

HydroWatch

Thursday, 02 February 2023

Issue: 1346

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)	2405	145	2551	573	3123
Storage Change (GWh)	-110	-21	-132	98	-33

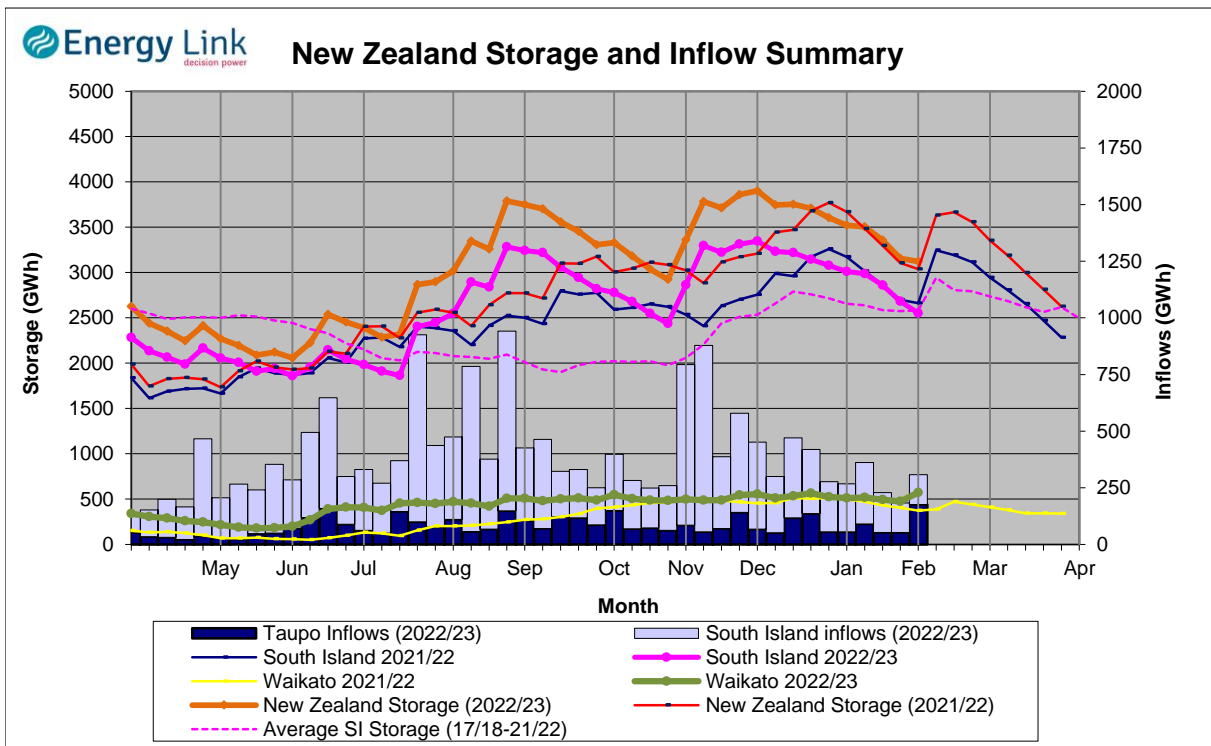
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2499	573	3072

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 decreased 33.2 GWh over the last week. South Island controlled storage decreased 4.4% to 2405 GWh; South Island uncontrolled storage decreased 12.7% to 145 GWh; with Taupo storage increasing 20.7% to 573 GWh.



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	Manapouri	Clutha	Waitaki	Waikato	NZ
Storage (GWh)					
This Week	94	290	2167	573	3123
Last Week	112	303	2267	474	3156
% Change	-16.3%	-4.3%	-4.4%	20.7%	-1.1%
Inflow (GWh)					
This Week	10	33	89	176	308
Last Week	10	25	95	54	184
% Change	-1.9%	31.7%	-6.8%	229.3%	67.6%

