



RioTinto

Nechako Reservoir / River / Freshet Information Sharing – Community Leaders

09th October 2024

Prepared by Kenjy Demeester

Precipitation and Inflows - Last 12 months

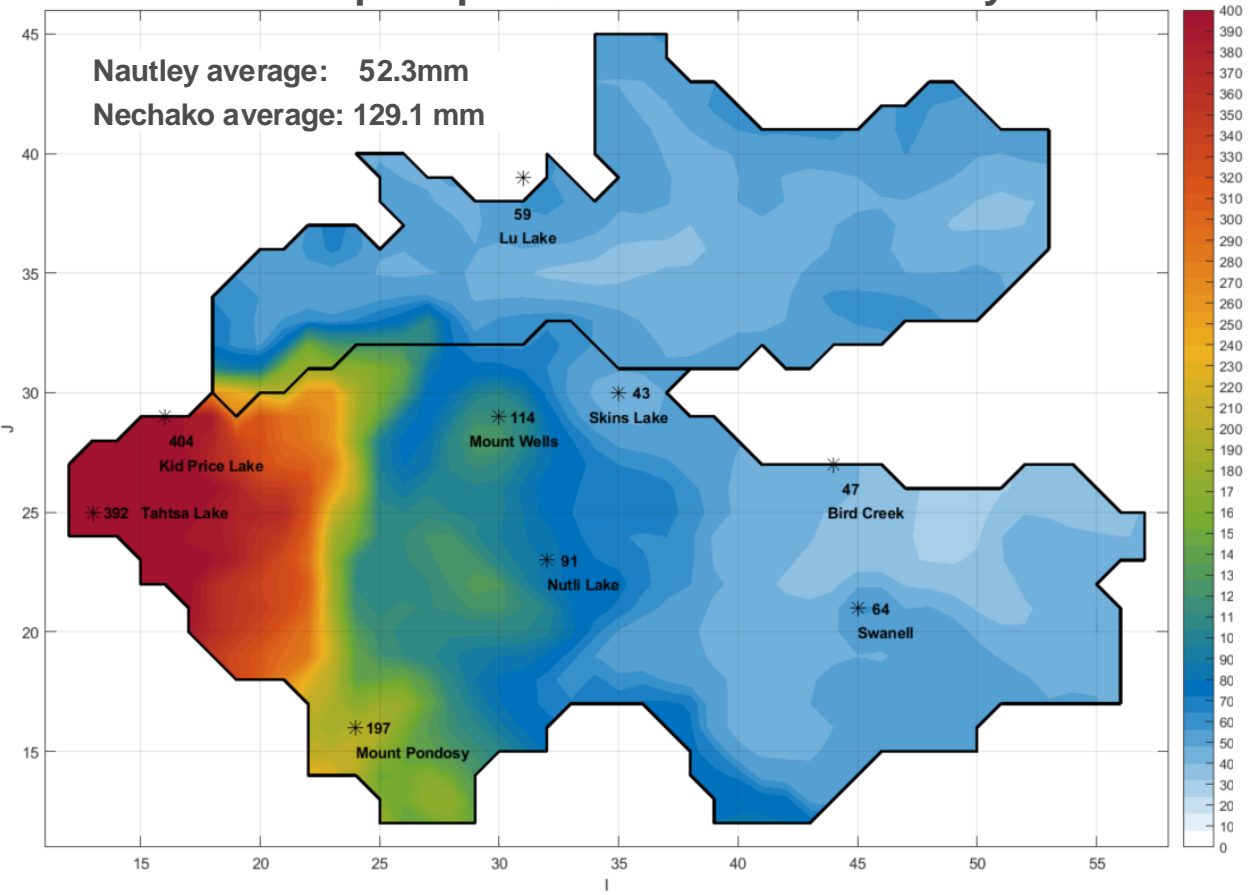
Nechako Watershed Inflows and Precipitation

Period (2023-2024)	Observed Inflows			Observed Precipitation		
	(cms)	(%LTA 1957-2023)	(%LTA 1994-2023)	(mm)	(%LTA 1957-2023)*	(%LTA 1994-2023)
November, 2023	65	41%	40%	79	65%	64%
December, 2023	75	66%	70%	97	87%	102%
January, 2024	75	76%	77%	71	72%	72%
February, 2024	79	94%	96%	34	49%	49%
March, 2024	61	84%	79%	40	71%	59%
April, 2024	102	71%	58%	32	74%	65%
May, 2024	263	59%	56%	45	107%	105%
June, 2024	329	65%	67%	71	125%	137%
July, 2024	202	63%	67%	16	29%	28%
August, 2024	84	50%	56%	33	58%	63%
September, 2024	119	95%	100%	102	140%	136%
October, 2024	263	203%	219%	36	157%	167%
Winter (Nov-Mar)	71	67%	67%	321	70%	71%
Spring & Summer (Apr-Aug)	196	62%	62%	197	78%	78%
Fall (Sept-Oct) (to date)	149	119%	125%	138	144%	142%
Year 2023-2024 (to date)	135	67%	67%	657	81%	82%

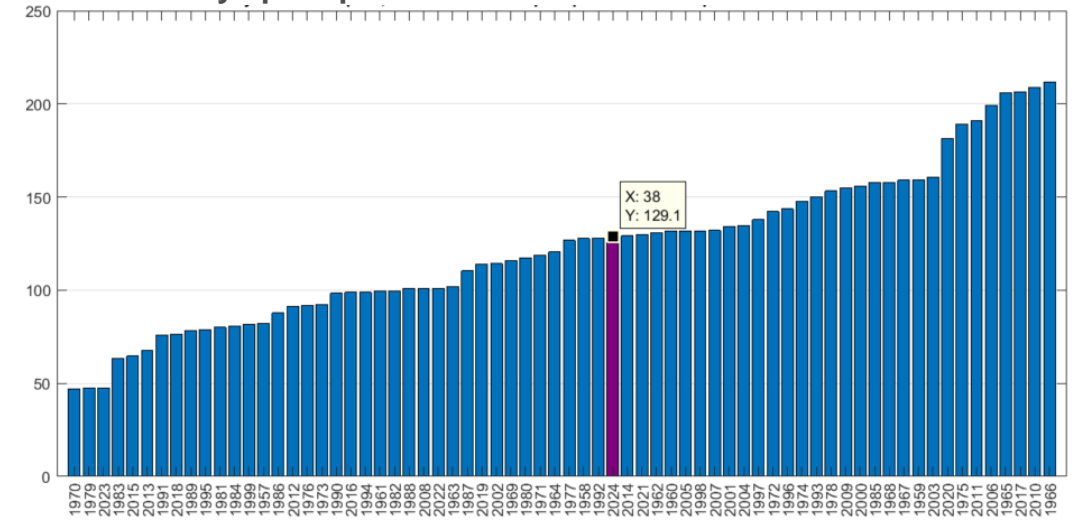
* Watershed precipitation data before the 1990s was estimated from a more limited number of weather stations in operation.

