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**To:** WEI Meeting Participants

**From:** Brodie Smith and Rahul Ray

**Date:** June 29, 2021

**Re:** Final Rio Tinto WEI Table Meeting 21 (Videoconference) Summary, June 16, 2021

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A videoconference for the Rio Tinto Water Engagement Initiative (WEI) was held on Wednesday, June 16, 2021, from 9:00 am to 12:15 pm. 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. Brodie Smith, also from EDI, took notes during the meeting and prepared this summary. Jayson Kurtz (JK) and Jennifer Carter (JCa) from Ecofish Research participated as the Technical Working Group (TWG) coordinators. Katie Healey from Ecofish Research participated as technical support.

Andy Lecuyer (AL), Rio Tinto Senior Environmental Advisor, participated as the Rio Tinto WEI Table member. Andrew Czornohalan was unable to participate in this meeting. Devrie Sanghera (DS), Communities & Social Performance Advisor, Rio Tinto, participated in the videoconference as support.

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

- Meeting summary comment review
- Action items from Meeting 20
- WEI Elements Update
  - Communication improvements
  - Reservoir Working Group (Southside Working Group) update
  - Flow-related activities, including Technical Working Group (TWG) summary
  - Related initiatives
- WEI scenario building
  - Discussion of objective refinement and Performance Measures (PMs)
  - Discussion of scenario development; and
  - Discussion of simple PMs and scenarios
- Review draft WEI process update
- Confirm next Main Table meeting dates

At the meeting, WEI Participants reviewed the draft agenda. No revisions were made.

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

Table 1. June 16, 2021 - WEI Videoconference Participants

<b>Individual</b>	<b>Organization</b>
John Alderliesten	Public participant
Lyla Brophy	Nechako Regional Cattlemen's Association
David Creighton	Northern Health
Stephen Dery	UNBC
Gerd Erasmus	Public participant
Jennifer Howell	District of Fort St. James
James Jacklin	FLNRORD
Henry Klassen	Public participant
Donna Klingspohn	Public participant
Ray Klingspohn	Public participant
Phillip Krauskopf	FLNRORD
Deborah Jones-Middleton	Protective Services - Regional District of Bulkley Nechako
Gina Layte-Listen	Public participant
Jason Llewellyn	Regional District of Bulkley-Nechako
Kim Menounos	Fraser Basin Council
Kevin Moutray	District of Vanderhoof
Mark Parker	Regional District of Bulkley-Nechako
Jerry Petersen	Regional District of Bulkley-Nechako
Tim Plesko	Public participant/Southside representative
Ray Pillipow	FLNRORD
Wayne Salewski	Public participant / NEWSS
Dan Sneep	Department of Fisheries and Oceans
Dennis Wood	Public participant
June Wood	Public participant

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

- RR opened the meeting by welcoming participants and reviewing the draft agenda.
- RR reviewed the Main Table 20 Meeting Summary. There were no suggested revisions to the meeting summary from WEI participants. All meeting summaries are available on the Get Involved Nechako website: <https://www.getinvolvednechako.ca/wei>
- RR reviewed action items from Meeting 20:
  - **Action Item:** RR will get photos and information about the Vanderhoof trails from Kevin Moutray (KM) and will make them available to Main Table participants **Update:** Photo and bathymetry information provided by KM and was included as part of the meeting pre-read package.
    - Henry Klassen (HK) asked if the flooding of the trails was a result of the flows at Skins Lake or at Vanderhoof. KM replied it was due to the flows at Vanderhoof.
    - RR asked if there were other sensitive areas and asked for confirmation that flooding of these areas in the fall caused the trails to be iced over. KM confirmed that flooding in the fall creates ice on the trails. He added that the photos are the start of the flooding sensitive areas.
    - RR asked if KM could take additional photos for the Main Table, and KM agreed.
    - HK asked if the trail was circular and if the flooding prevented people from using the rest of the trail system. KM replied that there a rough secondary trail that could be used to get around the flooding, but mostly the flooding blocked the use of the trail. It is understood and expected by users that this happens during freshet. HK asked if additional trails could be developed to go around the flooded area. KM responded that this was a possibility.
- Tim Plesko (TP) asked if similar flooding was still occurring near Prince George. He noted that Cottonwood Park also used to flood during freshet and other high-water events. James Jacklin (JJ) responded that yes, the flooding still occurs annually. The city closes the park for a few weeks while the area is flooded. TP asked if there was concern in this area around ice jams, and effects from operations. JK answered that he would follow up about the ice jams near Prince George. From his understanding, there was no discussion about the annual flooding in the park in relation to operations given the infrastructure updates in the area.
- **NEW ACTION ITEM: Kevin Moutray will provide additional photos of flooded trails near Vanderhoof and RR will make them available to the Main Table participants.**

