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**To:** WEI Participants

**From:** Rahul Ray and Jason Collier

**Date:** October 3, 2019

**Re:** Rio Tinto WEI Table Field Trip Summary - Tuesday, September 10, 2019

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A field trip for the Rio Tinto Water Engagement Initiative (WEI) was held on September 10, 2019 to provide context for WEI participants about Rio Tinto operations on the “Southside” (i.e. south of Francois Lake on the Nechako Reservoir or at and near Ootsa Lake), British Columbia.

This document is a summary of the field trip. The information presented highlights the locations visited, the topics raised, and key discussions held.

For the field trip, the facilitators were: Rahul Ray (RR) and Jason Collier (JC) from EDI; Jayson Kurtz (JK) from Ecofish Research as the Technical Working Group coordinator; and Southside representatives Mike Robertson (MR) (Cheslatta Carrier Nation), Tim Plesko (TP), and Gary Blackwell (GB).

Danielle De Kay (DD), Rio Tinto Communities and Communications Advisor, and Andrew Czornohalan (AC), Rio Tinto Acting General Manager, also participated in the field trip and provided information related to Rio Tinto’s operations.

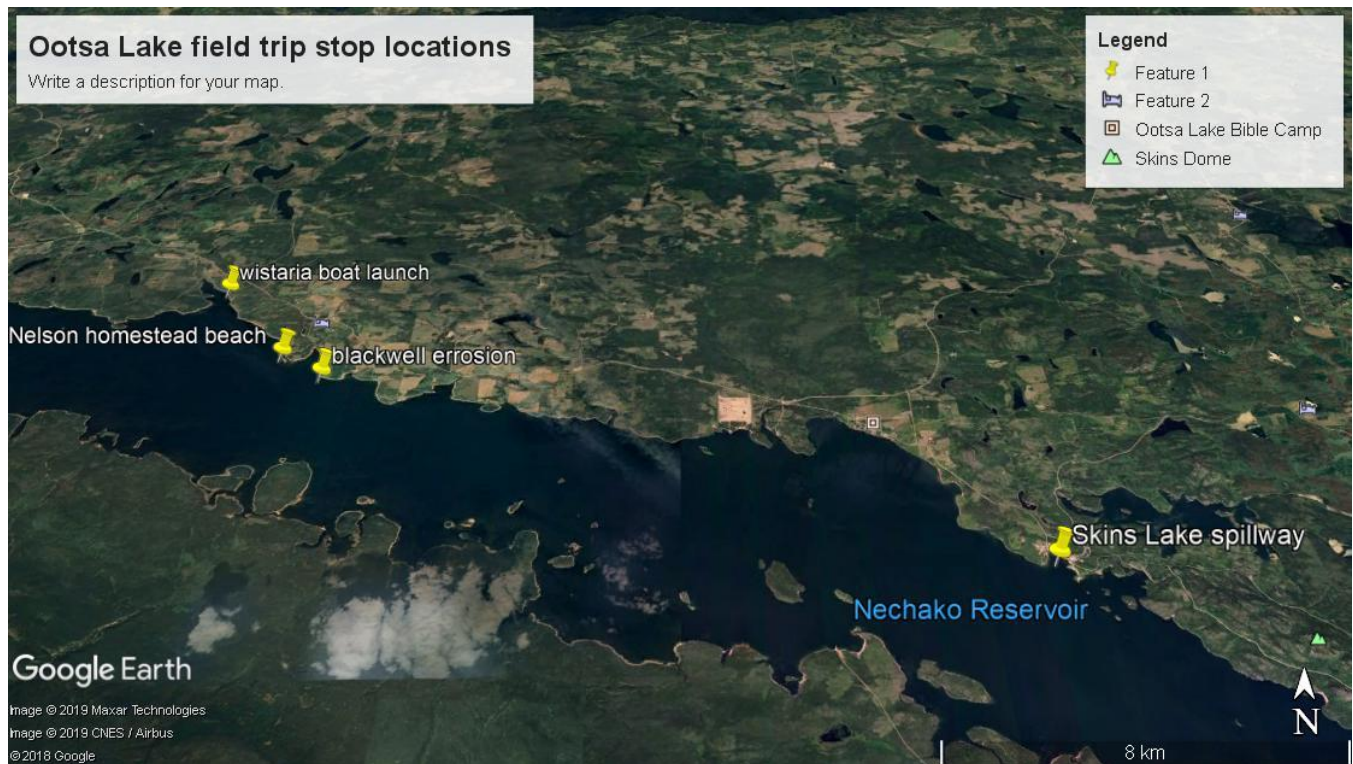
A bus was chartered to transport participants to and from various locations. Jack, from Pacific Western, was the driver.

