



Thursday, 23 March 2023

Issue: 1353

A weekly summary relating to New Zealand hydro storage and inflows.

Compiled by Energy Link Ltd.

Storage Summary	South Island Controlled	South Island Uncontrolled	South Island Total	North Island Taupo	Total Storage
Current Storage (GWh)	2705	458	3162	495	3658
Storage Change (GWh)	269	170	439	8	447

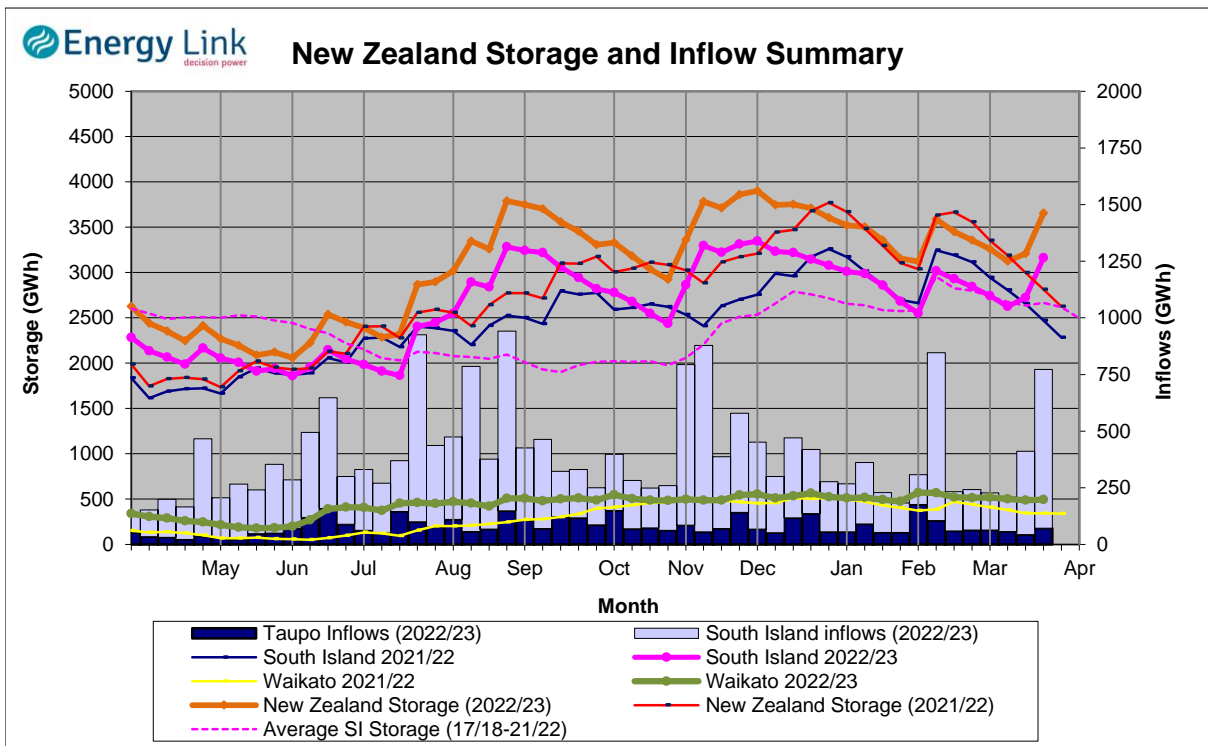
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	3029	495	3525

Note: These figures are provided to align with Transpower's Security of Supply information. However due to variances in generation efficiencies and timing, storage may not exactly match Transpower's figures.

