



RioTinto

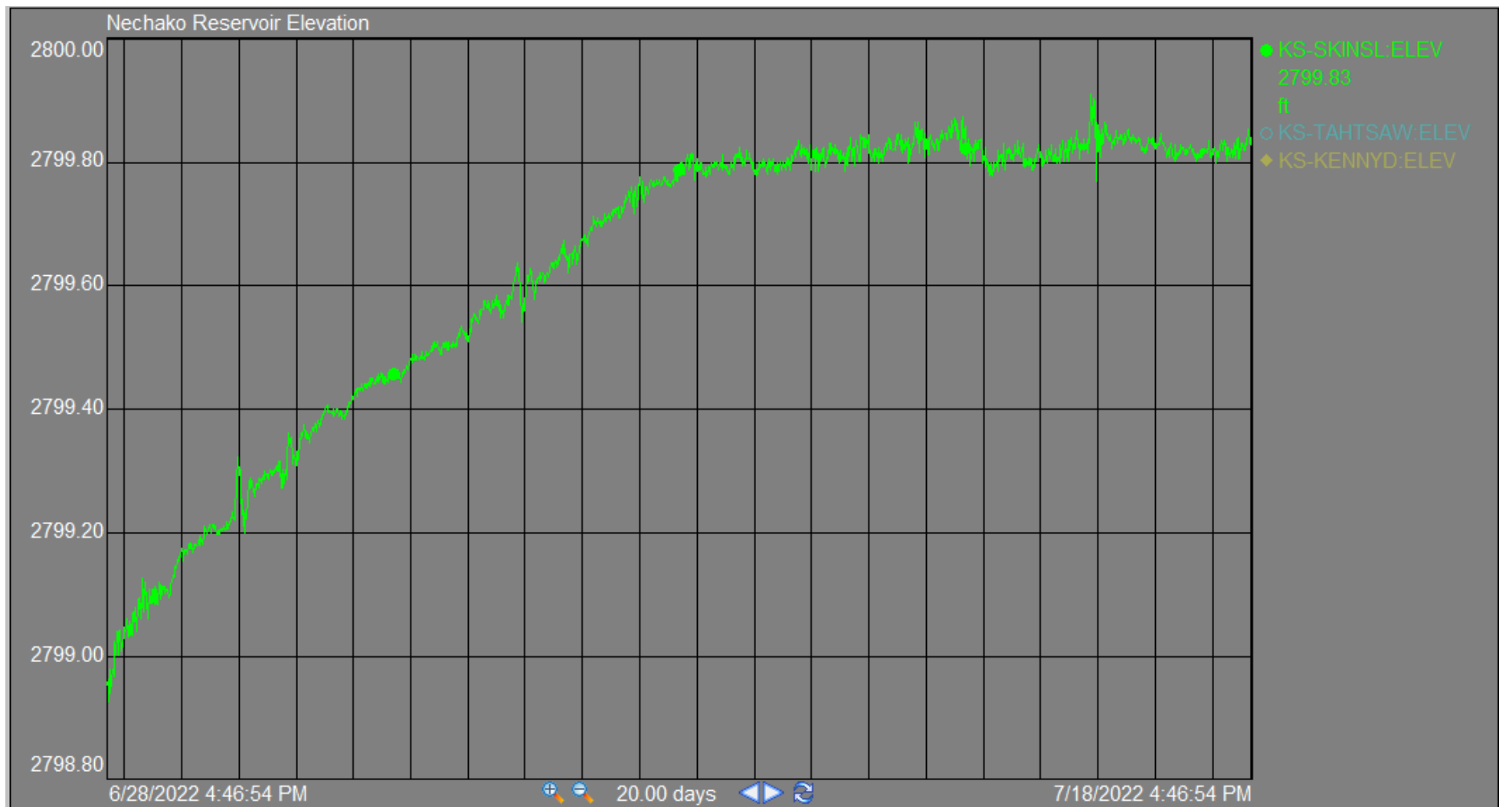
# Nechako Reservoir / River / Freshet Information Sharing – Community Leaders

