

Mayor & Council  
District of Vanderhoof  
160 Connaught Street, PO Box 900  
Vanderhoof, BC V0J 3A0

16 August 2019

Dear Mayor and Council.

**Re Order to Suspend the Summer Temperature Management Program.**

Attached below is information related to suspension of the Summer Temperature Management Program (STMP), as per your request at the council meeting on Monday, 12 August 2019.

During the STMP Rio Tinto increases discharge into the Nechako River to minimize the frequency of average daily water temperature exceeding 20 degrees in the Nechako River at Finmore. On 3 August 2019 Rio Tinto received an Order from the BC Comptroller of Water Rights to suspend the STMP.

The Order was issued due to an emergency event in the Fraser River at Big Bar. A landslide has created an obstacle to salmon migration. Salmon are not able to swim upstream, including the salmon of the Nechako watershed that the STMP is intended to protect. My understanding is that the reduced flows from the Nechako would facilitate instream works at the Big Bar land slide area and possibly salmon passage through the slide area.

The Nechako Fisheries Conservation Program (NFCP) oversees water management in the Nechako River. The NFCP was approached by the Big Bar Incident Command about curtailing discharge from the Nechako Reservoir. The NFCP, which is chaired by an Independent member and has members from DFO, BC and Rio Tinto, declined to approve a curtailment in flow on the basis that doing so was not in the NFCP mandate.

It is also my understanding that experts from BC, Department of Fisheries and Oceans (DFO), Upper Fraser Fisheries Conservation Alliance (which represents 30 First Nations & First Nations organizations), and Carrier Sekani Tribal Council (which represents 7 First Nations) all endorsed the Order to require Rio Tinto to temporarily suspend the STMP. Upon receiving formal notice that an Order was being considered, Rio Tinto requested that local government & First Nations in the Nechako Region be informed. Rio Tinto expressed concern over risks to resident fish, but also accepted that those risks and risks to a salmon run which is relied upon by many British Columbians and thousands of First Nation families would be balanced appropriately by regulatory authorities.

With regard to the sources of data used to make spillway management decisions, water temperature data used in the STMP model is collected by an independent consultant at two locations from the Water Survey of Canada website (Nechako River below Cheslatta Falls and Nautley River) and temperature probes installed at two locations by the independent consultant (Nechako River at Fort Fraser and at Finmore, near the Stuart River confluence). The data from

Water Survey of Canada sites is publically available. However, data from the temperature probes installed by the independent consultant are not currently available to Rio Tinto or the public in real-time. The feasibility of establishing public access to this data will be investigated as part of Rio Tinto's Water Engagement Initiative.

Lastly, Rio Tinto has made a request to the Province of BC to provide a status update of the Big Bar Incident and decision to issue the Order at the Rio Tinto Water Engagement Initiative meeting on 22 August.

If you require any further clarification or information, please contact me.