New Zealand Summary

Total storage increased 447.2 GWh over the last week. South Island controlled storage increased 11% to 2705 GWh; South Island uncontrolled storage increased 59.1% to 458 GWh; with Taupo storage increasing 1.7% to 495 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	325	327	2510	495	3658
Last Week	205	266	2252	487	3210
% Change	58.4%	23.0%	11.5%	1.7%	13.9%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	172	130	397	72	772
Last Week	80	75	214	43	412
% Change	115.7%	74.5%	85.9%	66.7%	87.6%

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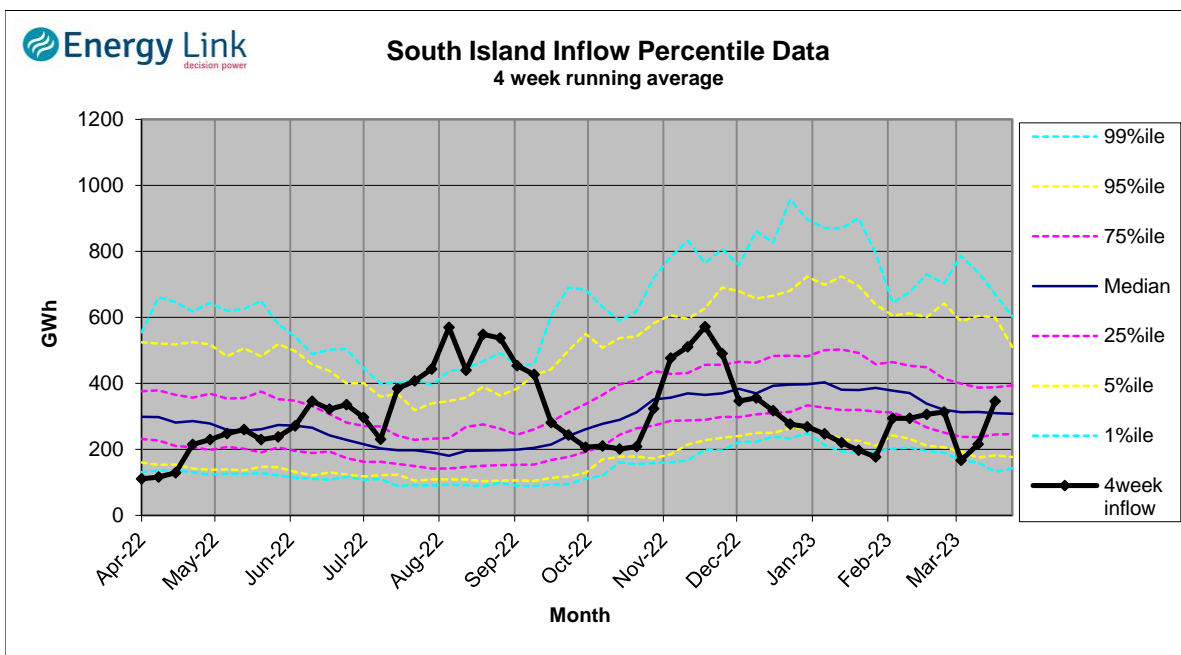
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.94	123	27	10
	Te Anau	202.21	202		
Clutha	Wakatipu	309.92	51	142	34
	Wanaka	277.74	82	233	
	Hawea	343.33	195	70	
Waitaki	Tekapo	709.79	778		62
	Pukaki	531.66	1732		
Waikato	Taupo	357.06	495		-103