18 July 2022

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Dallaire, and Alec Mercier

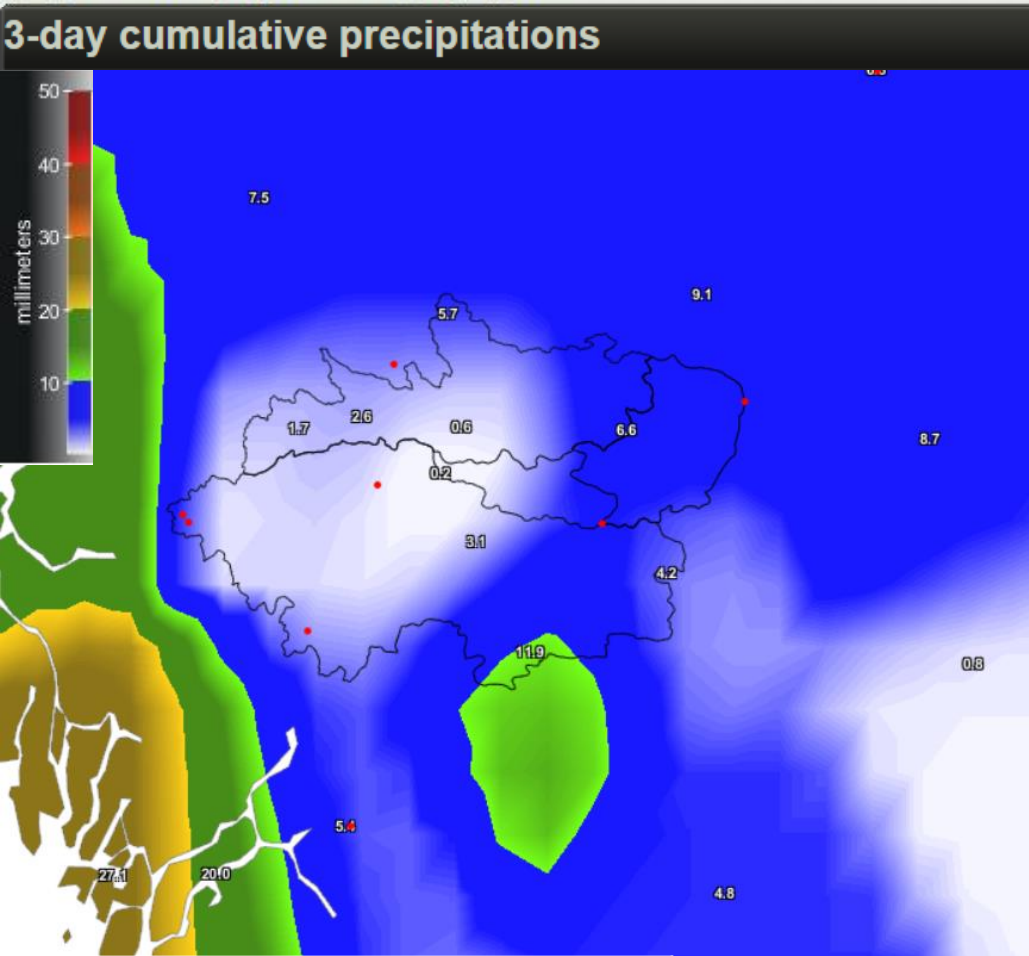
# Reservoir Elevation - Last 20 days

Current reservoir  
level: 2799.83 ft  
Maximum: 2800.0 ft





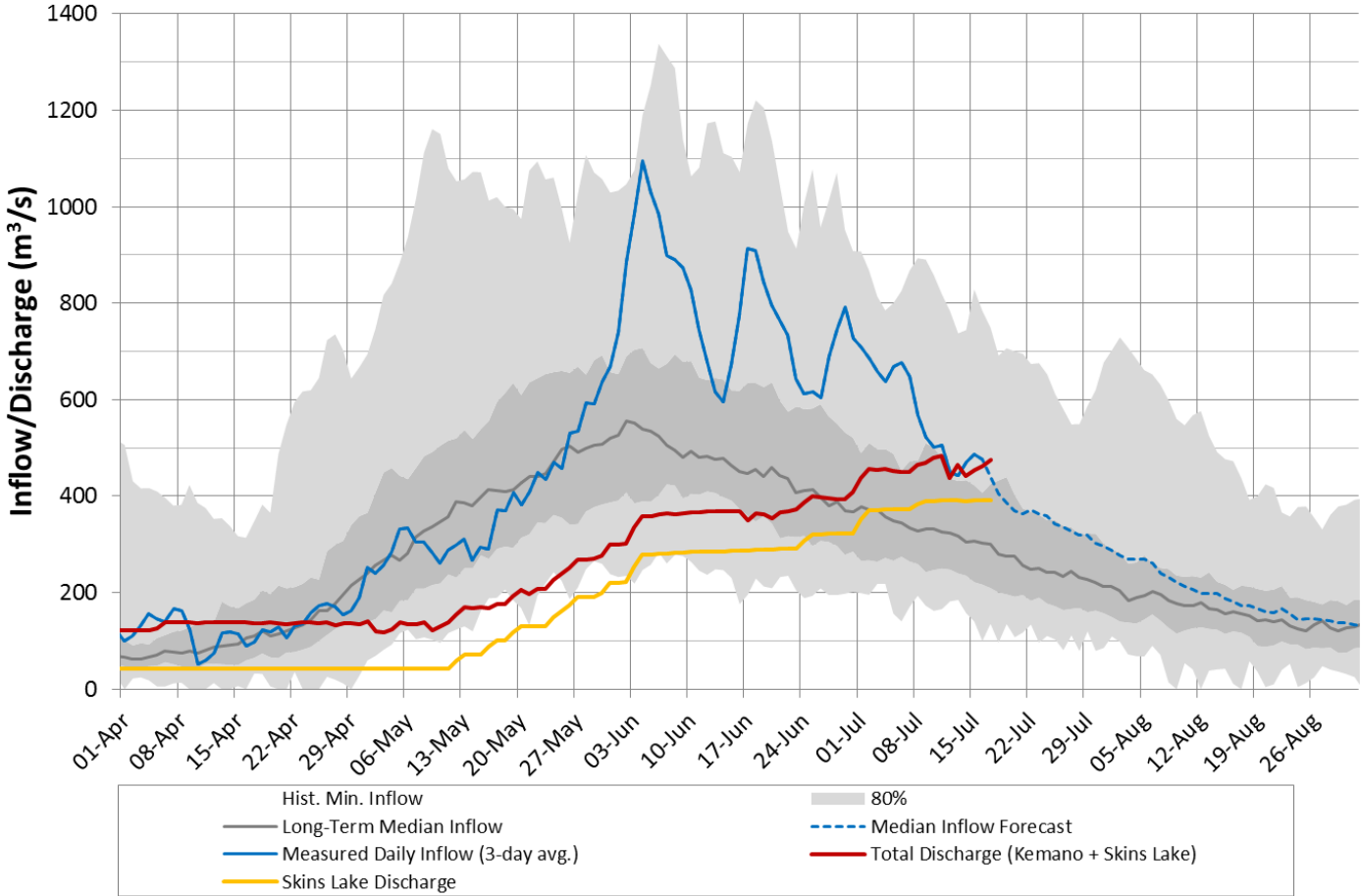
# Observed Precipitation, Inflows vs Historical