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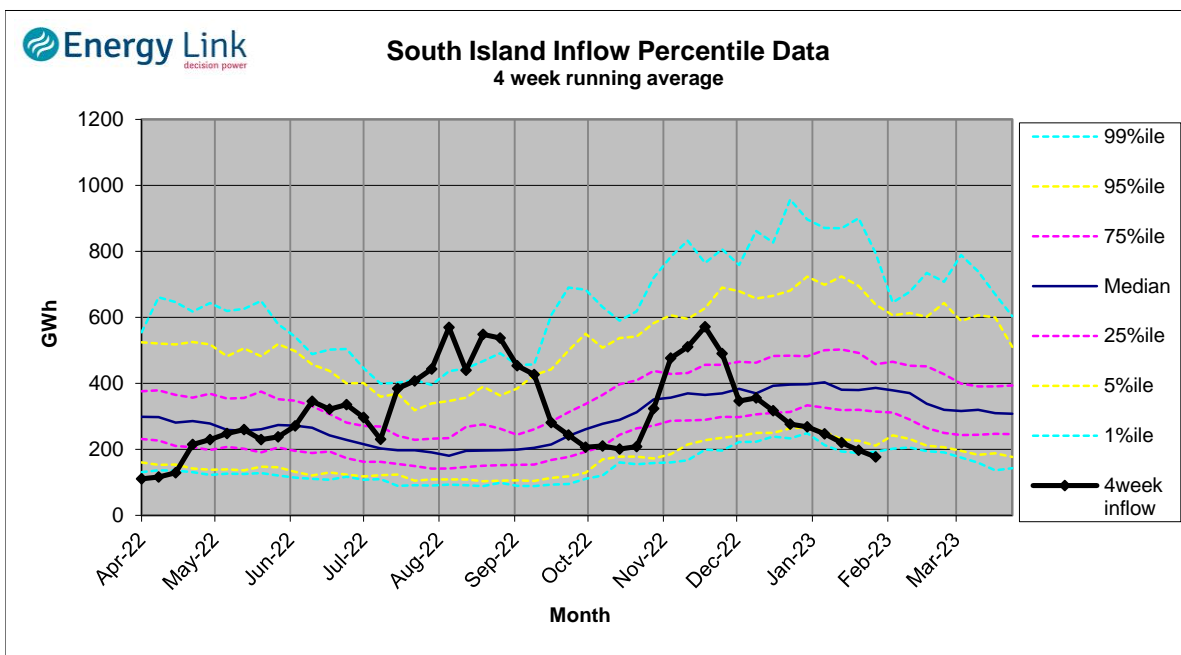
Lake Levels and Outflows

Catchment	Lake	Level	Storage	Outflow	Outflow Change
		(m. asl)	(GWh)	(cumeecs)	
Manapouri	Manapouri	176.69	49	17	-3
	Te Anau	201.16	45		
Clutha	Wakatipu	309.56	23	91	-17
	Wanaka	276.65	28	117	-18
	Hawea	344.50	239	88	18
Waitaki	Tekapo	708.67	656		
	Pukaki	530.04	1511		
Waikato	Taupo	357.25	573		

