



RioTinto

# Nechako Reservoir / River / Freshet Information Sharing – WEI

6 April 2022

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Mercier



# Key Focus

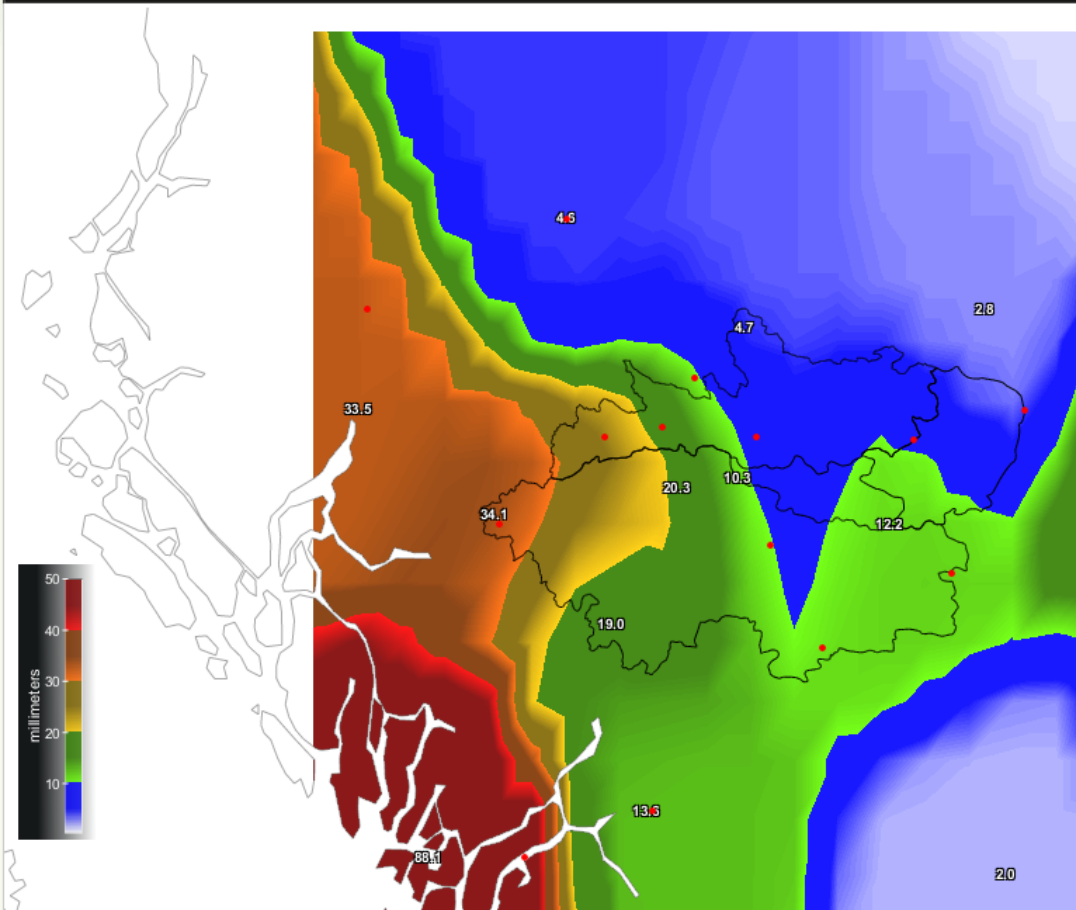
1. Current Watershed Data:  
Precipitation and elevation
2. Freshet Forecast, looking  
to the spring and  
Next Steps



