

Water Engagement Initiative Main Table videoconference Meeting 18

Wednesday, April 7, 2021

9:00 am to 12:00 pm



Draft Agenda

- Agenda review
- Meeting summary comment review
- Action items from Meetings 16 and 17
- Conceptual schedule review
- TWG activity summary
- **Objectives: Main Table discussion and revision of draft TWG objective recommendations**
- Adjourn

Suggested Meeting Summary revisions

James Jacklin (JJ) from FLNRORD commented that for sturgeon recovery initiatives, flows are a component, but not the only component. For example, a study that looked at the best years for sturgeon recovery showed very different flows between them and there is uncertainty between~~no direct correlation between~~ the needed flows and recovery opportunity. Many other factors come in to play (e.g., sedimentation, habitat) for the success of sturgeon, and it is very complicated. ~~Not just natural flows~~Flows are one of several factors that need to be considered to ~~that will~~ recover sturgeon populations.

A participant noted that the photos in the presentation showing bank erosion looked very similar to what is occurring in the reservoir. In the reservoir, bank erosion is occurring in untouched, vegetated areas as well. They believe this is due to ~~changes between high and low water levels and wave action.~~sustained high levels of reservoir levels (e.g. last summer) that causes this erosion. High and low water levels tend to erode beaches.

Meeting 16 Action items

- **ACTION ITEM:** The TWG will meet with interested participants to review existing entrapment studies (potentially during the next Southside Workshop)
- **Update:** Topic to be discussed as part of the next Southside Workshop

Meeting 16 Action items

- **ACTION ITEM:** Review the WEI update during the March meeting
- **Update:** Request to move to the late April Main Table meeting

Meeting 16 Action items

- **ACTION ITEM:** Lyla to present agricultural interests at the March meeting
- **Update:** Presented by Lyla at the last WEI Main Table meeting on Wednesday, March 10, 2021 (Meeting 17)
- Presentation posted on Get Involved Nechako website
<https://www.getinvolvednechako.ca/7037/widgets/27362/documents/52155>

Meeting 16 Action items

- **ACTION ITEM:** Review the Main Table Gantt chart at the beginning of each Main Table meeting
- **Update:** WEI conceptual schedule to be reviewed at each WEI Main Table meeting. Schedule will be reviewed today.

Meeting 16 Action items

- **ACTION ITEM:** Review the scope of the Main Table and set scope parameters.
- **Update:** WEI scope reviewed at the last WEI Main Table meeting on Wednesday, March 10, 2021 (Meeting 17)

Meeting 17 Action items

- **ACTION ITEM:** AC will present monthly average flow data since 2000 to compare winter flow rates
- **Update:** Rio Tinto to provide information at April 21, 2021 meeting

Meeting 17 Action items

- **ACTION ITEM:** RR will pass on Lori Borth and Justin Calof's contact information to Main Table participants
- **Update:** Contact included in draft and final Main Table meeting summary: Omineca.RMP@gov.bc.ca

Meeting 17 Action items

- **ACTION ITEM:** JK will include relevant TWG reports in Main Table pre-reading package.
- **Update:** Select summaries provided in pre-read package

Flow-related interests

- Develop draft objectives and performance measures (January-July 2021)
- Present objectives and performance measures to Main Table (April-July 2021)
- Implement ready improvements (May-December 2021)
- Develop flow alternatives and tradeoff analysis (May-July 2021)

Flow-related interests (2)

- Scope potential regulatory revisions (February-November 2021)
- Consider physical works or other non-flow options to meet objectives (April-September 2021)
- Draft flow scenario (August-September 2021)
- Engagement on draft flow scenario (August-December 2021)
- Finalize flow scenario (December 2021)

Communication and Process

- Finalize communication improvements (April 2021)
- Implement communication improvements (February-December 2021)
- Review and adjust communication improvements as needed (February 2021-continual improvement)

Reservoir/Southside efforts

- Southside additional information gathering / inventory (Completed in 2020)
- Reservoir working group (initial working group held in 2020, additional working groups being planned: Tuesday, April 13, 2021)
- Present recommendations to the Main Table (February-August 2021)
- Integrate results into Flow, Communications, and Non-flow physical works improvement process, as needed (March-December 2021)

Technical Working Group update

Objectives

- The core of the Structured Decision Making (SDM) process we are using is a set of well-defined objectives and performance measures
- Together they define “what matters” about the decision we are trying to make, drives the search for creative alternatives, and becomes the framework for comparing alternatives
- Objectives need only state two things:
 - the thing that matters
 - the direction you’d like it to move (more vs. less)

Objectives (2)

