

HydroWatch

Thursday, 09 February 2023

Issue: 1347

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)	2660	360	3020	568	3588
Storage Change (GWh)	254	215	469	-4	465

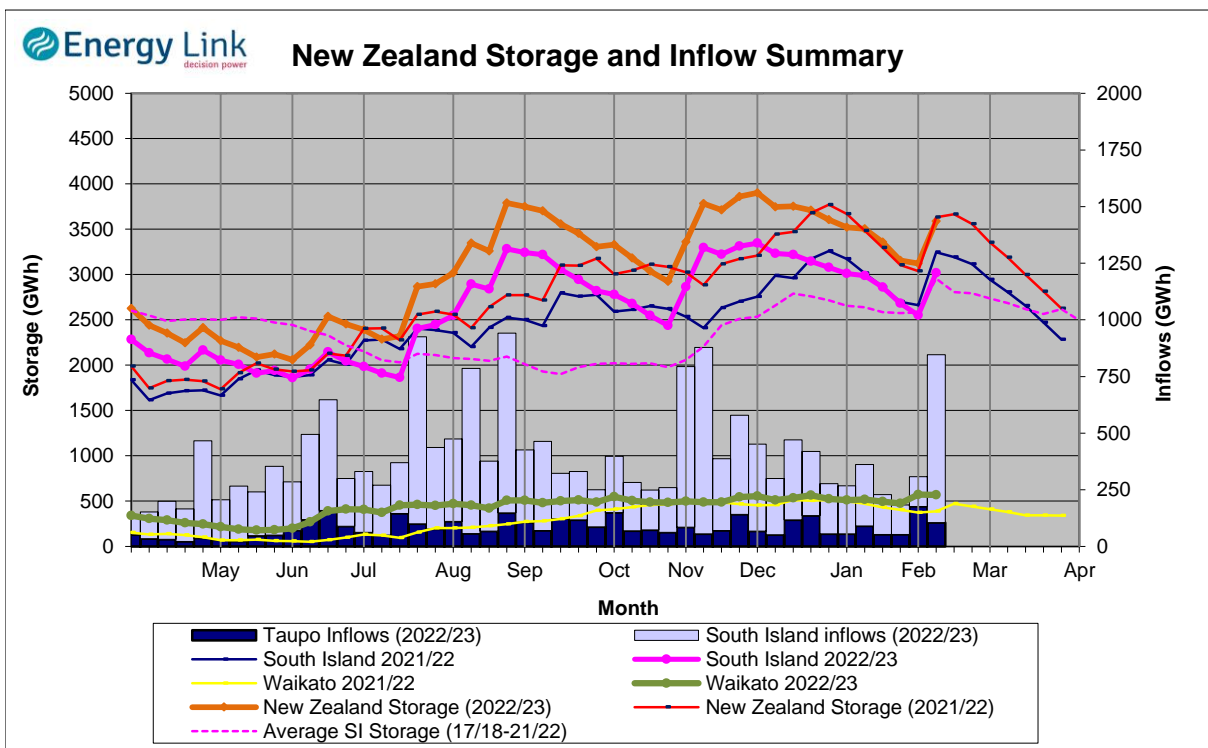
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2891	568	3459

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 464.7 GWh over the last week. South Island controlled storage increased 10.6% to 2660 GWh; South Island uncontrolled storage increased 148% to 360 GWh; with Taupo storage decreasing 0.8% to 568 GWh.



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	Manapouri	Clutha	Waitaki	Waikato	NZ
Storage (GWh)					
This Week	231	370	2419	568	3588
Last Week	94	290	2167	573	3123
% Change	146.5%	27.6%	11.6%	-0.8%	14.9%
Inflow (GWh)					
This Week	169	146	425	105	846
Last Week	10	33	89	176	308
% Change	1664.0%	340.9%	379.5%	-40.3%	174.8%