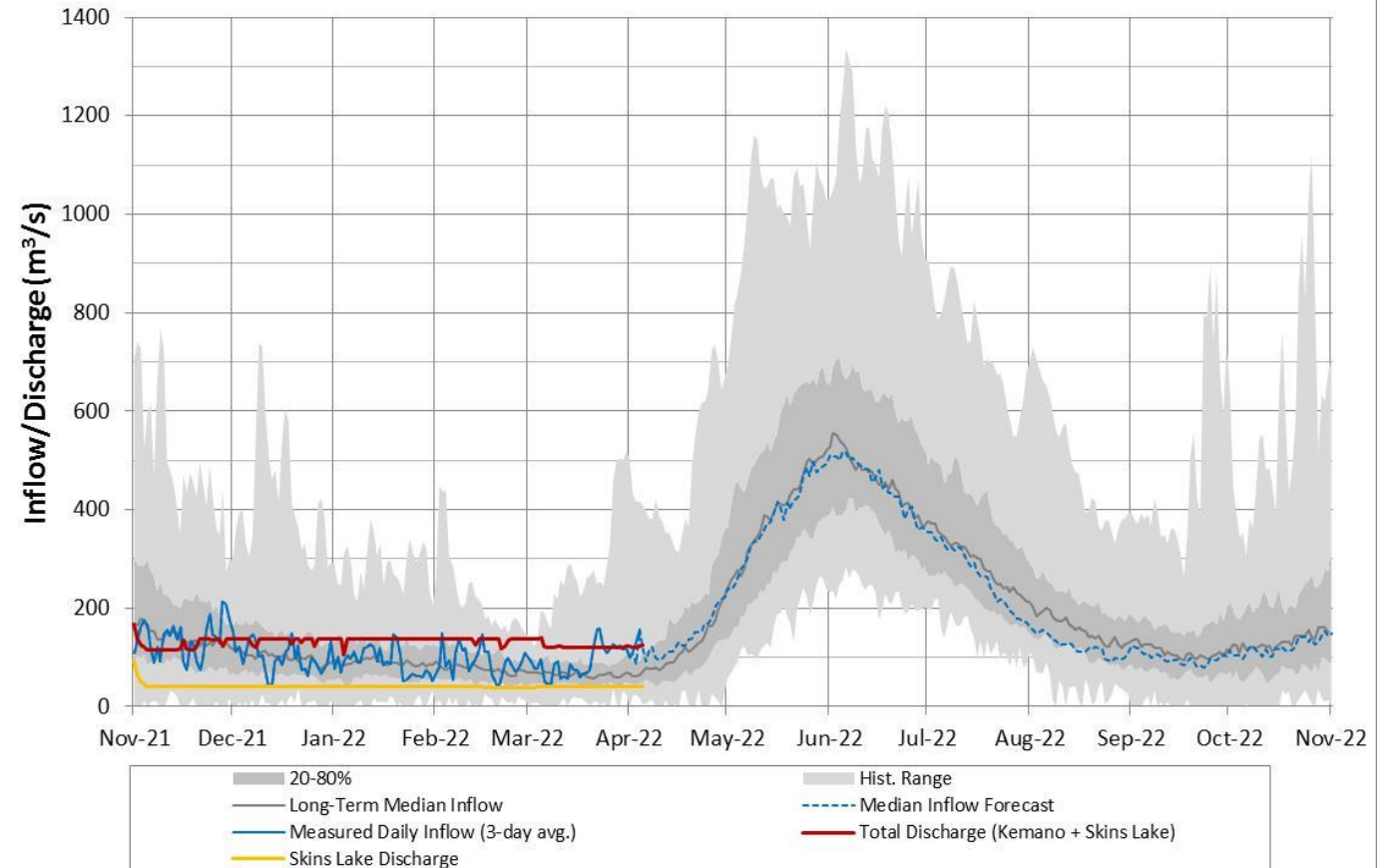
Photo: Avison

# Observed Precipitation, Inflows vs Historical

7-day cumulative rainfall

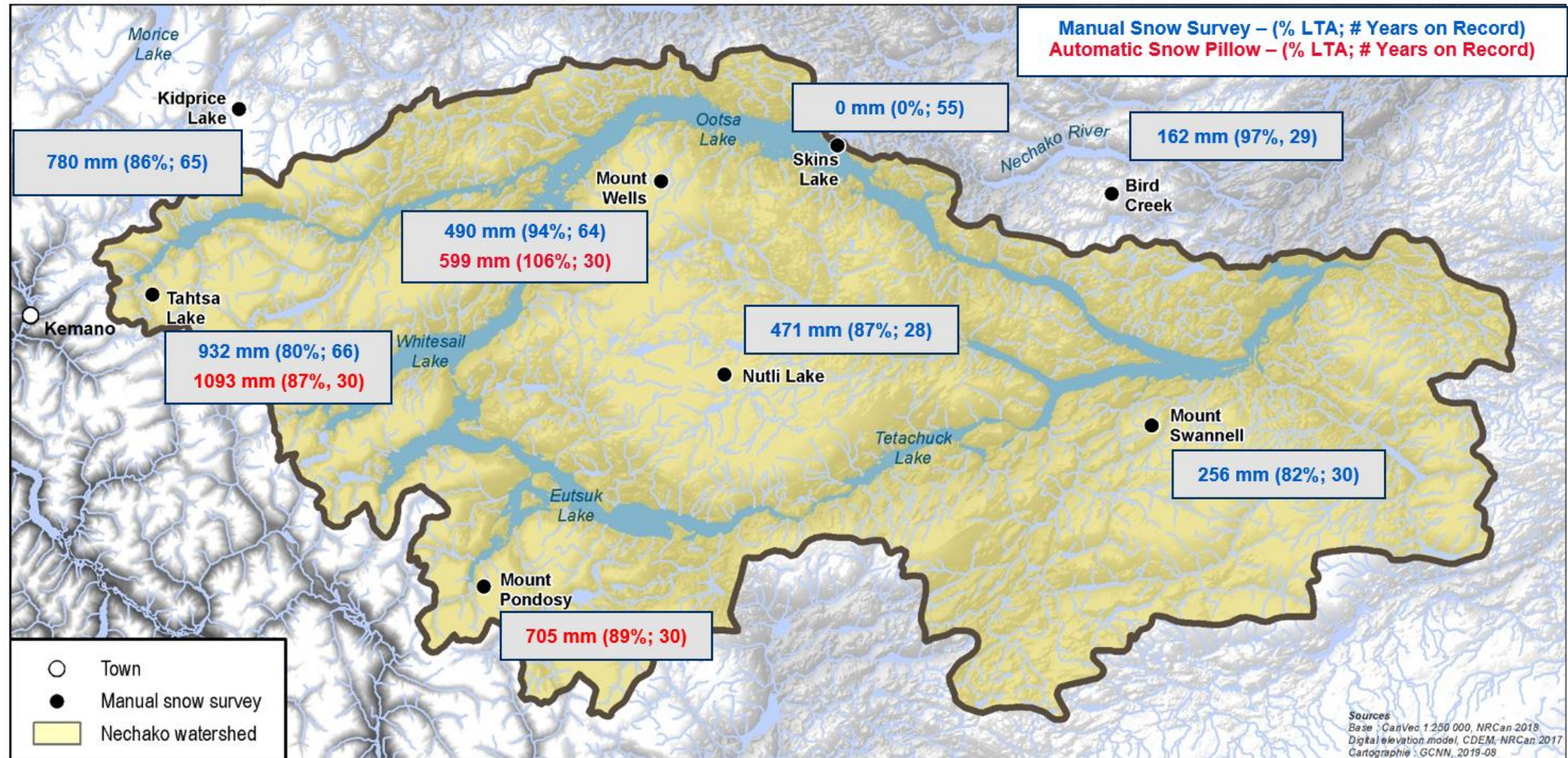


Nechako Reservoir Operation  
Observed Inflow and Discharge 2021-2022





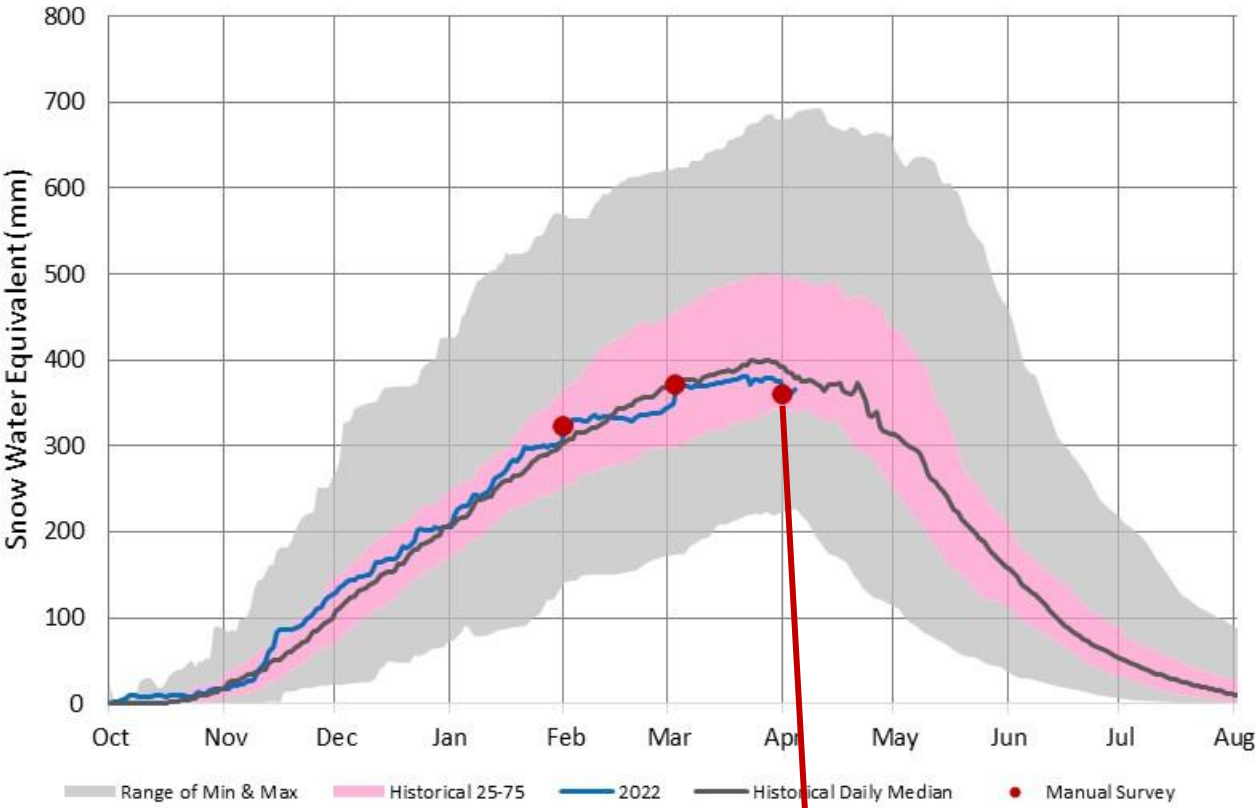
# Manual Snow Survey 2-3 Mar. 2022





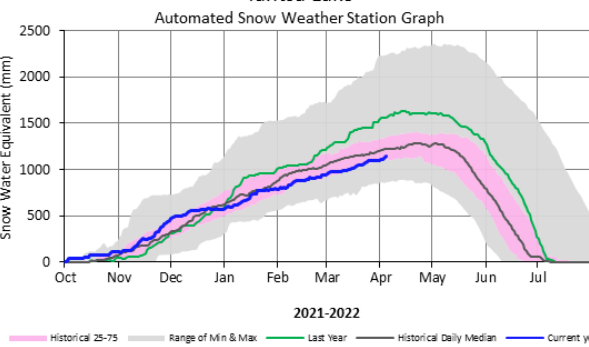
