



RioTinto

Nechako Reservoir / River / Freshet Information Sharing – Community Leaders

16 August 2023

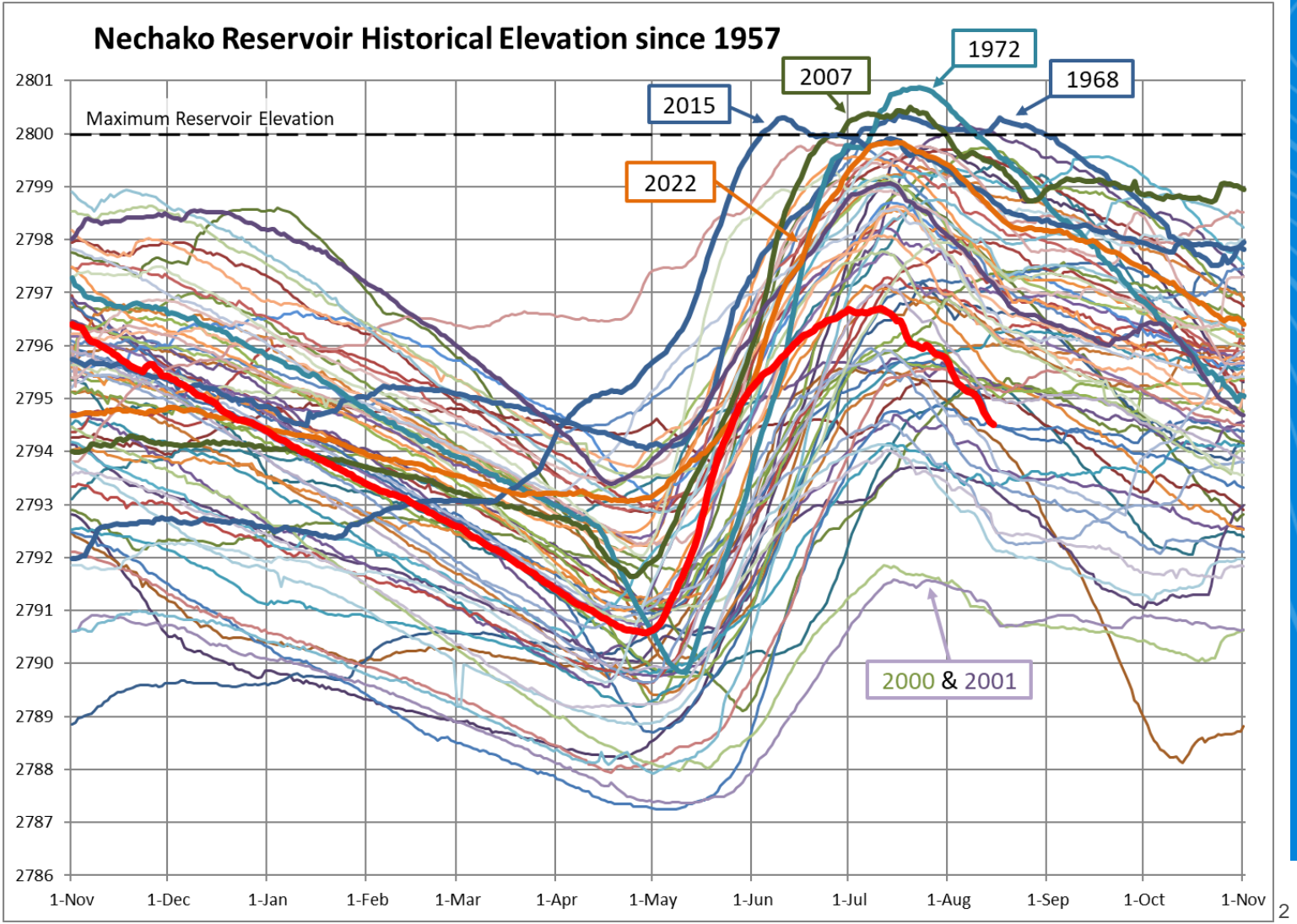
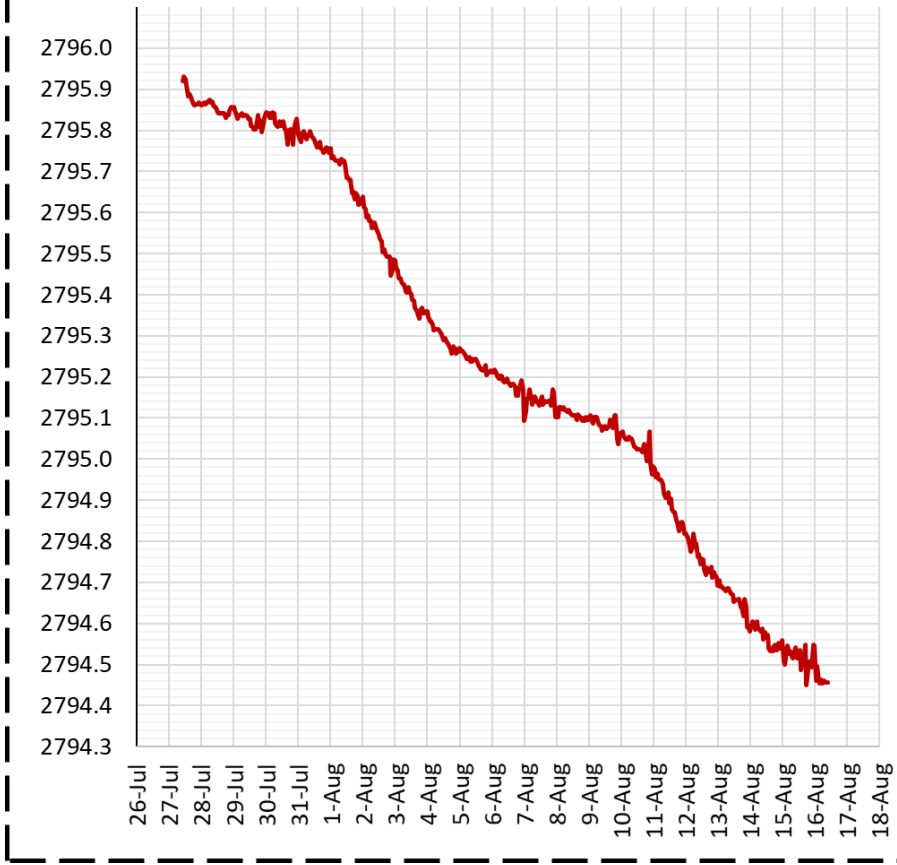
Prepared by Andrew Czornohalan & Simon Matte

