



RioTinto

# Nechako Reservoir / River / Freshet Information Sharing – Community Leaders

09 March 2022

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Mercier

Photo: Avison

# Key Focus

1. Current Watershed Data:  
Precipitation and elevation
2. Freshet Forecast, looking  
to the spring and  
Next Steps

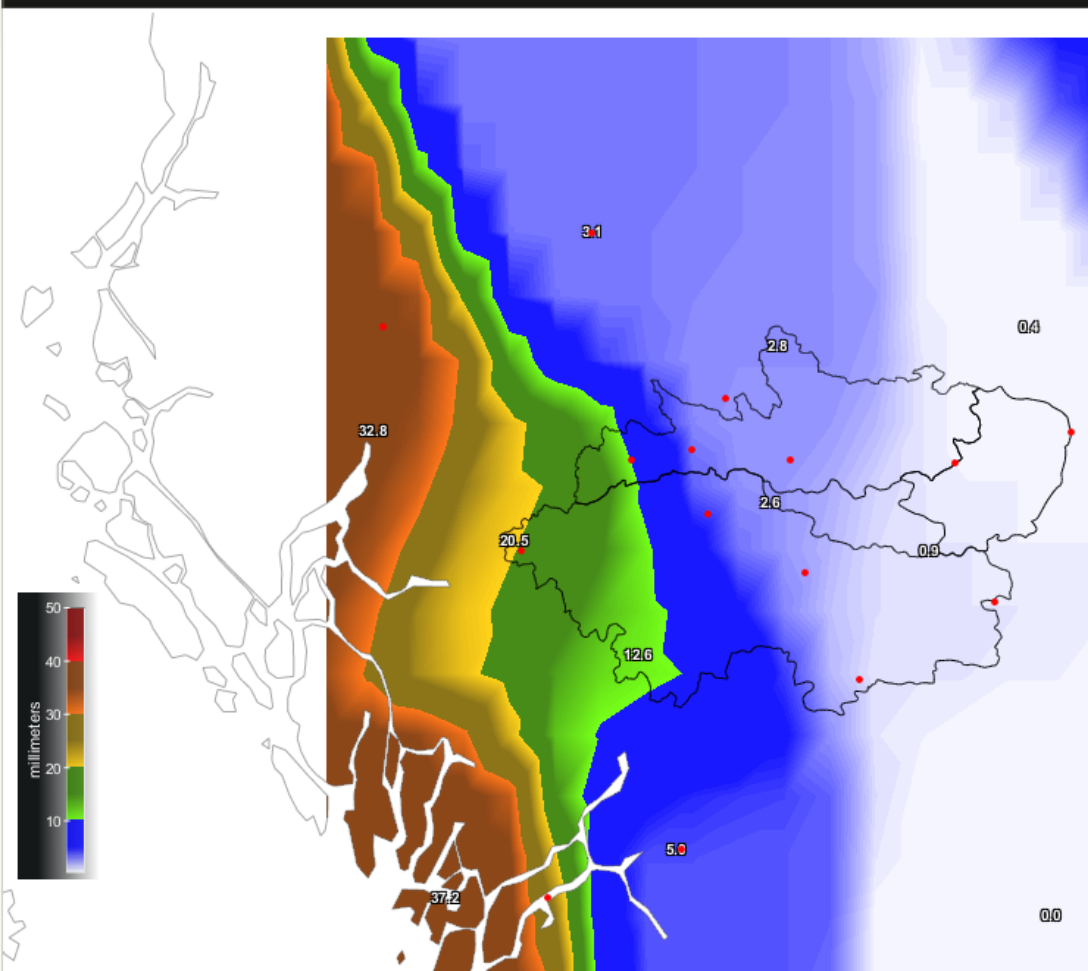


Photo: Avison