# Current Snowpack

### Nechako Reservoir Snowpack

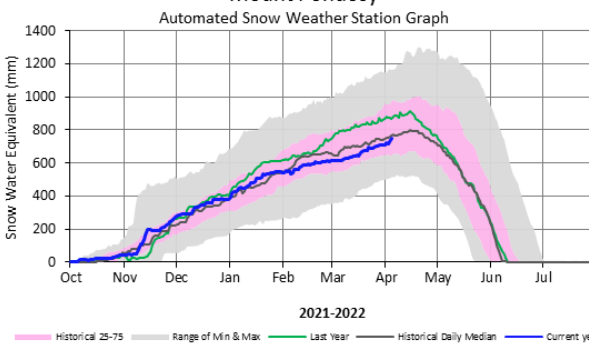


358 mm (85% LTA; 40<sup>th</sup>/64)

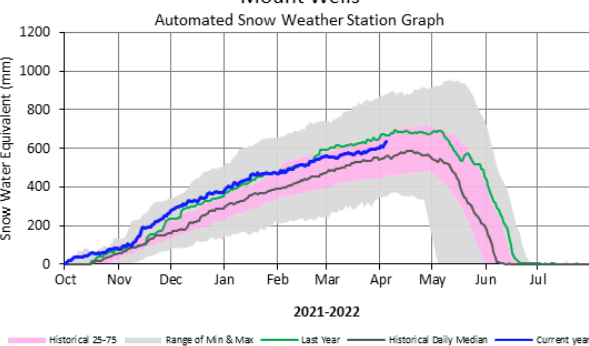
### Tahtsa Lake



### Mount Pondosy



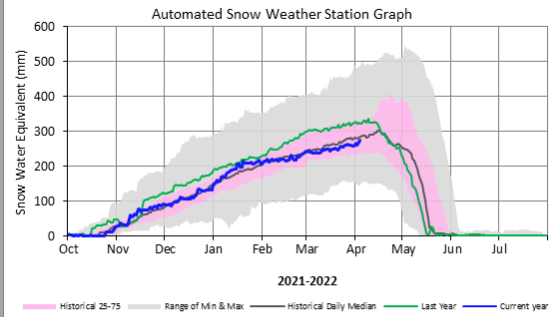
### Mount Wells



Station	Current Value (mm)	LTA* (mm)	%LTA*	Percentile Rank*
Tahtsa Lake	1146	1277	90%	28%
Mount Pondosy	746	798	94%	48%
Mount Wells	637	574	111%	62%