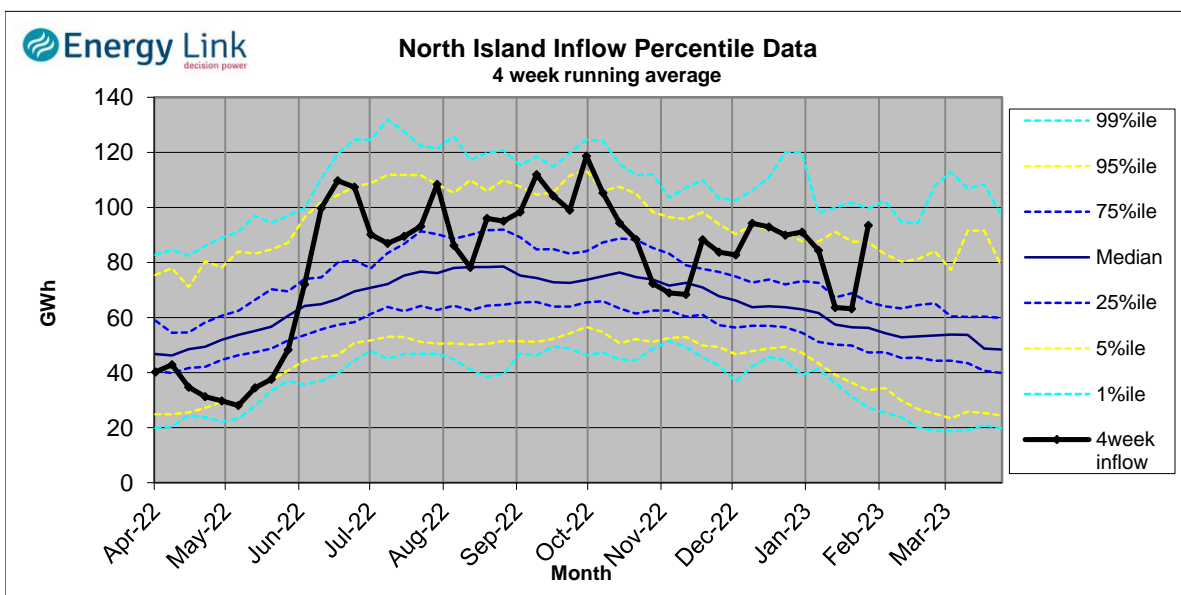
Inflow Summary

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.

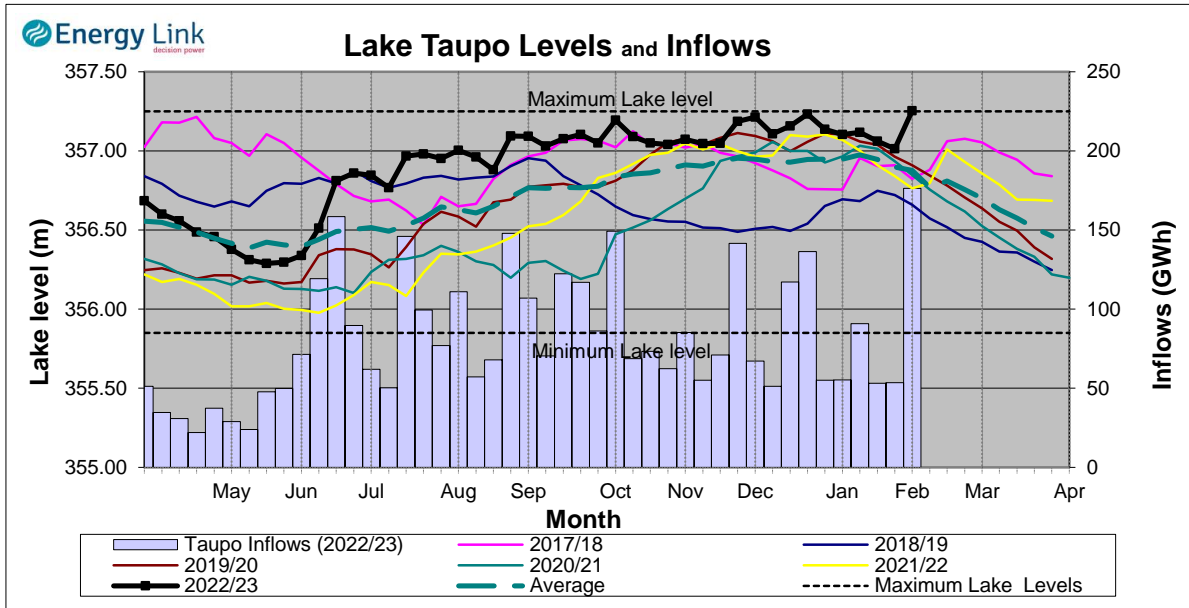
South Island Inflows - The past four weeks of S. I. inflows rank as the driest on record.