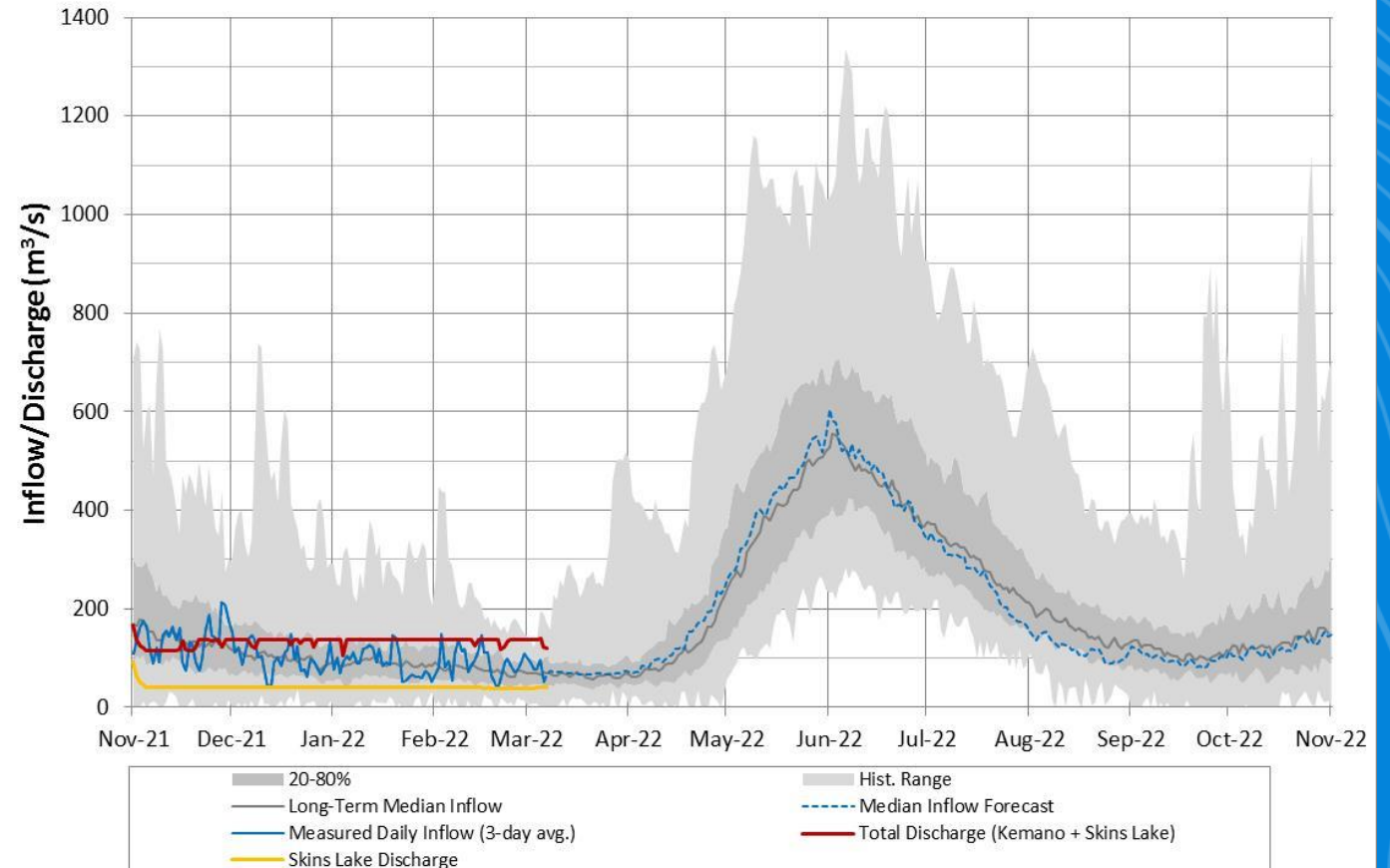


# Observed Precipitation, Inflows vs Historical

7-day cumulative rainfall

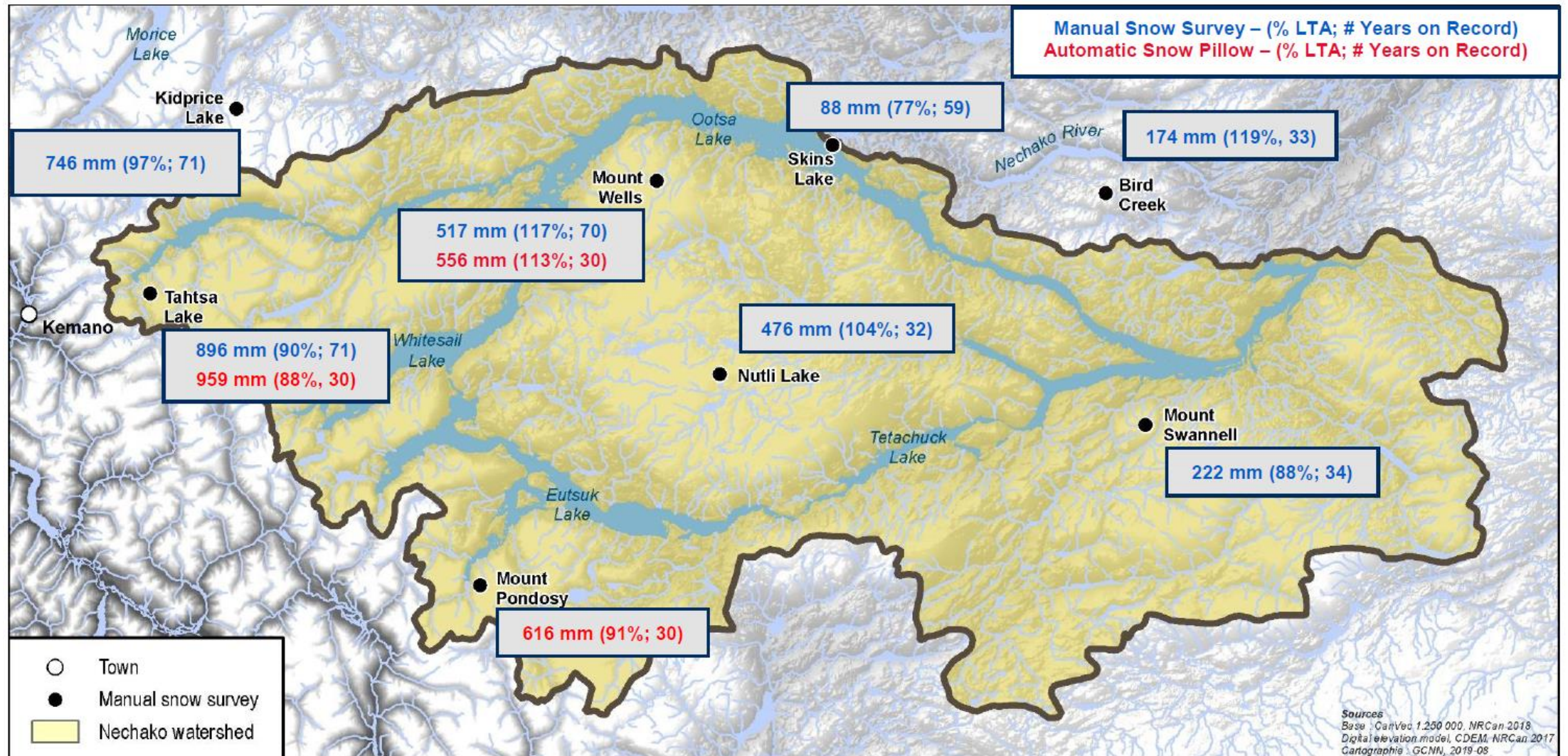


Nechako Reservoir Operation  
Observed Inflow and Discharge 2021-2022





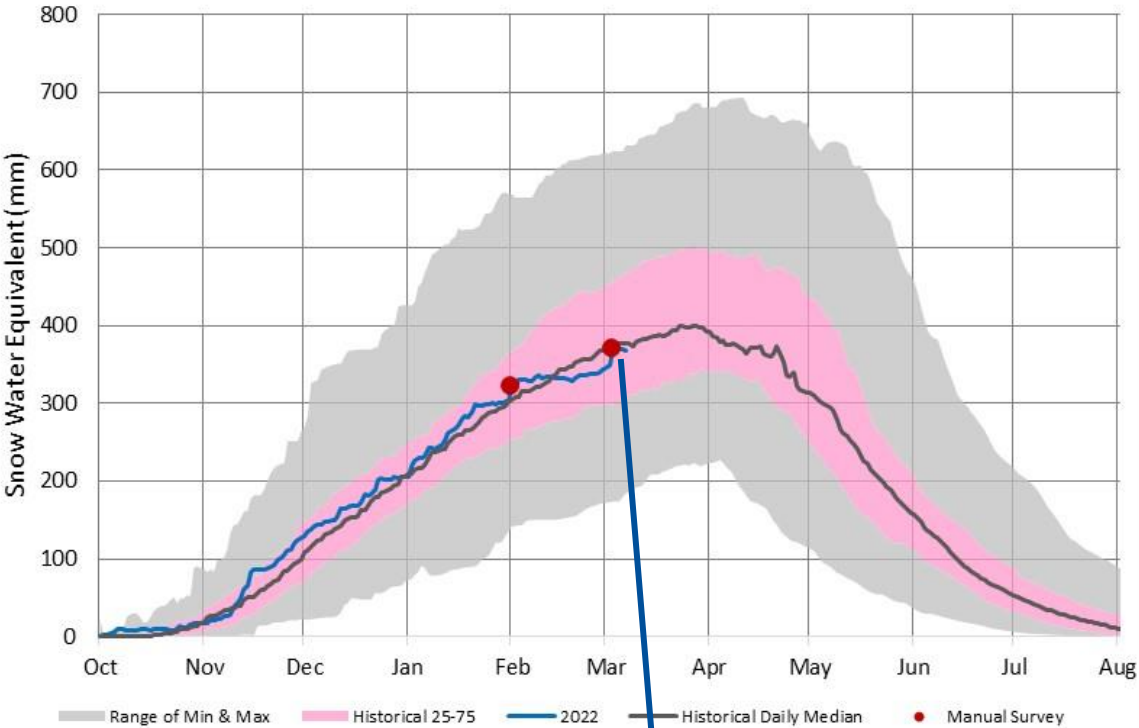
# Manual Snow Survey 2-3 Mar. 2022





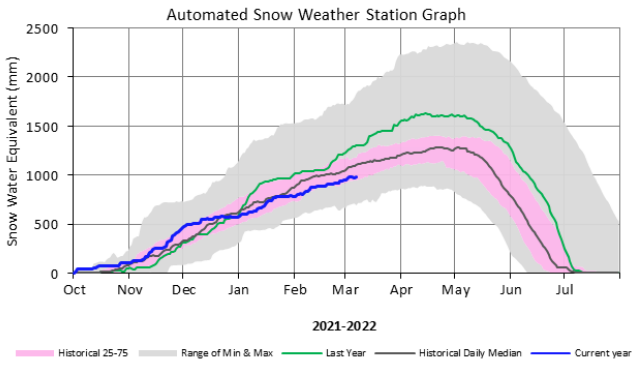
# Current Snowpack

Nechako Reservoir Snowpack