Reservoir Elevation - Last 20 days

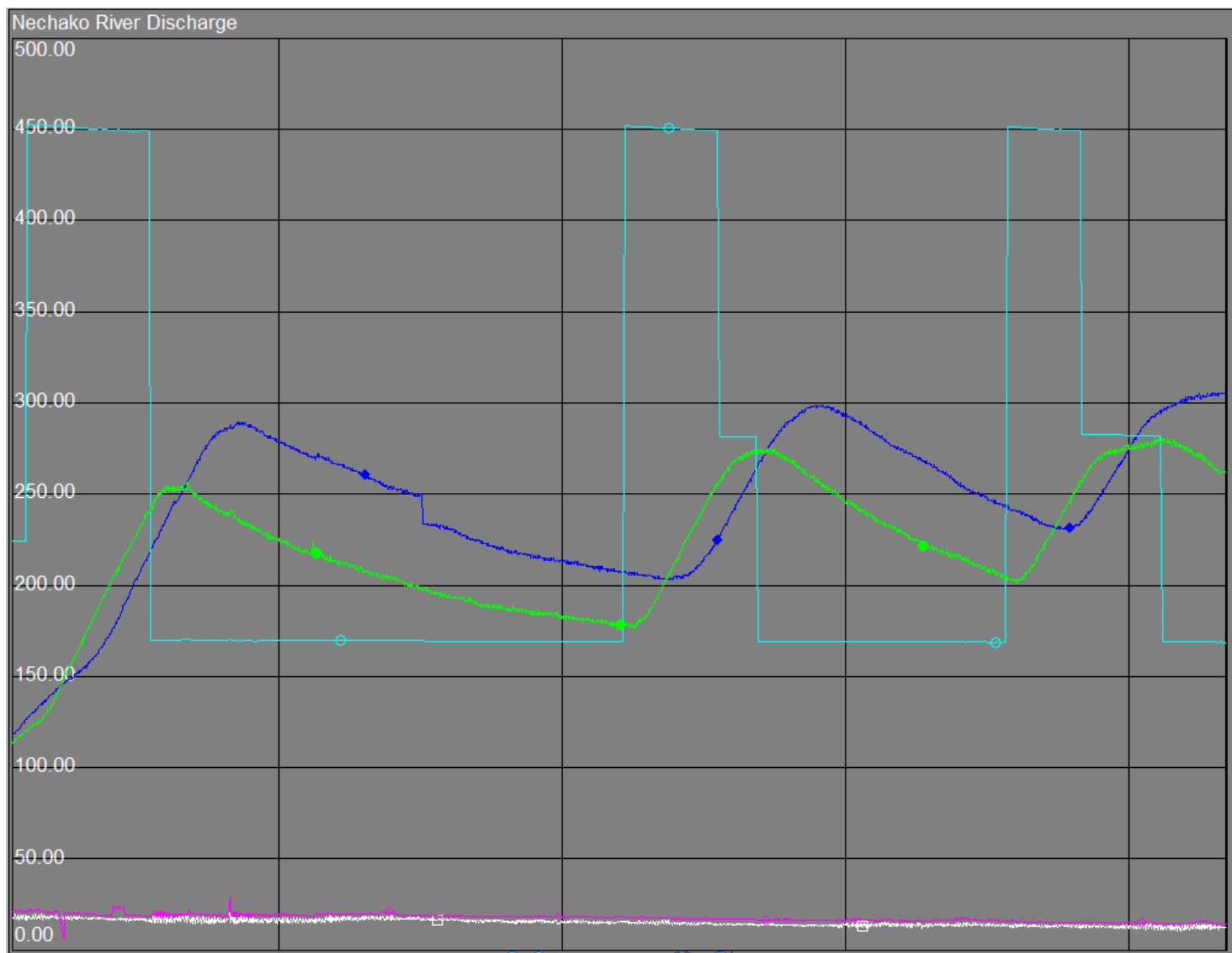
Current reservoir level

2794.46 ft

Last 20 days

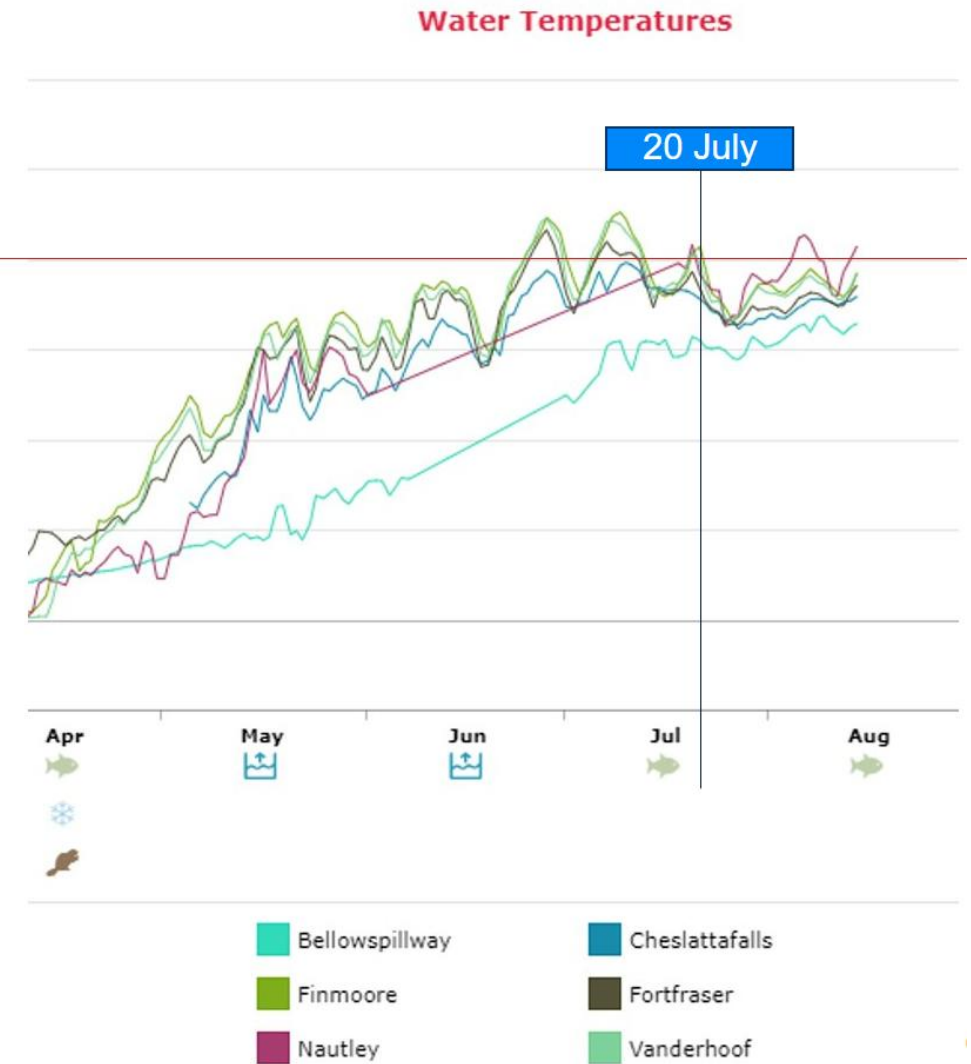
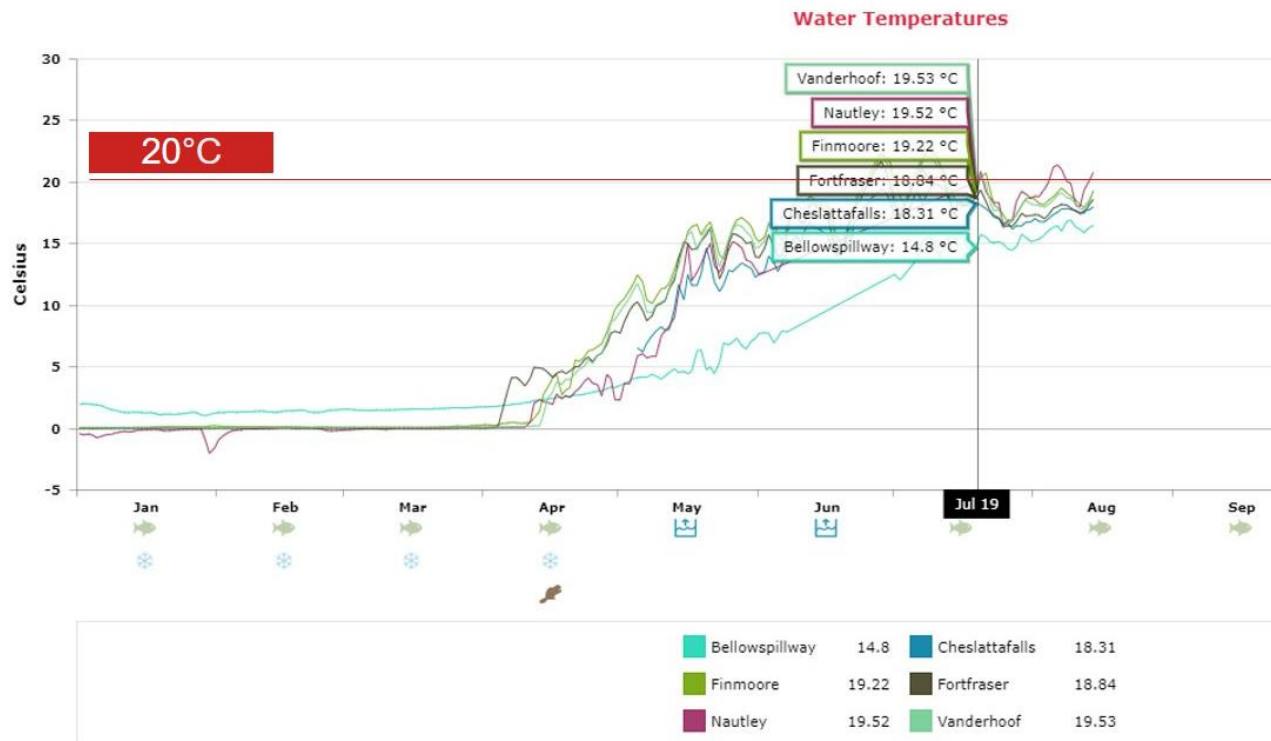