\*(1992-2021)

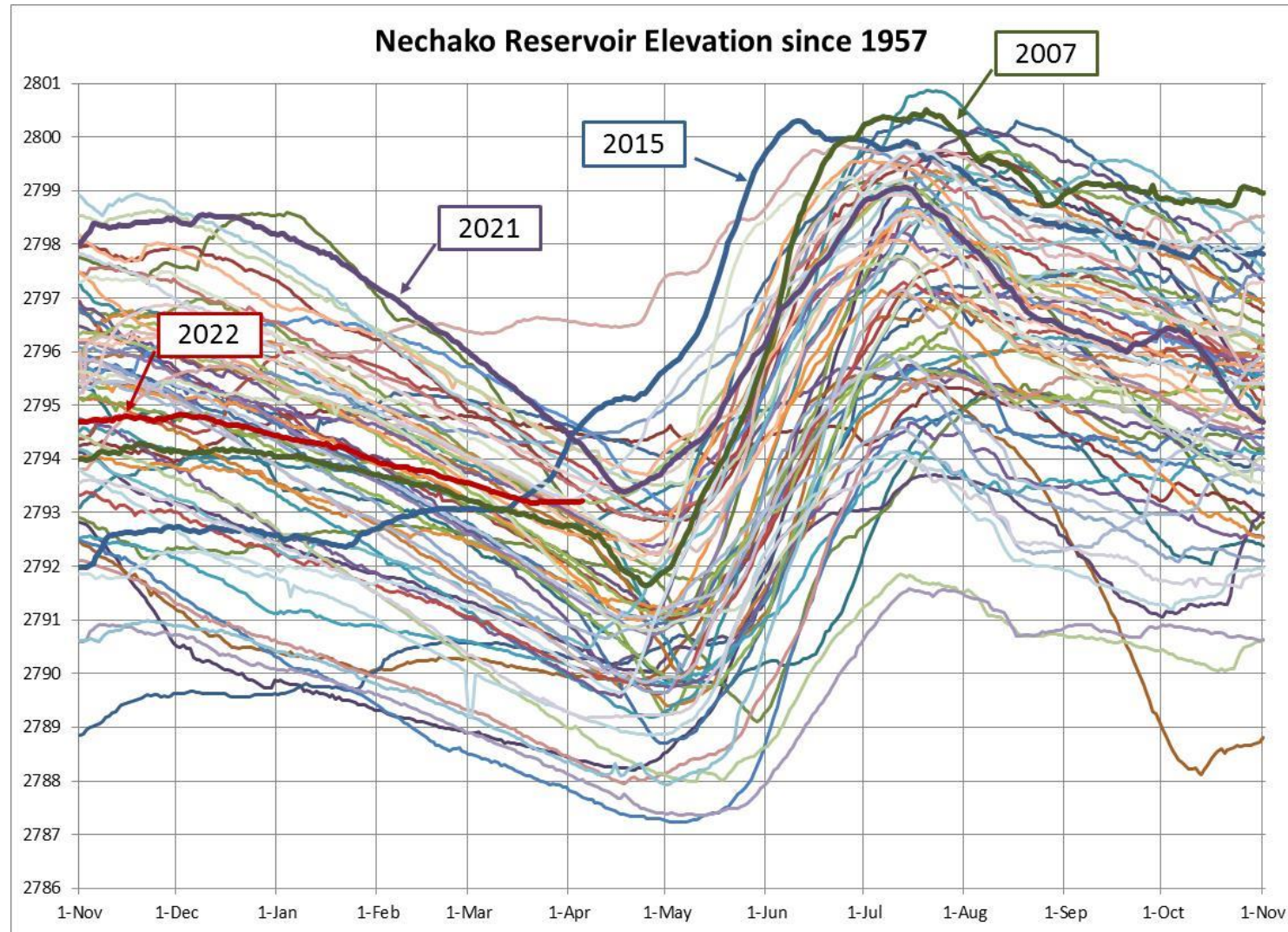
### Lu Lake



Station	Current Value	%LTA*
Lu Lake	273	93%

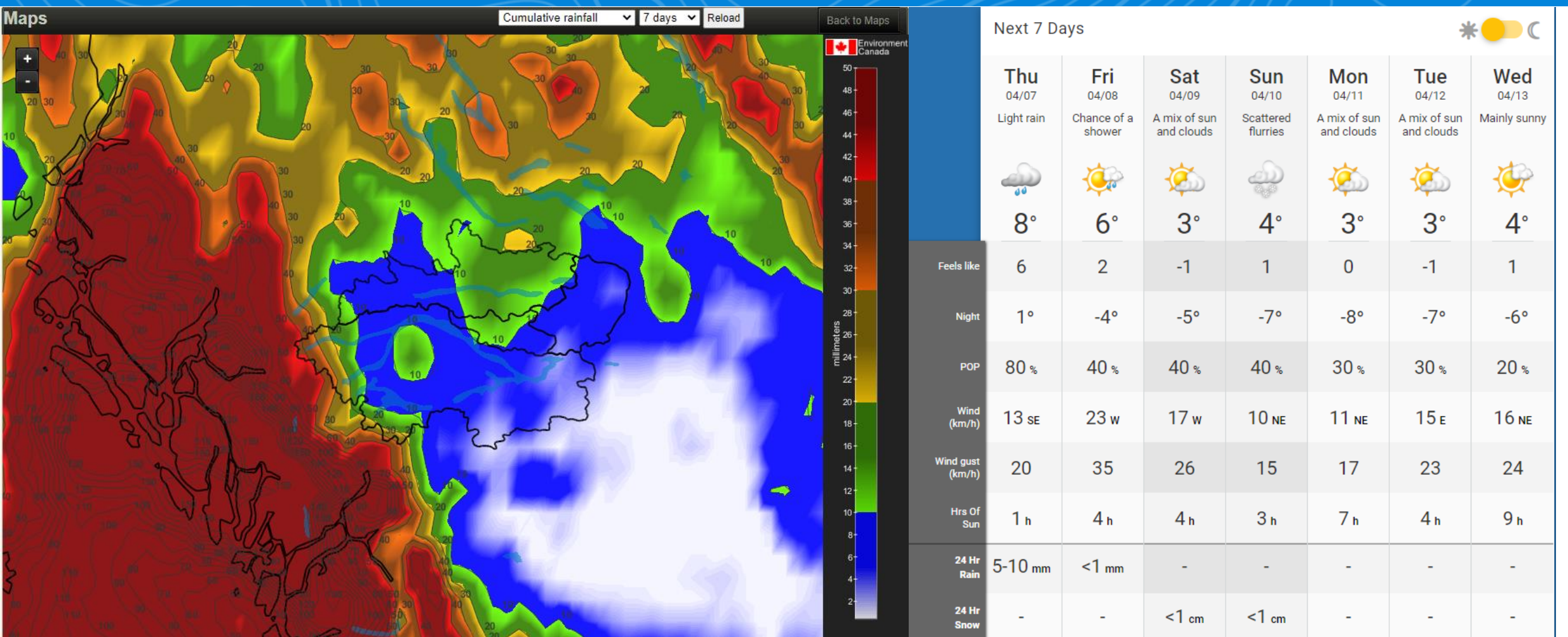