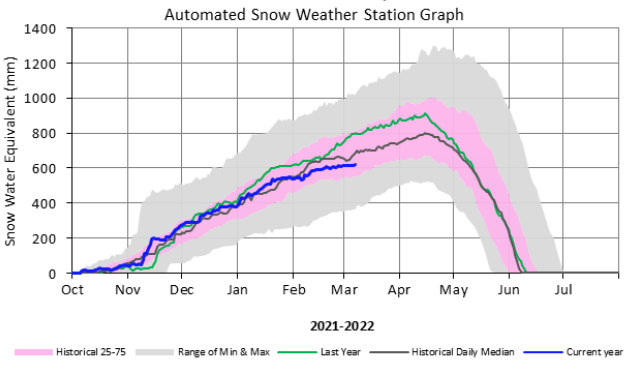


369 mm (96% LTA; 33<sup>rd</sup>/64)

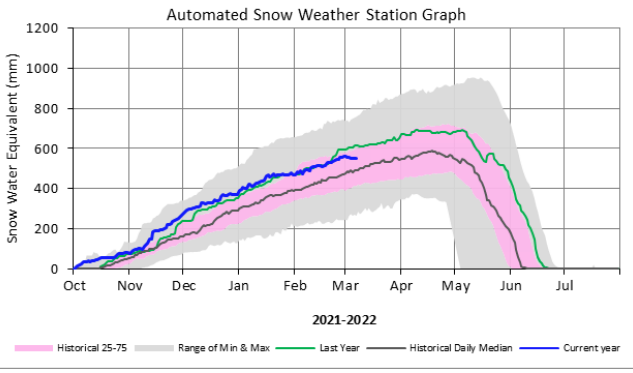
Tahtsa Lake



Mount Pondosy



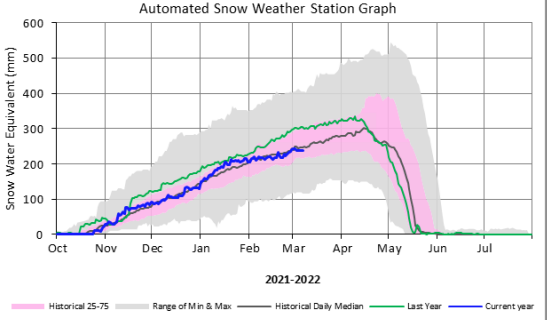
Mount Wells



Station	Current Value (mm)	LTA* (mm)	%LTA*	Percentile Rank*
Tahtsa Lake	978	1108	88%	25%
Mount Pondosy	618	693	89%	31%
Mount Wells	550	501	110%	62%

\*(1992-2021)