Weather - Last 20 days

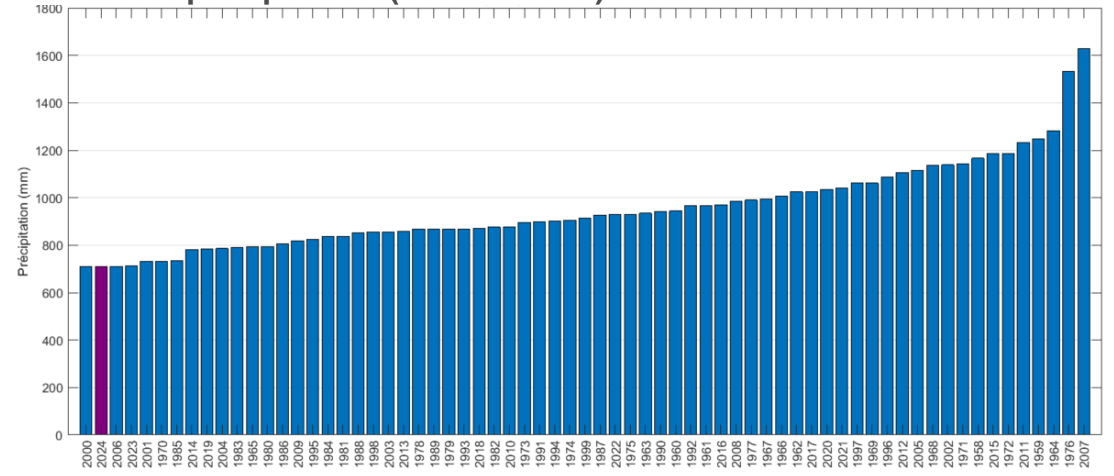
Total precipitation over the las 20 days



Last 20 days precipitation event vs historical record rank value

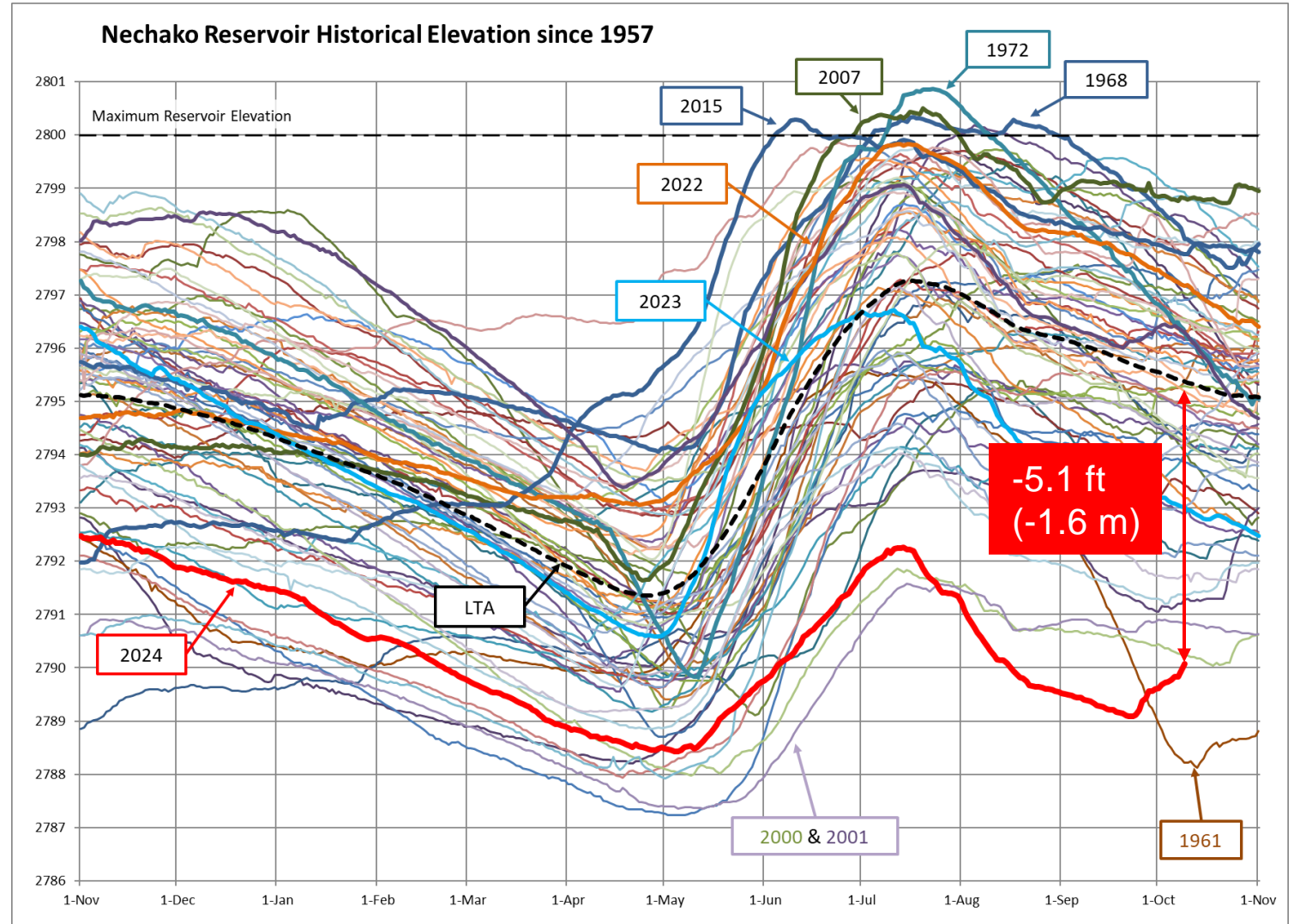
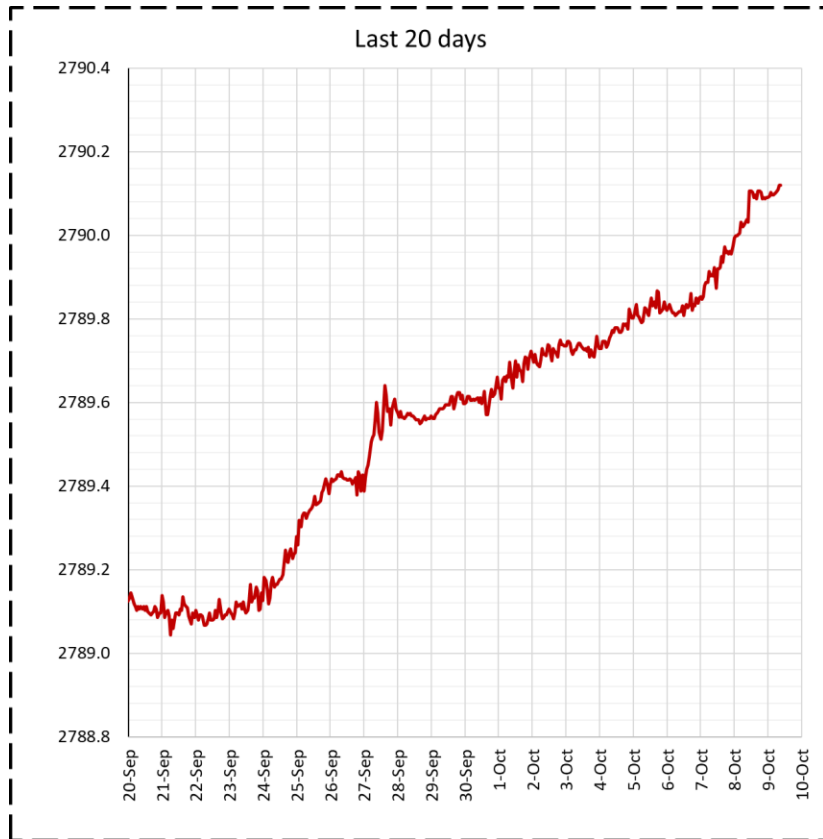