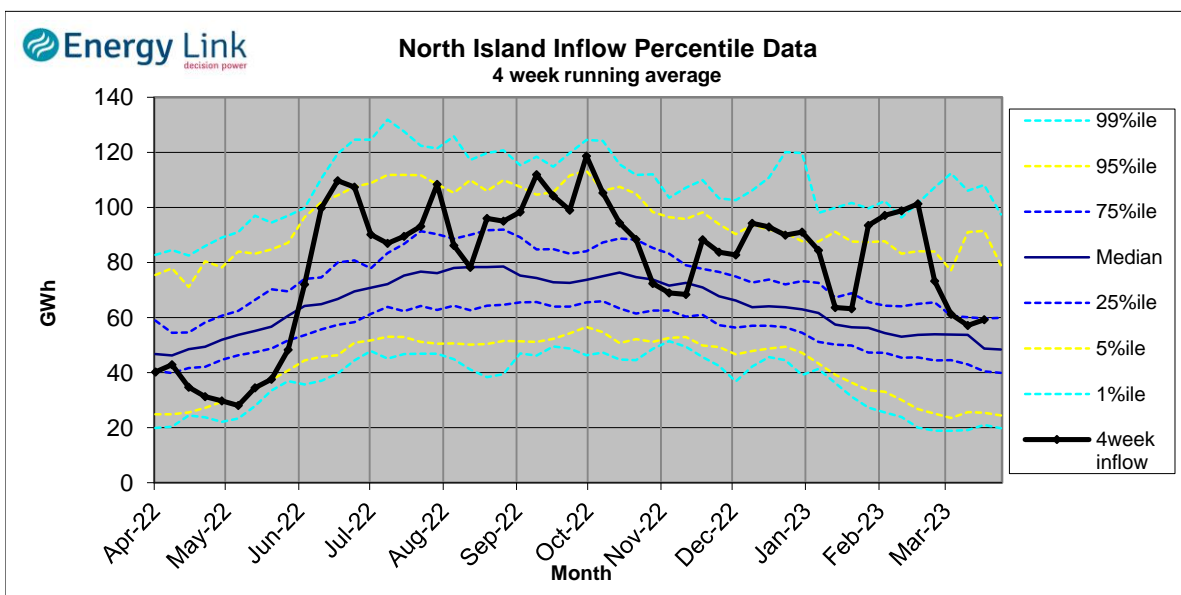
Inflow Summary

The two charts below represent where current inflows are in relation to historic inflow patterns. The percentile values have been calculated using all inflows since 1931.

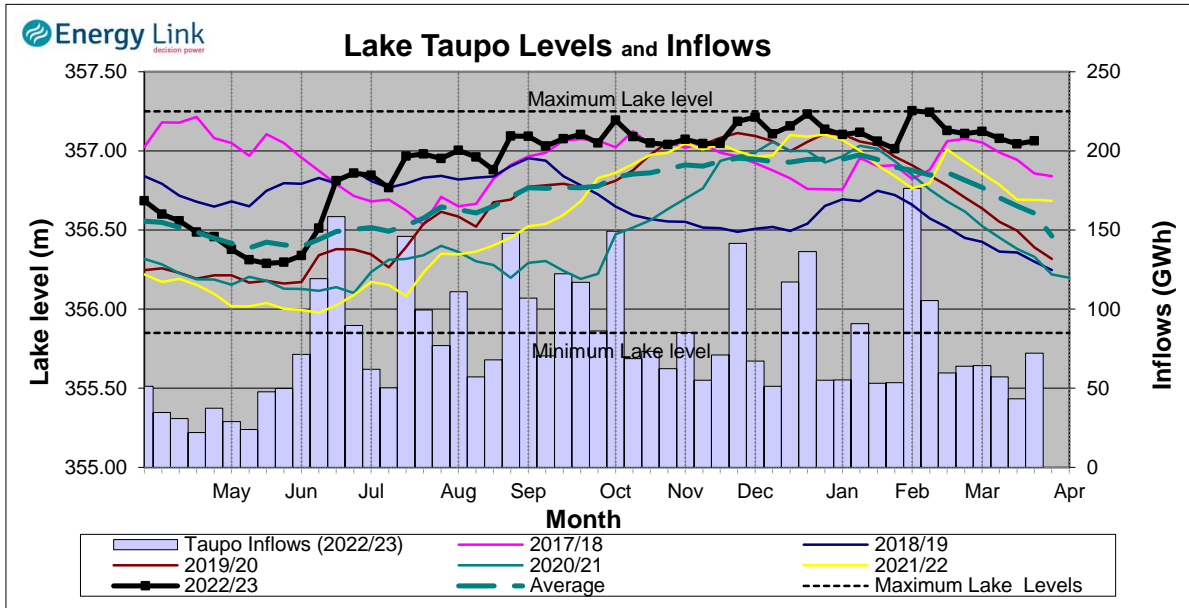
South Island Inflows - The past four weeks of S. I. inflows rank as the 34th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 24th wettest on record.