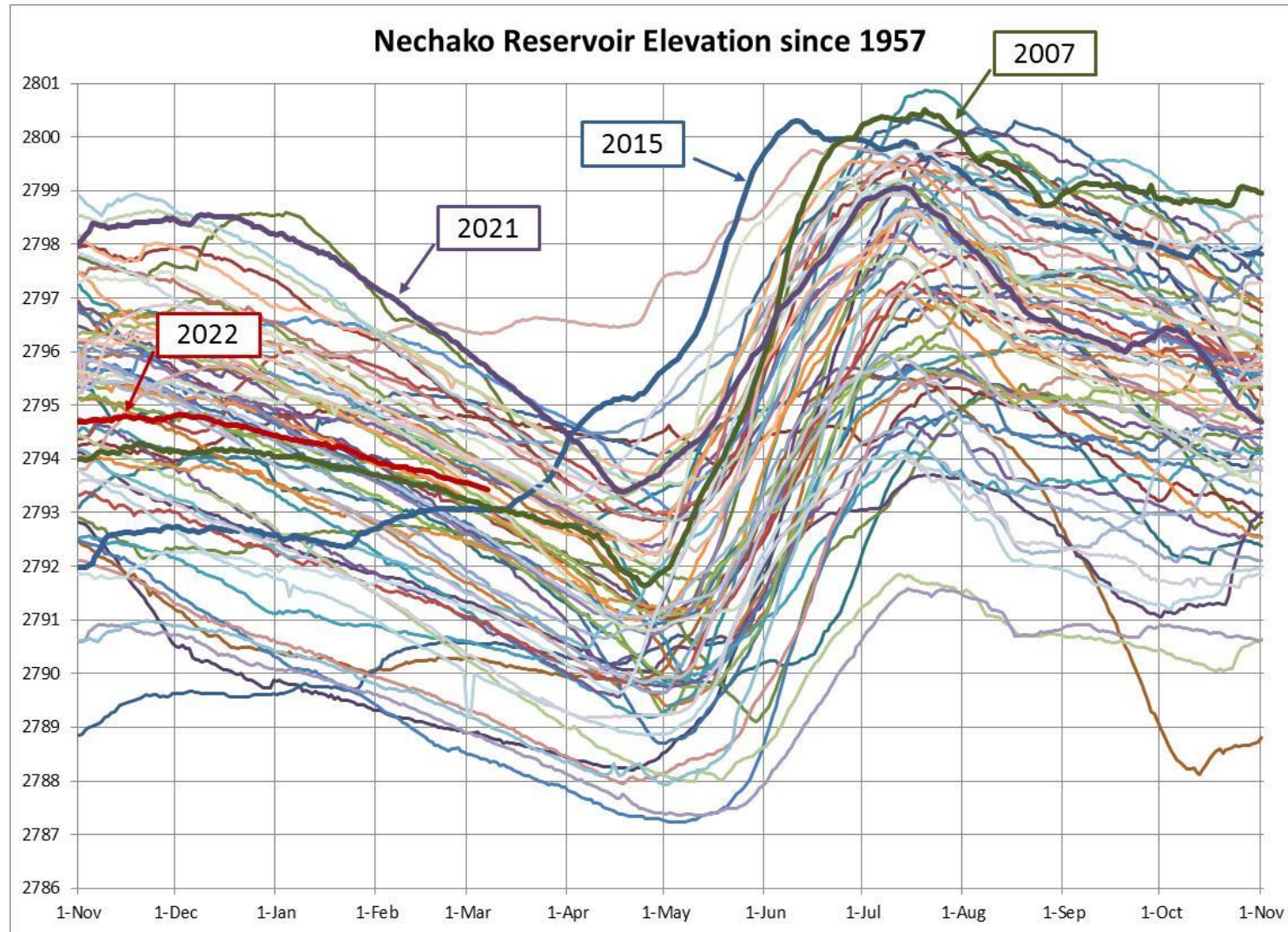
Lu Lake



Station	Current Value	%LTA*
Lu Lake	239	93%

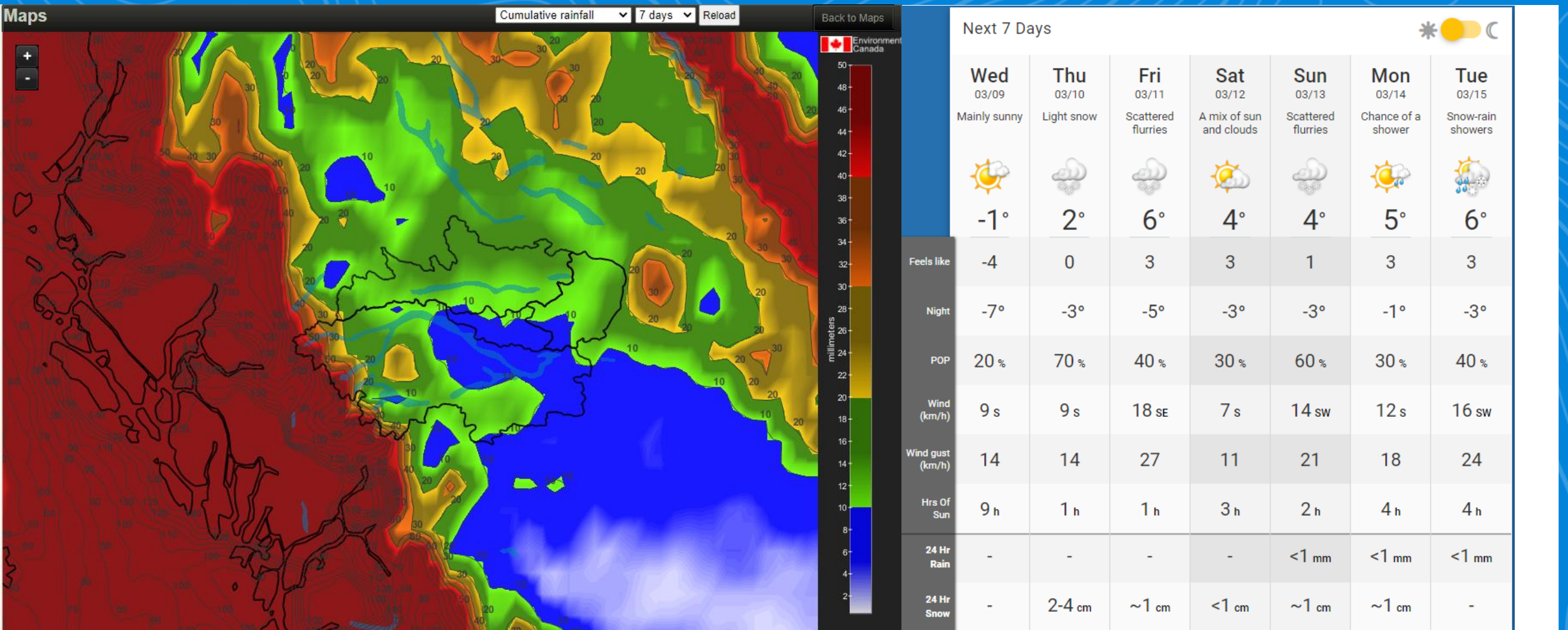
\*(1997-2021)