Flows - Last 30 days

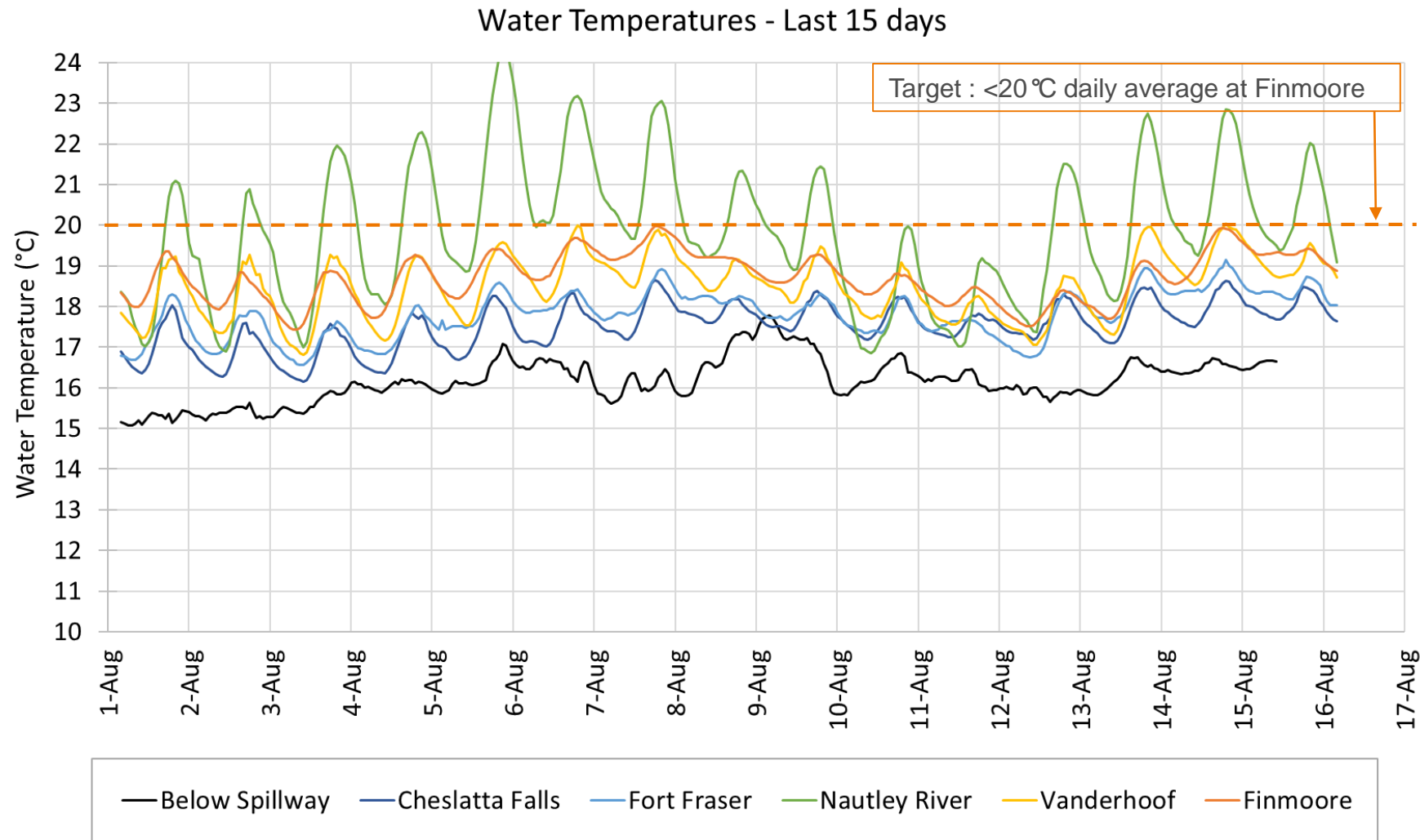


Current values (m³/s)	
Vanderhoof	305
Skins Lake	169
Cheslatta Falls	262
Nautley	15
Stellako	12

Observed Water Temperatures – Spring 2023



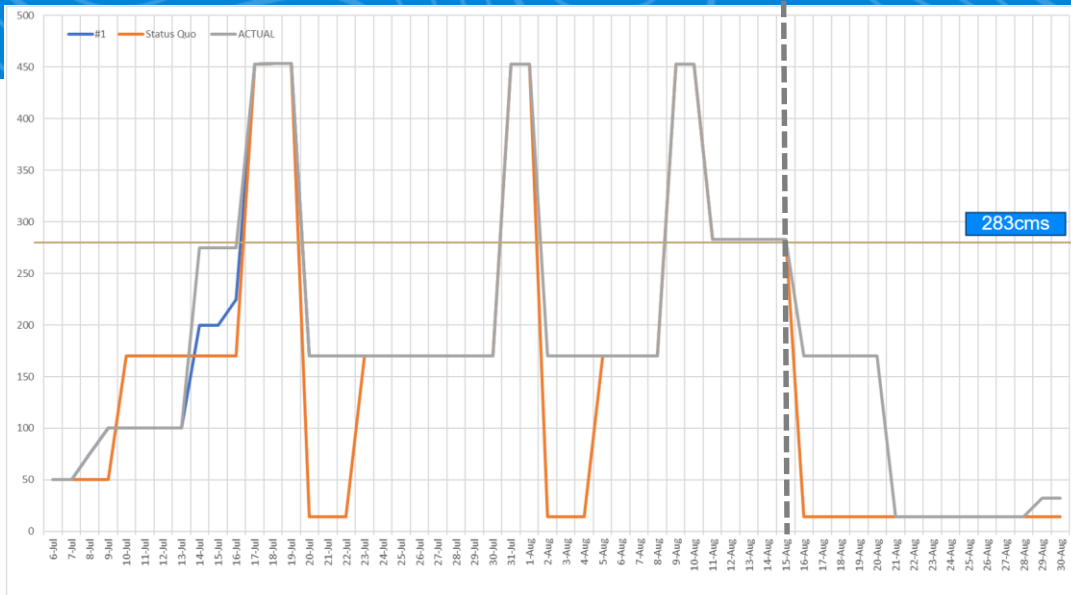
Observed Water Temperatures – Last 15 days



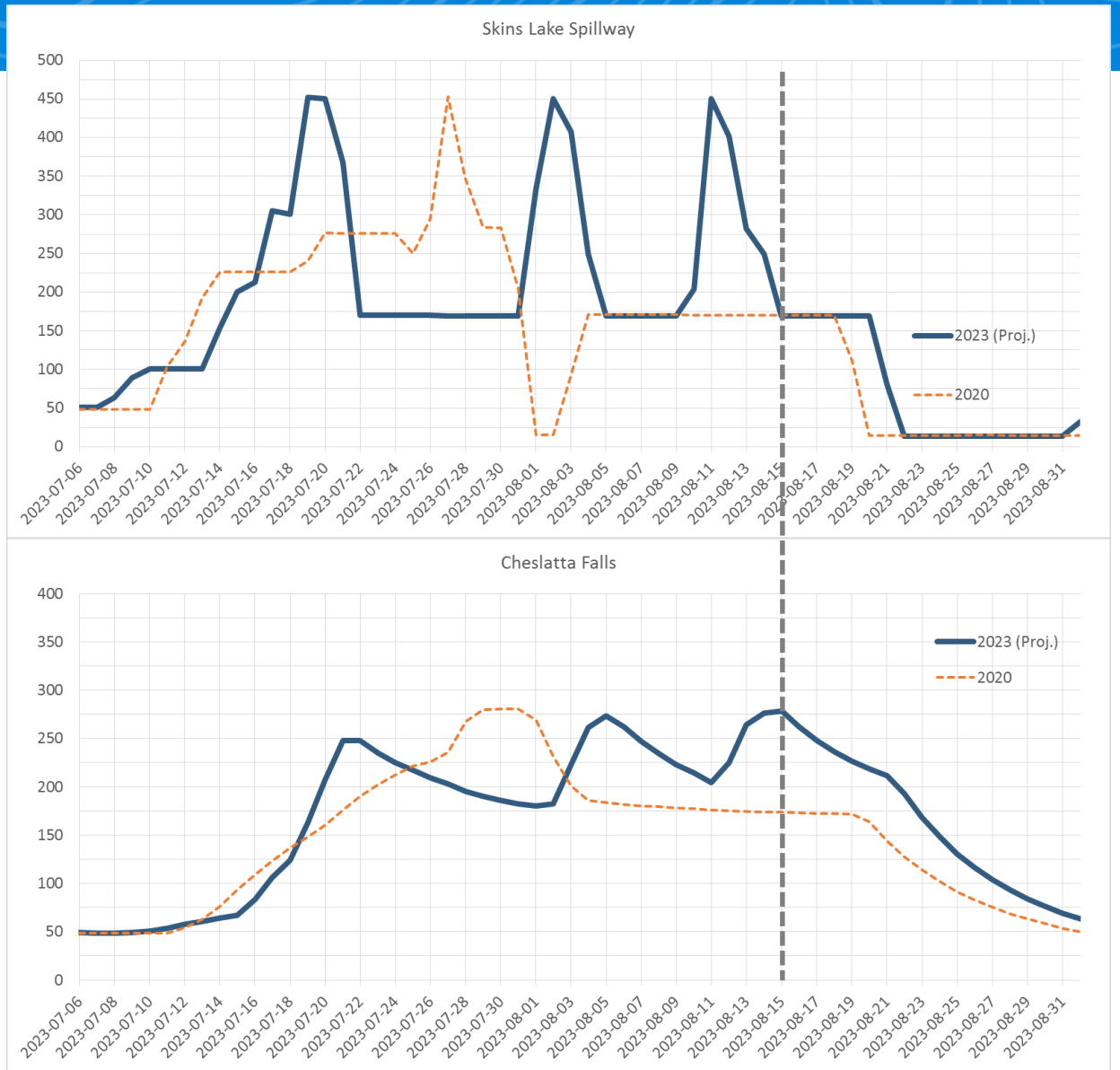
Average – Last 24h (°C)