## Area-averaged precipitation

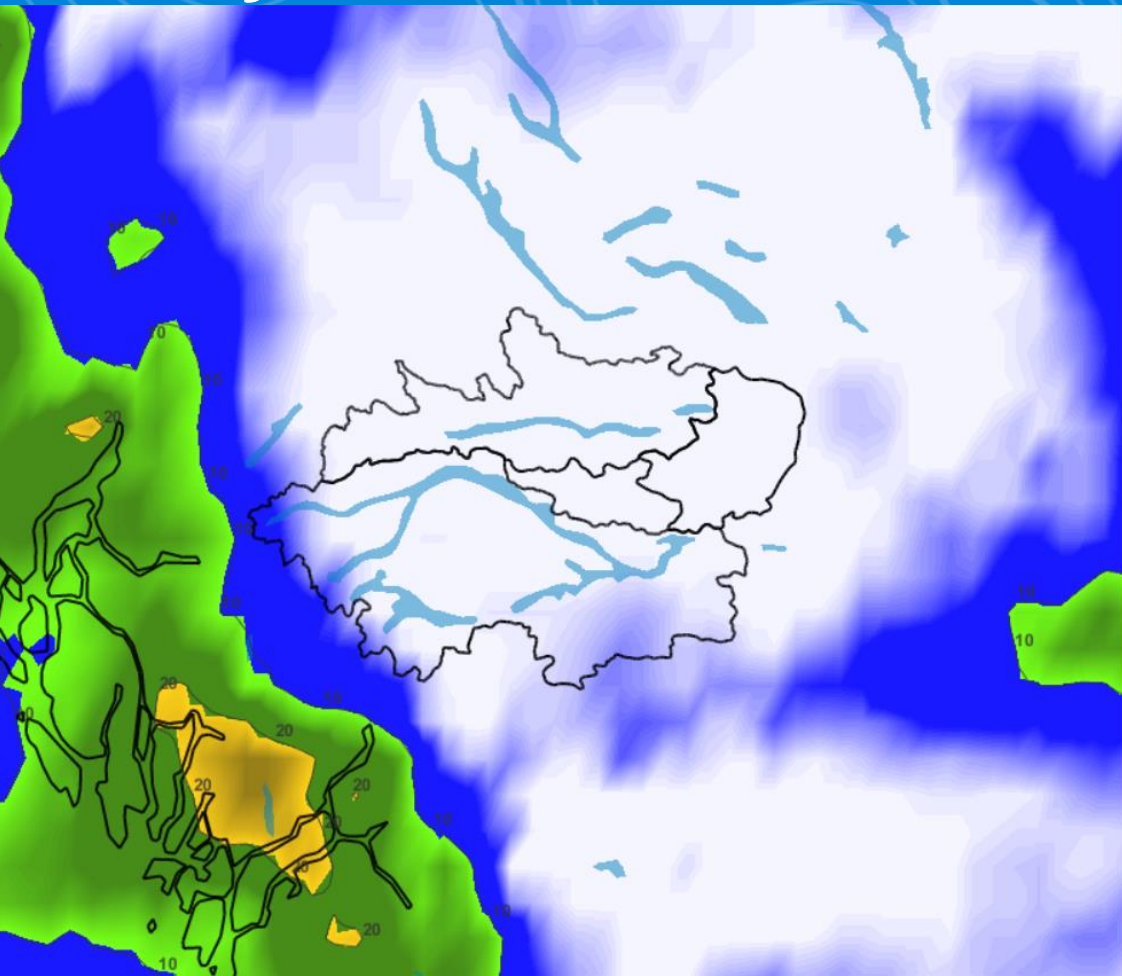
Nechako reservoir	7 mm
Nautley watershed	7 mm