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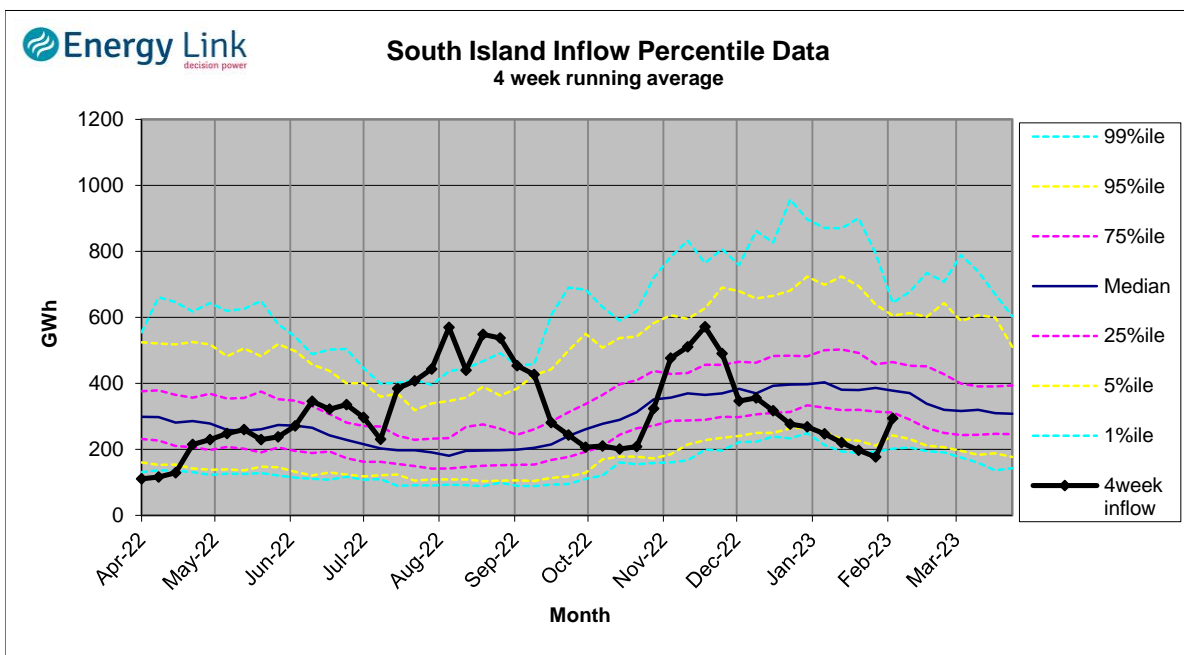
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.34	87	17	0
	Te Anau	201.82	144		
Clutha	Wakatipu	309.93	51	137	47
	Wanaka	277.64	78	204	87
	Hawea	344.57	241	81	-7
Waitaki	Tekapo	709.67	765		
	Pukaki	531.09	1654		
Waikato	Taupo	357.24	568		