\*(1997-2021)

# Historical Reservoir Elevation

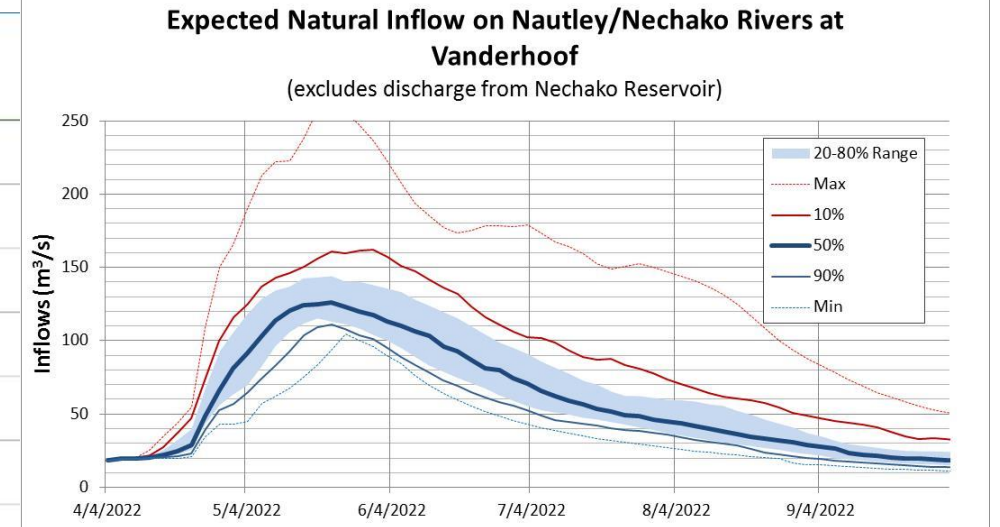
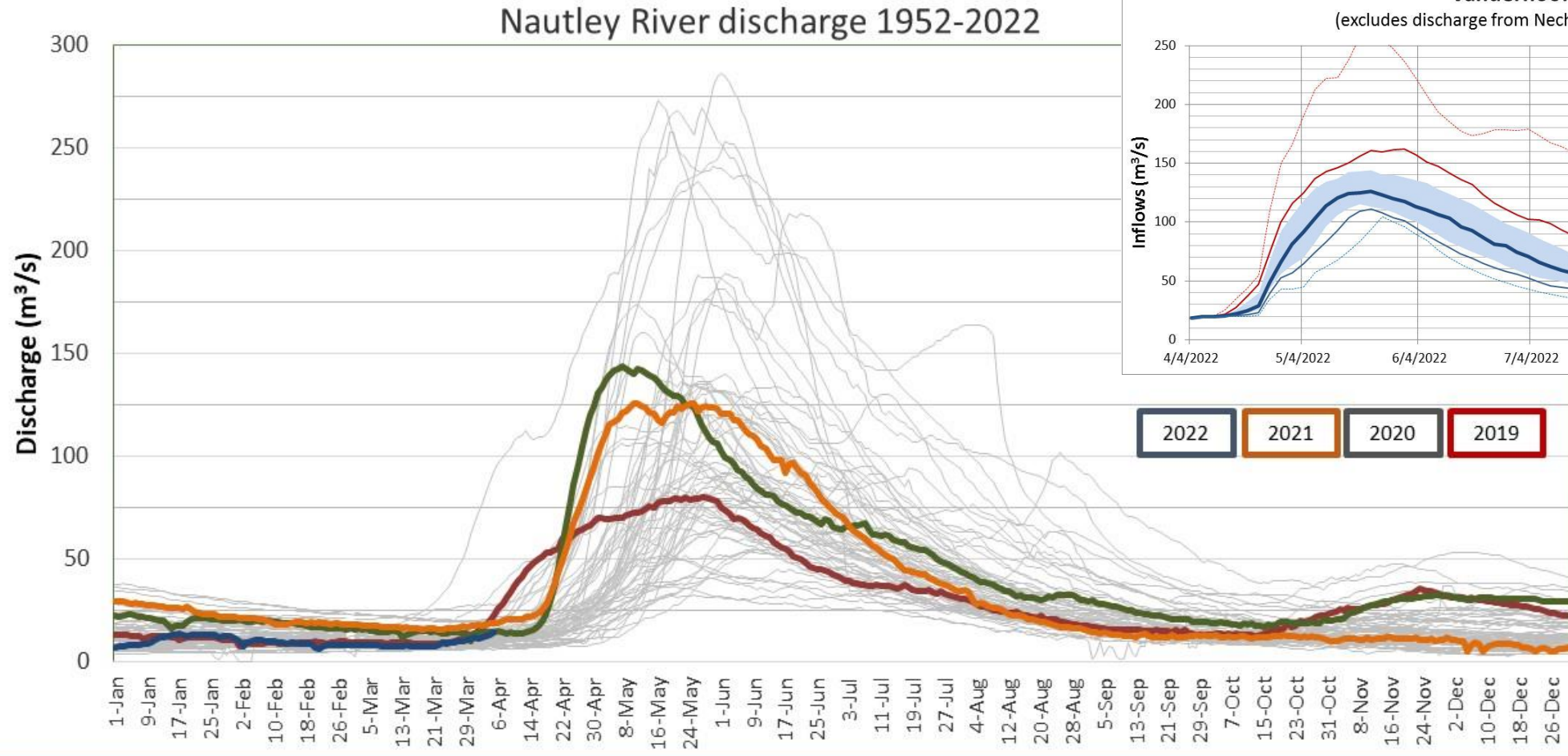




