

Wayne Salewski

12 August 2020

Request to extend the Summer Temperature Management Program (STMP) in 2020.

Hi Wayne;

Thank you for your email. This is the type of open conversation that the Water Engagement Initiative (WEI) is intended to foster. The idea of extending the STMP has also been raised by District of Vanderhoof Councillor Kevin Moutray. This is a very important topic, as such I am sending a copy of this letter to Rahul for distribution to WEI participants so that this discussion can be advanced through the WEI.

In response to your specific point, 'Nechako River water level is dropping... assuming that this is a strategic decision by Rio Tinto that considers dropping summer day temperatures and increased precipitation forecasted over the next week', please note that Spillway management decisions during the STMP are directed as per the 1987 Settlement Agreement. Rio Tinto does not have flexibility to operate in any other way except to manage flood risk. Changes in river discharge are a result of the established STMP protocols.

The intent of the WEI is to identify opportunities to improve water management, in doing so there are many elements which need to be considered, including the following:

- 1) Mechanism for responding to new information or emergency / urgent situations
- 2) Observed conditions at different locations in the Nechako River (detail below)
- 3) Impacts of observed conditions
- 4) How changes will improve conditions
- 5) Potential impacts of proposed changes on other interests
- 6) Legal implications and relevance of established conservation goals and licenses
- 7) Contractual implications & complications related to BC Hydro Energy Purchase Agreement, including certainty of delivery
- 8) In the longer term, implications of climate change and risks of future conditions

Understanding these issues will take time, but I think your question articulates very well how important it is to take the time.

Regarding the second point above, and in response to your statement that;

'...the STMP seems to have failed to acknowledge the need for Chinook salmon to function better at temperatures of 18 degrees or less...'

The STMP is designed to minimize the occurrences of water temperature above 20 °C, for the benefit sockeye salmon migrating through the Nechako River in late July to late August, while also avoiding flooding of agricultural lands. The STMP monitoring data shows that on average,

RioTinto

temperature exceeds 20 °C on a few days of most years, but otherwise remains below 20 °C. Currently the water temperature in the Nechako River at Finmore is below 17 °C (<https://neon.unidata.com.au/logon.aspx>, username = Rio Tinto, Password = waterdata).

The Nechako Chinook salmon stock, which spawns in the Upper Nechako River, arrives in the Nechako River in early September after the STMP. It is possible that this year sockeye salmon will be delayed in migration and arrive in the Nechako at that time as well. According to Water Survey of Canada temperature data for the Nechako River at Isle Pierre, water temperature is normally below 20 °C after the STMP is complete, and most often between 14 - 18 °C (2006-2019). Water temperature in the Nechako River at Vanderhoof and at Cheslatta Falls is similar, showing rare occurrence of water temperature above 18 °C since the year 2001, and water temperature is in the lower range during peak migration. Sharing this data is an important part of the WEI process and I will ensure the data is provided to you.

This data indicates that current water management results in water temperatures favourable for salmon migration and spawning. Nonetheless, a key consideration for WEI is how to respond to new information in a complex and multi-layered environment, particularly given climate change. I will ensure that Rahul and Jayson bring this important issue to the WEI for consideration.

Thank you again for initiating this discussions.

Regards,



Andrew Czornohalan
Operations Director – Power and Services

ec Kevin Moutray
James Jacklin
WEI participants