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



Waikato System

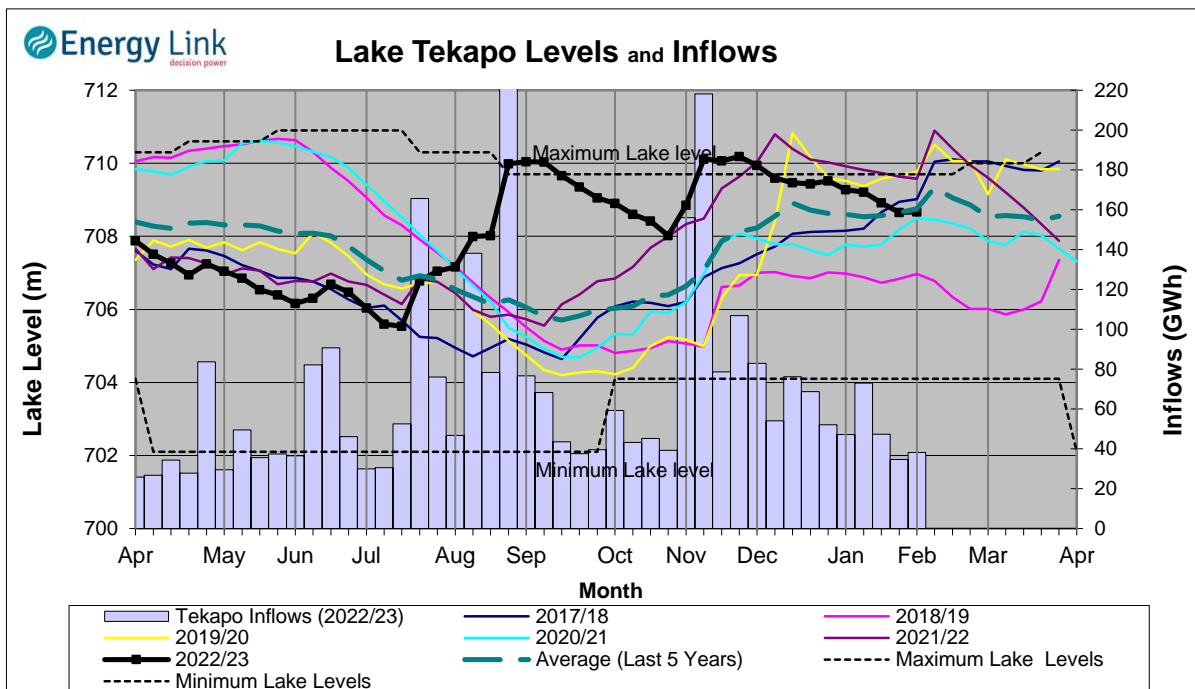


Lake Levels - Lake Taupo storage increased to 100.3% of nominal full at 573 GWh.

Inflows - Inflows increased 229.3% to 176 GWh.

Generation - Average generation increased 18.5% to 594.3 MW.

Tekapo



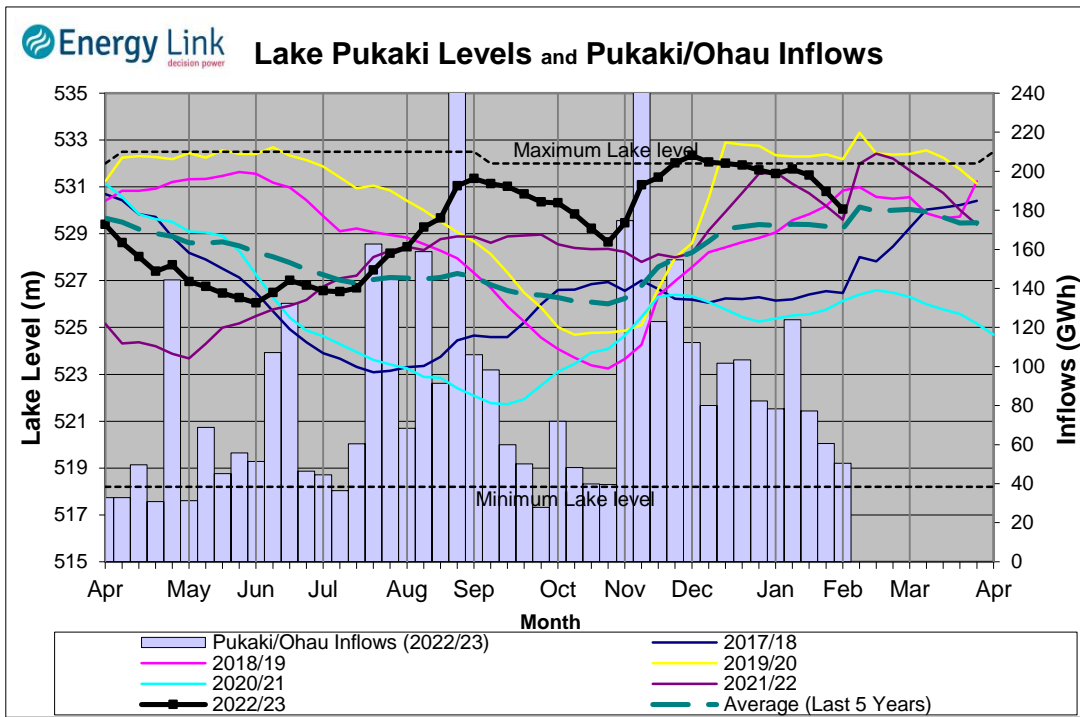
Lake Levels - Lake Tekapo ended the week 91% nominally full with storage increasing to 656 GWh.