# 7 Day Weather Forecast

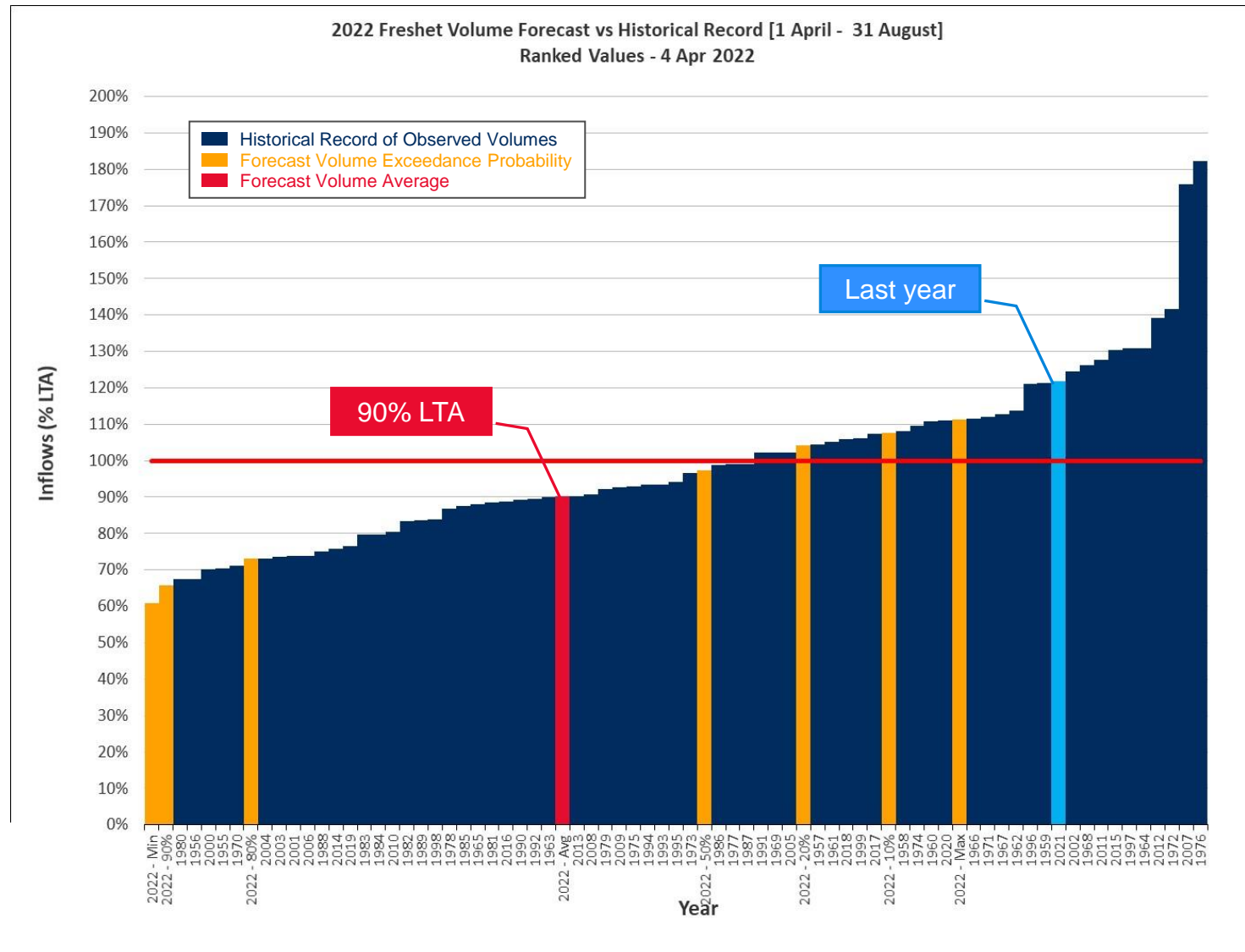


# Nautley River Flows, Forecast





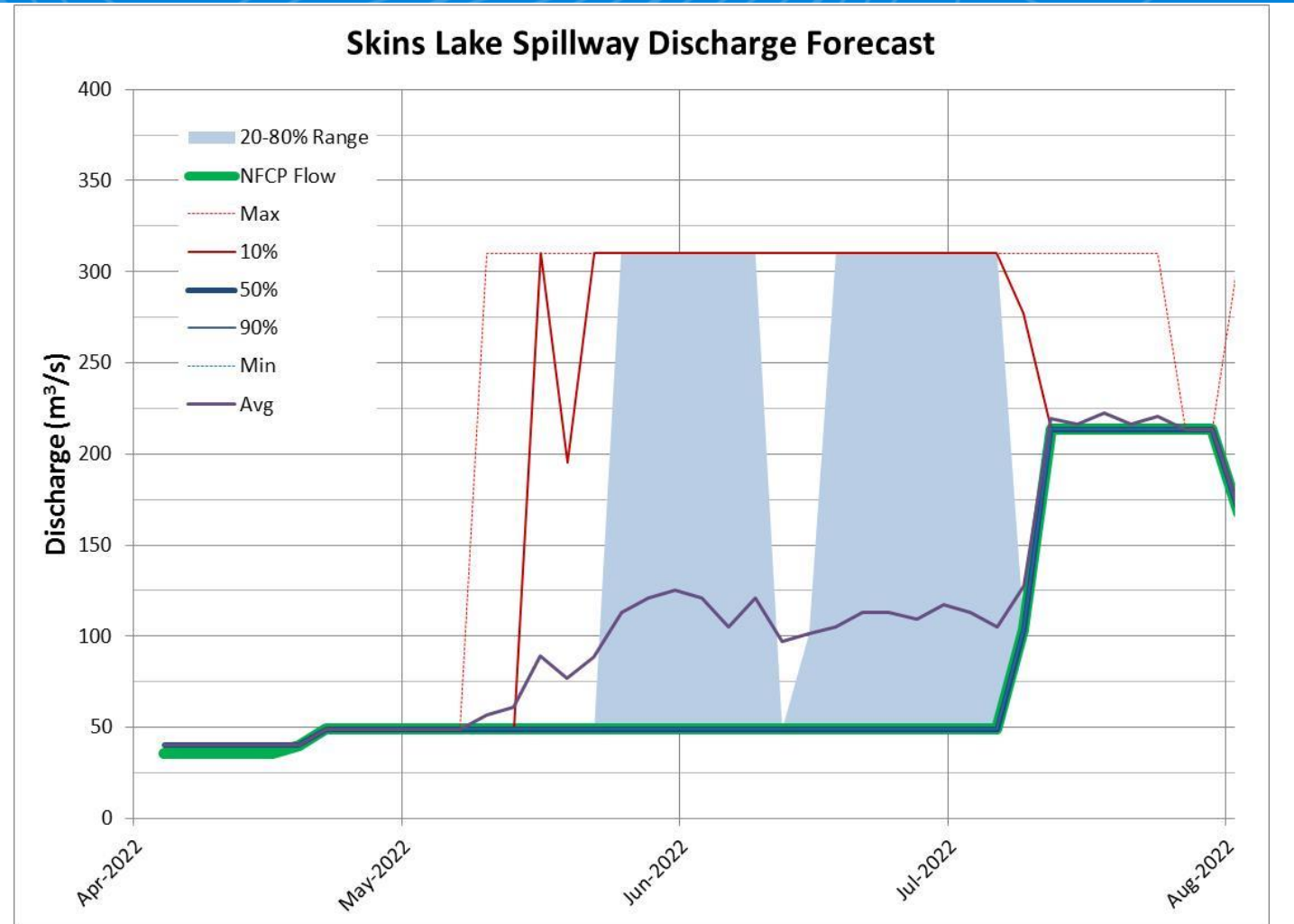