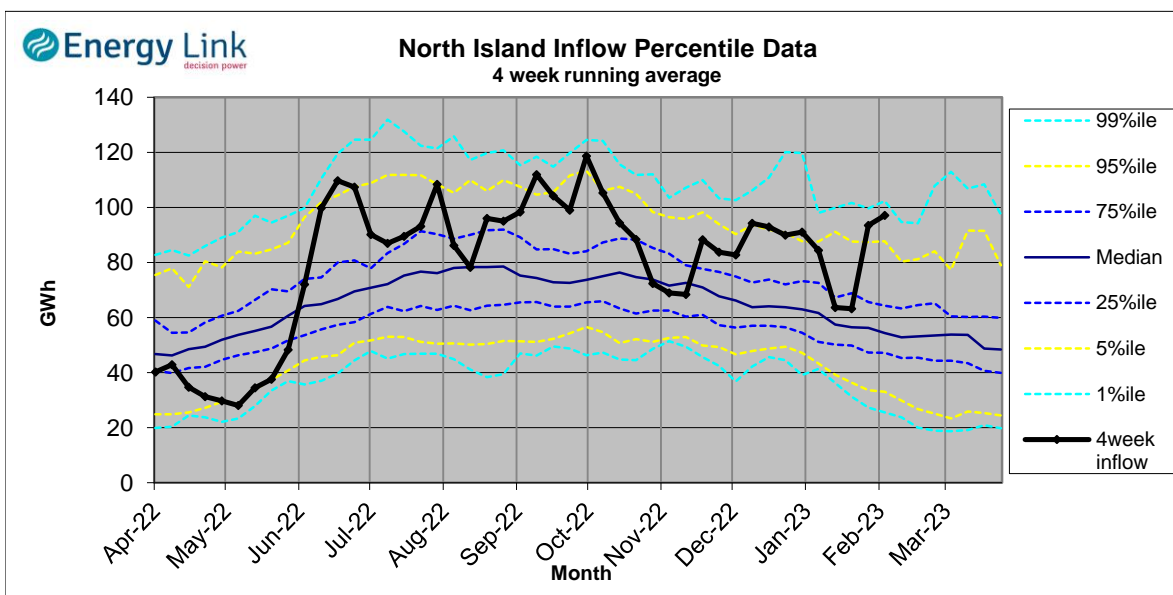
Inflow Summary

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.

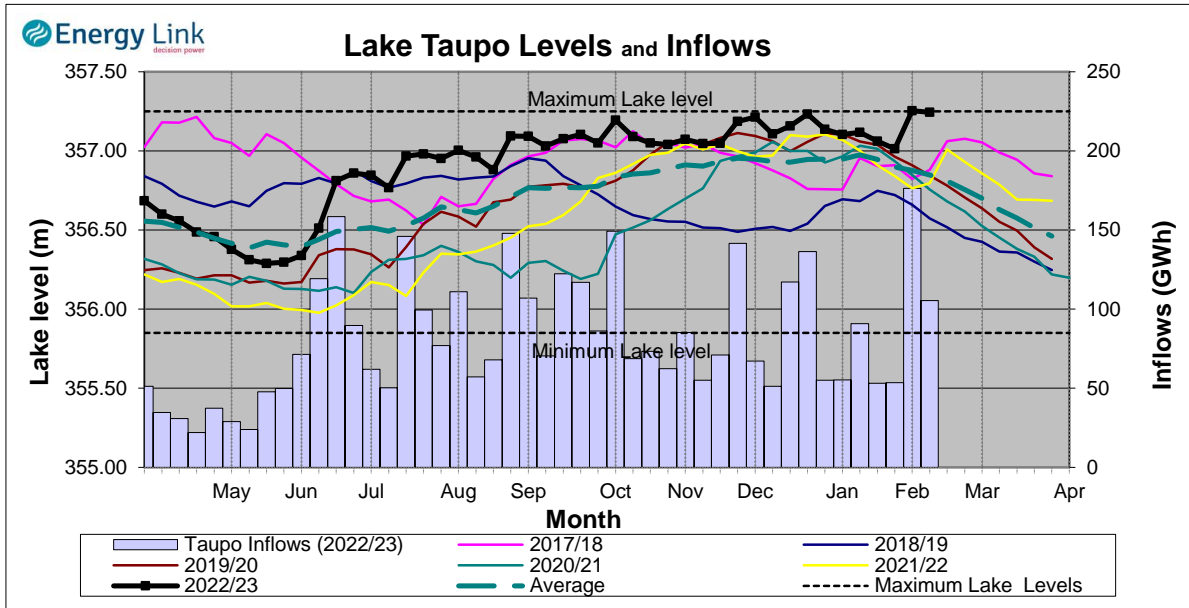
South Island Inflows - The past four weeks of S. I. inflows rank as the 18th driest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 3rd wettest on record.