Inflows - Inflows into tekapo increased 10.2% to 38 GWh.

Generation - Average Tekapo generation decreased 41.6% to 79.2 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 85% nominally full with storage falling to 1511 GW

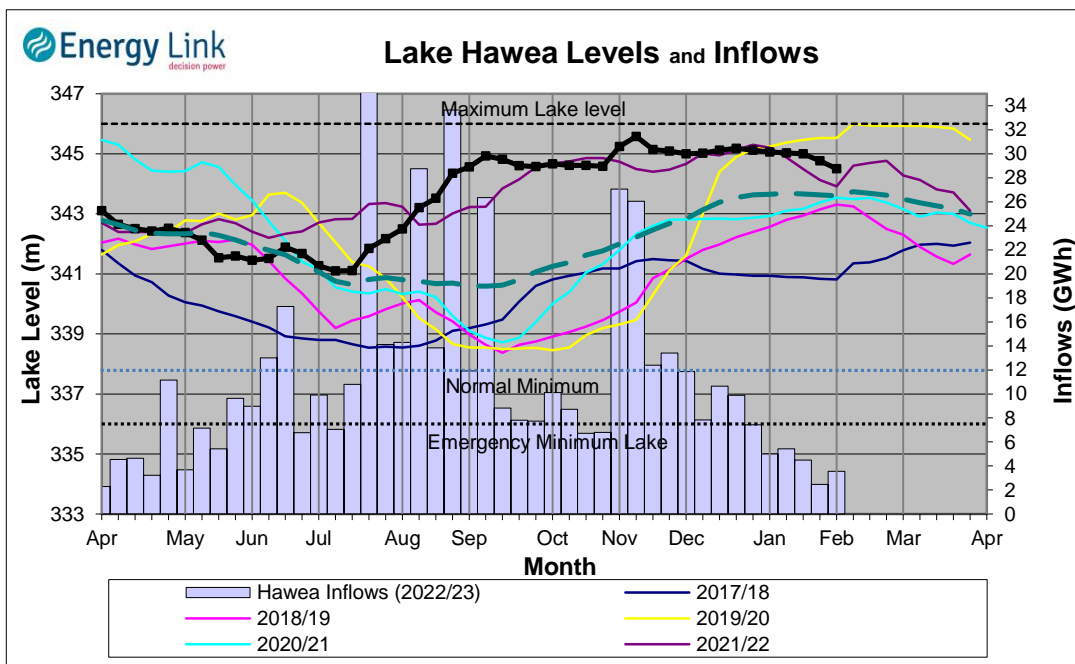
Inflows - Inflows into the Waitaki System decreased 16.6% to 51 GWh.

Generation - Average Waitaki generation decreased 3.8% to 1151.3 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River fell to 12.3 cumecs while Waitaki River flows were higher than last week averaging 481.3 cumecs.