Below spillway	N/A
Cheslatta Falls	18.0
Fort Fraser	18.3
Nautley River	20.3
Vanderhoof	19.0
Finmoore	19.2

Skins Lake Spillway Release - Forecast

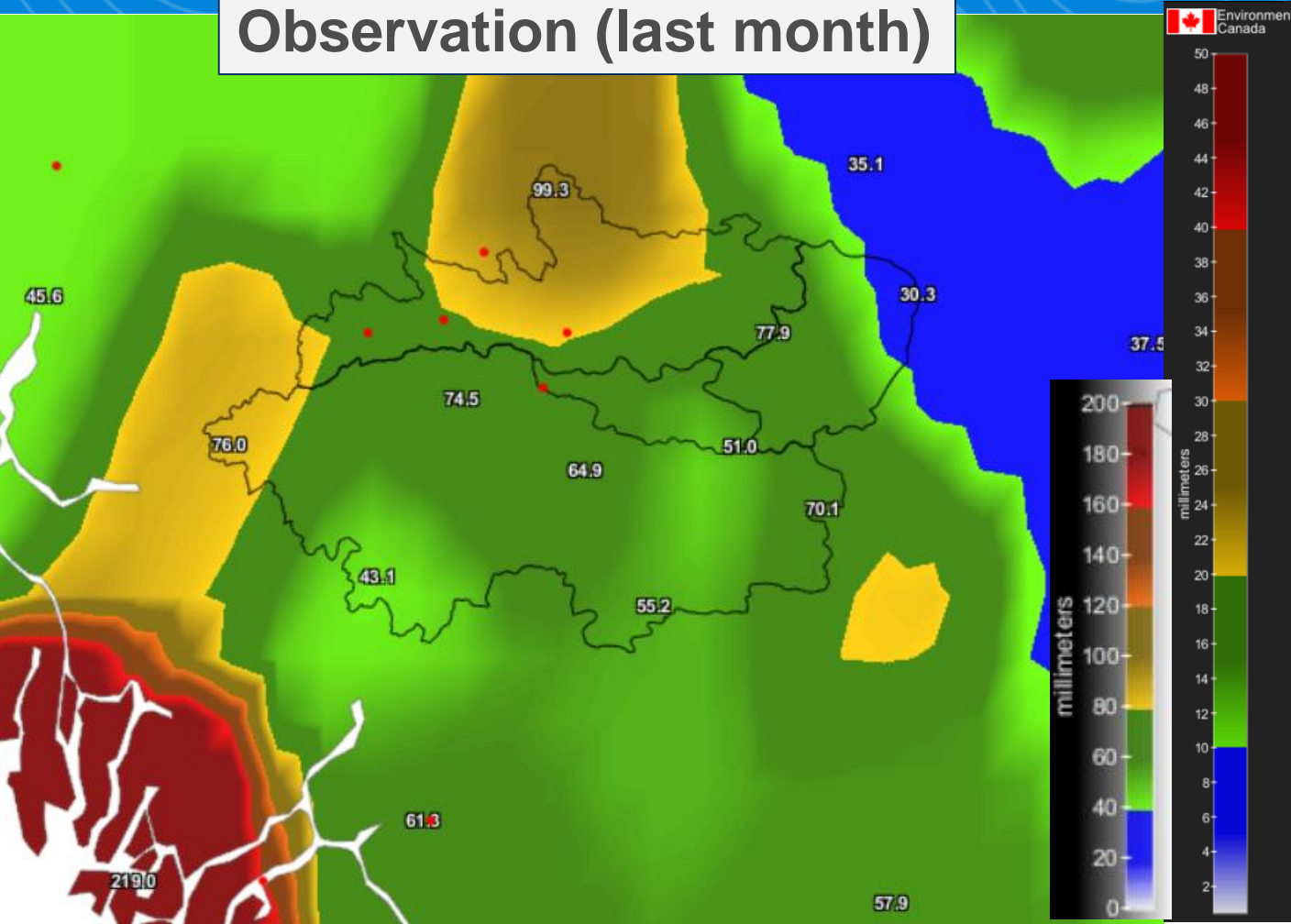


- Responding to feedback from First Nations & WEI : avoiding drops from 453 to 14 m³/s (seen in 2020)
- Current release = **169 m³/s**
- Expected next gate change:
August 21st @ 10am = 14 m³/s
 - Annual maintenance work

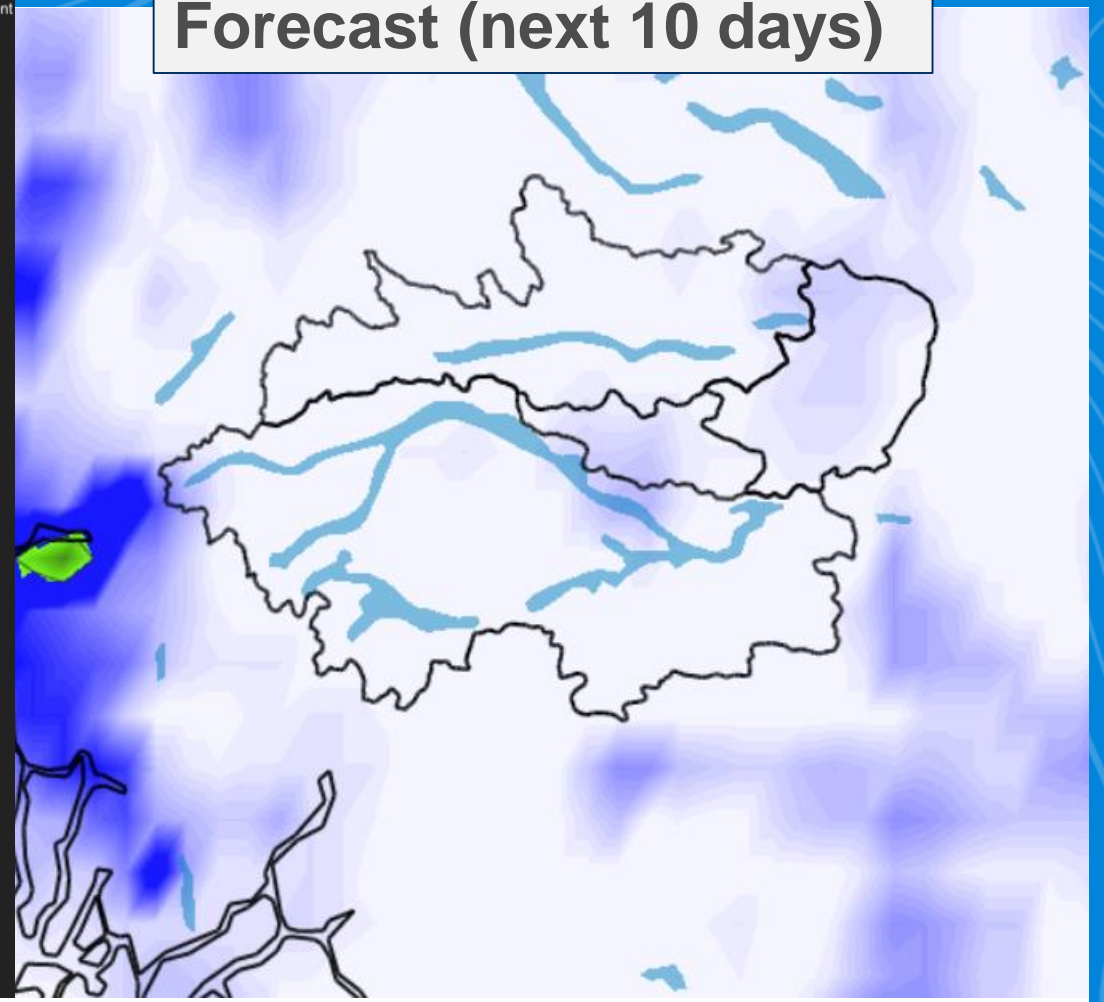


Past & Future cumulative precipitation

Observation (last month)



Forecast (next 10 days)