## Nechako Reservoir Operation Observed Inflow and Discharge 2021-2022



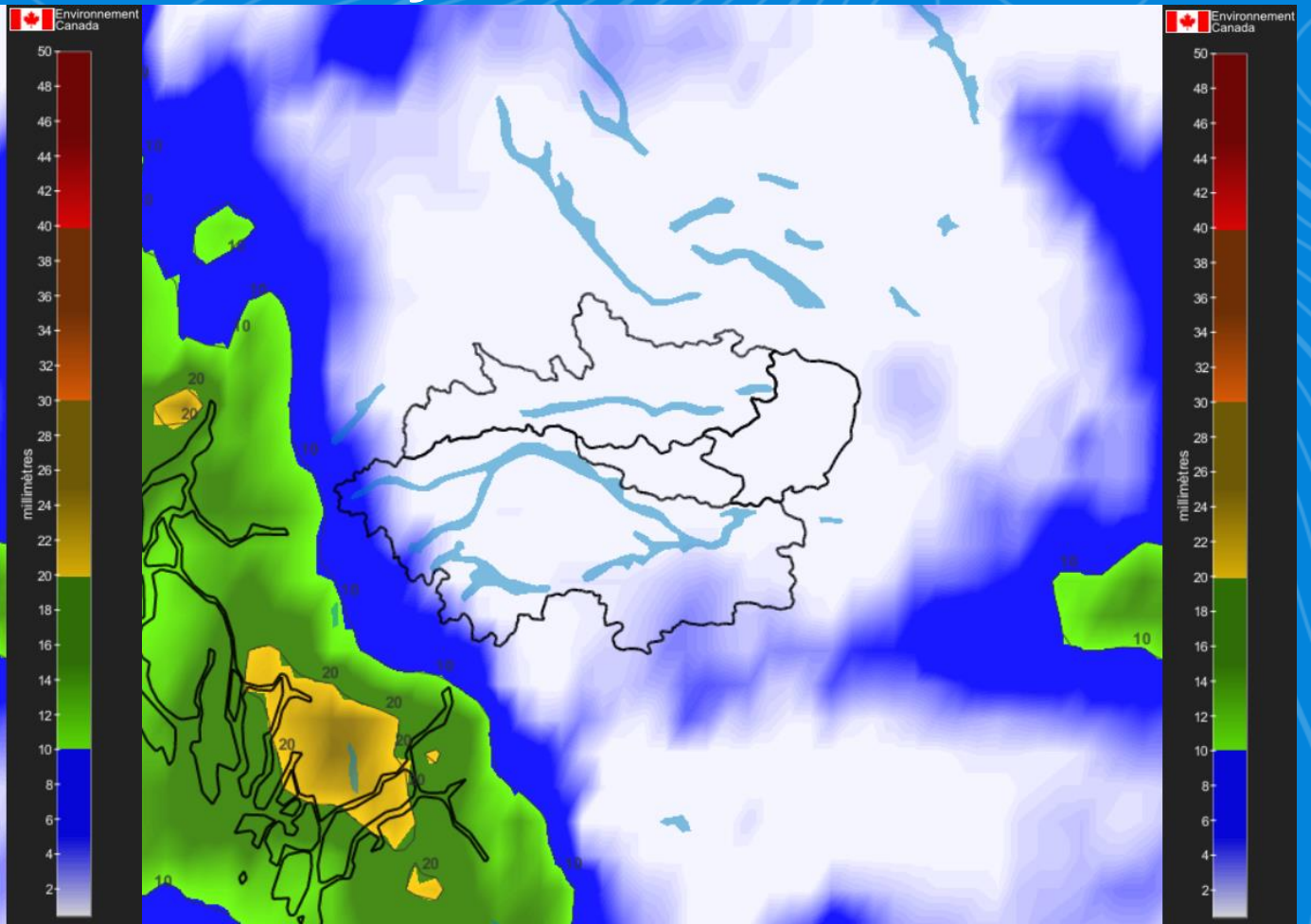
# Weather Forecast

## 3 days



Expected: < 5 mm

## 7 days

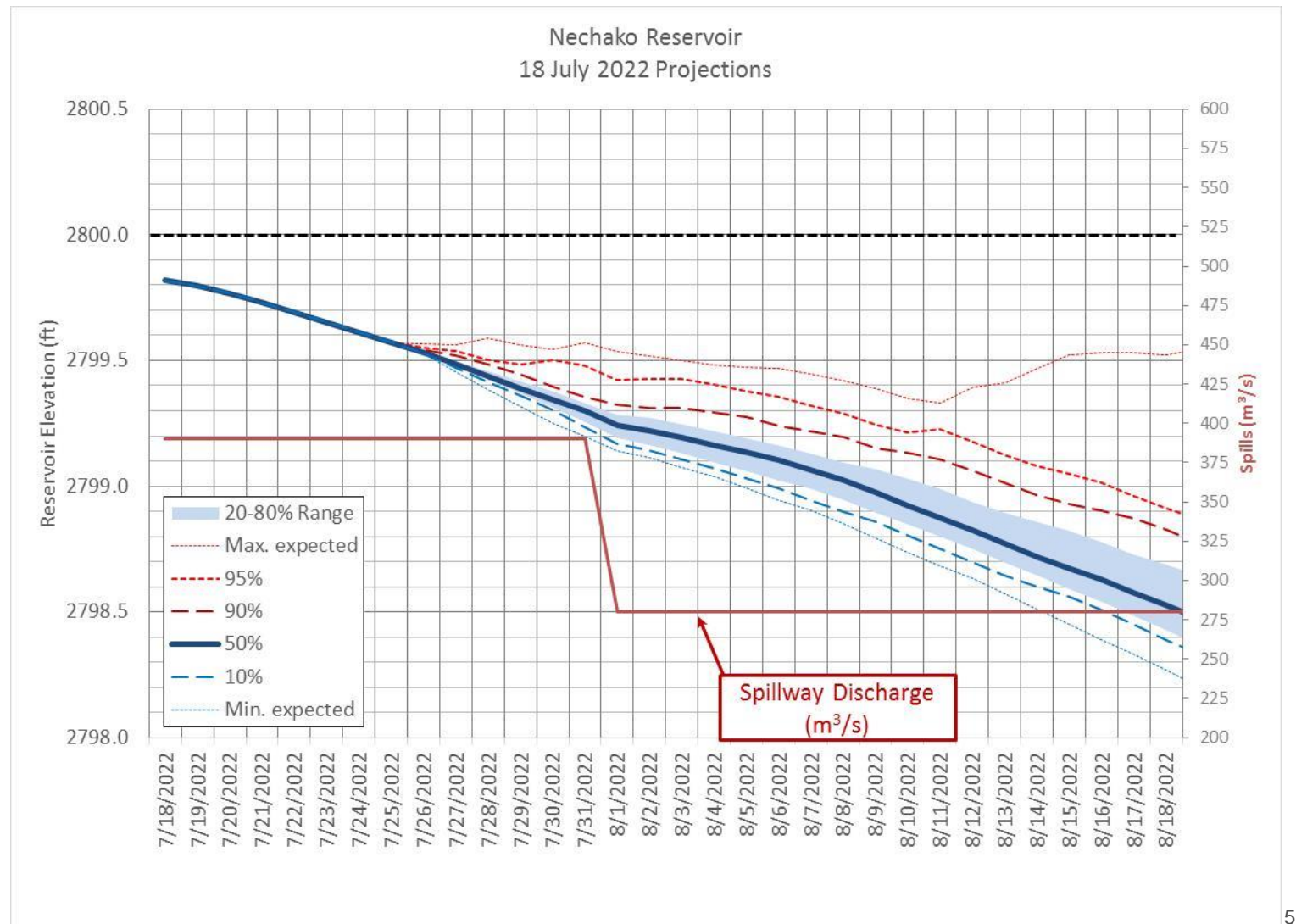


Expected: < 5mm



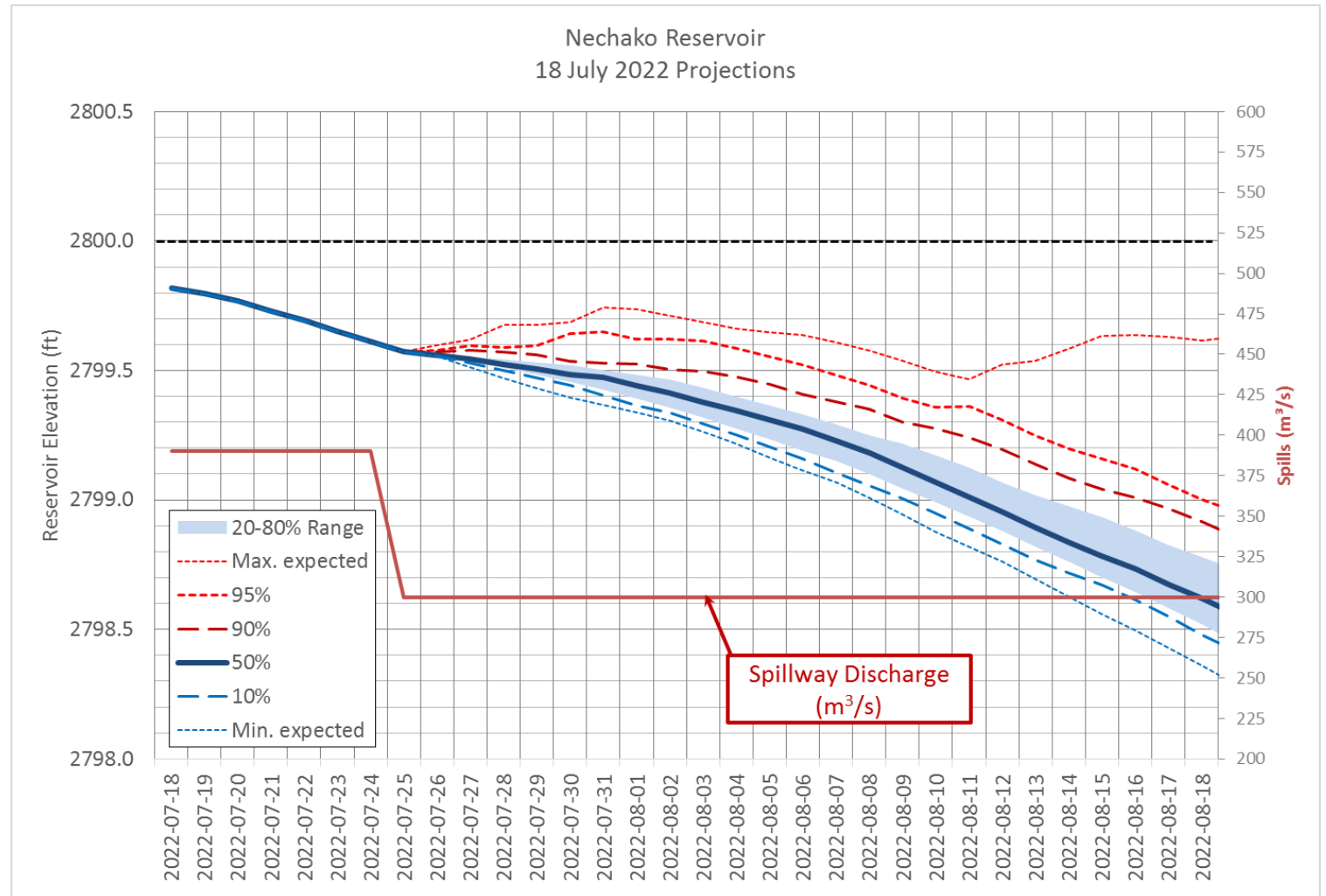
# Reservoir Level Projection – 390 m<sup>3</sup>/s

- SLS discharge maintained at 390 m<sup>3</sup>/s until August 1
- Risk of exceeding maximum operating reservoir level : Very Low (<5%)
- Reached peak: 2799.91 ft. (15 July)
- Reservoir level is expected to decrease in the next few days.
- Projections for less than 5 mm over 3 days, than almost 0 mm for the rest of the week.