Regards,

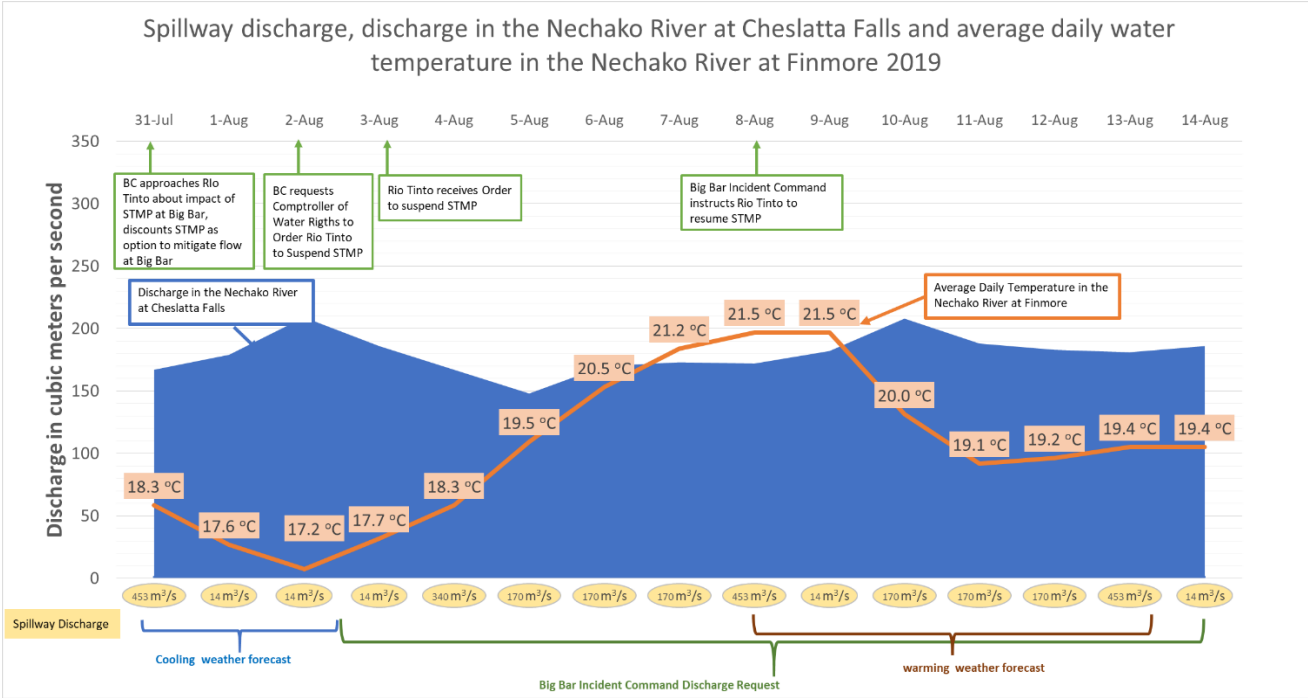
A handwritten signature in blue ink, appearing to read 'Andrew Czornohalan', with a large circular flourish on the left side.

Andrew Czornohalan  
Acting General Manager

Cc Justus Benckhuysen, Nechako Operations Coordinator  
Danielle DeKay, Community & Communications Advisor  
Ted White, Director & Comptroller of Water Rights  
Jennifer Davis, Director, Fish & Aquatic Habitat Branch  
Water Engagement Initiative participants



**Figure 1. Timeline of flow and temperature in the Nechako River.**



**Additional water temperature and flow data for reference.**

**Table 1. Water temperature**

Recorded Mean Daily Water Temperature				
	Nechako River			Nautley
	Cheslatta Falls	Fort Fraser	Finmore	Fort Fraser
Date	(°C)	(°C)	(°C)	(°C)
31-Jul	17.2	18.0	18.3	18.1
1-Aug	16.9	17.6	17.6	17.5
2-Aug	16.7	17.2	17.2	17.2
3-Aug	17.1	17.7	17.7	18.0
4-Aug	17.3	18.4	18.3	19.2
5-Aug	17.7	19.1	19.5	20.1
6-Aug	18.2	19.6	20.5	21.9
7-Aug	18.7	19.9	21.2	21.2
8-Aug	19.0	20.3	21.5	21.7
9-Aug	18.7	20.3	21.5	21.7
10-Aug	18.4	18.8	20.0	17.4
11-Aug	18.1	19.3	19.1	18.6
12-Aug	18.3	19.1	19.2	18.7
13-Aug	18.1	19.1	19.4	20.0
14-Aug	18.2	19.1	19.4	19.7