Annual precipitation (since Nov 1st) vs historical record rank value

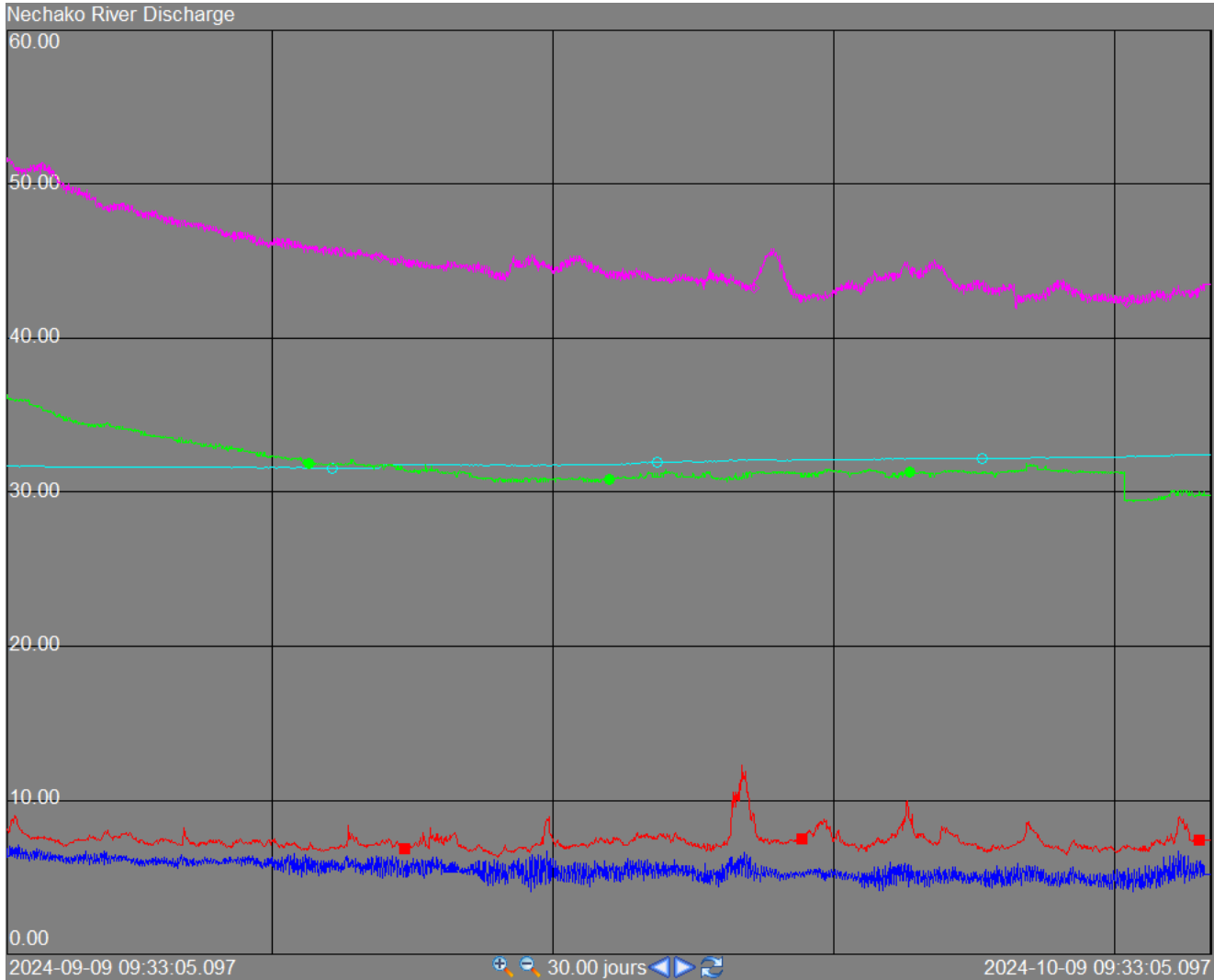


Reservoir Elevation - Last 20 days

Current reservoir level
2790.12 ft (Approx)