Waikato System

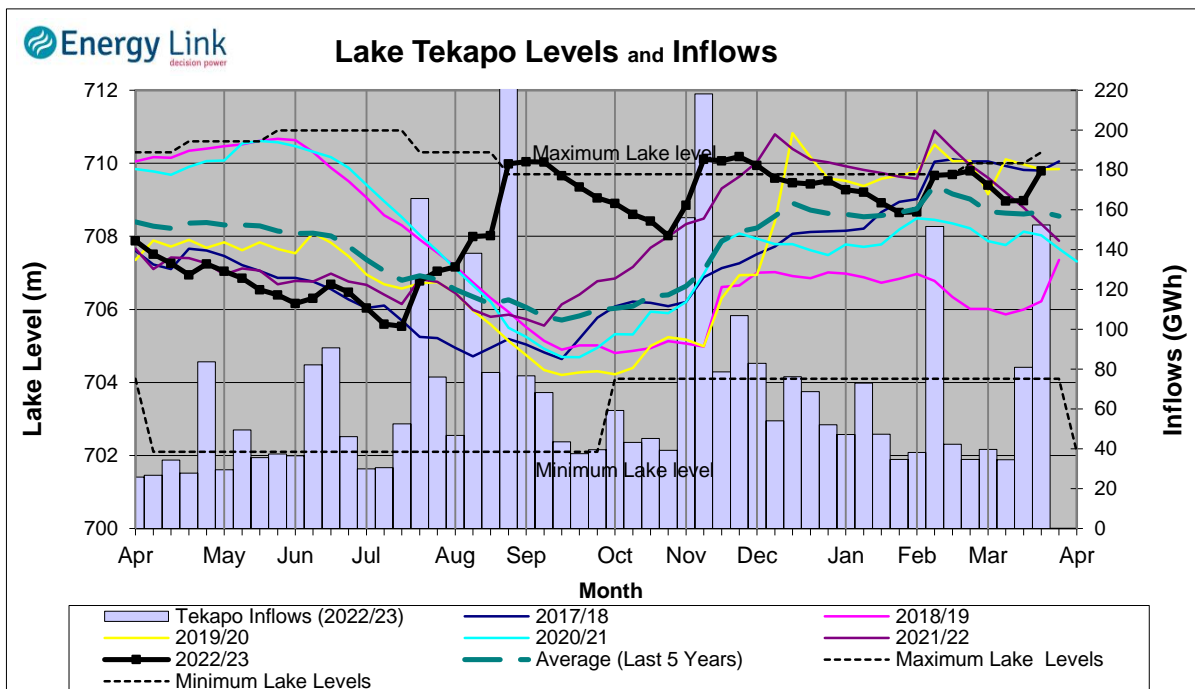


Lake Levels - Lake Taupo storage increased to 86.7% of nominal full at 495 GWh.

Inflows - Inflows increased 66.7% to 72 GWh.

Generation - Average generation decreased 1% to 441.9 MW.

Tekapo



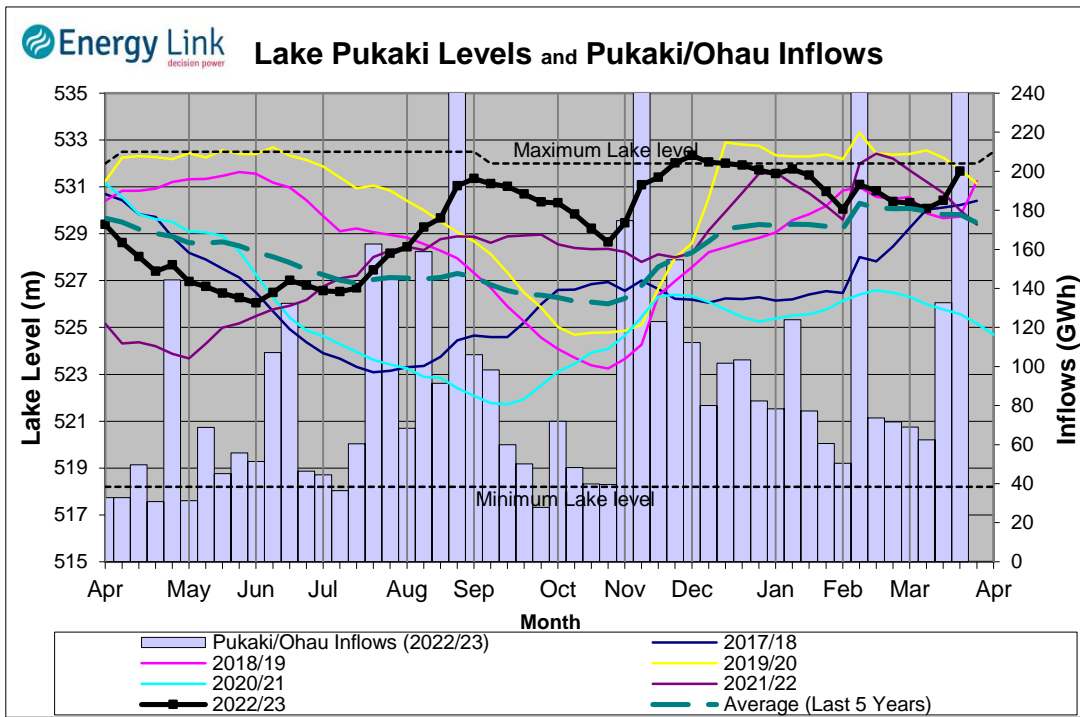
Lake Levels - Lake Tekapo ended the week 103% nominally full with storage increasing to 778 GWh.