Waikato System

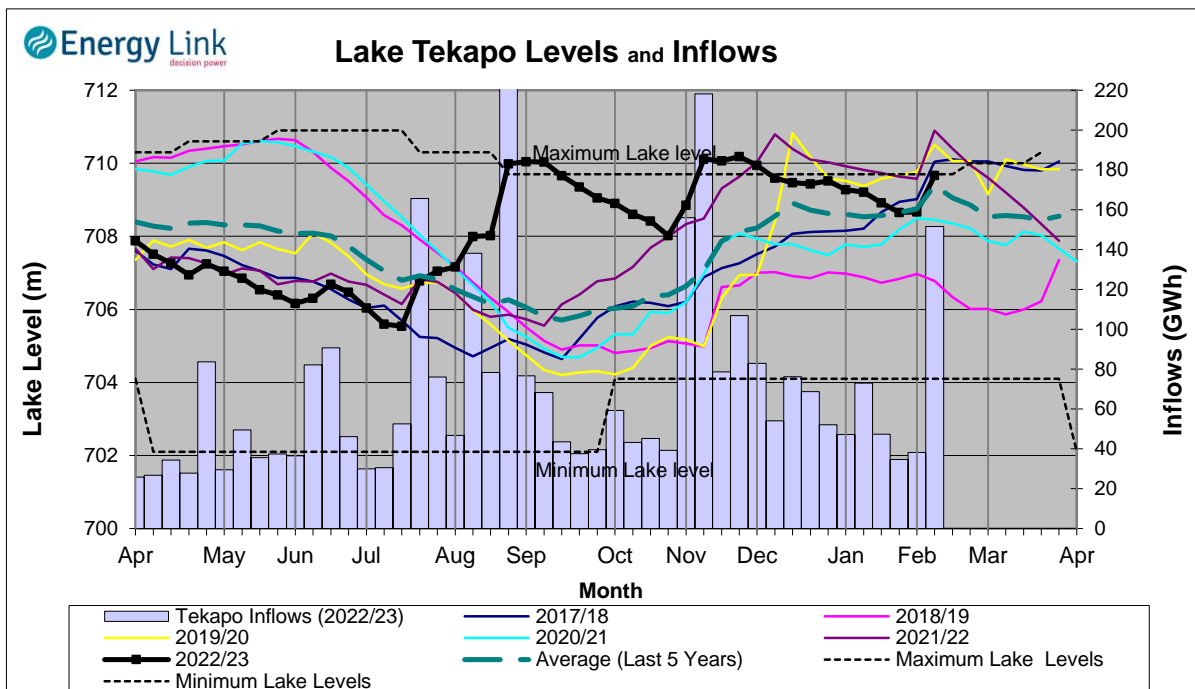


Lake Levels - Lake Taupo storage fell to 99.5% of nominal full at 568 GWh.

Inflows - Inflows decreased 40.3% to 105 GWh.

Generation - Average generation increased 8.9% to 647.3 MW.

Tekapo



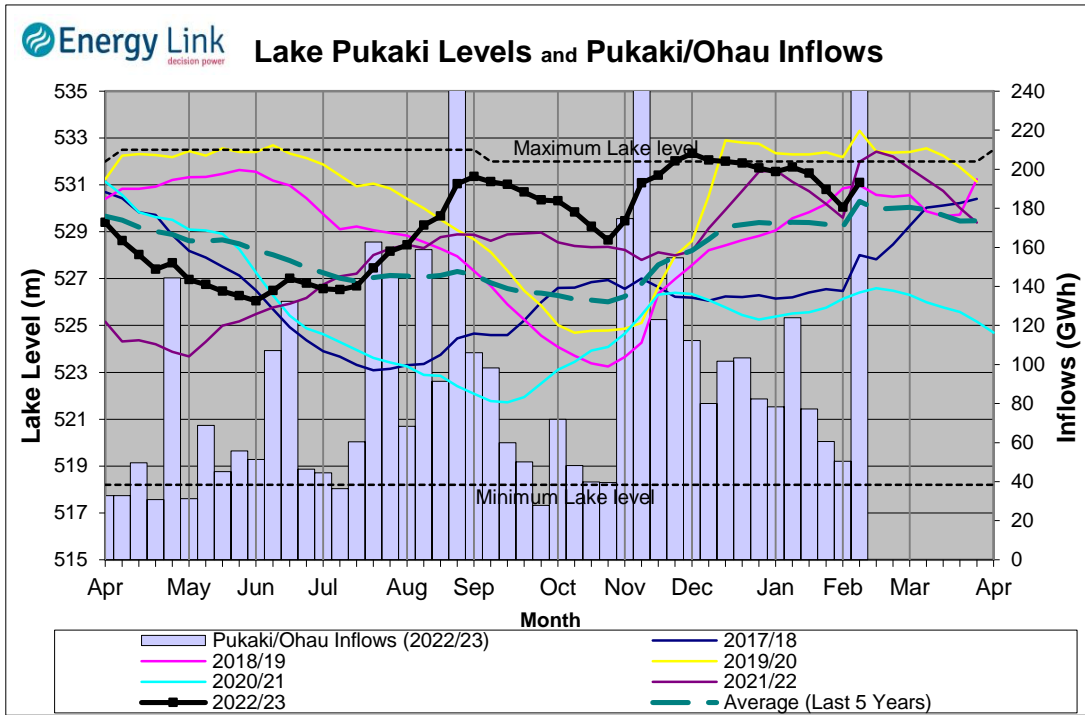
Lake Levels - Lake Tekapo ended the week 106% nominally full with storage increasing to 765 GWh.