- **Action Item:** RR to get the report on otter predation of newly released sturgeon from Trevor Rhodes and will share with the Main Table participants. **Update:** The report has been requested from Trevor Rhodes.
- **Action Item:** RR will prepare a draft summary that will provide an update from the Main Table. **Update:** A draft update was provided as part of meeting pre-read package. The Main Table will review and revise the summary today. Rahul will then finalize the text and post the update.
- **NEW ACTION ITEM: JK to find out if there is a concern of ice jams and flooding near Prince George, possibly near Cottonwood Park, and its relation to operations.**
- RR reviewed the WEI Elements:
  - Communication improvements (Devrie Sanghera)
  - Reservoir Working Group (Southside Working Group) (Rahul Ray)
  - Flow-related activities, including TWG summary (Jayson Kurtz)
  - Related initiatives: World Rivers Day
- Devrie Sanghera (DS), Communities and Social Performance Advisor for Rio Tinto, provided an update on Communication improvements. The Flow Facts survey started about 1.5 weeks ago and will keep running until June 25, 2021. The survey is to help better understand what is and is not working with Flow Facts, and to get feedback from regular Flow Facts users. The survey only takes a few minutes and DS encouraged participants to complete it. Results will be provided in the next meeting. Rio Tinto will be updating the Get Involved Nechako website in the fall, and improvements to Flow Facts will be the biggest piece. Work is also continuing for the flood emergency preparedness planning. Rio Tinto is working on it internally and reaching out to contacts. A recent meet and greet was hosted in Vanderhoof so that community members could become acquainted with Rio Tinto staff.
- RR asked if DS has been in contact with Lyla Brophy (LB) and other various groups. LB responded that yes, she had. LB has been able to provide some feedback and the increased communication is great and very appreciated. DS asked for Main Table participants to reach out to her at any time at [Devrie.Sanghera@riotinto.com](mailto:Devrie.Sanghera@riotinto.com)
- RR provided an update on the Southside Working Group. He reviewed a few of the key actions that came out of the second Southside workshop.
  - Boat tour: This tour will identify erosional hotspots in the reservoir.
    - AL provided an update. The trip is scheduled for July, as long as that complies with COVID regulations. If they cannot go in July, the trip will be scheduled for September. Experts will be brought in to evaluate erosion and wind action.

- TP noted that August would be a better alternate date than September. In order to properly capture the erosion issues, the team should aim for an August visit if the July visit is not possible. AL thanked TP and will update the plan with that advice.
- Navigation coordinator: An individual has been identified to lead a Navigation group for the reservoir.
  - JK added that the individual has spent most of his career working with various organizations and government on navigation issues and is familiar with the government's rules and what non-governmental organizations can do. He can help the Navigation Table work through issues and find a practical solution to navigation in the reservoir.
- Ootsa Lake Forestry Camp campsites
  - AL noted that he does not have any information at this time, but he will follow up and provide an update to the Main Table at the next meeting.
- Rio Tinto FireSmarting
  - AL stated that planning is underway, and they are working on developing a plan. Some of the properties are quite large, so fire breaks might be used. AL will reach out to the group to discuss the firebreaks and their locations since they are sometimes not visually appealing.
- Continuous improvement: proposed reservoir advisory group.
  - A document has been created to help guide this process. There has been some communication between Rio Tinto and residents, and interest in having more regular discussions.
- **ACTION ITEM: Andy Lecuyer to provide an update on the Ootsa Lake Forestry Camp campsites.**
- JK provided an update from the Technical Working Group. He reviewed the meetings and participants
  - They continue to hold bi-weekly meetings (except for May 26 as there was a conflict with the Nechako Watershed Roundtable spring technical meeting)
  - Great participation from Duncan, Nikolaus, Dan, Wayne, and Stephan, supported by Kevin and Gary
- JK attended the Nechako Watershed Roundtable (NWR) spring technical meeting:
  - Great participation from WEI participants