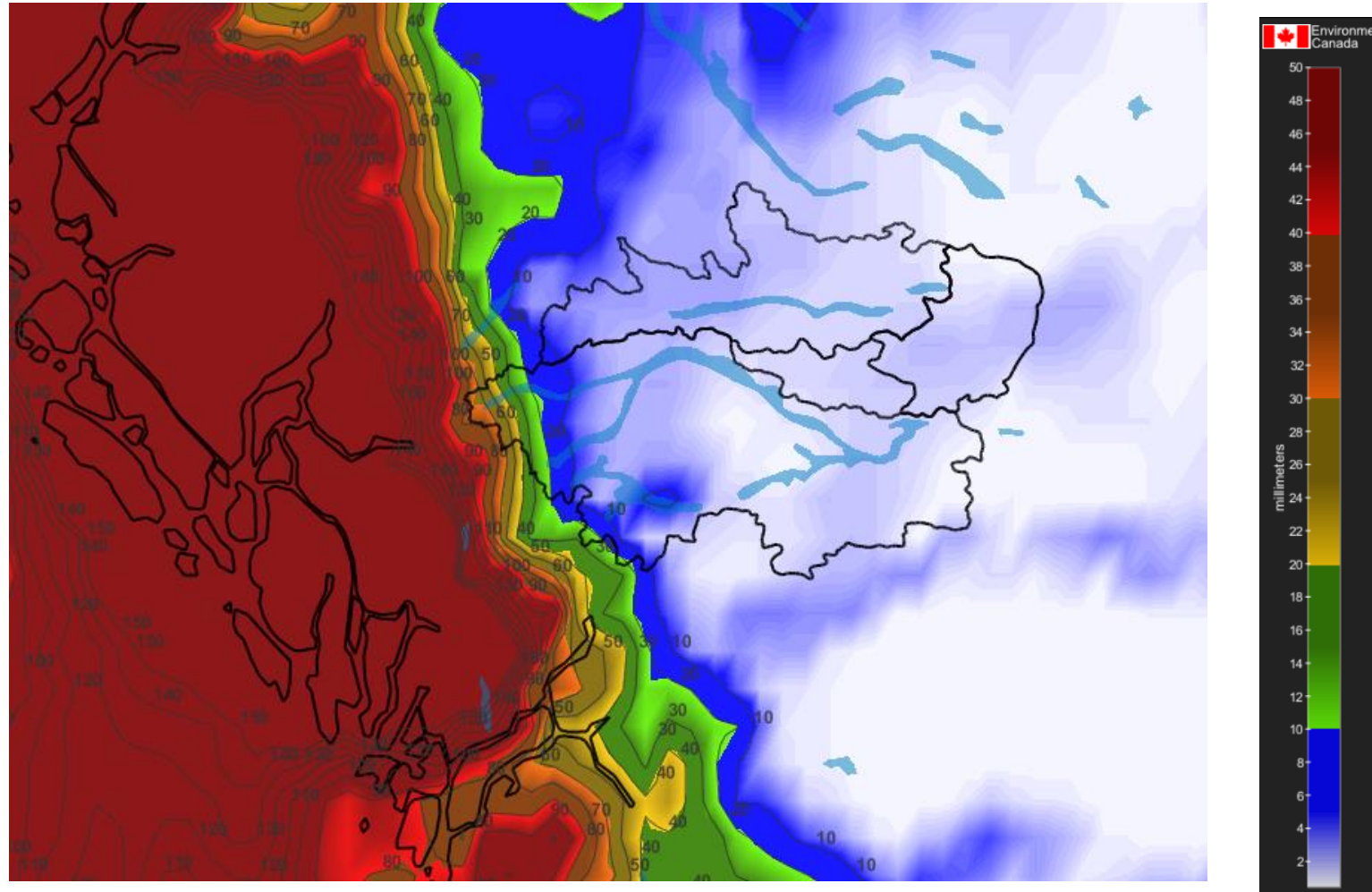
Flows - Last 30 days



Current values (m³/s)	
Vanderhoof	43
Skins Lake	32
Cheslatta Falls	30
Nautley	7
Stellako	5

Precipitation forecast

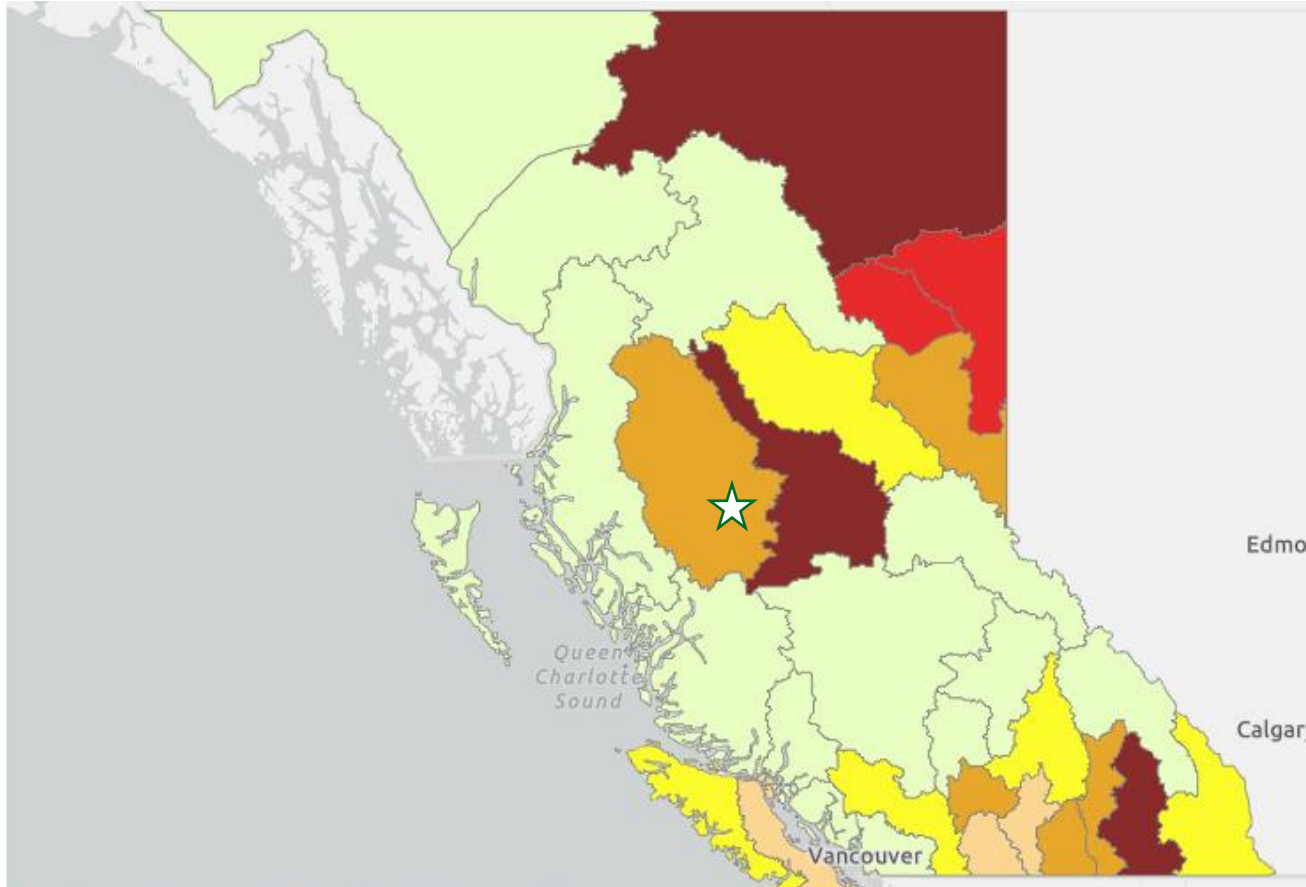
Forecast (next 10 days)



