption there is no change in the water coming through the spillway.
- Wayne Salewski (WS) shared that several streams are being monitored. The freshet is over in the low elevations, but in other areas, like the top of Murray Creek, it has not started.
 - Jayson Kurtz (JK) shared that the province-wide snowpack ranges between 83% to 130% of normal with the majority sitting at 110%.
 - Stephan Dery asked how much water is being diverted from the reservoir?
 - AC responded that the rate is currently 70 m³/s as production ramps up. Still on track for smelter production ramp up on May 2. Aluminum prices are at the highest level we have seen. The ramp up will be controlled and sustainable.
 - Forecast Flow Questions:
 - WS shared that it would be a shame to flush the water at the wrong time.
 - AC was in agreement. Avoiding spilling water at the wrong time is one of the fundamental low-hanging fruits. The pre-freshet releases are a problem. Last year, they released water in March/April. Every year in April, they review the information and determine how to balance the flows. Those are options we are interested in exploring and unpacking. Finding where the most gains can be made. There will be dry years and water abundant years.
 - Henry Klassen (HK) noted that the permanent snowpack in the mountain ranges has shrunk. If we have summers like the last year (dry and hot) will the snowpack have any impact on that?
 - AC shared that the understanding is that the Nechako does not receive a huge amount of inflow from the permanent snowpack.
 - SD confirmed that was correct. There are not a lot of glaciers in the upper part of the watershed. It is a small contribution overall to the hydrology. Precipitation is a more important factor.
 - Next steps: Continue to refine the steps for the summer and continue working with the TWG.
 - T2
 - AC provided a photo update <https://www.getinvolvednechako.ca/wp-content/uploads/2022/04/Eulachon-T2-Photos.pdf>.
 - It was a strong eulachon run this year.
 - Haisla community members processed 41 tonnes of eulachon. The total run was 110 tonnes.
 - The eulachon protocol was a proxy for adaptive management before it was a buzzword. The best science was used to integrate the operation.
 - AL shared that the eulachon process was smaller but reflects what we are doing with WEI—listening to concerns, making operational adjustments, and studying impacts

to operations. Very proud of this work. The protocol has matured over time and made every effort to protect eggs in the system. Oral history has told us there have been some larger runs, but they are not well documented.

- T2 is well on its way with boring through the tunnel and is in the final stages. Working on the last shotcrete, completing a dental clean (high pressure washing), doing the bifurcation areas, then getting ready to close the doors and seal the gates over the next few weeks.
- Current water update is right around the end of May/early June. Targeting water up at that time. Series of processes to bring the tunnels into parallel, then isolate T1 tunnel and operate on T2. Next the remote operated vehicle will be sent down T1 and then go back on both tunnels and complete commissioning tests. By September/October will stamp that T2 is operating.
- Water Release Update for spillway at Kenney Dam
Mike Robertson (MR) provided an update. Rio Tinto has retained a person in charge of looking at a high-level feasibility of the release facility and a study of historical and current data. The Cheslatta remain very positive.

AC shared that Rio Tinto will take the lead on the order of magnitude/prefeasibility stage and consider tie-in/take-off points for hydro-generating facility downstream of the Kenney Dam to tie into the powerhouse. The First Nations Major Project Coalition (FNMPC) are working on the feasibility/viability.

Court Case Discussion

- Court Case Status
 - Thursday, February 3, 2022, the Saik'uz and Stellat'en expressed their intent to appeal the January 7, 2022, court ruling.
 - Appeal is currently in progress.
- TWG Efforts Related to the Court Case
 - At their March 2, 2022 meeting, the TWG reviewed the Reasons for Judgement. The TWG was not surprised by the findings that flow regulation had affected fish and fish habitat. However, determined that the findings should not change what we are doing through WEI. The work of WEI should continue based on the best available information, identify uncertainty, and make the best decisions and recommendations possible.
- WEI Participant Question Scoping
Questions were asked of participants, including
 - What would you like to receive for additional information?
 - Is there anything that should happen right now, or should we wait for the appeal process?

- Should we continue with our process?

A discussion was held and key points shared included:

- MR asked if there was any indication of the timeline for the appeal, and what is the process? AC shared there is no sense of a timeline and Rio Tinto has only received notice of the appeal and has not yet received the appeal package.
- DW asked if it mattered what we think? The courts are a different world. We may need to sit back and see what happens. It is hopeful that good can come out of the WEI process, but feel that we should plug along and do the best we can.
- TWG has information and is continuing with their work and will continue on. Adaptive management is a critical piece of the WEI process.
- John Alderliesten (JA) asked about the request at the last meeting to get an independent legal opinion. Was that option still on the table?
RR had forwarded an email to Main Table members with information outlining several legal opinions already available for members to review. There could be challenges with finding a legal opinion that the group is all in agreement with.
- DW suggested that as this is under appeal it sheds a different light. It would be helpful for the links to the legal opinions to be sent to Main Table members for review.
- The focus of WEI is rivers. For us to take the time to discuss the legal opinions would not provide anything valuable for the river. Not eager to discuss the legal opinions at this table.
- HK shared that the court ruling pointed out what we used as a reference point in terms of what is wrong with the river and endorsed that flows have a negative effect on sturgeon and salmon. Does not believe that an interruption in our work would be in our favour. We know what we need to do. We knew the stages where the river was healthy, and our job is to get back as close to this as we can. A final ruling is not likely to reverse the findings.