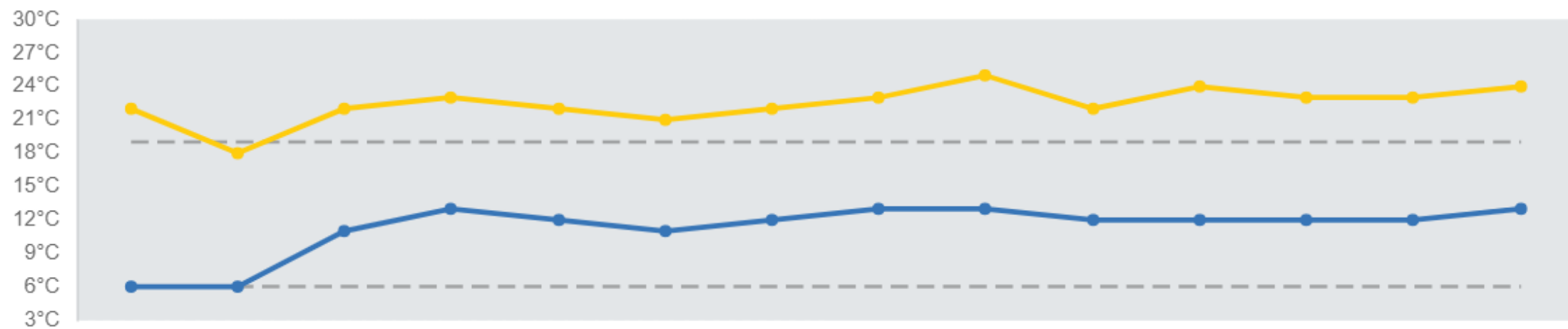
Nechako Reservoir watershed area-average = ~78 mm

Nechako Reservoir watershed area-average = 0-20 mm

Weather Forecast

Marilla Weather

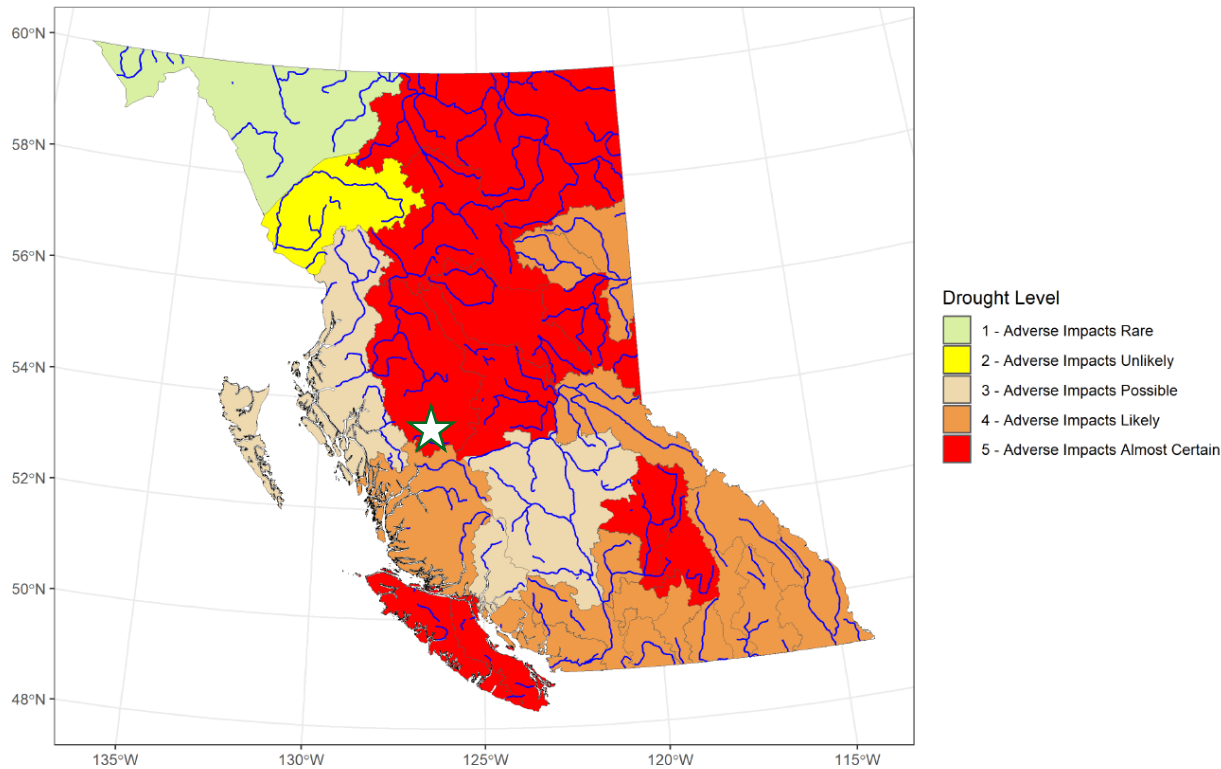
	Thu 08/17	Fri 08/18	Sat 08/19	Sun 08/20	Mon 08/21	Tue 08/22	Wed 08/23	Thu 08/24	Fri 08/25	Sat 08/26	Sun 08/27	Mon 08/28	Tue 08/29	Wed 08/30
Day	 22°	 18°	 22°	 23°	 22°	 21°	 22°	 23°	 25°	 22°	 24°	 23°	 23°	 24°
POP	20 %	20 %	10 %	20 %	40 %	20 %	20 %	20 %	20 %	30 %	10 %	10 %	10 %	10 %
Night	 6°	 6°	 11°	 13°	 12°	 11°	 12°	 13°	 13°	 12°	 12°	 12°	 12°	 13°
POP	20 %	10 %	20 %	20 %	20 %	40 %	20 %	20 %	30 %	30 %	10 %	10 %	10 %	30 %



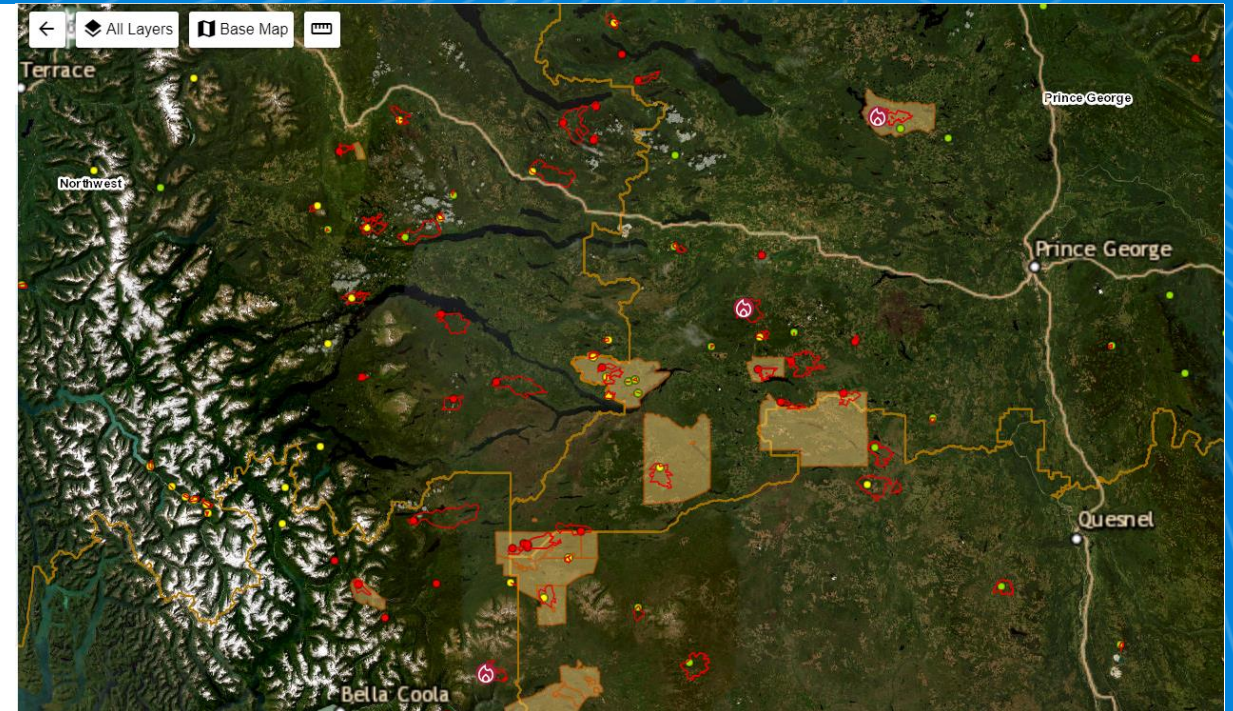
Provincial Advisories - Drought

Last updated : Aug. 14th

Drought Level 5 : Adverse Impacts Almost Certain



Source: British Columbia Drought Information Portal
Water Management Branch – Ministry of Forests



Wildfire of Note

A wildfire that is highly visible or poses a potential threat to public safety.

Out of Control

A wildfire that is continuing to spread and is not responding to suppression efforts.

Being Held

A wildfire that is not likely to spread beyond predetermined boundaries under current conditions.