Nechako Reservoir watershed area-average = 0-10 mm

Provincial Advisories - Drought

Drought Level 3 : Adverse Impacts Possible



British Columbia Drought Levels

-  Drought Level 0 - No Adverse Impacts
-  Drought Level 1 - Adverse Impacts Rare
-  Drought Level 2 - Adverse Impacts Unlikely
-  Drought Level 3 - Adverse Impacts Possible
-  Drought Level 4 - Adverse Impacts Likely
-  Drought Level 5 - Adverse Impacts Almost Certain

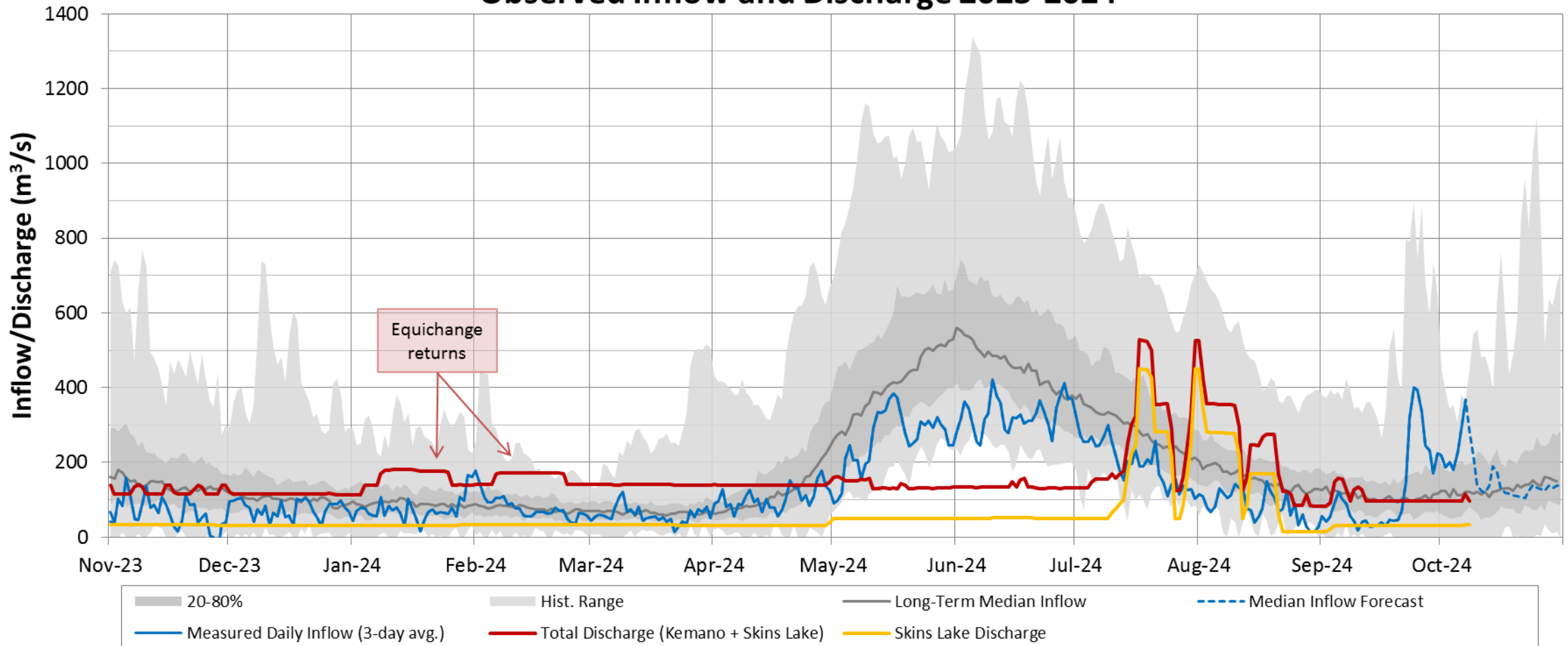
Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada | Water Management Branch and GeoBC, Mini...