# Historical Reservoir Elevation

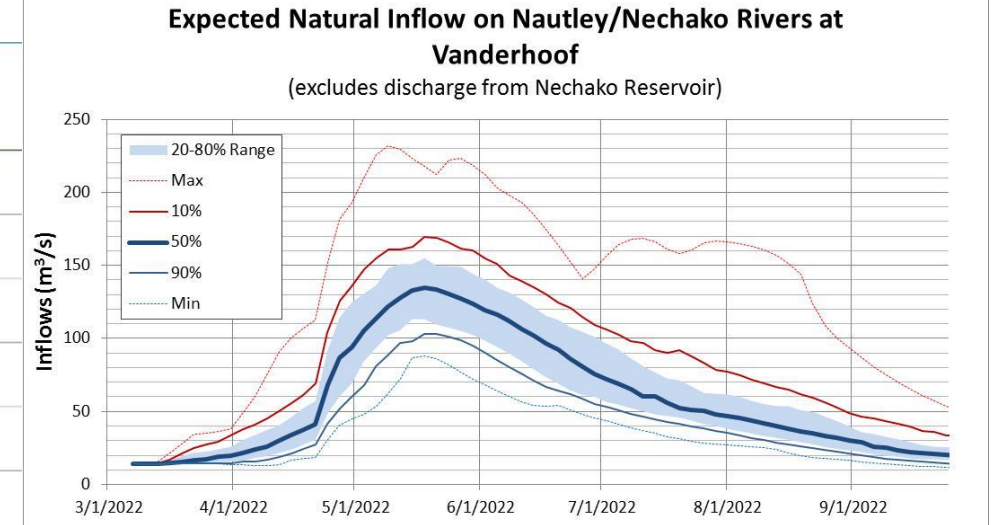
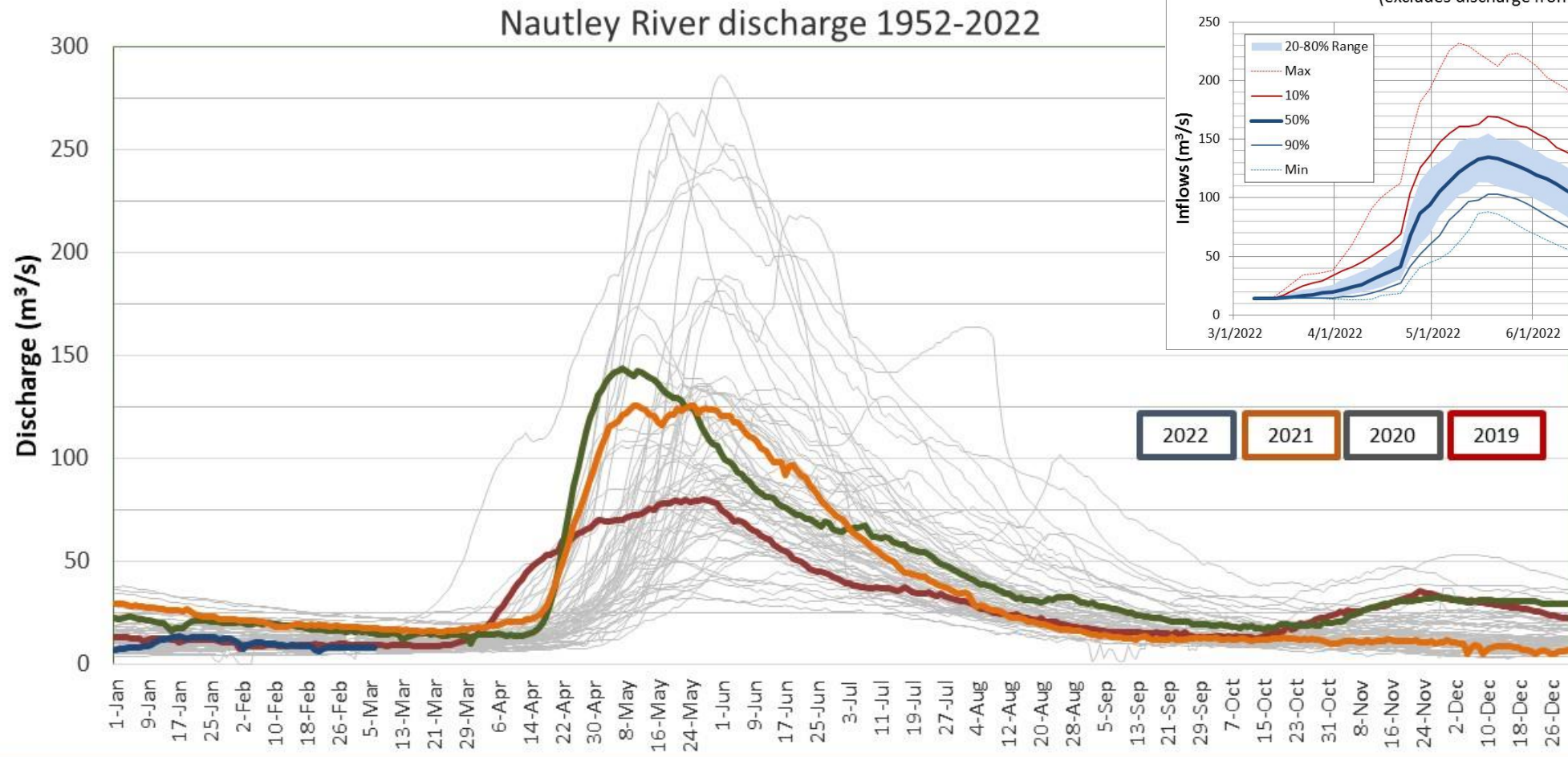