Inflows - Inflows into tekapo increased 297% to 152 GWh.

Generation - Average Tekapo generation increased 16.8% to 92.5 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 93% nominally full with storage increasing to 1654

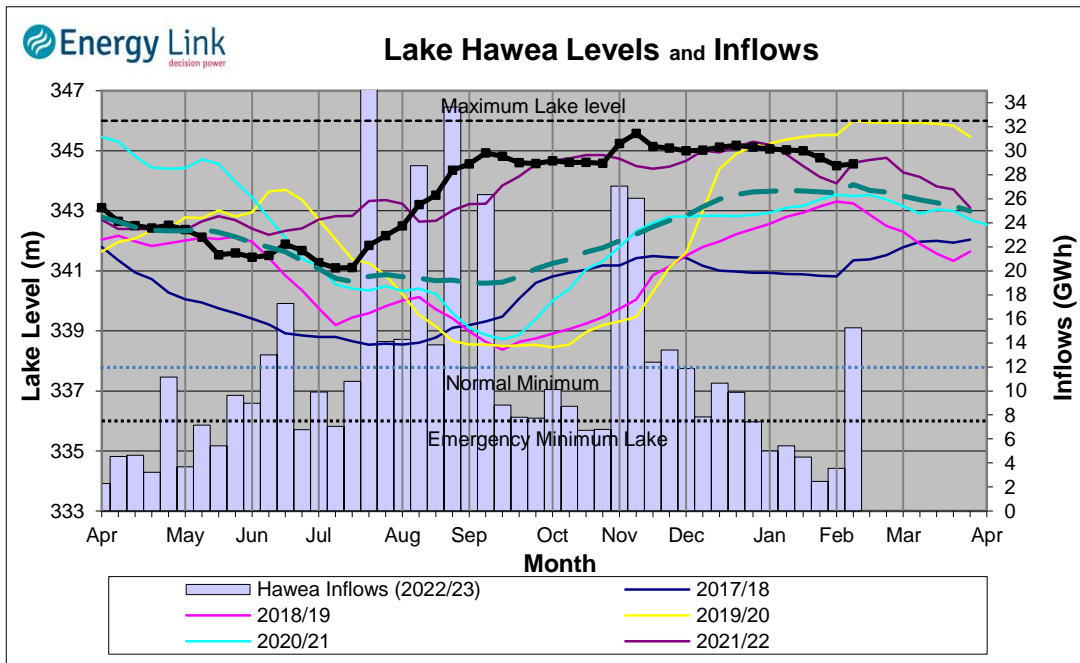
Inflows - Inflows into the Waitaki System increased 442% to 274 GWh.

Generation - Average Waitaki generation decreased 11.6% to 1017.9 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 24 cumecs while Waitaki River flows were lower than last week averaging 405.2 cumecs.