Drought conditions as of: October 3, 2024

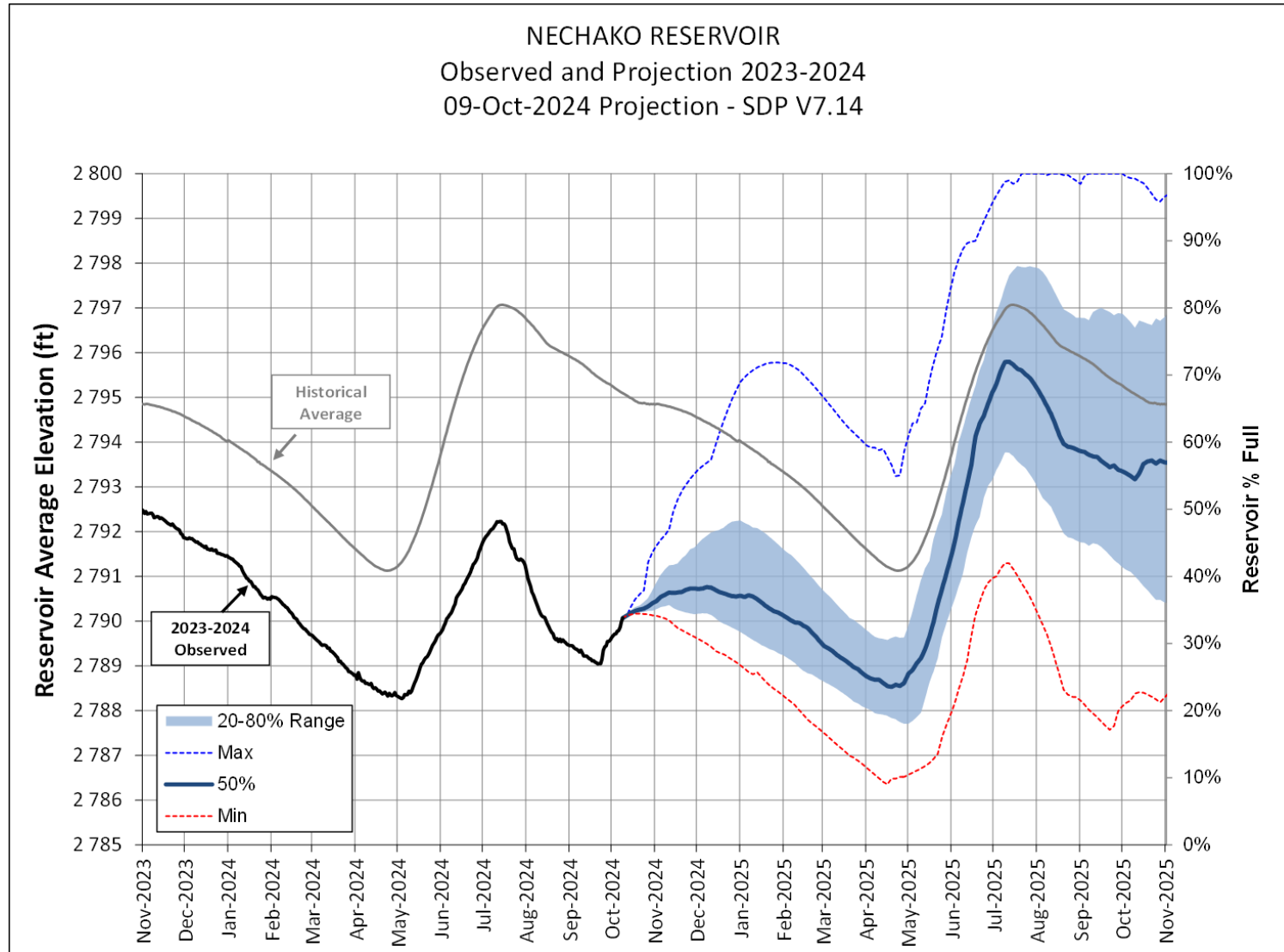
Source: British Columbia Drought Information Portal
droughtportal.gov.bc.ca