Table 1 provides a list of the participants who participated in the field trip and the organizations they represent.

Table 1. September 10, 2019 - WEI Field Trip Participants

Individual	Organization
Mike Robertson	Southside resident / Cheslatta Carrier Nation
Christina Ciesielski	Carrier Sekani Tribal Council - Fisheries
Clara Jack	Nak'azdli Whut'en First Nation – Natural Resources
Gina Layte-Listen	City of Prince George
Kevin Moutray	District of Vanderhoof
Cyndi Lauze	District of Vanderhoof
Phillip Krauskopf	Ministry of Forests, Lands, Natural Resource Operations, and Rural Development
Henry Klassen	Public participant
Gerd Erasmus	Public participant
Claudia Brand	Public participant
John Alderliesten	Public participant
Yolinka Alderliesten	Public participant
Linda Sjodin	Public participant
June Wood	Public participant
Denis Wood	Public participant
Lyla Brophy	Nechako Regional Cattlemen's Association
Jim Brophy	Nechako Regional Cattlemen's Association
Clint Lambert	Regional District of Bulkley Nechako
Andrew Czornohalan	Rio Tinto
Tim Plesko	Southside representative
Gary Blackwell	Southside representative
Charlie Rensby	Village of Burns Lake

The following locations were visited on the field trip. The mapping of the locations visited was provided by Tim Plesko.



The following provides a summary of the field trip. It should be noted that the following only captures the events and what was discussed in group settings, not what may have been discussed among individual participants during the trip.

- The bus picked-up participants in Prince George, Vanderhoof, and Burns Lake in the morning and travelled to the Southside.
- While travelling to Wistaria, Mike Robertson provided context and historical anecdotes about the Southside, some of which included:
  - How the southside was established and current developments;
  - The main economic drivers of the area (logging and agriculture), and the types of farming;
  - Information on the various communities and their initiatives;
  - The impact of the recent three fires in the area, as well as the efforts undertaken to combat the fires and restoration initiative;
  - Information on, and benefits of, the two Community Forests on the Southside, as well as forest composition; and
  - Electrical power for the area (single phase) and its challenges for developing local industry.

## WISTARIA

- Participants had a tasty lunch, provided by local Faith Martin, at the historical Wistaria Hall. Long-time Southside residents Tim Plesko and Gary Blackwell welcomed the participants and talked about some of the issues in the area, including:
  - How some land is owned by Rio Tinto, which makes using the land base challenging when wanting to access, clean-up, or restore areas.
  - Erosion is one of the prominent issues on the Reservoir, as it causes problems with cattle grazing (livestock falling off undercut banks), loss of the land base, and siltation downstream.
  - Deadheads (i.e. underwater trees or stumps) are located in certain areas where the land has been flooded, which causes navigation and safety issues.
  - Lack of effective communication by Rio Tinto when conducting work in the reservoir.
  - Fish – it appears that fish are getting smaller in Oosta Lake. The annual fishing derby winner was a 9.5 lb trout. In previous years, a 15 lb fish would be considered a smaller catch. It was mentioned that smaller creeks are not being used by kokanee.
- Mike Robertson displayed several historical photos of the area and commented that there was a public hearing held at Wistaria in 1949 prior to the Water License being issued to Alcan. The discussion centered

around what will happen to locals when the dam is completed. Currently, there are local experts/knowledge holders who have valuable information and need to be listened to. Recent mountain pine beetle kills have caused more deadheads in the reservoir. Silt plumes are common-place in the Cheslatta/Murray River system due to erosion and ever-changing water levels.



**Photo 1** Old tractor located outside of Wistaria Hall (seen on the right side of the photo), with Ootsa Lake in the background.