# 7 Day Weather Forecast

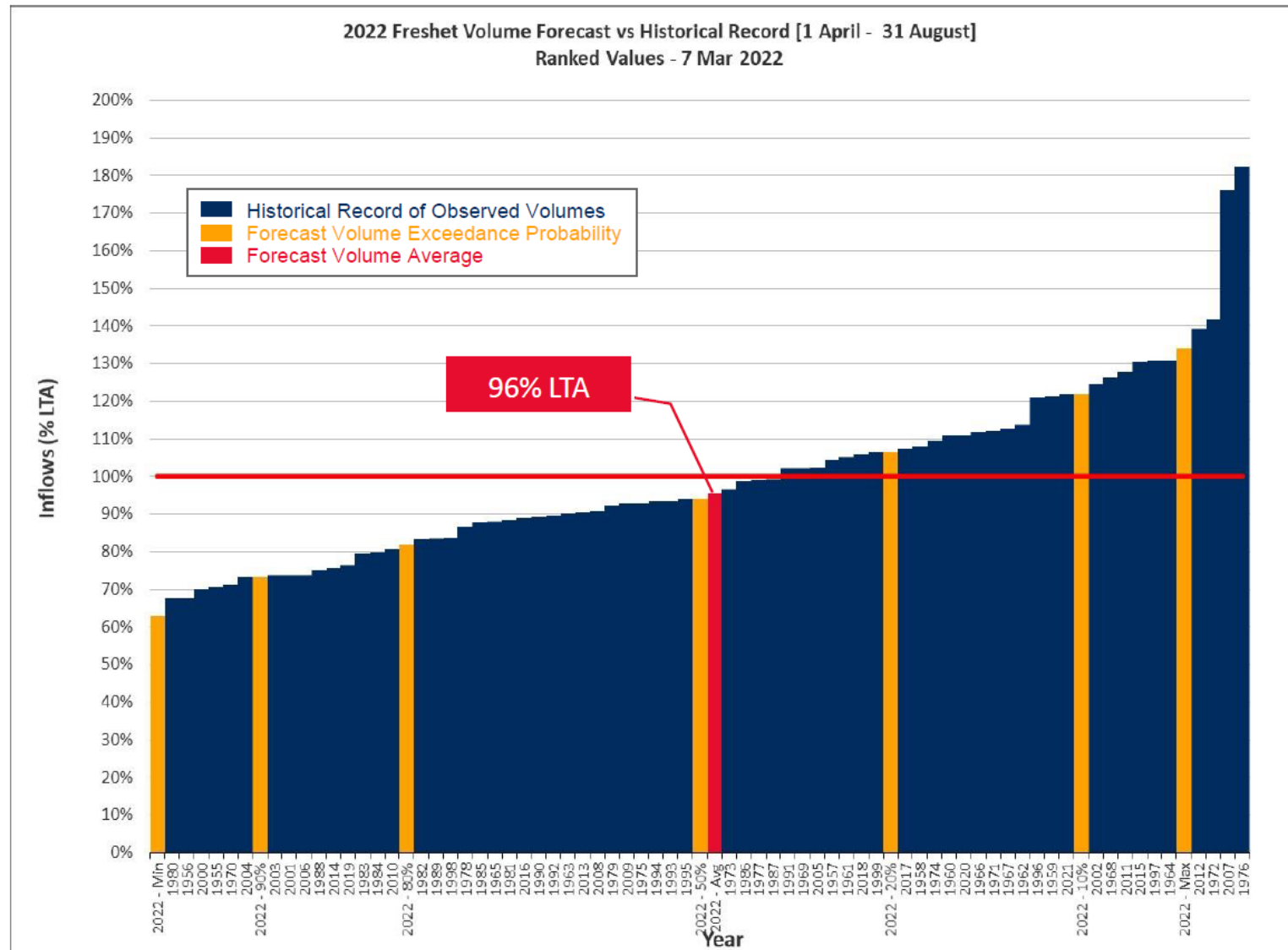


# Nautley River Flows, Forecast



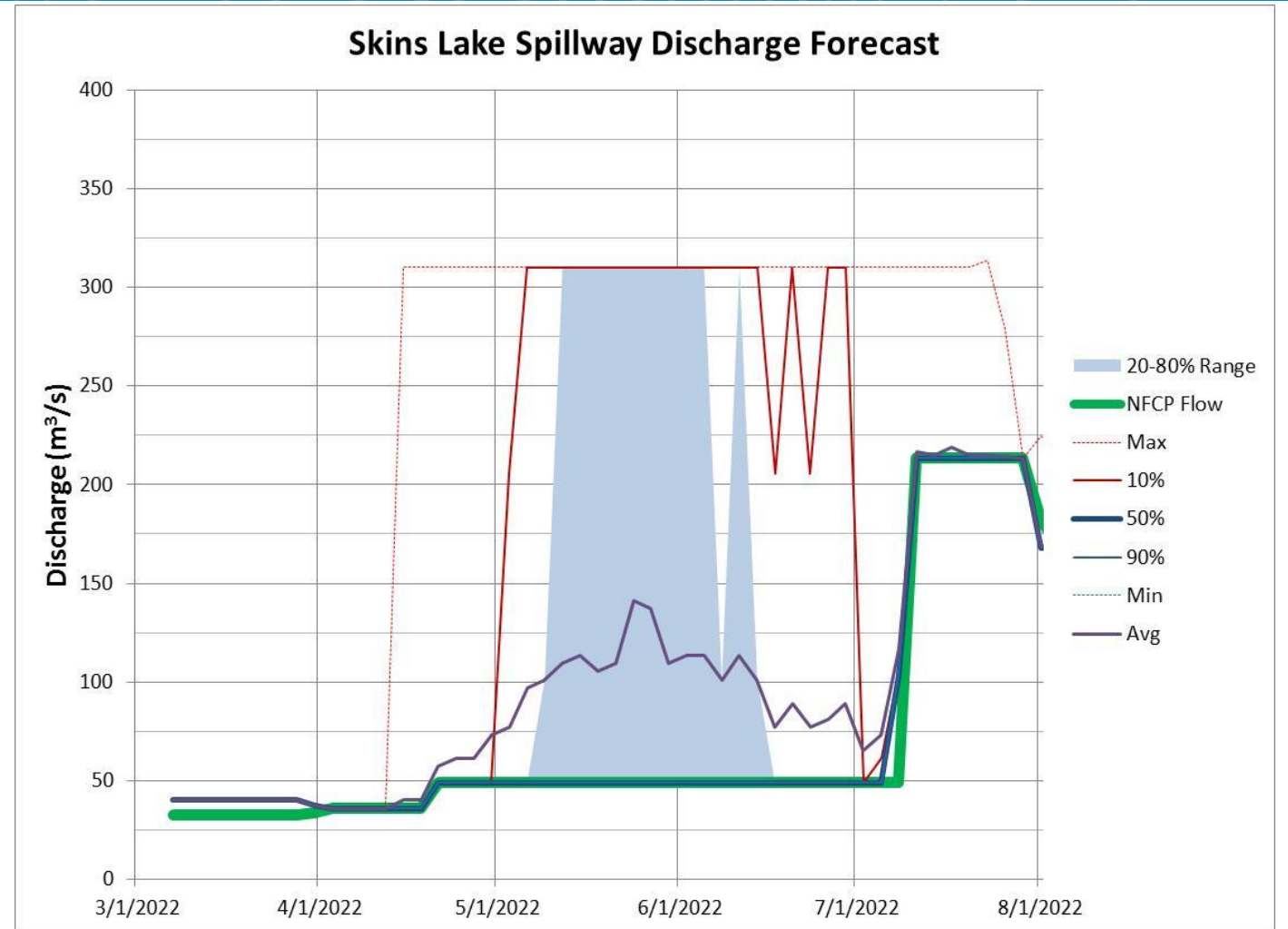


# Spring Freshet Inflow Forecast



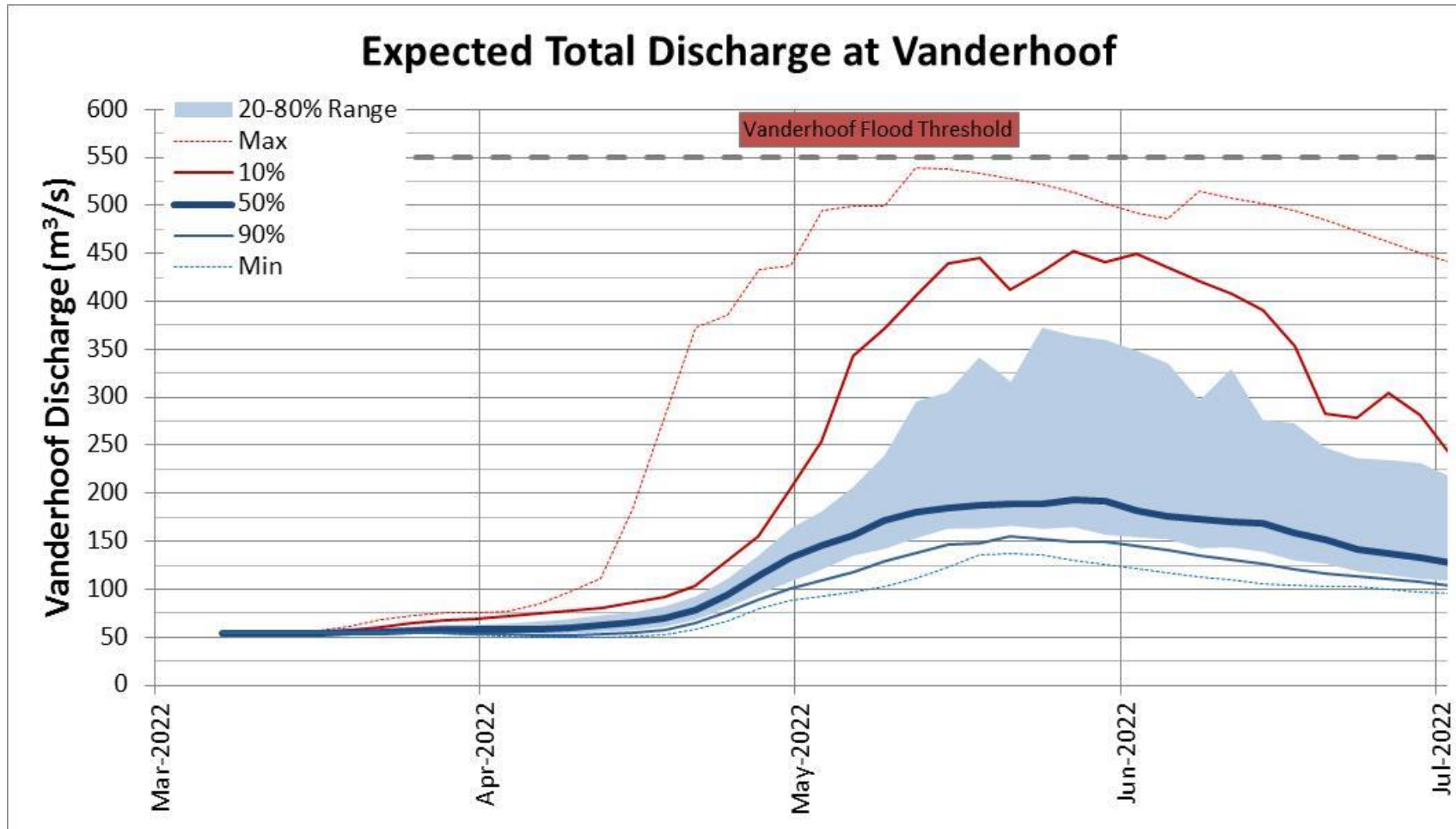
# Spillway Management – Looking to Winter and Spring

- SLS discharge currently 40 m<sup>3</sup>/s, and is most likely to be maintained at 40 m<sup>3</sup>/s until spring;
- Working through the Smelter load and re-start scenarios
- Ice Jam risk and winter flow protocols - collecting data as per NHC recommendation
- Spring Freshet flood risk; Murray Cheslatta System and Vanderhoof