Inflows - Inflows into tekapo increased 88.2% to 152 GWh.

Generation - Average Tekapo generation decreased 19.4% to 136.3 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 97% nominally full with storage increasing to 1732

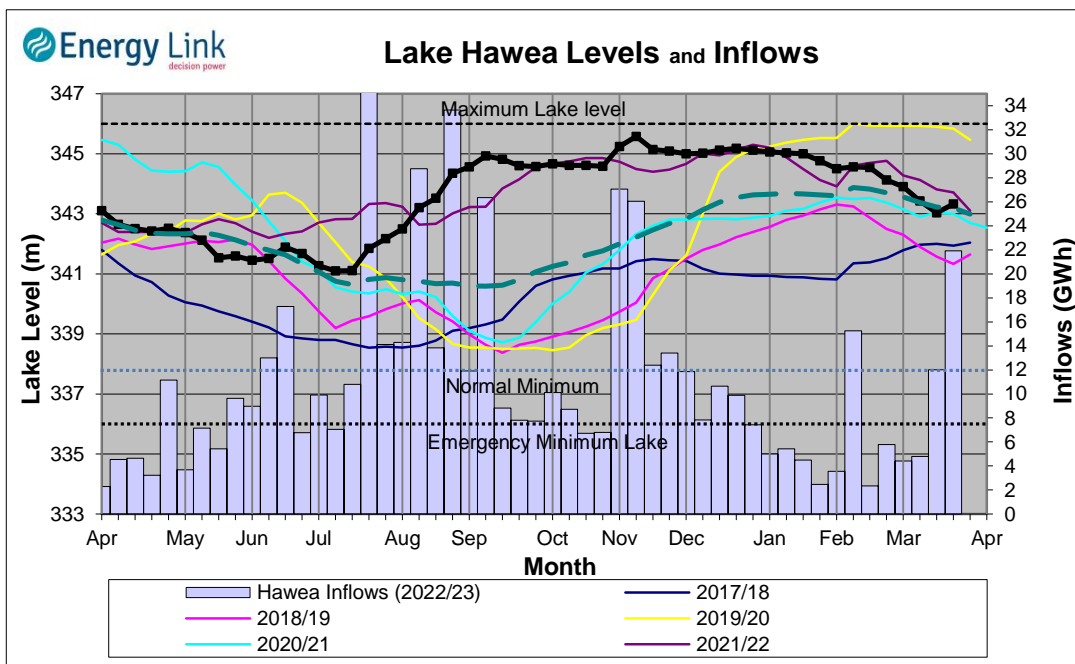
Inflows - Inflows into the Waitaki System increased 84.5% to 245 GWh.

Generation - Average Waitaki generation decreased 5.1% to 857.3 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 57.9 cumecs while Waitaki River flows were higher than last week averaging 394.2 cumecs.