- Connecting water and land use planning
  - Presentation from BC on Water Sustainability Plan – ordered by Government.
  - Lakes Monitoring program (Wayne): Water Quality (WQ) assessments; and monitoring will begin on Takla and Trembleur Lakes looking at WQ and productivity.
  - Integrated Watershed Research group – similar information that Stephan has been providing to the WEI.
  - Breakouts: Strategic Goals and Actions, and Stewardship portal partnership
  - Discussion on how NWR can support technical and on the ground projects
  - JK added that he was really happy to participate in the NWR. KM added that the NWR is a good place to share ideas and facilitate discussion. It also helps bring more people into this process and share resources. Kim Menounos (KMe) added that she was pleased JK could join for the NWR meeting. The annual meeting is in the fall and everyone is invited to join. She will let the Main Table know when the date has been set. The NWR will also soon have some results from technical projects to share.
- JK reviewed the four tasks of the WEI Technical Working Group:
    - Brainstorm/scope remaining interests (very close to complete)
    - Technical work and data summaries
    - Develop Performance Measures
    - Prepare modeling
- JK reviewed the studies being completed by the WEI Technical Working Group to support the list of interests identified by WEI participants (updates since Meeting 20 are in **bold**):
    - Fish and Wildlife:
      - **Mussels, muskrat, and river otter were added to the list of interests**
      - Naturalized hydrograph (complete)
      - Salmon temperature tolerance review (**final review**)
      - **Non-salmon temperature review (in progress)**
      - Ramping assessment for the river (**final review**)
      - Entrainment assessment (**final review**)
      - **Reservoir spawning tributary mapping (pending)**
      - Productivity, water quality, temperature assessment (in progress)
      - Habitat suitability assessment (in progress)
      - Temperature/flow analysis (in progress)
      - Bathymetric/topographic mapping (**in progress**)
      - Habitat/side channel confirmation (**in progress**)

- **Mussel species backgrounder (in progress)** – mussels were not brought up by the Main Table but were identified as an interest by the Technical Working Group. There is currently not a lot that is known.
  - **Fish/aquatics information matrix (in progress)** – working on identifying data gaps and figuring out what studies need to be complete in the future.
  - Reservoir standing trees summary **(final review)**
  - Wetland assessment **(final review)**
  - Review of wildlife species and habitat use **(final review)**
  - Cottonwood review **(in progress)** – Cottonwood are an important trees species in riparian areas. They have a unique way of reproducing by producing suckers and also seeds. When they do seed, they have very specific requirements including a high river to distribute the seeds, followed by low water to allow the seeds to germinate properly. Poor cottonwood recruitment results in stands that are the same age, caused by a lack of conditions that allow for seed distribution and germination from multiple years. Good recruitment results in multi-aged stands. The Technical Working Group will investigate if cottonwood recruitment has been good or poor, and then what further work is needed if recruitment is poor.
- Human Health (100% complete):
    - WQ site summary (complete)
    - Water Intake Best Management Practices (BMPs) (complete)
  - Culture and Heritage: No studies are being undertaken.
  - Flooding and Erosion (50% complete):
    - Naturalized hydrograph (complete)
    - Vanderhoof ice jam study **(complete)**
    - Detailed bathymetric/topographic mapping study **(complete)**
    - RDBN flood mapping (in progress)
    - Canvass landowners (pending)
  - Recreation and Navigation (50% complete):
    - Float plane bathymetry (complete)
    - Reservoir navigation assessment (pending)
  - Rio Tinto Operations: studies still to be determined.
- JK reviewed the modeling work being completed by the Technical Working Group:
    - Predict how well different flow alternatives meet each interest (calculate consequence table)