## WISTARIA BOAT LAUNCH

- The next stop on the field trip was at a boat launch site at Wistaria. The boat launch is one of three on the lake. An information board at the site displays some information of Alcan's Reservoir Operations and historical context.
- The bay where the boat launch is located was full of trees prior to the flooding. Deadheads were discussed and how to deal with them effectively. Efforts were undertaken in the 70s and 80s to clean up the lake. Rio Tinto spent \$2.3 million over 3 years to clean up the reservoir in the 90s, and efforts continue presently.
- Discussion centered around the recreational uses of the lake (estimated 100-120 boaters use the lake regularly), safety hazards, and navigation issues associated with the deadheads. Current conditions (waves, deadheads) make navigation challenging for smaller crafts. A question was asked if mapping exists that shows hazards and navigation routes in the Reservoir. Limited information/mapping is available. Discussions centered around the potential for tourism if information/mapping is made available to address navigation and safety issues.





Photo 2 Participants discussing issues related to Ootsa Lake at the Wistaria boat launch.

## NELSON HOMESTEAD (RIO TINTO OWNED PROPERTY)

- Participants then visited the former Nelson Homestead, which fronts Ootsa Lake. The property provided a good example of the amount of driftwood located at several locations on the lakeshore, as well as the fluctuations in water level (the location where the bus was parked would be inundated if the reservoir was at 2800 ft – levels where at 2792 ft during the field trip).
- It was mentioned that approximately 40 – 50 farms were flooded during the creation of the reservoir.

## GARY BLACKWELL'S RANCH

- The group then visited Gary Blackwell's ranch, where erosion has been occurring. Gary mentioned that approximately 50 m of land has been lost over the last 50 years or so on one of the points. Several cows have been lost as a result of falling off the cliff banks. Several participants visited the points where the erosion is prominent.
- At this location the original lake was approximately one mile wide. Comment that it is now approximately 3-4 miles wide.



Photo 3 Driftwood at Ootsa Lake at the old Nelson Homestead.



Photo 4 Group Photo at the old Nelson Homestead.





Photo 5 Photo of erosion at Gary Blackwell's property

## SKINS LAKE SPILLWAY

- On the way to the Skins Lake Spillway, the bus traveled through “downtown” Ootsa Lake, where the Ootsa Lake Bible Camp is located. Mike Robertson provided commentary on the history of the village and current conditions. In 2012, the land was “turned over” to the Cheslatta Carrier Nation as fee simple land, who then turned it over to the community.
- Participants visited the Skins Lake Spillway during a 20-year maintenance operation when the plunge pool was dry. The plunge pool is approximately 25 m deep and is used to dissipate energy of flows coming through the spillway.
- AC discussed the details on spillway operations, ongoing maintenance, and information on the steps Rio Tinto undertakes to monitor (e.g. satellites can measure movement of the spillway within  $\frac{1}{4}$  of a millimeter!) and ensure the integrity of the spillway. The spillway is the second biggest dam in the reservoir.
- Maintenance work is well underway at the spillway and has involved installing rock-bolts, shotcrete, and concrete. AC handed-out photos of the work being done, as viewed from inside the spillway. Diversion pipes have been installed to keep water flowing into the Cheslatta/Murray River system.
- When fully open, the spillway allows flows of  $650 \text{ m}^3/\text{second}$  of water to pass through. The distance from the spillway, through the Cheslatta/Murray River system, to the outlet into the Nechako is approximately 50 kms. It takes approximately 7 days for water released at the spillway to reach Finmore.



- Approximately 2000 fish were salvaged when the plunge pool was dewatered (the largest was around 19 lbs).
- Priorities for the spillway include safety, maintaining adequate water flows for fish, and managing flood risks. A full breach of the spill way would generate flows of approximately 2000 m<sup>3</sup>/sec.
- There is a free campsite and access to the reservoir located at the spillway.



Photo 6. AC sharing information at the Skins Lake Spillway.

## THAT EVENING

- Following the visit to the Skins Lake Spillway, participants returned to Burns Lake (or remained on the Southside), and had dinner together at the Grapevine Pub.
- The fourth Main Table meeting for the WEI was held the next day at the College of New Caledonia.