Under Control

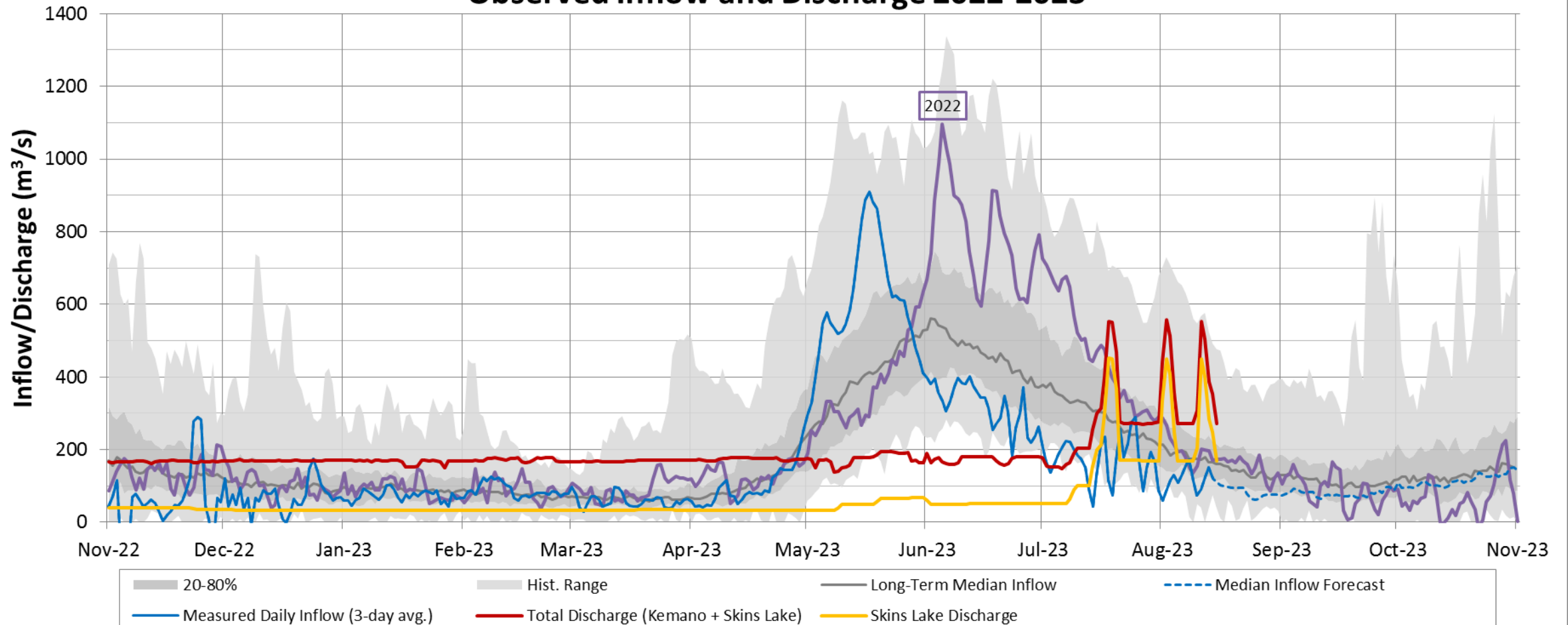
A wildfire that will not spread any further due to suppression efforts.

Out

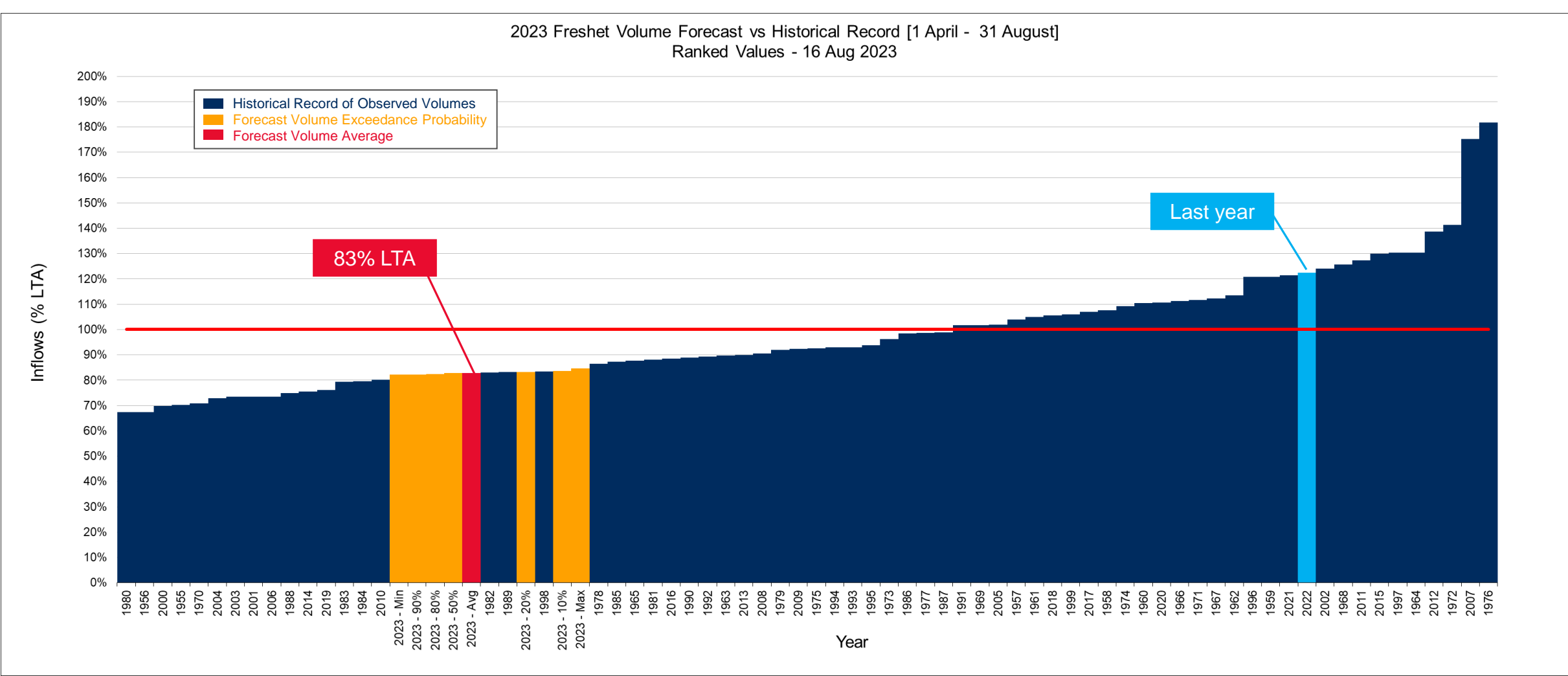
A wildfire that is extinguished. Suppression efforts are complete.

Observed Inflows & Discharge vs Historical

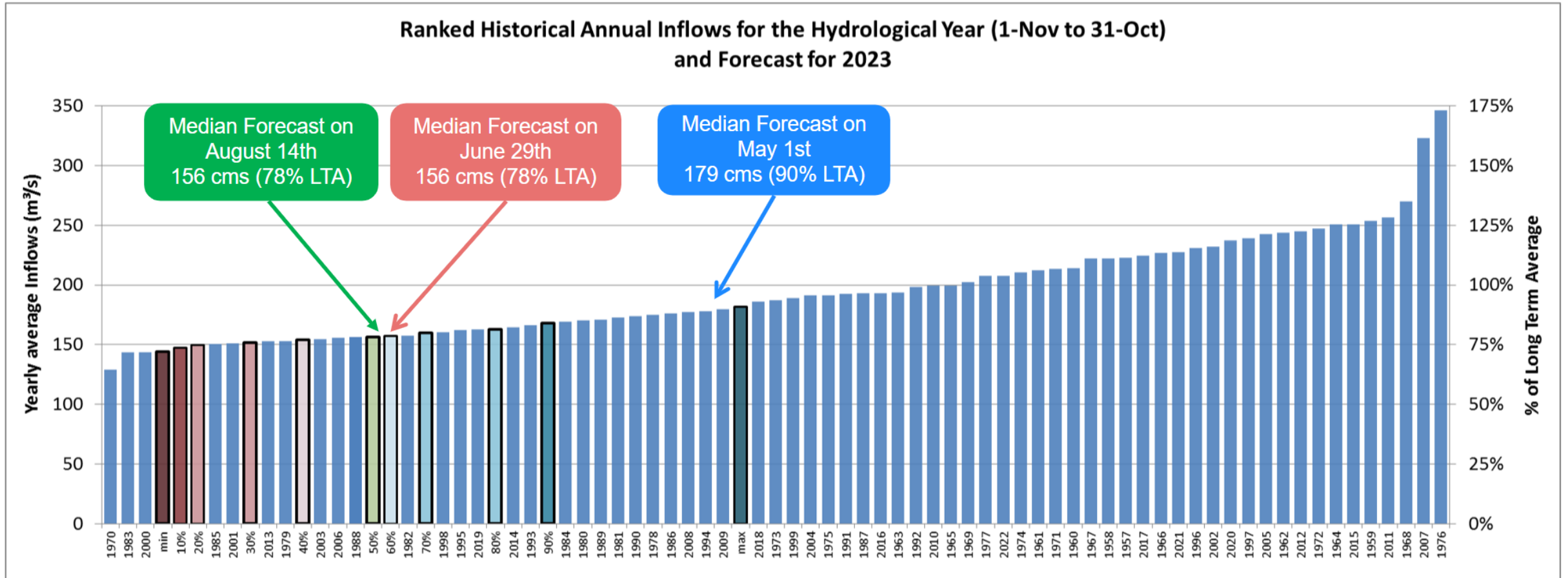
Nechako Reservoir Operation
Observed Inflow and Discharge 2022-2023