- Separate means from ends:
 - **Means** objective: “Minimize number of rare eagles illegally shot”
 - **Ends** objective: “Minimize probability of local extinction of wild eagles”
- Characteristics:
 - Complete
 - Controllable
 - Concise
 - Measurable
 - Understandable

Objectives (3)

- In the fall of 2020, the TWG was asked to increase their level of support for the Main Table
- They were asked to develop draft materials for review, revision, and confirmation by the Main Table, including **draft Objectives and Performance Measures**
- Starting today, we will review, revise, and confirm draft WEI Objectives

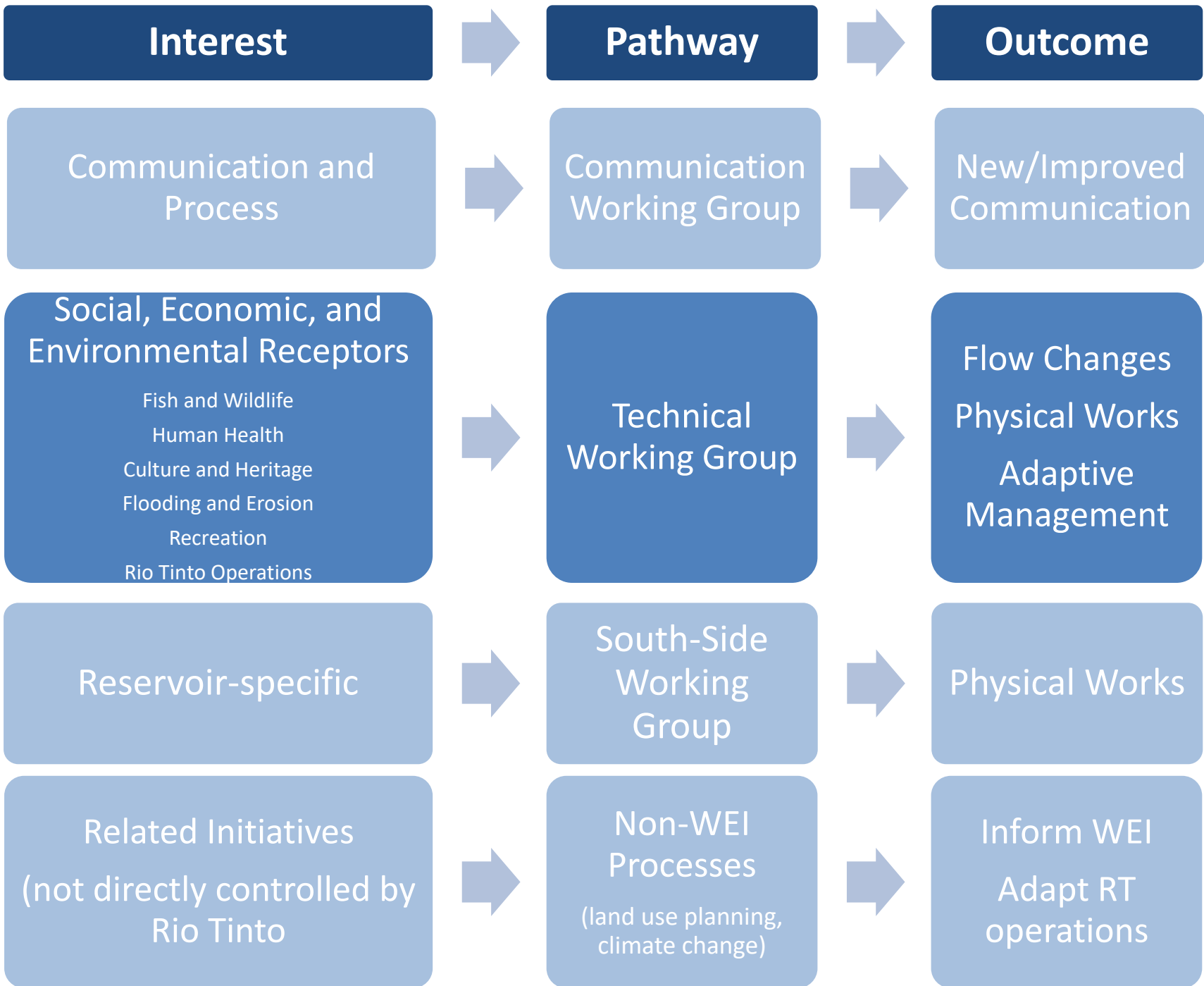
Draft Objectives Recommended by the TWG

Objective pre-read summary

- The pre-read provided by Jayson identified the interests raised by the Main Table (MT) and provided *draft* objectives, recommended by the technical working group (TWG), for the MT to discuss, adapt, add to, delete, edit, and ultimately endorse
- The intent is to ensure that the objectives accurately reflect the range of interests identified by the MT