# Spring Freshet Inflow Forecast





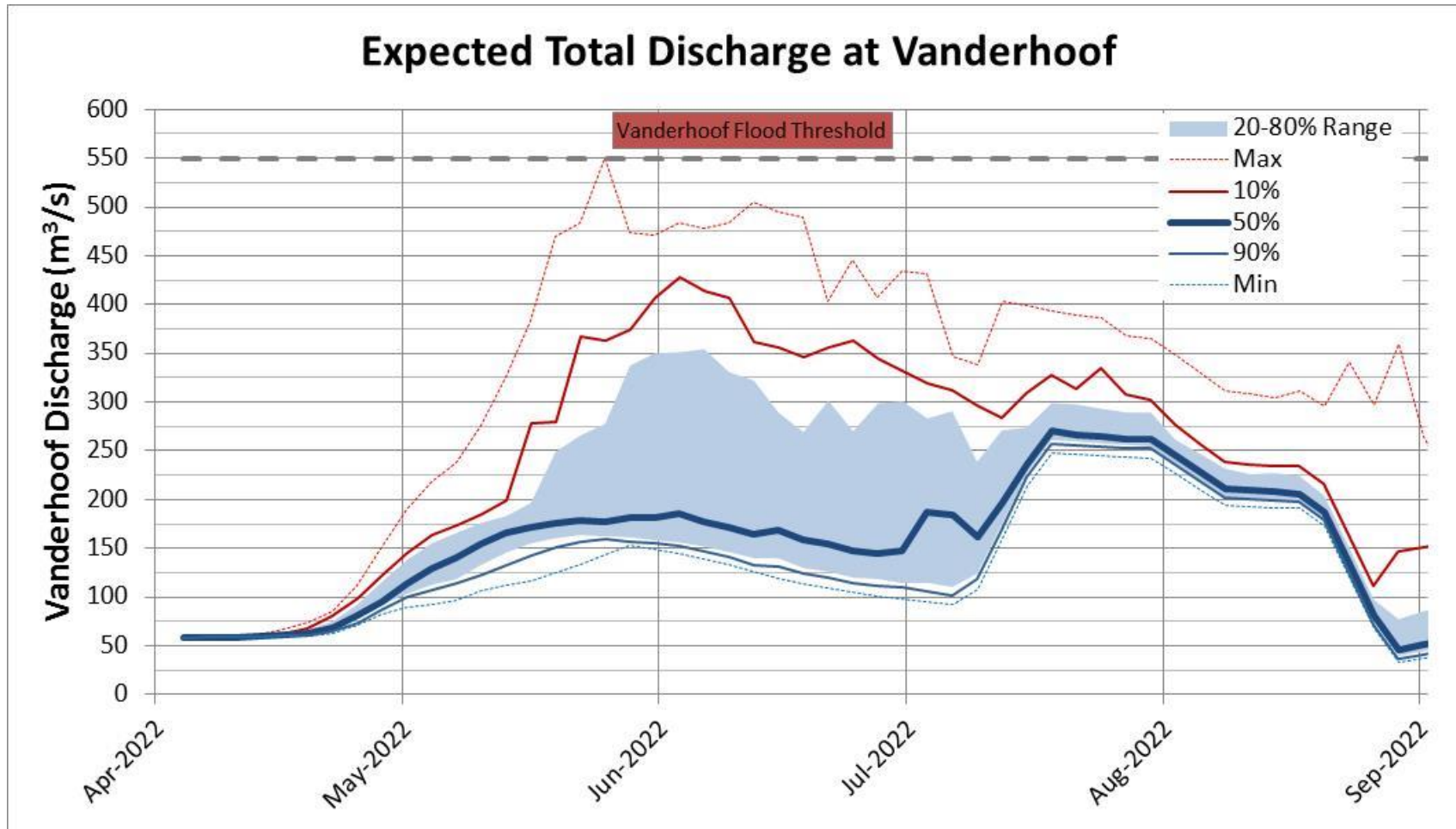
# Spillway Management – Looking to Winter and Spring