The group acknowledges that the information in the legal opinions is good to have, but does not impact the work of this group.

Action: RR will share the links of the legal opinions for members to review, if they wish.

Updates

- General Updates:
 - TWG continues to meet every 2 weeks and anticipates an increase in meeting duration in the near future. Critical tasks are forthcoming.
 - There is continued work on outreach to Indigenous groups. There has been positive feedback from some communities, however contact with other communities has not been successful. There will be continued follow-up.
- Issues Scoping and Technical Memo Updates: Issue Highlights

- Issues scoping continues and includes the full range of Main Table interests. There are 61 issues/groups of issues. The three steps being taken include technical memos, performance measures, and a scoping document.
- There were eight technical memos in 2021 completed by Ecofish and other specialists. They were reviewed and endorsed by the TWG. The members were provided to the Main Table and will be summarized in a Scoping Document.
- There are 21 technical memos under development
- Concurrently, the TWG is developing draft coarse performance measures for initial structured decision making. The performance measures will be refined along the way.
- Sturgeon Update
 - JK attended the NWSRI TWG meeting on February 15, 2022, and provided a general update about the WEI process and issues scoping. There was a great discussion on options including waiting for the NWSRI to complete their work, conducting a jurisdictional scan, developing performance measures, relying on professional opinion, and adaptive management. There was general agreement to collaborate more and consider a sturgeon subcommittee.
 - Technical memo is underway.

A discussion was held following the sturgeon update and included:

- June Wood (JW) asked if the Nechako was the only river that has water diverted? Is it a unique case or is there another river with a diversion?
- JK shared that each population is unique and the Nechako is unique with the cross-basin diversion. Not sure if there is another watershed with sturgeon and a cross-basin diversion. There are many watersheds with sturgeon that have dams and altered flow regimes.
- GE asked if they were having the same issues in other rivers where sturgeon are being studied and managed?
- JK shared that in general they are having similar issues. The recovery initiative here in the Nechako is looking at what is being learned and studied elsewhere.
- HK asked how many decades are there left to us to continue to study? We are studying things in great detail and it is very interesting; however, the clock is really ticking. How long does it take for us to get to a point where there is understanding of what the problem is?
- JK shared that the best researchers are looking at it, but we do not know enough. A key piece is looking at adaptive management, doing experiments, and changing flows to see what the response is. TWG and Ecofish will put forward as much information as they can. There are a lot of smart eyes on this. We know about the velocity of water that is best for salmon, but we do not know this yet for sturgeon.
- HK asked how long until we can see results with a modified flow regimen? Sturgeon produce a large number of eggs and we know the survival rate is small.

- JK shared that a goal is to get adult sturgeon coming back to spawn. It is about 30 to 40 years before today's eggs are returning to spawn. The approach is to monitor for eggs and larva to see that successful spawning has happened. We can get results in a year with the right conditions, then it takes several steps, and ultimately decades before we have everything.
- Climate Change Studies, Operational Modelling
 - Climate change efforts are being led by Rio Tinto with primary academic research through several universities and supported by the TWG and Ecofish.
 - Collaborating with active research on climate change with a multiple model approach using the most up-to-date methods and data while looking at a Nechako-specific climate change model.
 - Modelling has been completed at Nautley for daily flow and temperature.
 - Models have been successfully calibrated and validated for Stuart, Nautley, and Upper Nechako. There is continued collection and evaluation of climate data for future simulations. Simulations are being run for future scenarios 50 to 100 years into the future and include mid-range to high-end climate models.
- Southside Working Group
 - The fourth meeting of the SWG was held on January 11, 2022. The March meeting was postponed due to expected absences.
 - Intent of the group is to advance non-flow options.
 - Colin Parkinson, a navigation specialist, is supporting the SWG.
 - All recommendations from the SWG will flow through the Main Table.
 - Navigation channels and buoy/navigation aids are currently being explored including buoy designs, proposed locations, ground truth locations, installation of buoys and monitoring of performance.
 - Options for docks are being explored including potential Wistaria Provincial Park upgrades, and the Landing Road dock near Wistaria.
 - Other topics being investigated include mapping tools, submerged timber, and survey equipment.

Discussion was held following the SWG update and included:

- Donna Klingspohn (DK) had asked at the last meeting about how to get more information. Traditional knowledge keepers would be others to talk to. Information about an atlas was forwarded to RR. Are there Elders or others who could contribute?
- RR shared that Elder/Indigenous knowledge is very valuable. We are working to encourage community involvement in our process and it is vital to our success. Rio Tinto is looking to involve communities on the technical side.