- Scientific approach calibrated with existing data
- Allows us to test variables (water volume, discharge timing, hard and soft constraints) main models:
  - Reservoir optimization model
  - Reservoir Digital Elevation Model
  - River hydrodynamic model
  - Temperature model
  - Performance Measure specific models: fish habitat suitability, and reservoir productivity
- JK reviewed the Naturalized Hydrograph and introduced the Nechako Interactive Flow Tool that compares actual flows with flows that would occur in a naturalized version of the system. Gerd Erasmus (GE) asked for some clarification on what the different lines represented on the hydrograph and in the tool as they look similar when they are not. JK was able to clarify. June Wood (JW) suggested that “Actual Flows” should be called “Current Flows,” since “Actual Flows” makes it sound like these flows are normal. JK thanked her for the suggestion.
- RR introduced World Rivers Day as a related initiative. World Rivers day occurs on September 26, 2021 and provides a global focus on rivers. He asked if the WEI is interested in participating in some way.
  - HK responded that they are all participating already with the work they do year-round to improve conditions in the river! Previously, World Rivers Day was a very good opportunity to set a stage for the public to participate and for the group to communicate to the public about the work being done. It is also a good opportunity to hear the viewpoints of people who may not always participate. He thought it would be a great opportunity lost if the WEI did not participate in it.
  - Ray Klingspohn (RK) agreed that the WEI should definitely participate. It increases public awareness and is a good opportunity to get more folks to participate. Events could be developed around World Rivers Day, but they do not have to be lengthy events, and could involve all the communities from Prince George to the Spillway. The World Rivers Day organization provides support through posters and website links.
  - JK noted that he lived in Prince George for a decade, and it was an elaborate event every year. It is a great opportunity to participate and to share important information from this group.
- RR asked if the WEI participation in World Rivers Day should be done with Rio Tinto or as a separate initiative.
  - HK responded that with all the work that happens around the river, he did not think any discussion or promotion should happen without involving Rio Tinto, since the management



and operations are an important piece. The issues are being defined in a collaborative way, so we should participate in the event together.

- None of the participants objected to working with Rio Tinto.
- RR asked if a small working group should be formed with DS to plan for this event.
  - DS agreed that this would be a good idea. She noted that there has already been some internal discussion about preparing for the event.
  - Gina Layte-Listen, Donna Klingspohn, Ray Klingspohn, Henry Klassen and Kevin Moutray volunteered to be a part of the working group.
- **ACTION ITEM: Devrie Sanghera will organize the working group for World Rivers Day with WEI participants.**
- RR noted that the WEI work is moving along now, and into the next phase. JK added that it has been a lot of scoping, and the table has raised many good interests. It has been a lot of work to understand the interests and figure out how to best evaluate them. He agreed with RR that we are now at the edge of a transition.
- JK introduced the presentation “Scoping and Modelling Overview.” Topics included:
  - Issues Scoping (presented by Jennifer Carter)
  - Modelling Overview (presented by Katie Healey)
  - Example Consequence Table (presented by Jayson Kurtz)
  - Proposal for July Meeting (presented by Jayson Kurtz)
- JCa introduced Issues Scoping
  - Define Impact Hypothesis
  - Screening
    - Is the issue water level or flow-dependent? Linked to RT operations? Sensitive over operational water level/flow range? If the answer is no, then the issue is deemed out of scope.
    - Example: Large woody debris restricting caribou migration. This issue is caused primarily by the reservoir formation and there is no explicit link to operational control. Studies on large woody debris removal are currently being conducted to address this issue.
  - Scoping

- Confirm impact hypothesis, identify key information: timing, location, relative, and magnitude of effect. If there is insufficient information, that it is flagged as a data gap.
  - Example: Shoreline steepness restricting caribou migration. There were concerns around low water levels exposing steep shorelines. Steep muddy shorelines may affect the ease at which caribou are able access the water and the shore when crossing the reservoir during migration or swimming to calving islands. However, there was no specific information available to confirm the impact hypothesis, and the issue was flagged as a data gap.
- Performance Measure development
- Gather information to develop performance measures. If there is insufficient information to develop a performance measure, we may be able to adopt one from another issue with similar requirements, timing and location. This is consistent with the approach taken with some other WUPs.
  - Example: Overwintering flows. Proxy Performance Measure. Suitability of overwintering habitat is related to reservoir operation and water level, but there is not sufficient data to develop a performance measure. However, there is a performance measure for incubation flows, and it can be assumed that incubation flows are sufficient overwintering flows. So, the incubation flow performance measure can be used as an interim proxy for the overwintering flow performance measure.
  - In some cases, there is sufficient information, and a performance measure can be developed.
  - Example: Caribou Calving Islands New Performance Measure. As water levels drop, land bridges can form between calving islands and the mainland so that the islands are no longer isolated. This may lead to wolves accessing the calving islands. Low water levels occur in April, which corresponds to calving migration. The issue required more investigation including communications with parks, provincial biologists, other consultants that have done the work. Since the locations of the islands were known this hypothesis was confirmed through DEM mapping across historic water levels. Elevations at which drawdown would cause land bridges could be obtained, and then used to develop a performance measure.
  - In other cases, there are existing performance measures for some issues.
  - Example: Overbank Flooding at Vanderhoof Existing Performance Measure. Rio Tinto currently operates with flood criteria of 550 m<sup>3</sup>/s at Vanderhoof. These criteria are based on modeling and empirical observations. The process can help refine these existing performance measures.
- JCa reviewed a list of several supporting studies for the development of the performance measures:

- Nechako Reservoir wetland assessment
  - Nechako Reservoir wildlife assessment
  - Entrainment risk assessment
  - Ramping assessment
  - Reservoir erosion and driftwood: development of best practices
  - Water temperature effects on salmon literature review
  - River Erosion: attributing factors literature review
  - Nechako Reservoir productivity, water quality and thermocline
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- JK noted that this is what the Technical Working Group does behind the scenes, and all of these findings will be brought to the Main Table. If there are interests that cannot be covered well or if there are additional interests, they will be identified, and the Main Table will be notified. The Technical Working Group may be able to indicate which interests can be addressed through flow changes, and also which interests may be addressed through other means.
  
  - Katie Healey (KH) is an Environmental Flow Scientist with Ecofish Research, and she presented the Modelling Overview section.
    - What is a model and why they are used?
      - Modelling is an imperfect representation of reality. Models are useful when we want to evaluate different options without running a physical experiment. Models can also be used to try and optimize an objective. KH provided a simplified example of a model using a garden bed.
  
    - Modelling used in Structured Decision Making.
      - Modelling allows us to efficiently ‘experiment’ with different flow alternatives, and will allow us to evaluate options for flow management
      - Modelling provides: Structure, Transparency, and Predictions
  
    - Types of models for Nechako:
      - Rio Tinto Flow Model: There is a hydrotechnical model that RT uses to predict flow and water level. Output is the water level and flow for each alternative. Rio Tinto is responsible (based on alternatives from the Main Table).
      - Performance Measures (multiple): Output is a relationship between objectives and flow. Technical experts are responsible (based on objectives from the Main Table). Many different models will be used to evaluate different performance measures

- Consequences: Output is the consequences of different alternatives on objectives. The Main Table is responsible. JK will focus his discussion on the modelling that will be used to evaluate trade-offs.
- JK presented the Example Consequence Table section. He reviewed an example consequence table with three objectives and two performance measures for each objective. Each was run through a flow alternative and was rated from dark red (worst case) to dark green (best case). For two of the objectives, two of the performance measures were very similar (there was no sensitivity shown between them). Because of this similarity, two of the performance measures can be removed from the consequence table, simplifying it from six to four performance measures. He discussed each objective across the range of alternatives, and some alternatives were removed due to unacceptable consequences. Using the best parts of the remaining alternatives, a fifth and improved alternate was developed. Through the discussion of trade-offs, a consensus may be reached, and an alternative chosen.
- Dan Sneep (DSn) noted that it is important not to drop the performance measures too early, because they may inform future alternatives. JK replied that that is an important point. For now, this is just example of how it might be done. He added that there will be a lot of discussion about this topic in subsequent meetings. This is the heart of the Structured Decision Making process and trade-off analysis.
- DK noted that this was a huge amount of work. She asked if there was an idea of how many models and performance measures will need to be created, and if there was a timeline. JK answered that this is what the Technical Working Group is working on now. They are unsure of how many models will be needed, but they are getting close to figuring it out. Two meetings from now they will have recommendations for the Main Table. There are approximately 80 interests, and they may end up with about 20 objectives. But that list may need to be narrowed down further. DK said she looked forward to the next steps and thanked JK.
- June Wood (JW) noted that she really hoped that the Main Table will be back to face-to-face meetings when it is time to get to these discussions. RR responded that he hopes they will be back to face-to-face meetings in September
- HK noted that with the number of interests that have to be analyzed and cross-referenced, would it not be easier to categorize them all into two or three umbrella interests and use a clearly stated goal, such as sturgeon sustainability as a priority, to move forward. A lot of issues will be covered by the flows that support sturgeon. This could save some time. JK replied that this is an important point. However, initially the full range of interests needs to be looked at. If it looks like the flows for various species are similar, then just one of them can be used to represent the other species , i.e., It could be shown that flows for sturgeon will also support flows for salmon, so the flows for sturgeon will be carried forward. It is important to look at all the interests, use this process to consider all the flows required for the interests and then narrow down the list. At the moment the Technical Working Group and world experts still do not

understand the best flows for sturgeon. HK responded that the sturgeon had everything they needed pre-1948. JK replied that flow scenarios can be run that look like the pre-1948 flows.