Clutha System



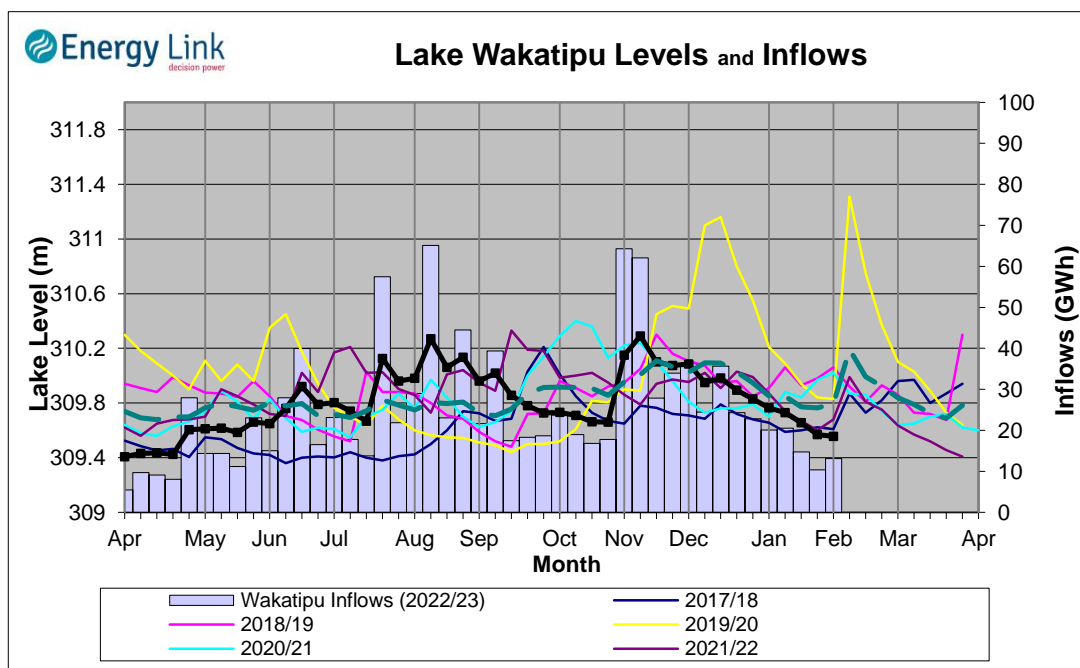
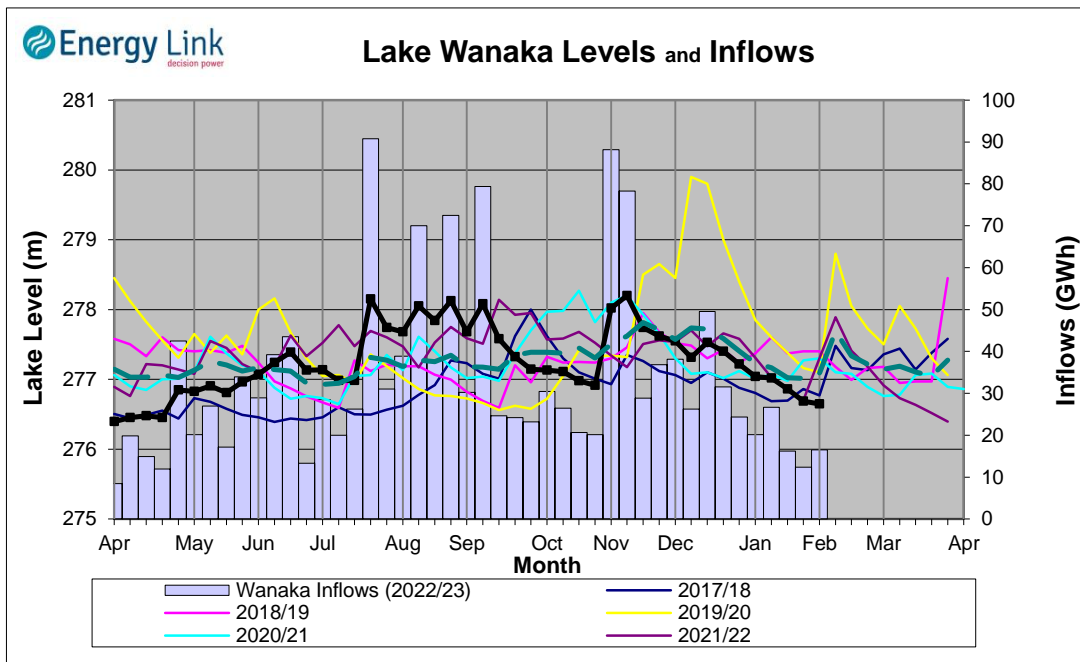
Lake Levels - Total storage for the Clutha System decreased 4.3% to 290 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 80.8%, 24.7% and 21.9% nominally full respectively.