Observed Inflows & Discharge vs Historical

Nechako Reservoir Operation Observed Inflow and Discharge 2023-2024

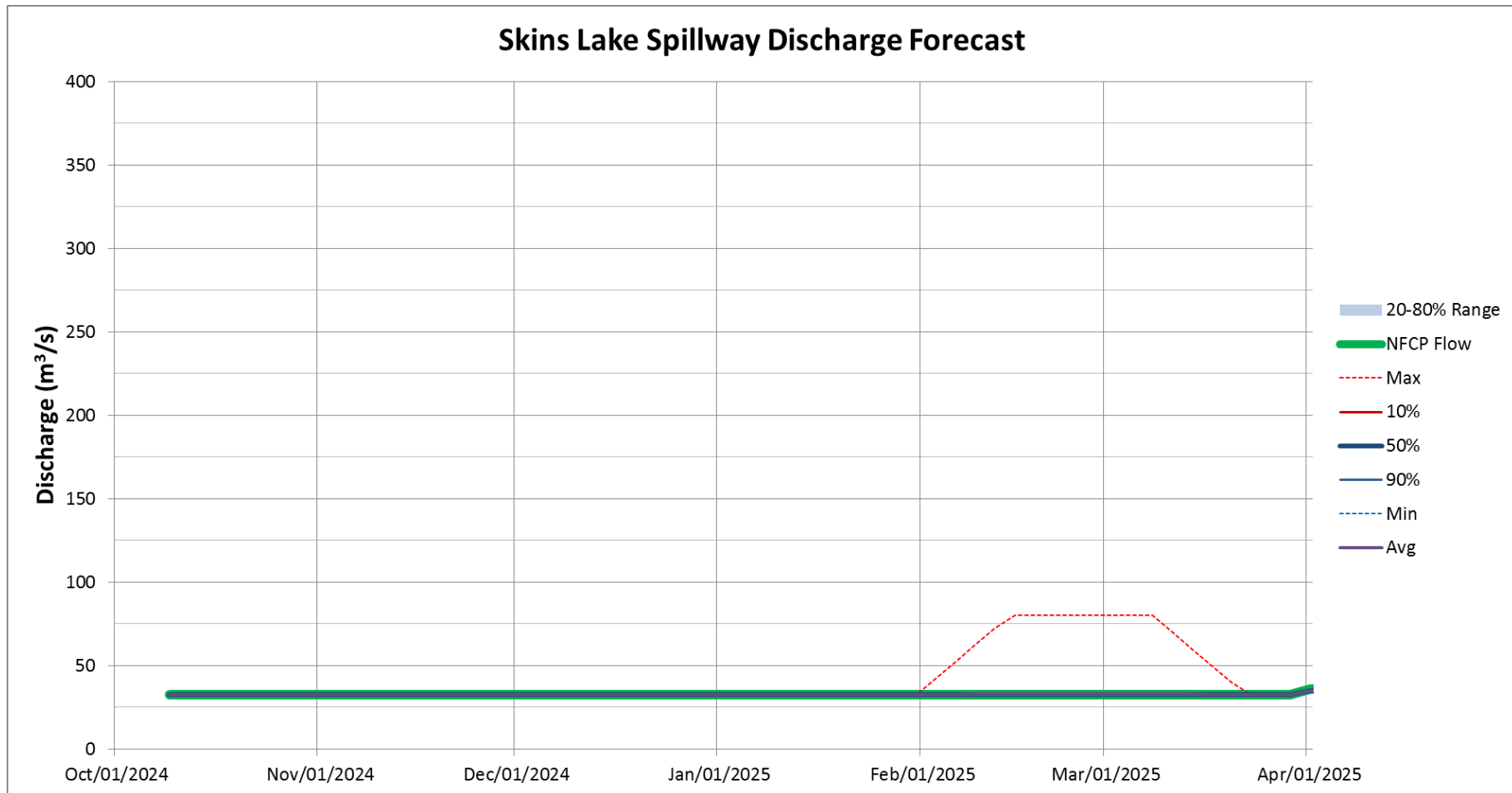


Reservoir Level Projection

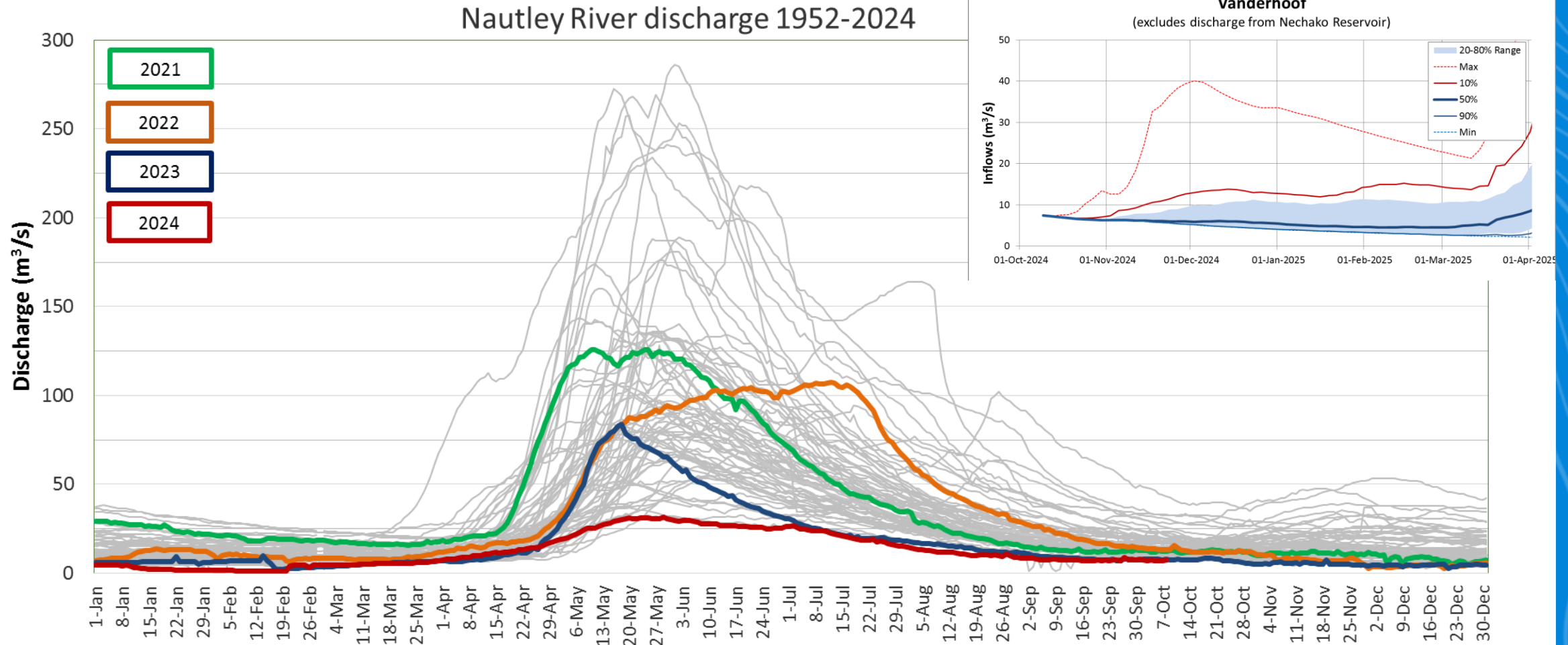


Skins Lake Spillway Release - Forecast

- Current release = **32 m³/s**



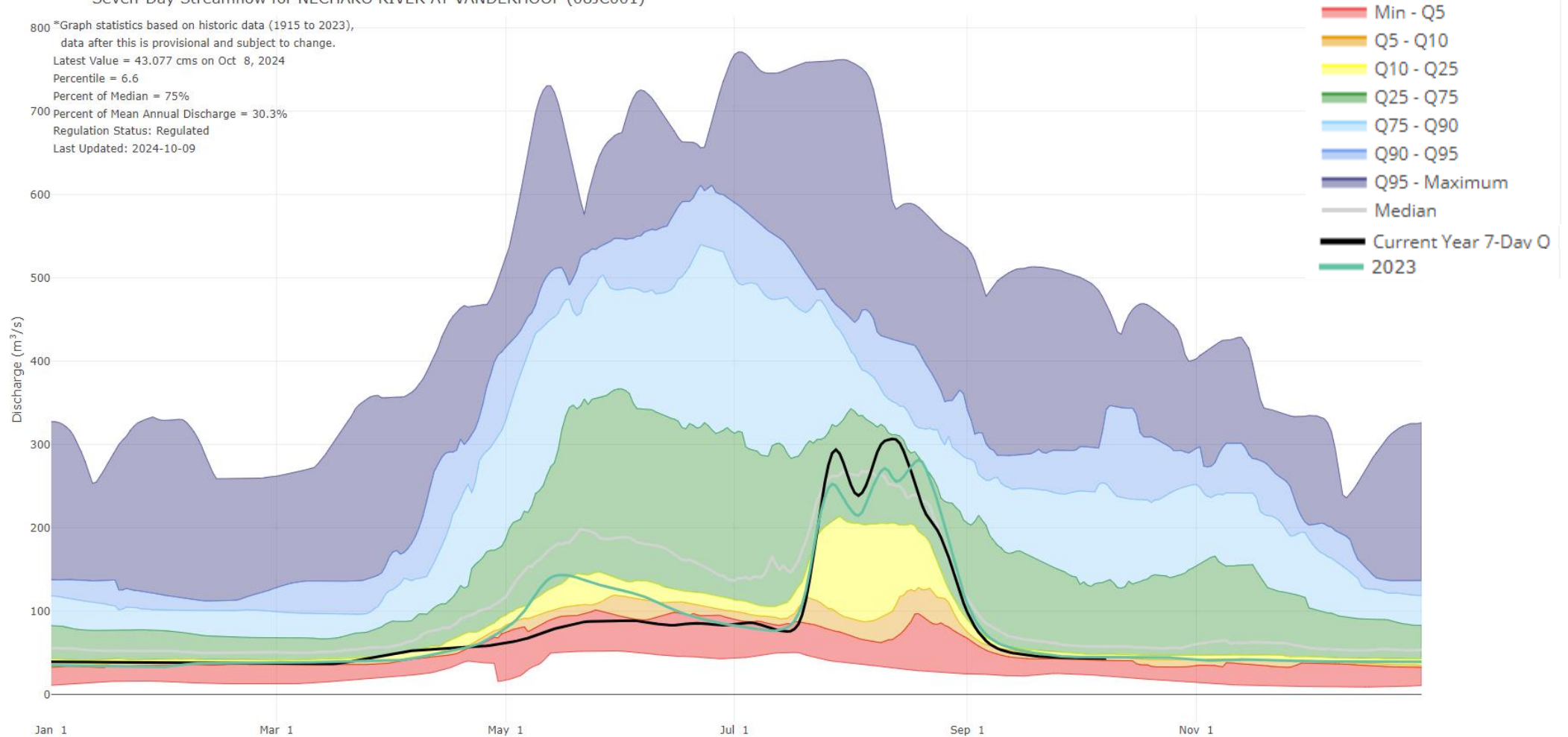
Nautley River Flows, Forecast



Vanderhoof

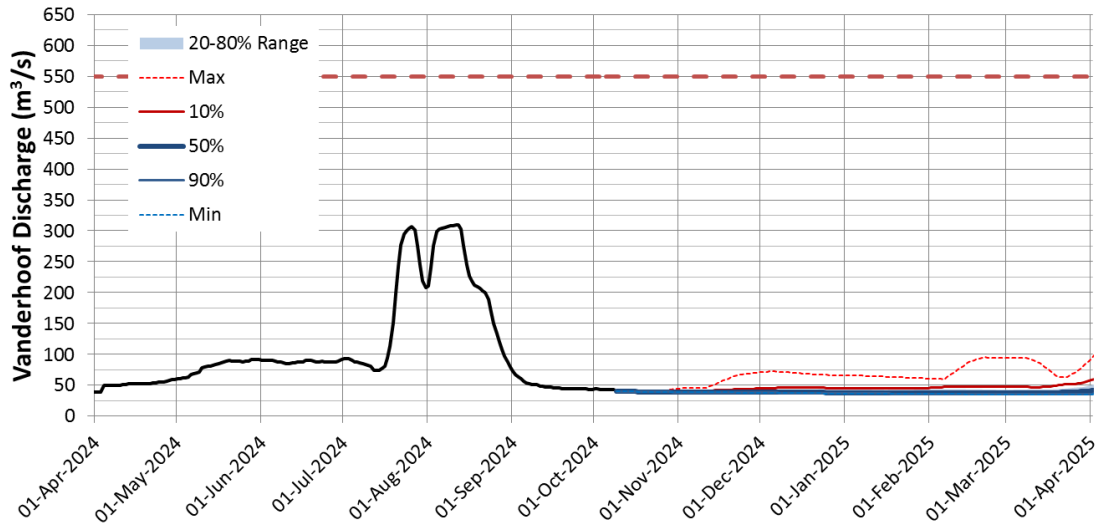
Seven-Day Streamflow for NECHAKO RIVER AT VANDERHOOF (08JC001)

800 *Graph statistics based on historic data (1915 to 2023), data after this is provisional and subject to change.
 Latest Value = 43.077 cms on Oct 8, 2024
 Percentile = 6.6
 Percent of Median = 75%
 700 Percent of Mean Annual Discharge = 30.3%
 Regulation Status: Regulated
 Last Updated: 2024-10-09



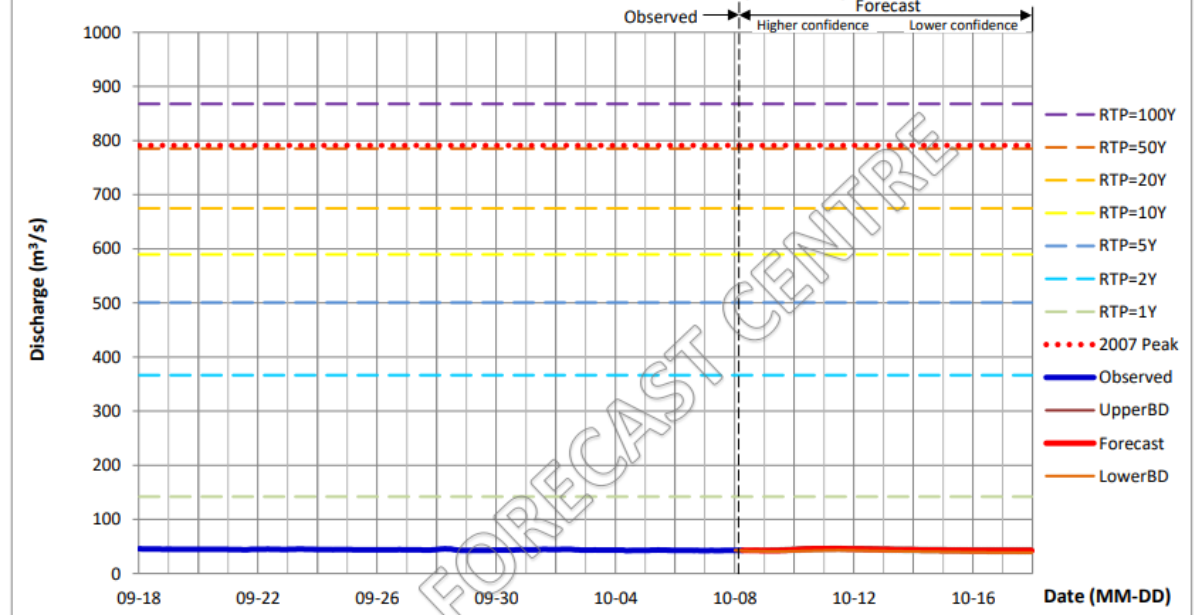
Forecast – Vanderhoof

Expected Total Discharge at Vanderhoof



Note: Set "Check for newer version of stored pages" to "Every time I visit the webpage" and refresh browser frequently to view latest forecast.

NECHAKO RIVER AT VANDERHOOF (08JC001)



Reading at 07 AM (m³/s)	Forecast Daily Discharge (m³/s): AVERAGE									
	UPPER BOUND					LOWER BOUND				
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
	2024-10-08	2024-10-09	2024-10-10	2024-10-11	2024-10-12	2024-10-13	2024-10-14	2024-10-15	2024-10-16	2024-10-17
42.8	43.8	45.5	47.9	48.1	47.7	46.8	46.3	45.9	45.7	45.6
	42.6	42.7	45.2	45.6	44.9	44.0	43.3	42.7	42.3	42.1
	41.5	40.7	41.9	43.1	42.1	41.2	40.4	39.6	39.0	38.7

Color Scheme for Return Periods:	RTP=1Y	RTP=2Y	RTP=5Y	RTP=10Y	RTP=20Y	RTP=50Y	RTP=100Y	2007 Peak
	142.0	366.5	500.7	589.6	674.8	785.2	867.8	791.0
	(m³/s)							

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

Source : RFC's Clever model - 08JC001.PDF(gov.bc.ca)

Updates - Next Steps – Actions



1. Confirm next meeting date & time
– **Propose November 6th**
2. Work with BC Hydro to manage the drought and energy balance for the winter

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