- JK noted that they will look for performance measures that are not sensitive across the interests and then hopefully narrow down the lists. Other process for other watersheds have started out with large lists of interests and were able to narrow it down to work through the process. Patience will be needed to work through the process.
- HK noted that if a model flow is developed that will be great for sturgeon, that the flows may not be modified due to the social and economic climate, and there will not be an opportunity to enact these flows in the river to see if it actually works. It seems like there might be a more efficient way. He added that he understands what is being described and can appreciate the complications. He hopes the meetings will be in person soon. JK responded that it will be very beneficial to meet in person again. It will be complicated, but the process does work, and the alternatives will be narrowed down. Because the process is based on modeling and consequence tables with numbers, there is assurance that the process is being worked through properly. Often there are many surprises, and it is found that what is good for one interest will be good, or bad, for another interest.
- GE noted that some of the objectives will be weighted differently, they are not all equal. Some objectives will be unchallengeable, while others are nice but not necessary. JK thanks GE for his point and noted that this is important. The process involves weighting some interests above others. JW agreed with GE that weighting will be very important, and thanked GE for bringing up the point. JK noted that the goal is to balance the interests, but some will end up weighted more heavily than others. There will be tough decisions to make, and there will be a lot of support for the table when it comes time to make those decisions.
- JK introduced the proposed topics for the July meeting.
  - At the next meeting he would like to cover the following:
    - Provide more detail on the flow model and modelling for specific Performance Measures
    - Present a sample consequence table for some interim Performance Measures and trial alternatives
    - Discuss trade-offs between the trial alternatives
  - The Technical Working Group will work on refining the performance measures for interim calculations
    - **Objective:** Minimize temperature effects on salmon migration. **Interim Performance Measure:** Average daily flow at Vanderhoof between July 1 and Sept 30. **Preferred Direction:** High.

- **Objective:** Minimize salmon incubation mortality (also proxy for overwintering). **Interim Performance Measure:** Difference between average spawning flow and minimum incubation flow at Cheslatta Falls. **Preferred Direction:** Low.
  - **Objective:** Minimize fish stranding mortality. **Interim Performance Measure:** Maximum daily change in water level at Cheslatta Falls. **Preferred Direction:** Low.
  - **Objective:** Minimize land connections to caribou calving islands. **Interim Performance Measure:** Days where reservoir elevation is less than 852 m between May 1 and June 30. **Preferred Direction:** Low.
  - **Objective:** Minimize inundation and erosion of gravesites. **Interim Performance Measure:** Number of days flow at Cheslatta falls >330m<sup>3</sup>/s. **Preferred Direction:** Low.
  - **Objective:** Minimize open-water, overbank flooding. **Interim Performance Measure:** Number of days at Vanderhoof where flow exceeds 550 m<sup>3</sup>/s. **Preferred Direction:** Low.
  - **Objective:** Minimize flooding of hiking trails. **Interim Performance Measure:** Number of days at Vanderhoof where flow exceeds 355 m<sup>3</sup>/s. **Preferred Direction:** Low.
  - **Objective:** Maximize access to boat docks and launches. **Interim Performance Measure:** Average reservoir elevation between (date TBD) and (date TBD). **Preferred Direction:** High.
  - **Objective:** Maximize RTA revenue. **Interim Performance Measure:** Average difference between reservoir inflow and outflow. **Preferred Direction:** High.
- Purpose of trial alternatives:
    - Demonstrate how performance measures respond to flow management decisions
    - Demonstrate some of the trade-offs that may be required in SDM process
    - Provide a starting point to inform discussion of potential alternatives
    - **Not intended as a future operational regime.**
  - JK provided what some comparison flows could look like through several diagrams.
- JK asked what the participants thought of the proposal to do a mock run through of the process at the next meeting. He outlined the three test scenarios that could be run. There was no objection.
  - KM asked if it would be possible to add a fourth alternative that mirrored natural freshet. JK said it could be possible, but not with current modeling. When the process is run through for real, then they can run through whatever scenario the group wants.
  - DS<sub>n</sub> noted that these are the historic flow regimes, and other components have changed. It will be good to keep in mind that whatever numbers are put through might not actually reflect what is happening throughout the watershed. JK thanked DS<sub>n</sub> for pointing this out and stated that this will just be an example.