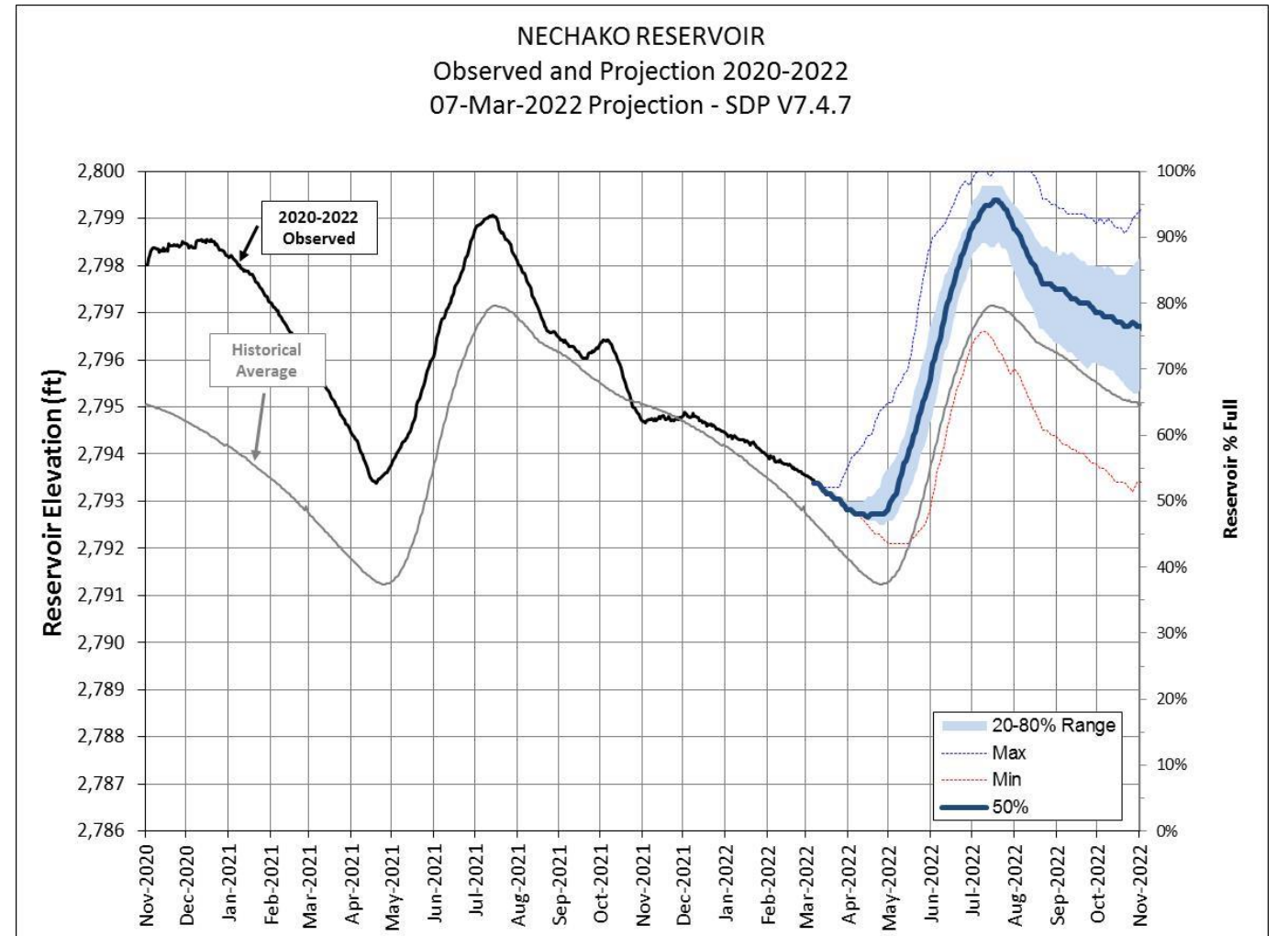


# Forecast – Vanderhoof Flows



# Reservoir Level Projection

- Inflow projections are used to estimate reservoir levels over time considering current hydrology and historically observed additional snow and rain.





# Next Steps – Actions

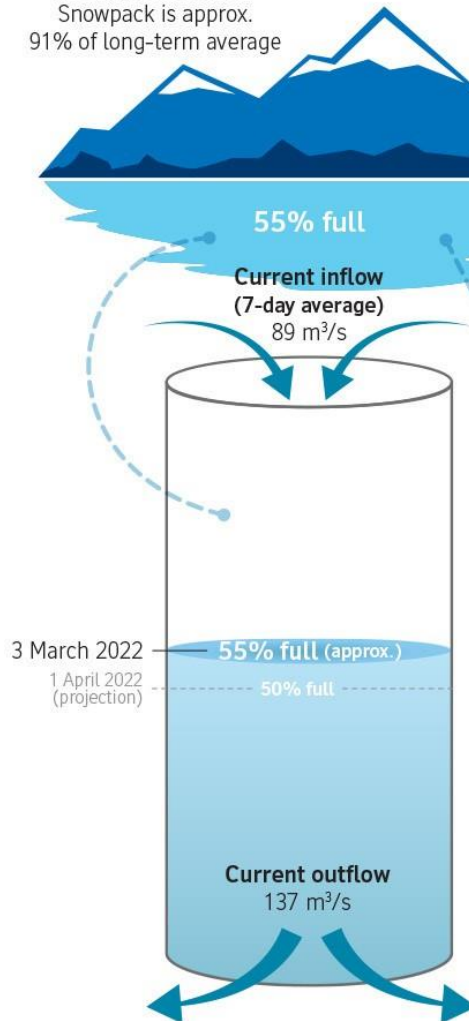


1. Model update and communications.
2. Ice Surveys Ongoing
3. Provide update on Re-Start & Nechako Implications – In Progress
4. Confirm next meeting date – **23 March**

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

# Current Conditions - 3 March 2022

**Nechako Reservoir**  
Snowpack is approx.  
91% of long-term average



**Nautley Watershed**  
Snowpack is approx.  
97% of long-term average

**Cheslatta Falls**  
41 m<sup>3</sup>/s

**Nautley River**  
8 m<sup>3</sup>/s

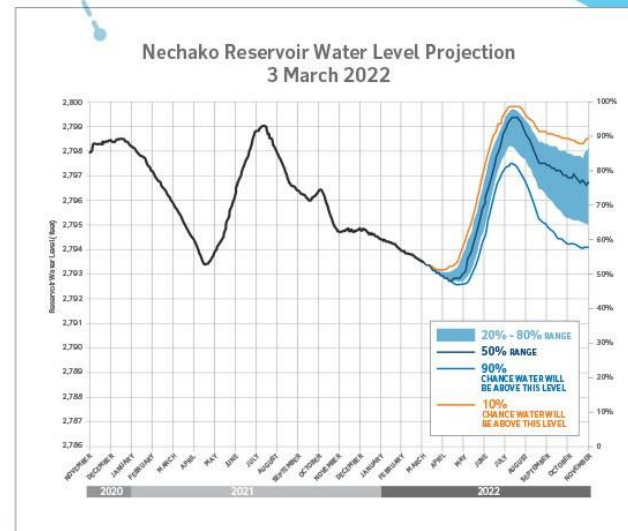
**Stuart River**  
Snowpack data  
is not available

**Vanderhoof**  
53 m<sup>3</sup>/s

**Stuart River**  
40 m<sup>3</sup>/s

**Prince George**  
99 m<sup>3</sup>/s

**Fraser River**



## Nechako Reservoir operations update

- Skins Lake Spillway discharge is likely to be maintained at approximately 40 m<sup>3</sup>/sec for the duration of the winter in accordance to the Nechako Fisheries Conservation Program guidelines.
- For real time information and updates visit [getinvolvednechako.ca](https://getinvolvednechako.ca)
- To subscribe to weekly updates email us at [nechakoreservoirupdates@riotinto.com](mailto:nechakoreservoirupdates@riotinto.com)



# Feedback & Reflections



Photo: Avison