Background

- The interests and objectives to be discussed today focus on the Social, Economic, and Environmental Receptors as these are most directly related to Rio Tinto flow operations.
- This category can be further considered as 6 types of receptors:
 - Fish and Wildlife
 - Human Health
 - Culture and Heritage
 - Flooding and Erosion
 - Recreation
 - Rio Tinto Operations



Background

- Following the Structured Decision Making Process, the TWG brainstormed how each Social, Economic, and Environmental Receptor interest relates to Rio Tinto flow operations. How can we describe “what matters”. What is the cause-and-effect? How can we improve conditions? How can we quantify “what matters”?
- The TWG considered information from the MT, scientific studies, and their collective knowledge to answer the questions above

Organization of Interests

- Through a brainstorming process, the TWG characterized the specific issue related to each interest and identified that some interests have multiple issues
- For example, the *salmon* interest includes multiple species, with different habitat requirements (e.g., rearing, spawning) that can be affected differently by high and low flows
- Consequently, the TWG expanded the list of interests and issues from the original 40 to a list of 80+

Organization of Interests

- As the TWG examined the 80+ interests/issues, several themes emerged based on receptor/species groups (e.g., salmon, caribou), mechanism of effect (e.g., related to high water or low water), and consequence, etc. However, not all interests fit into themes, and some could fit into more than one theme. There were many ways to organize the interests
- Nonetheless, themes are a logical approach to ensure all interests are represented without having to examine each of the 80+ specific interests individually
- As the TWG considered themes, common *draft* objectives emerged. They split and combined interests towards a consolidated list of about 30 that allowed them to distinguish meaningful and unique *draft* objectives
- A summary of grouped interests is provided on the following 3 pages

**Social, Economic, &
Environmental Receptors**



Themes

Fish and Wildlife



Salmon
Sturgeon
River fish
Reservoir fish
Caribou
Beavers
Waterfowl and Shore-nesting
Birds
Osprey and Cormorants
Wildlife Habitat

Human Health



Water Quality
Methyl Mercury

**Social, Economic, &
Environmental Receptors**



Themes

Culture and Heritage



Indigenous gravesites

Flooding and Erosion



Municipal flooding
Private property flooding
Backwatering
Bank erosion
Sediment transport

**Social, Economic, &
Environmental Receptors**



Themes

Recreation and Navigation



Boat launches and docks
Dead trees
Submerged hazards
Float planes and canoes
Hiking trails
Beaches

Rio Tinto Operations



Aluminum production
Operational Flexibility
Revenue

Other Interests



Low Water
Flood Risk Management
Health of the River

Interest

Objective

Comments

Fish & Wildlife
Salmon

Maximize salmon production

Minimize temperature effects on salmon migration

Maximize salmon spawning success

Minimize salmon incubation mortality

Maximize salmon rearing habitat

Migration temperature: See backgrounder pages 2-4

Incubation survival: see backgrounder pages 5-9

Rearing habitat: see backgrounder pages 10-14

Interest

Objective

Comments

Fish & Wildlife
sturgeon

Maximize sturgeon recruitment

The link to operations is unclear,
NWSRI actively researching.

Fish & Wildlife
River fish

Maximize trout and salmon
production
Maximize rearing habitat
Maximize fish access to
tributaries
Minimize fish stranding mortality
Minimize Total Gas Pressure
(TGP)
Maximize side channel
productivity
Maximize riparian productivity

Most of these objectives apply to
a range of fish species.
Some of these objectives will
have multiple PMs that will
specify flow location, timing,
magnitude etc.

Interest

Objective

Comments

Fish & Wildlife
Reservoir fish

Maximize fish production
Minimize fish mortality

PMs can focus on productivity and
entrainment

Fish & Wildlife
Caribou

Minimize caribou migration
obstacles to calving grounds

This is related to woody debris
blocking caribou access across the
reservoir to key areas

Fish & Wildlife
Waterfowl &
shore-nesting
birds

Minimize nest disturbance

This is related to changing
reservoir elevation (and potentially
river elevation) flooding nests or
exposing them to predators

Interest

Objective

Comments

Fish & Wildlife
osprey

Maximize osprey abundance
Maximize osprey nesting sites
Maximize osprey food

The link to operations is not strong for nesting.
Osprey food is likely captured in the fish objectives

Fish & Wildlife
Wildlife & habitat

Maximize riparian habitat
Maximize wetland habitat

This is related to river and reservoir upper elevation proving hydraulic connectivity to adjacent areas.

Fish & Wildlife
beavers

Minimize beaver mortality

This is related to flooding beaver den entrances before newborn beavers can swim.

Next meeting date

- Wednesday, April 21, 2021
- Proposed Main Table meeting: Wednesday, May 19
- Longer duration?

Adjourn