Inflows - Total Inflows into the Clutha System 31.7% higher at 33 GWh.

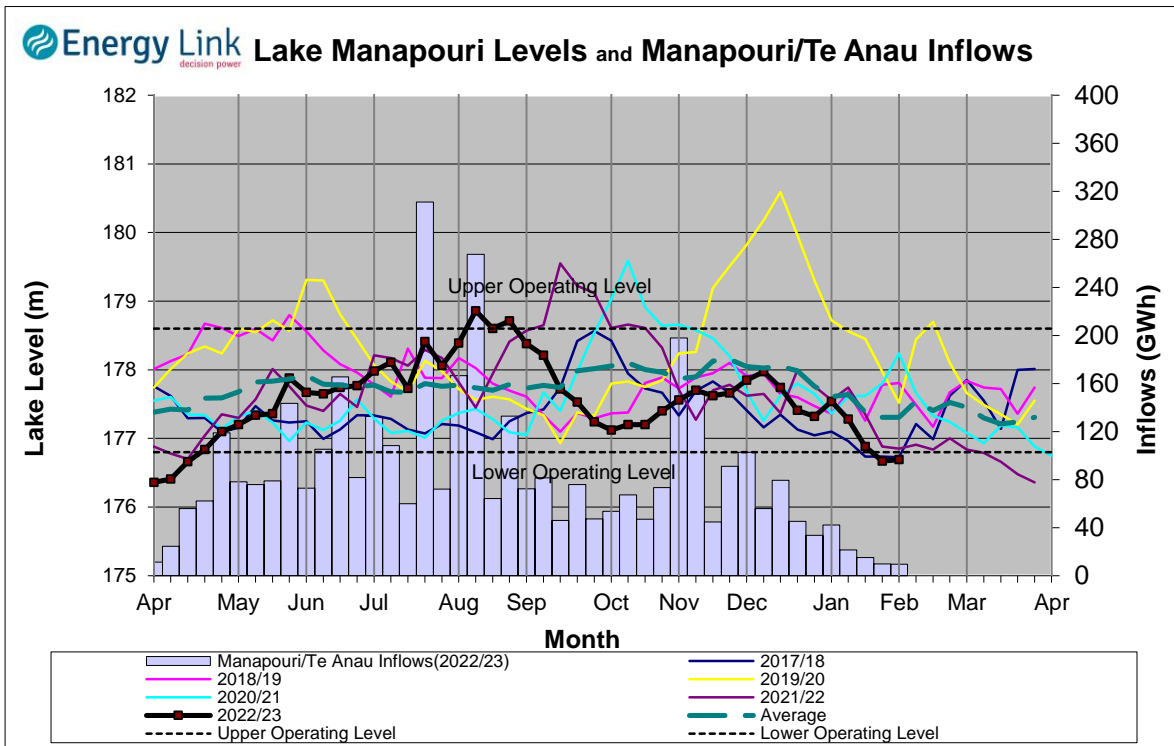
Generation - Average generation was 1.7% lower at 289 MW.

Hydro Spill - There was no estimated spill

River Flows - Total outflows from the lakes and Shotover River fell to 316.9 cumecs. This comprised of 88 cumecs from Lake Hawea, 117 cumecs from Lake Wanaka, 91 cumecs from Lake Wakatipu and 21 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System decreased 16.3% to 94 GWh with Lake Manapouri ending the week 30% nominally full and Lake Te Anau ending the week 16.3% nominally full.

Inflows - Total inflows into the Manapouri System remained steady at 10 GWh.

Generation - Average generation was 33.1% lower at 166 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 16.8 cumecs.

Operating Range - Lake Manapouri is operating in the upper end of its 'Low operating range' while Lake Te Anau is operating in the middle of its 'Low operating range'.