Clutha System



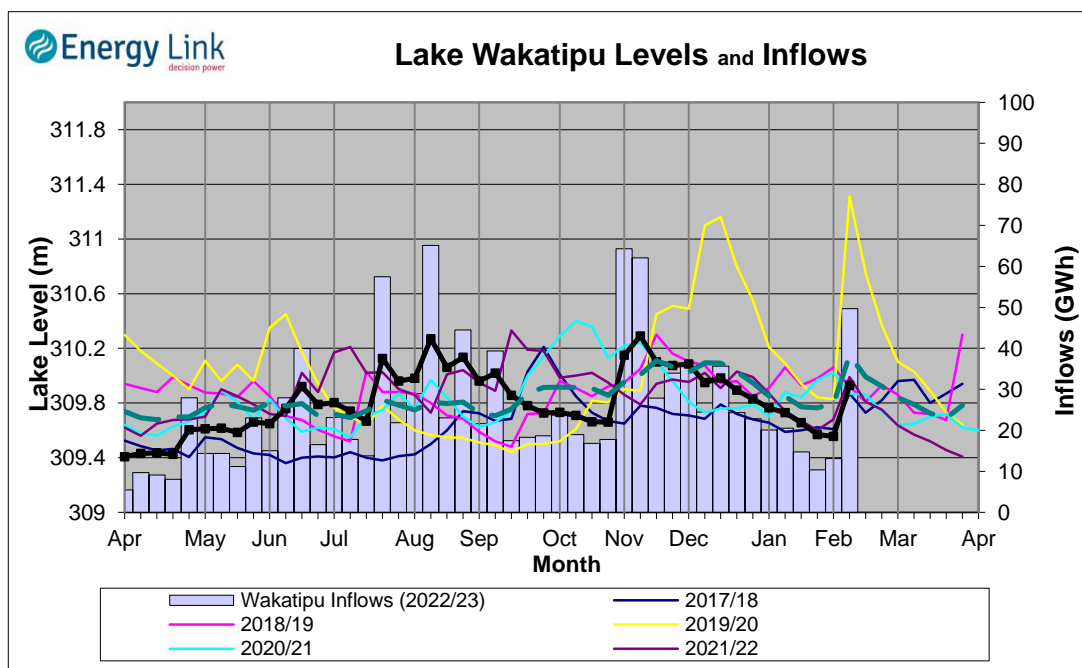
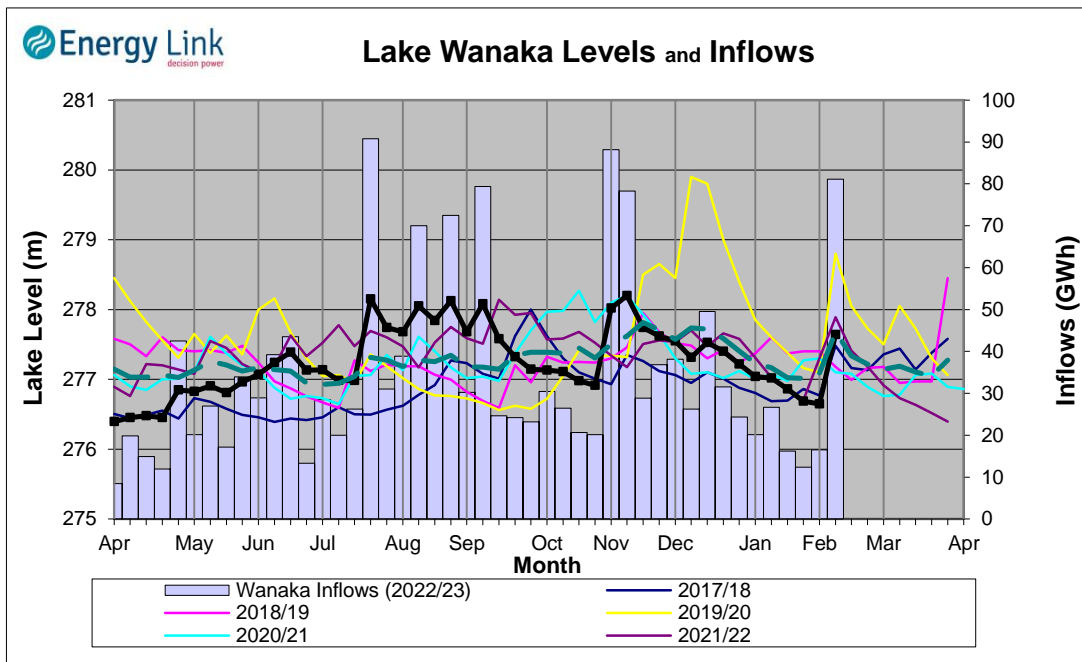
Lake Levels - Total storage for the Clutha System increased by 27.6% to 370 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 81.7%, 67.7% and 48.6% nominally full respectively.