Clutha System



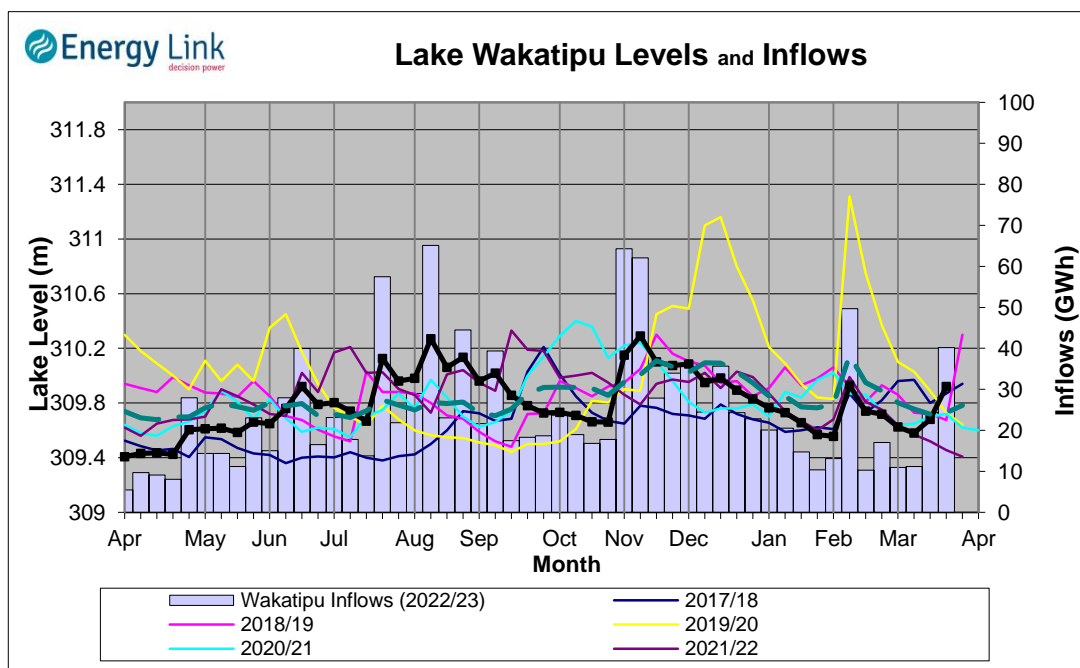
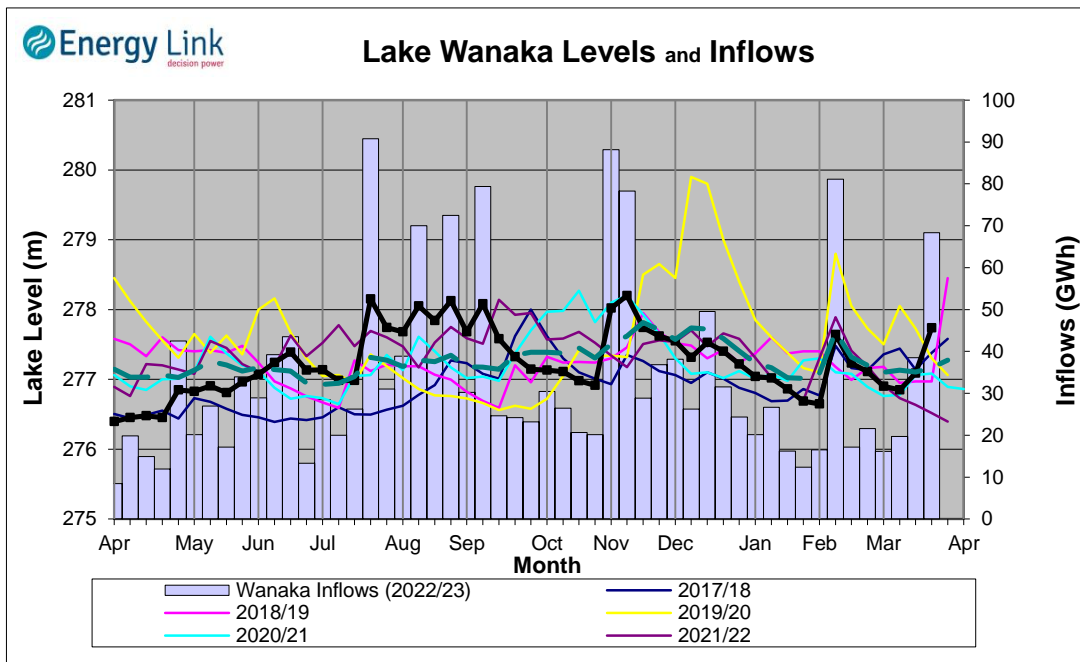
Lake Levels - Total storage for the Clutha System increased by 23% to 327 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 65.9%, 71.9% and 47.9% nominally full respectively.