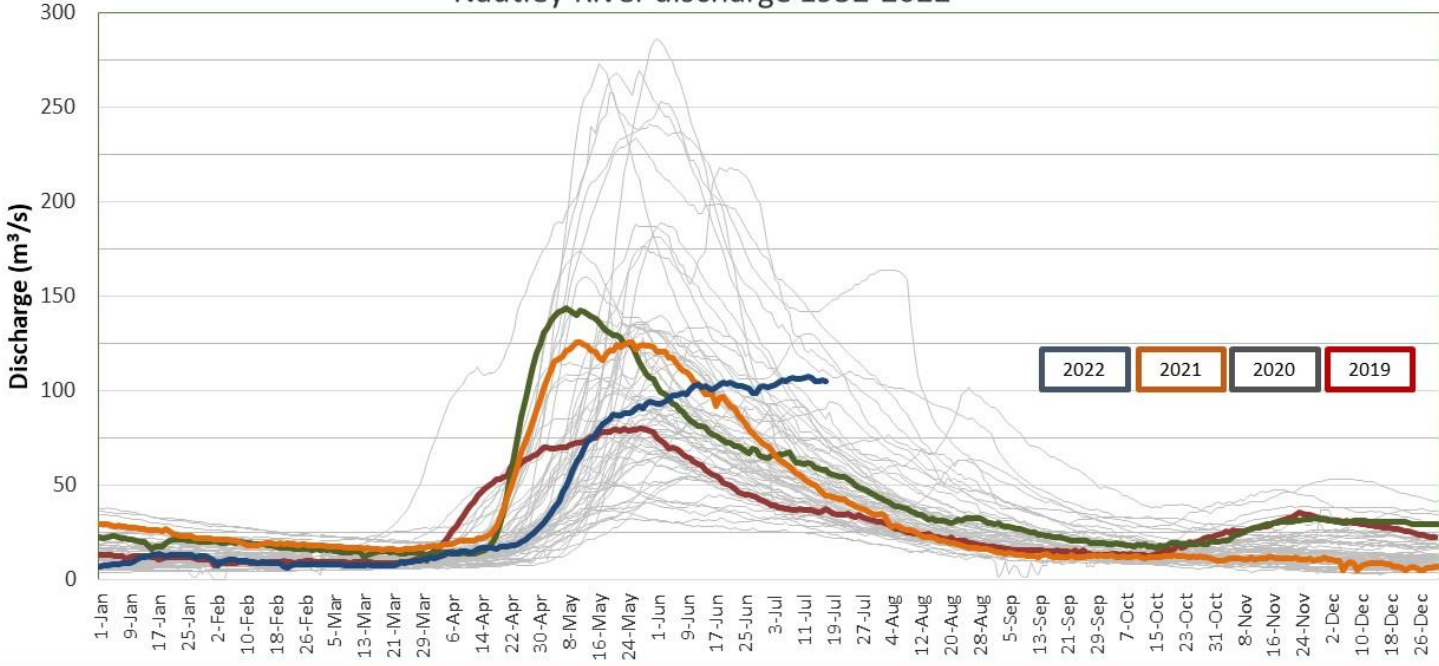
# Reservoir Level Projection – 390 then 300 m<sup>3</sup>/s

- SLS discharge maintained at 390 m<sup>3</sup>/s until next Monday
- Risk of exceeding maximum operating reservoir level : Very Low (<5%)
- Reached peak: 2799.91 ft. (15 July)
- Reservoir level is expected to decrease in the next few days.
- Projections for less than 5 mm over 3 days, than almost 0 mm for the rest of the week.

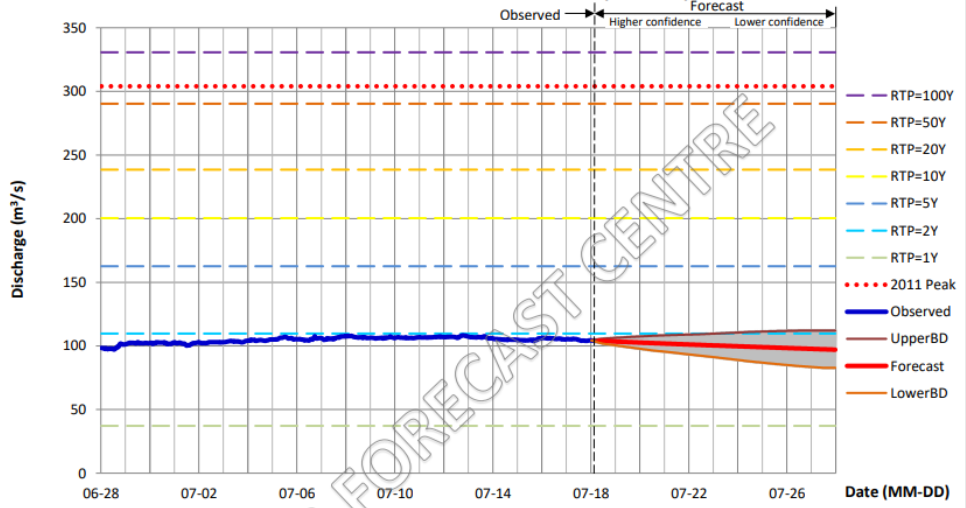


# Nautley River Flows, Forecast

Nautley River discharge 1952-2022



NAUTLEY RIVER NEAR FORT FRASER (08JB003)