Inflows - Total Inflows into the Clutha System 340.9% higher at 146 GWh.

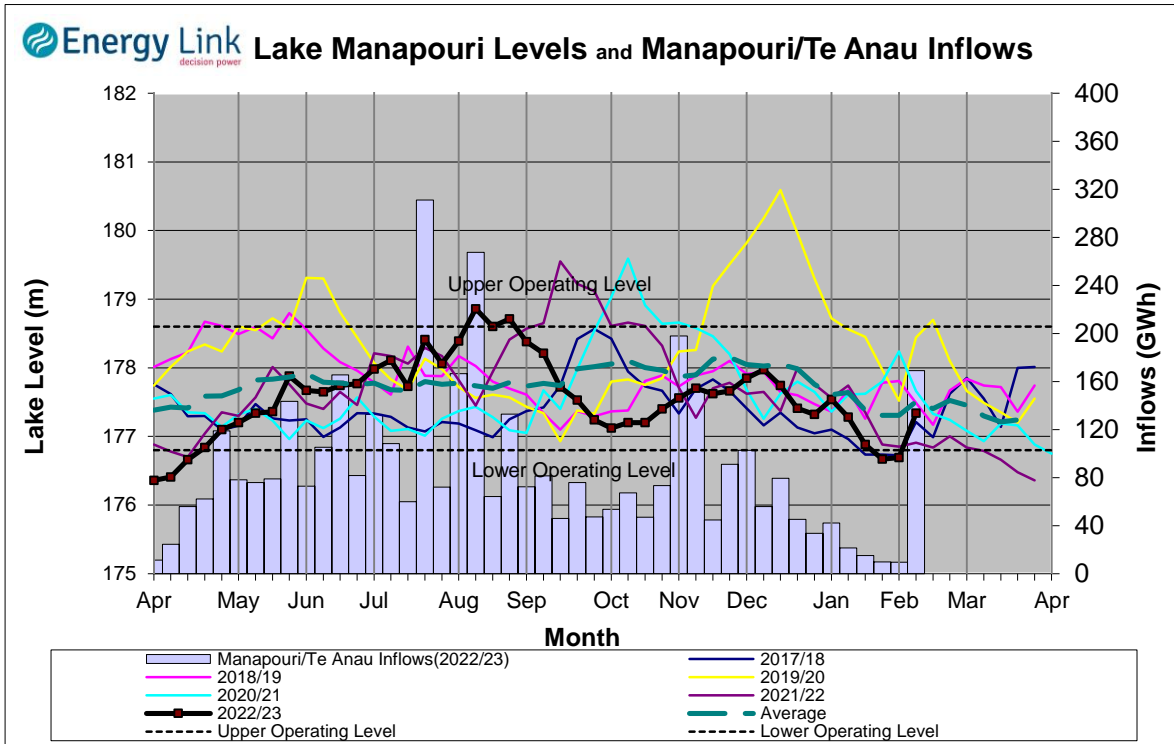
Generation - Average generation was 40.5% higher at 406 MW.

Hydro Spill - Estimate Spill is 5.8 cumecs.

River Flows - Total outflows from the lakes and Shotover River increased to 462.2 cumecs. This comprised of 81 cumecs from Lake Hawea, 204 cumecs from Lake Wanaka, 137 cumecs from Lake Wakatipu and 39 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 146.5% to 231 GWh with Lake Manapouri ending the week 53.7% nominally full and Lake Te Anau ending the week 52.2% nominally full.

Inflows - Total inflows into the Manapouri System increased 1664% to 169 GWh.

Generation - Average generation was 14.4% higher at 190 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 16.9 cumecs.

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