Spring Freshet Inflow Volume

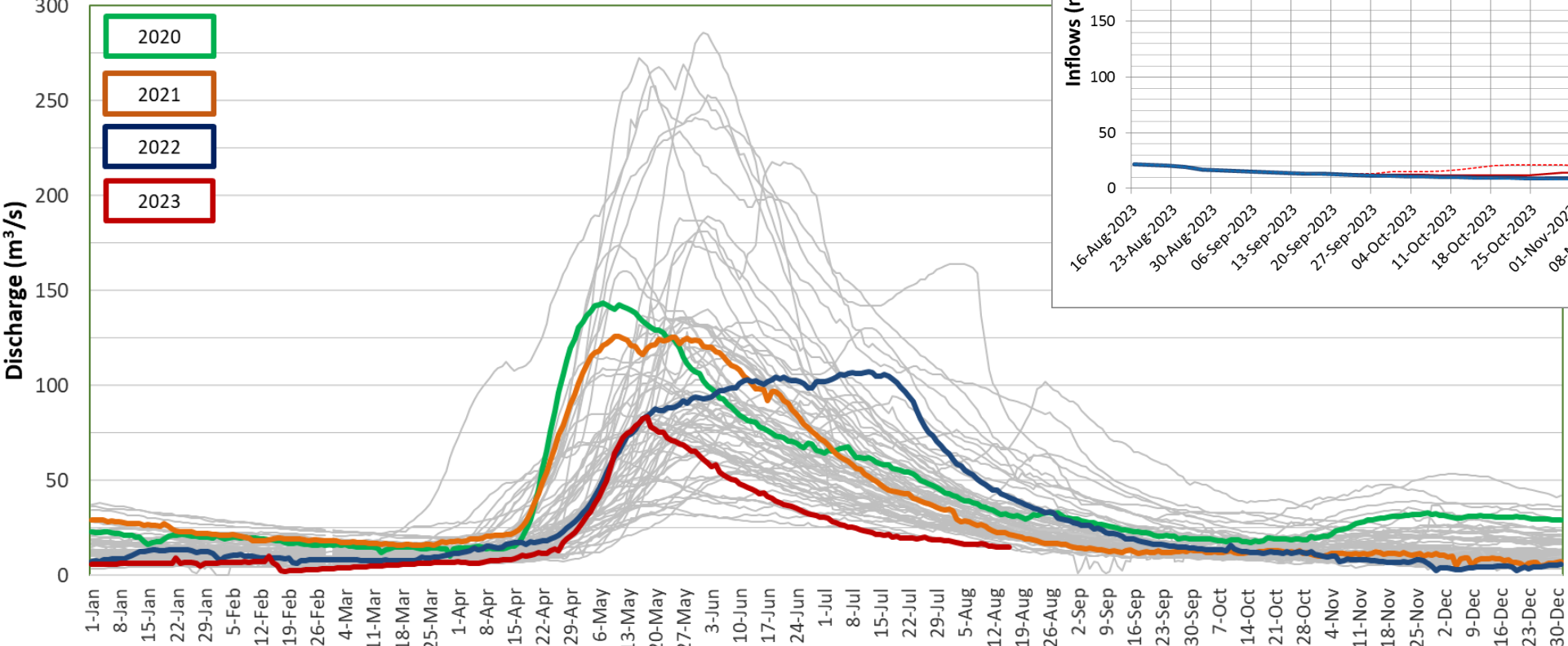


Hydrological Year Inflow Volume



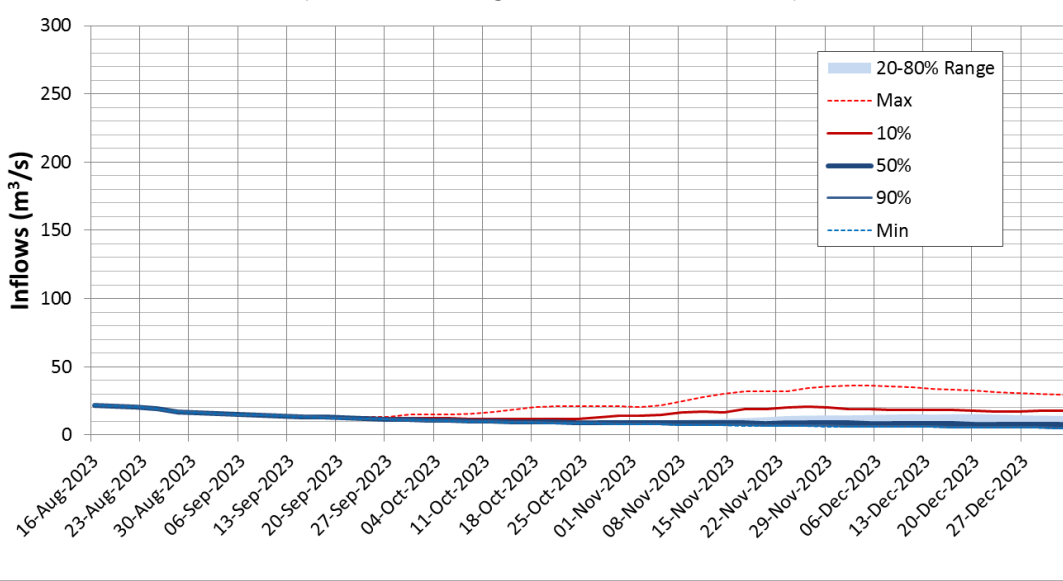
Nautley River Flows, Forecast

Nautley River discharge 1952-2023



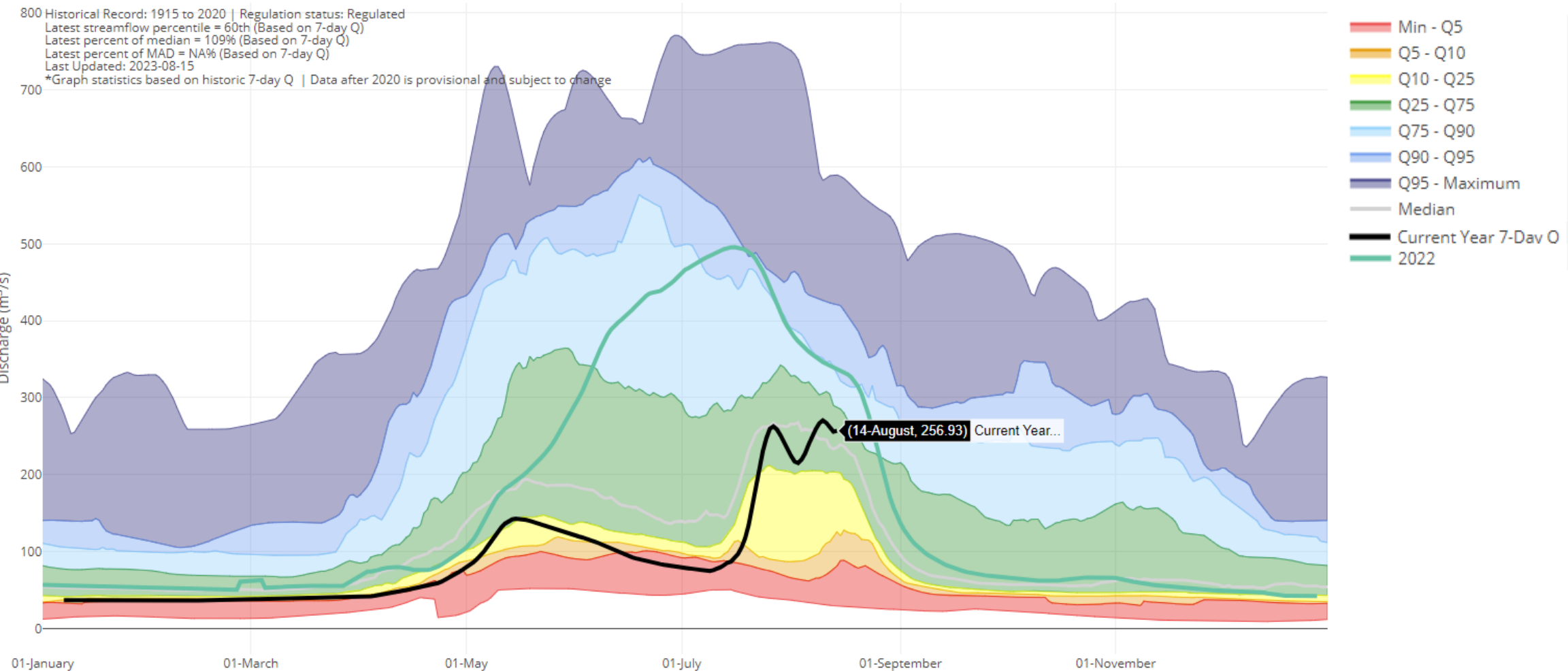
Expected Natural Inflow on Nautley/Nechako Rivers at Vanderhoof