- HK noted that he went through similar scenario when they discovered at the end of the process that the cold-water facility would not be possible for maintaining water temperatures. There was value in the modeling then, and HK anticipates there will be now too. JK thanked HK for the example. The model helped to understand the negative consequences of an action that the group had assumed would help. This shows the importance of the process, and not just making assumptions and looking at the hydrograph.
- Dennis Wood (DW) pointed out that he would like to see a water bump in November and December to help look after the salmon eggs. JK replied that this scenario can be run to see what the benefits are, and what that means for flows during other times of the year and the effects on the other interests.
- There were no objections to pursuing this exercise in the July meeting.
- JK added that this will be a really important step. It will show what the alternatives will look like and will be a very good starting point. The exercise will help the Main Table to craft the alternatives and move forward.
- RR introduced the new phase of the process:
  - We are heading into a new phase of the WEI process
  - Action oriented, building on the information we have compiled
  - Building scenarios, conducting trade-off analyses
  - We will be adding an additional team member
  - Michael Harstone will support WEI participants as a decision analyst.
    - Michael has 20 years of experience working in the water sector as a decision analyst, environmental planner, water resources engineer, and facilitator. He led the development and implementation of regional, provincial, and transboundary water resource management technical and public planning processes. RR will circulate his resume.
    - Michael's role will be supporting the Main Table as you develop alternatives, conduct trade-off analysis, and recommend options.
    - Michael will be independent. Rahul will continue to be the overall facilitator and Jayson will be the technical coordinator.
- **ACTION ITEM: RR to circulate Michael Harstone's bio to the Main Table.**
- RR asked if there were any questions or comments about the addition of Michael to the team. DSn noted that he has worked with Michael for 20+ years, including on water use planning with BC Hydro, and that he had authored technical text on the subject. He is very experienced and will be a great asset. HK added that from time to time, the group needs to increase their personnel to improve. It will help keep

everything moving forward with energy and progress and will add insight into how the group is were operating and communicating. HK fully endorses the addition.

- There were no objections, and the Main Table will move forward with the addition of Michael Harstone.
- GE asked if Stephen Dery's (SD) question in the chat could be addressed. SD asked if it would be possible to show what portion of the hydrograph are from flows released at the Skins Lake Spillway. JK replied that this is definitely something that can be done. JK thanked GE for bringing up the chat question.
- RR introduced the Draft WEI Process Update. It was provided in the pre-read package. He asked if there were any comments or recommendations for changes. Several participants recommended changes, including KM, DS, DK, GLL, AL, JJ and HK. RR revised the test with the input. The new draft will be circulated to the Main Table for review.
- **ACTION ITEM: RR will circulate the updated Draft WEI Process Update to the Main Table for review.**
- RR reviewed the next meeting dates and proposed a break in August. The next meeting will be July 14, 2021 and there were no objections. There were no objections to having a break in August.
- RR proposed September 15, 2021 as meeting date. KM noted that September 15 will be in the middle of the UBCM convention. RR suggested September 8, 2021 as an alternative. There were no objections.
- RR reminded the participants that there is a per diem provided to prepare and be involved in the meetings. He encouraged the participants to please make use of it. He noted that the time of every participant is very valuable. He will send out the claim form with the draft meeting summary next week. Please contact RR with any questions.
- **ACTION ITEM: RR to send out per diem claim form next week with the draft meeting summary.**
- Meeting adjourned at 12:15 pm.

## ACTION ITEMS

- **ACTION ITEM: Kevin Moutray will provide additional photos of flooded trails near Vanderhoof and RR will make them available to the Main Table participants.**
- **ACTION ITEM: JK to find out if there is a concern of ice jams and flooding near Prince George, possibly near Cottonwood Park, and its relation to operations.**
- **ACTION ITEM: Andy Lecuyer will provide an update on the Ootsa Lake Forestry Camp campsites.**



- **ACTION ITEM:** Devrie Sanghera will organize the working group for World Rivers Day with WEI participants.
- **ACTION ITEM:** RR to circulate Michael Harstone's bio to the Main Table.
- **ACTION ITEM:** RR will circulate the updated Draft WEI Process Update to the Main Table for review.
- **ACTION ITEM:** RR to send out per diem claim form next week with the draft meeting summary.