Inflows - Total Inflows into the Clutha System 74.5% higher at 130 GWh.

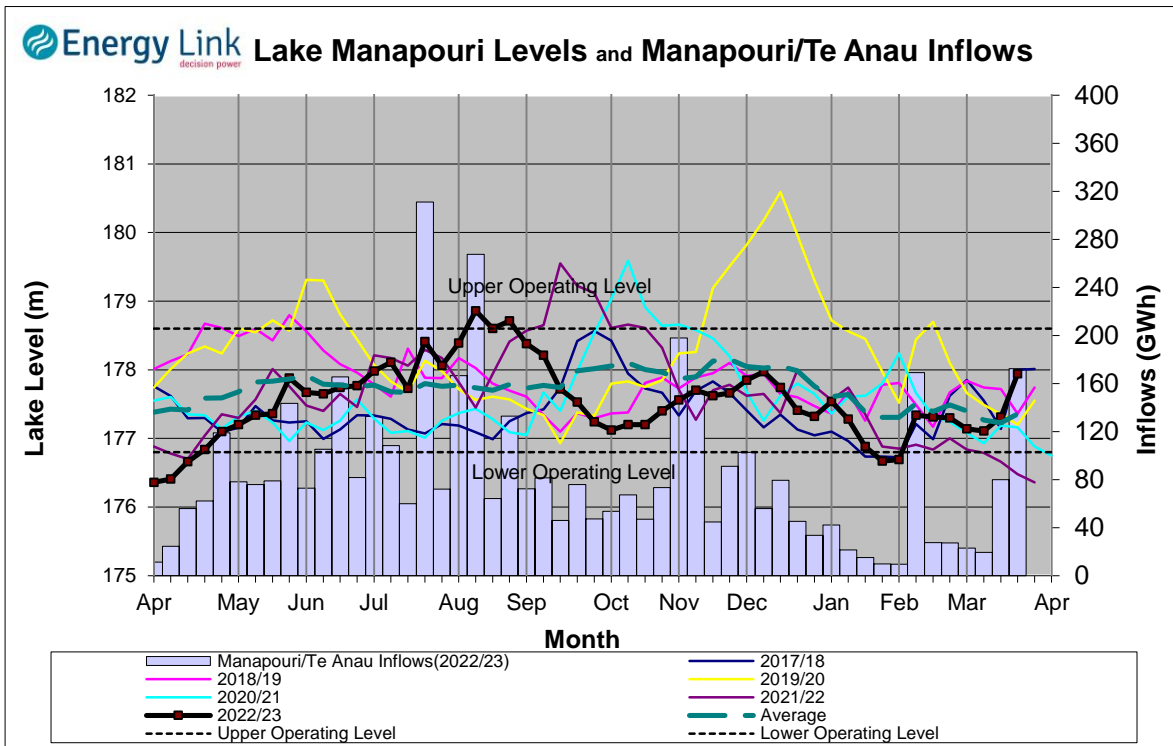
Generation - Average generation was 3.7% higher at 435 MW.

Hydro Spill - Estimate Spill is 9.7 cumecs.

River Flows - Total outflows from the lakes and Shotover River increased to 494.5 cumecs. This comprised of 70 cumecs from Lake Hawea, 233 cumecs from Lake Wanaka, 142 cumecs from Lake Wakatipu and 50 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 58.4% to 325 GWh with Lake Manapouri ending the week 75.7% nominally full and Lake Te Anau ending the week 73.4% nominally full.

Inflows - Total inflows into the Manapouri System increased 115.7% to 172 GWh.

Generation - Average generation was 49.7% higher at 313 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 26.8 cumecs.

Operating Range - Lakes Manapouri and Te Anau are operating in the middle of their respective 'Main operating range'.