(excludes discharge from Nechako Reservoir)

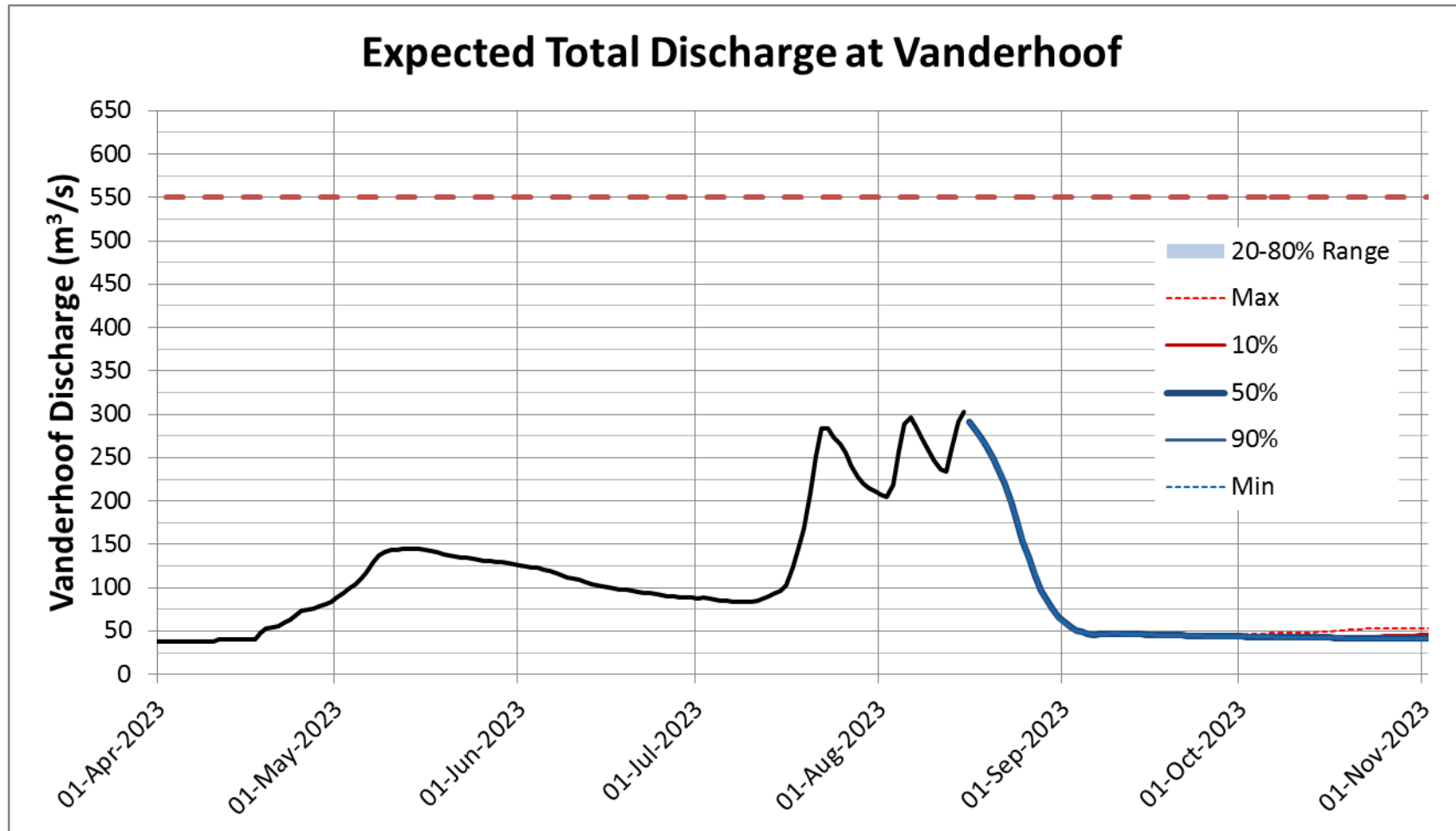


Vanderhoof

Seven Day Mean Streamflow for 08JC001 NECHAKO RIVER AT VANDERHOOF

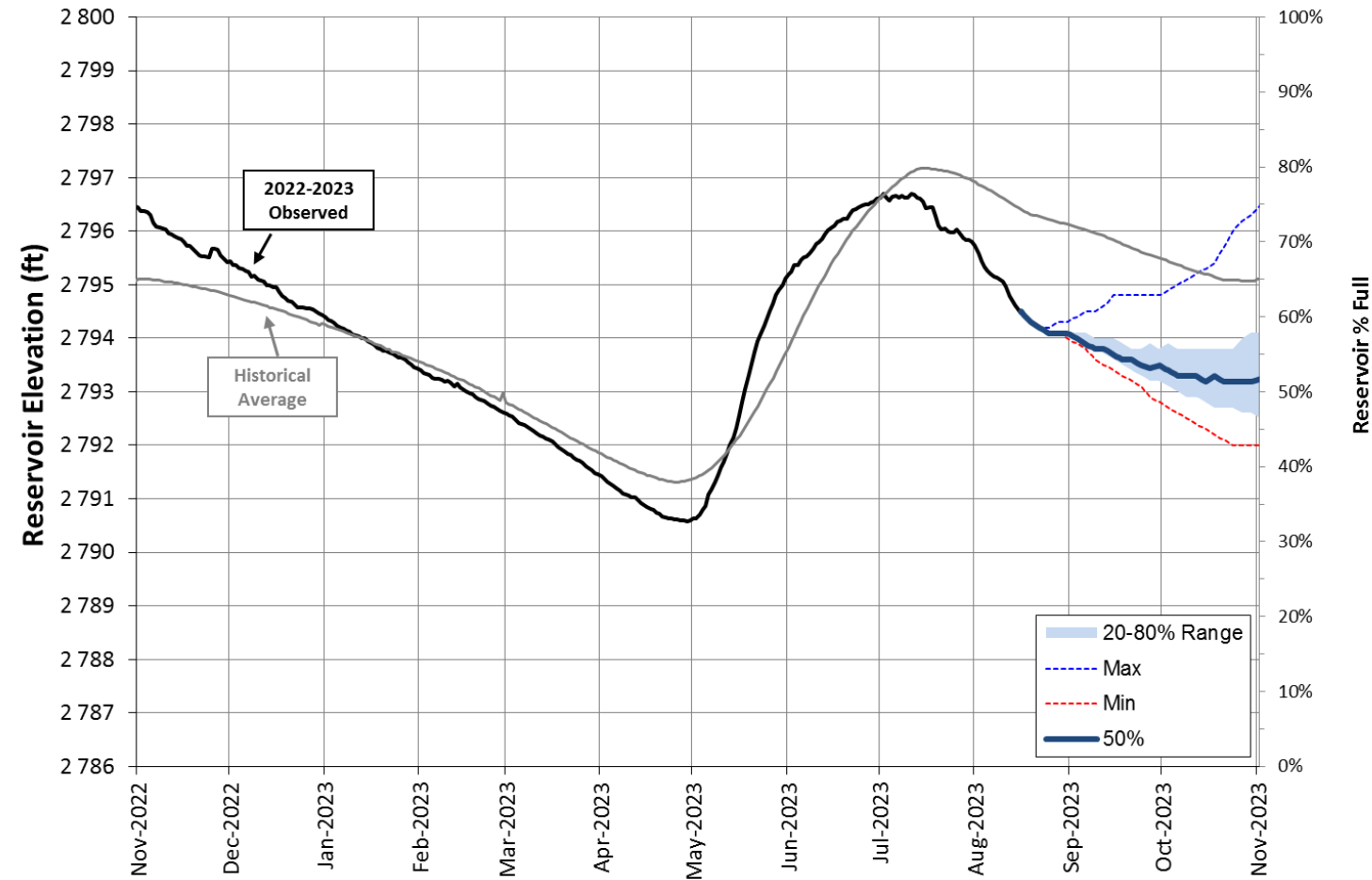


Forecast – Vanderhoof



Reservoir Level Projection

NECHAKO RESERVOIR
Observed and Projection 2022-2023
16-Aug-2023 Projection - SDP V7.13



Updates - Next Steps – Actions



1. Work with BC Wildfire on access
2. Model update and communications – STMP, Generation etc
3. Monitoring work in the field
4. 2023 7 Yearly Dam Safety Review underway
5. Continue to update on Smelter Re-Start currently at 93% full production
6. Confirm next meeting date & time
– **Propose August 30th**

Presentations are available on the Get Involved Nechako website under 'Our Operations'. Recordings can be requested up to 30 days following the meeting.

Feedback & Reflections