- JK shared that some of the questions we are asking include what conditions do fish need? What do caribou need? We are getting some good information. We will be asking about how changes have happened over time.

Structure Decision Making (SDM): Process Path

Michael Harstone (MH) gave a presentation https://www.getinvolvednechako.ca/wp-content/uploads/2022/04/WEI_Table_Meeting_26_presentation_Apr6_2022_SDMProcess_BookendAlter_Slides.pdf. The presentation reviewed the process of SDM, the WEI process steps, the current workplan, and the SDM process.

Discussion following the process presentation included:

- Members thanked MH for the detailed presentation and the thoughtful layout of the process. Members are excited to move along into this next phase.
- Dan Sneep (DS) shared that this is a well-established practice that has been used by BC Hydro for some contentious decisions. It showed that groups (with animosity and distrust between them) could come together and reach a consensus. Bookend alternatives establish the bounds of the extremes and how they perform, then find the middle ground where participants can often agree.
- HK shared that the watershed council had worked on a consensus model, although at the outset it did not look like it could work. Positions are often entrenched. He encouraged everyone to embrace this process. It allows for discussion and understanding of concerns from all. It does take work and more courage to listen than speak.
- WS asked how we ensure adaptive management (AM) opportunities in the future? The failure of past agreements has been with the company doing what they agreed to, even if it was wrong.
 - MH shared that the vision is that AM is interwoven into whatever options are agreed to. In some plans there may be trials to address and learn through the process. We could agree to what a future regimen would look like.
 - AC shared that there is an opportunity learn from the processes and monitoring that are in place. Look at the current best thinking, see how far we can go and continue to grow and adapt. With the eulachon protocol, it was purposeful in the naming of “protocol.” As thinking has grown and evolved, the protocol has grown and adapted. We look at the intent of the fisheries health and build the protocol into an operational context. How we do that within the legal framework, permits and authorizations will be another topic to tackle.

MH continued the presentation with structuring and sequencing bookend alternatives. Key points shared were:

- The purpose of bookend alternatives are to:
 - explore and better understand opportunities, challenges, and constraints of the hydrology;
 - further scope water uses and interests, and identify the most sensitive to operational flow changes;
 - test preliminary performance measures;

- gain insight into the performance of different flow alternatives and develop creative and improved alternatives; and,
 - gain insight into the values of others and identify flow alternatives to reach agreement on a preferred alternative.
- Bookends are theme-based, and they are not designed to be viable options, but should be considered as a starting point. They are designed as a basis to learn from and build the next round of alternatives that are multi-interest focused.
- Proposed structure to look at Phase 1 (immediate term), Phase 2 (near and medium term), and Phase 3 (medium and longer term).
 - **Phase 1:** Timeline for implementation of 0 to 2 years. These would include flow alternatives that Rio Tinto could make in the immediate term with notification to regulators, First Nations, and stakeholders.
 - **Phase 2:** Timeline for implementation 2 to 4 years. These would include flow alternatives that would require Rio Tinto to seek some form of approval/authorization(s) according to their existing water license and/or flow-related agreements and/or commitments with First Nations.
 - **Phase 3:** Timeline for implementation is 4 to 7 years. These would include a combination of new water management facilities (mitigation/enhancement projects) and potential changes to flow releases to the Nechako River to maintain and/or improve conditions related to key water uses.

Discussion was held following the sequencing presentation and included:

- DS shared that the Water Use Plan will have “triggers” that would be a re-opening/re-thinking of the plan (i.e., infrastructure, etc.).
- DK asked if there has been a prioritization of the objectives identified?
- MH shared that the bookend alternatives will be developed and may represent multiple objectives. It is proposed that we develop theme-based objectives that could meet multiple objectives.
- WS asked about how oversight would be provided in the coming decades.
- AC shared that the current governance model does not include First Nations and is not the way of the future. We need to look at what governance and oversight looks like including First Nations, governments, regulators, and stakeholders.
- DS added that a key regulatory instrument is an authorization. It has shown to be effective with BC Hydro. It has been the approach, and would seek to implement that here as well, but it is ultimately up to the proponent to apply for that.

Next Steps and Meeting Dates

- Wednesday, May 25, 2022 (virtual meeting)
- Wednesday, July 13, 2022
- Wednesday, September 21, 2022

Discussion was held of transitioning back to in-person meetings. There appears to be increasing numbers of COVID cases in Vanderhoof again. There was agreement to continue with meeting virtually in May and re-evaluate for the July meeting.

With the discussion of the bookend alternatives, additional meeting time may be needed. We may need to extend our meetings to 3 or 4 p.m.

With the shorter amount of time between the May and July meetings, there may be a higher amount of pre-reading sent out in the meeting package. This will be sent out a week prior to the meeting.

MEETING ADJOURNED

The meeting was adjourned at 1 p.m.

ACTION ITEMS

- **ACTION ITEM:** RR will share the links of the legal opinions for members to review, if they wish.