- 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





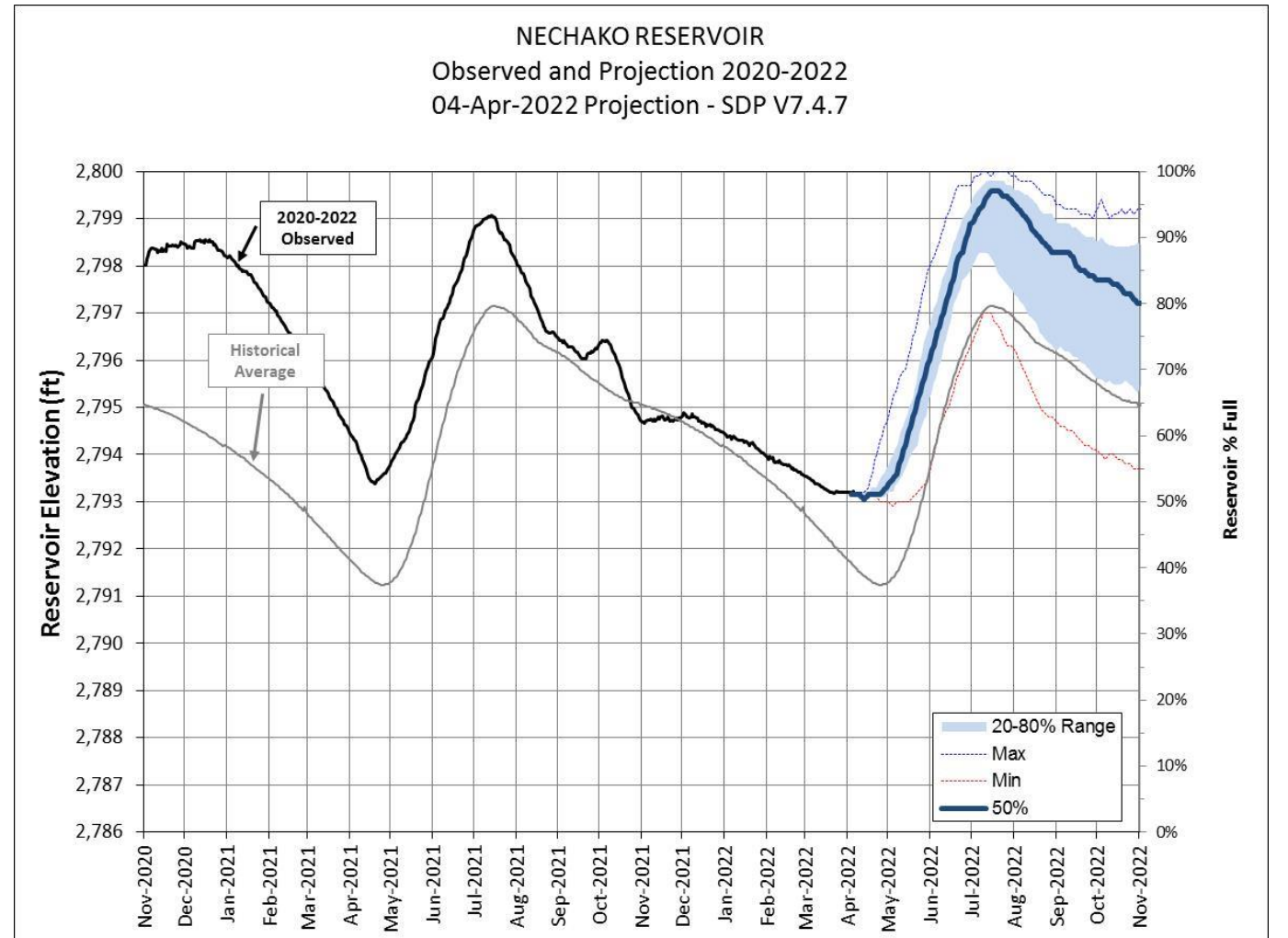
# Forecast – Vanderhoof Flows





# 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

***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