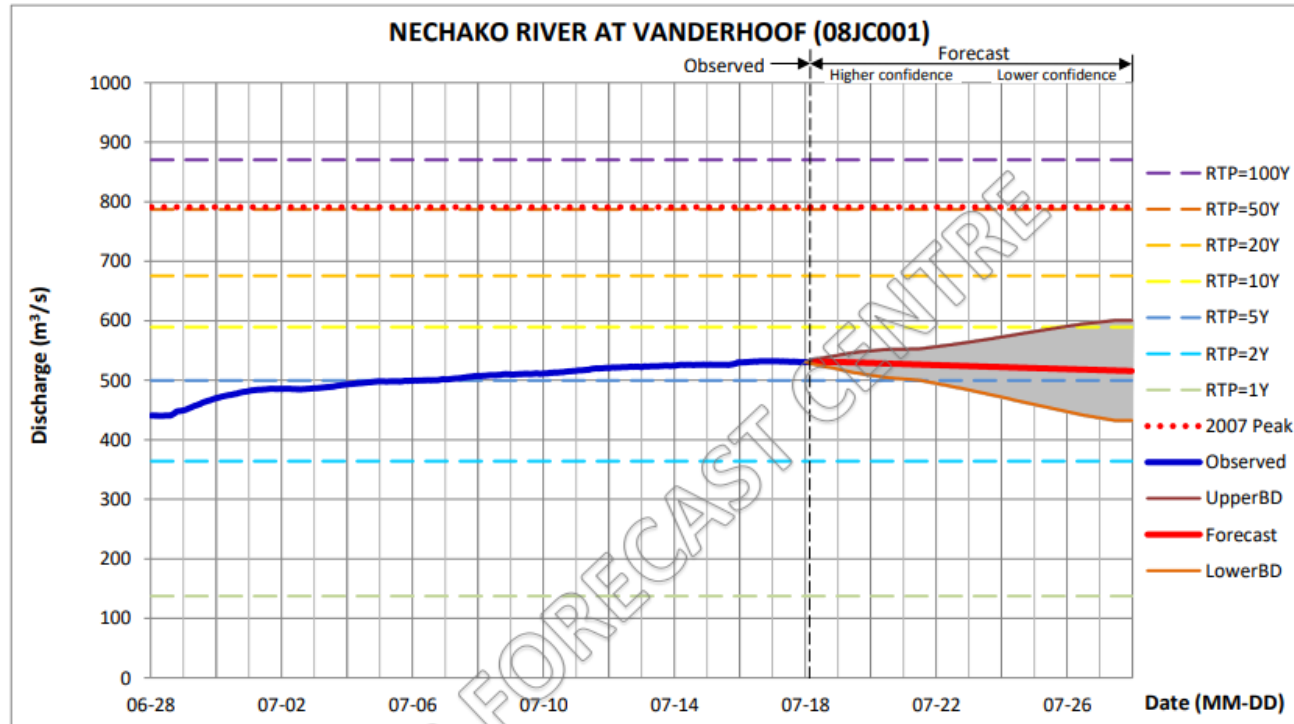


Reading at 08 AM (m³/s)	Forecast Daily Discharge (m³/s): AVERAGE									
	UPPER BOUND					LOWER BOUND				
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
2022-07-18	2022-07-18	2022-07-19	2022-07-20	2022-07-21	2022-07-22	2022-07-23	2022-07-24	2022-07-25	2022-07-26	2022-07-27
104.0	105.6 103.7 101.8	106.9 103.1 99.2	107.9 102.3 96.6	108.6 101.5 94.5	109.2 100.8 92.3	110.0 100.1 90.2	110.9 99.4 87.9	110.9 98.7 86.0	111.6 98.0 84.2	112.0 97.4 82.8

Color Scheme for Return Periods:							
RTP=1Y	RTP=2Y	RTP=5Y	RTP=10Y	RTP=20Y	RTP=50Y	RTP=100Y	2011 Peak
37.2	109.7	162.6	200.4	238.5	290.3	330.7	304.0
							(m³/s)



# BC River Forecast Center – Vanderhoof



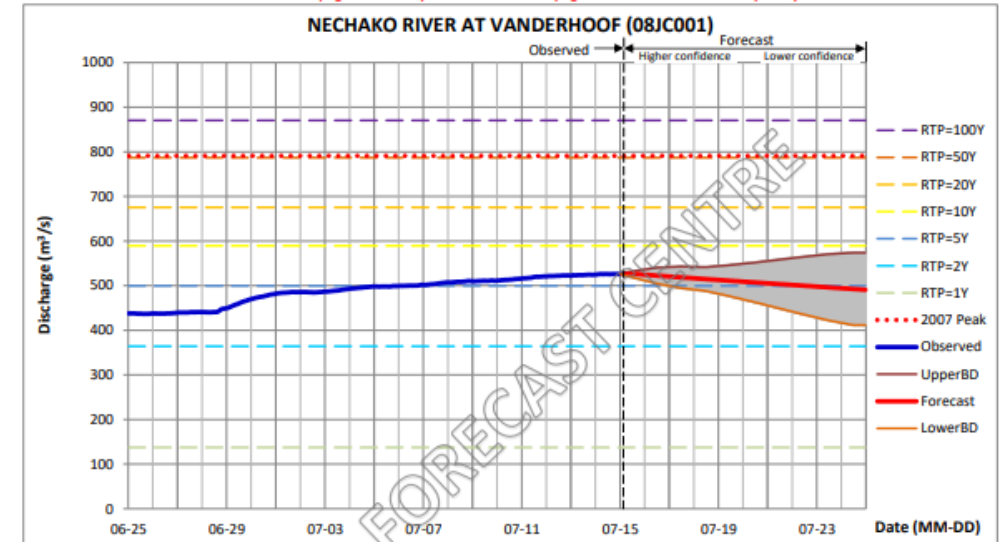
Reading at 08 AM ( $\text{m}^3/\text{s}$ ) Mon	Forecast Daily Discharge ( $\text{m}^3/\text{s}$ ): AVERAGE									
	UPPER BOUND					LOWER BOUND				
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
2022-07-18	2022-07-18	2022-07-19	2022-07-20	2022-07-21	2022-07-22	2022-07-23	2022-07-24	2022-07-25	2022-07-26	2022-07-27
531.0	536.8	546.5	551.7	552.5	559.7	567.8	577.0	586.1	594.6	600.4
	530.7	529.9	528.1	526.4	524.7	523.0	521.3	519.7	518.0	516.4
	524.7	513.2	504.6	500.3	489.8	478.3	465.9	453.5	441.7	432.6

Color Scheme for Return Periods:

RTP=1Y	RTP=2Y	RTP=5Y	RTP=10Y	RTP=20Y	RTP=50Y	RTP=100Y	2007 Peak
137.4	364.1	499.7	589.4	675.5	786.9	870.4	791.0

( $\text{m}^3/\text{s}$ )

Remark: This station is labeled as "regulated", and the forecast is the sum of natural flows and extended regulated flow from 08JA017.