**Table 2. Water Discharge**

Date	SLS Release	Daily Discharge (m <sup>3</sup> /s)				
		Nechako River Below Cheslatta Falls	Vanderhoof	Nautley	Isle Pierre	Stuart River
20-Jul	453	160	184	36	381	191
21-Jul	453 to 14	204	196	35	389	190
22-Jul	14	238	235	35	404	190
23-Jul	14 to 170	211	271	35	439	187
24-Jul	170	184	271	35	457	189
25-Jul	170	176	262	36	437	181
26-Jul	170	176	221	34	413	176
27-Jul	170	171	218	33	404	176
28-Jul	170	172	205	34	399	176
29-Jul	170	170	212	33	395	172
30-Jul	170	168	209	33	389	169
31-Jul	170 to 453	167	210	32	386	167
1-Aug	453 to 14	179	209	31	385	166
2-Aug	14	209	209	31	387	166
3-Aug	14	186	241	31	394	161
4-Aug	14 to 340	167	238	30	408	159
5-Aug	340 to 170	148	216	28	396	156
6-Aug	170	170	193	28	369	155
7-Aug	170	173	204	27	359	152
8-Aug	170 to 453	172	208	26	366	151
9-Aug	453 to 14	182	207	25	364	150
10-Aug	14 to 170	208	208	25	362	148
11-Aug	170	188	234	25	368	145
12-Aug	170	183	227	25	384	144
13-Aug	170 to 453	181	217	24	374	140
14-Aug	453 to 14	186	212	24.2	362	139
15-Aug	14	211	206	23.7	356	137

## Timeline of events

29 July

- BC call Rio Tinto to understand STMP, explain that spillway discharge of 453.1 m<sup>3</sup>/s does not reach Nechako River, STMP maximum discharge in the Nechako River is 283 m<sup>3</sup>/s. BC discounts flow management as option for facilitating fish passage at Big Bar. Rio Tinto provides information on flow to Big Bar Incident Command.

1 August

- Big Bar IC technical team call Nechako Fisheries Conservation Program (NFCP), ask if SLS discharge can remain lower. NFCP states this is outside of NFCP mandate. Rio Tinto states it does not have authority to end STMP protocol unless ordered by Controller of Water Rights. Rio Tinto will determine if spillway discharge can be lowered, but will not violate the STMP protocol. Big Bar IC will consider potential benefits and risks of altering flow management.
- SLS discharge to 14.2 m<sup>3</sup>/s, STMP model indicates water temperature and flow targets met. Rio Tinto sends Big Bar IC flow information.

2 August

- STMP model indicates water temperature 20 degree target met but risk of reaching 166 m<sup>3</sup>/s vs normal STMP minimum of 170 m<sup>3</sup>/s at Cheslatta falls. Independent consultant informs Rio Tinto that discharge will need to be increased on 3 August.
- BC, Rio Tinto & Comptroller – is it even possible to stop operating the STMP? Rio Tinto states it cannot violate STMP protocol, would need to be ordered. Discuss need for rationale and conditions of an Order. Rio Tinto requests that BC contact local government & First Nations. Rio Tinto expresses concern over risks to resident fish.

3 August

- Rio Tinto receives Order from Comptroller of Water Rights to suspend STMP.
- Rio Tinto to BC/DFO – Rio Tinto has received an Order to suspend the STMP and to manage spillway discharge as per instructions from DFO/BC Big Bar Incident Command. There is currently a risk of flow dropping below 170 m<sup>3</sup>/s at Cheslatta Falls, Rio Tinto needs instructions from Big Bar IC.

4 August

- Rio Tinto sends public notice of the Order through Flow Facts distribution.
- Rio Tinto receives instruction to increase SLS discharge to 340 m<sup>3</sup>/s, as per Big Bar IC request.

5 August

- Rio Tinto receives instruction to reduce SLS discharge to 170 m<sup>3</sup>/s, as per Big Bar IC request.

6 August

- Rio Tinto receives instruction to maintain 170 m<sup>3</sup>/s discharge, as per Big Bar IC request.

7 August

- Rio Tinto receives instruction to maintain 170 m<sup>3</sup>/s discharge, as per Big Bar IC request.

8 August

- Rio Tinto receives instruction from Big Bar Incident Command to revert to STMP protocol – Order remains in place until 1 September.