Reading at 06 AM ( $\text{m}^3/\text{s}$ ) Fri	Forecast Daily Discharge ( $\text{m}^3/\text{s}$ ): AVERAGE									
	UPPER BOUND					LOWER BOUND				
	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
2022-07-15	2022-07-15	2022-07-16	2022-07-17	2022-07-18	2022-07-19	2022-07-20	2022-07-21	2022-07-22	2022-07-23	2022-07-24
526.0	531.8	540.2	542.8	541.3	546.1	551.7	558.3	564.7	570.5	573.8
	525.8	522.5	518.6	514.7	510.9	507.2	503.4	499.8	496.1	492.4
	519.0	505.0	494.5	488.3	476.0	462.9	449.0	435.2	422.2	411.7

Color Scheme for Return Periods:

RTP=1Y	RTP=2Y	RTP=5Y	RTP=10Y	RTP=20Y	RTP=50Y	RTP=100Y	2007 Peak
137.4	364.1	499.7	589.4	675.5	786.9	870.4	791.0

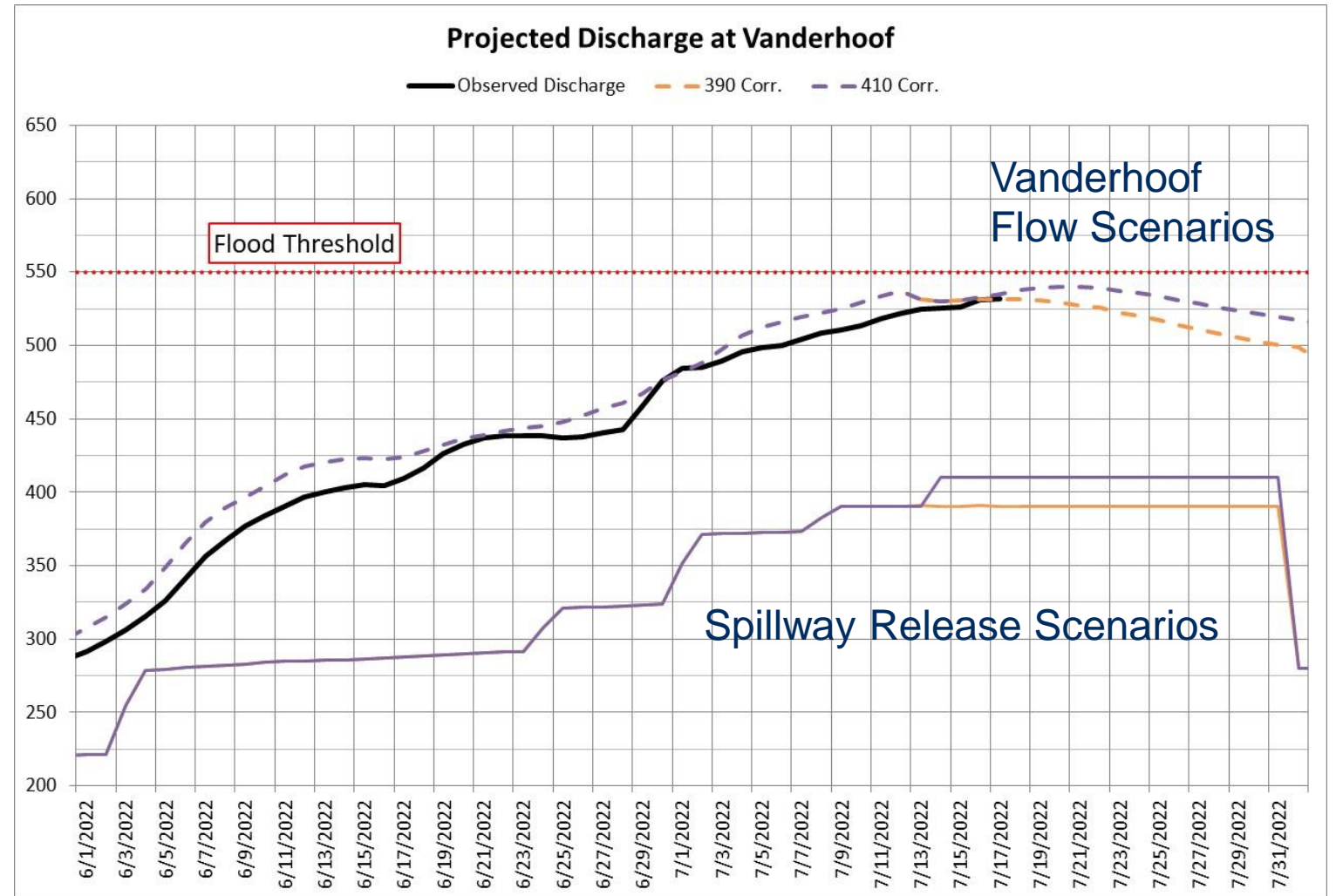
( $\text{m}^3/\text{s}$ )

Remark: This station is labeled as "regulated", and the forecast is the sum of natural flows and extended regulated flow from 08JA017.



# Spillway Management – Vanderhoof Forecast

- SLS discharge is currently 390 m<sup>3</sup>/s



# Focus & Actions

- Surcharge Authorization
- Public Engagement Meeting
- Monitoring and Learning about High Water
- Next Meeting – Propose Thursday this week
- De-Brief and Lessons Learnt Workshop



# Feedback & Reflections

