



Thursday, 14 September 2023

Issue: 1378

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)	1208	346	1553	237	1790
Storage Change (GWh)	-97	44	-53	22	-31

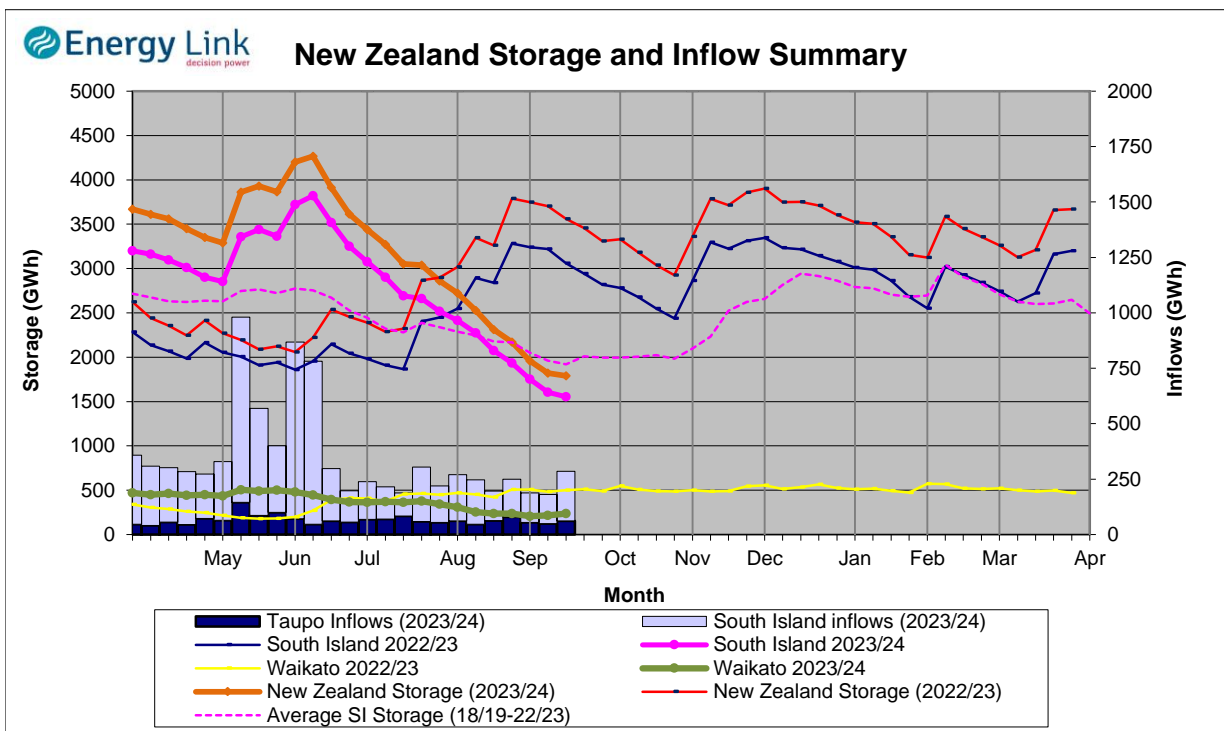
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	1489	237	1726

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 30.9 GWh over the last week. South Island controlled storage decreased 7.4% to 1208 GWh; South Island uncontrolled storage increased 14.6% to 346 GWh; with Taupo storage increasing 10.3% to 237 GWh.



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	Manapouri	Clutha	Waitaki	Waikato	NZ
Storage (GWh)					
This Week	281	96	1176	237	1790
Last Week	259	67	1280	215	1821
% Change	8.5%	43.9%	-8.1%	10.3%	-1.7%
Inflow (GWh)					
This Week	100	63	61	61	285
Last Week	65	30	38	49	181
% Change	55.0%	112.5%	61.2%	24.6%	57.5%

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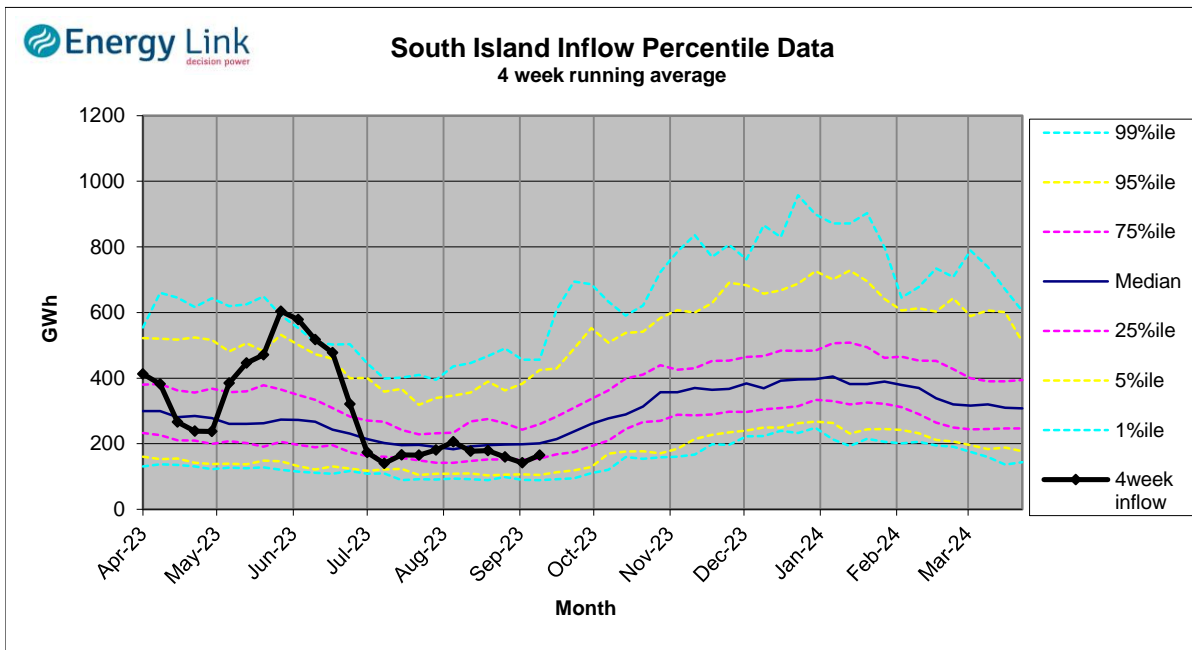
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.31	85	13	0
	Te Anau	202.17	196		
Clutha	Wakatipu	309.58	25	82	13
	Wanaka	276.87	39	119	
	Hawea	338.92	32	18	
Waitaki	Tekapo	705.28	305		29
	Pukaki	525.20	871		
Waikato	Taupo	356.43	237		-24

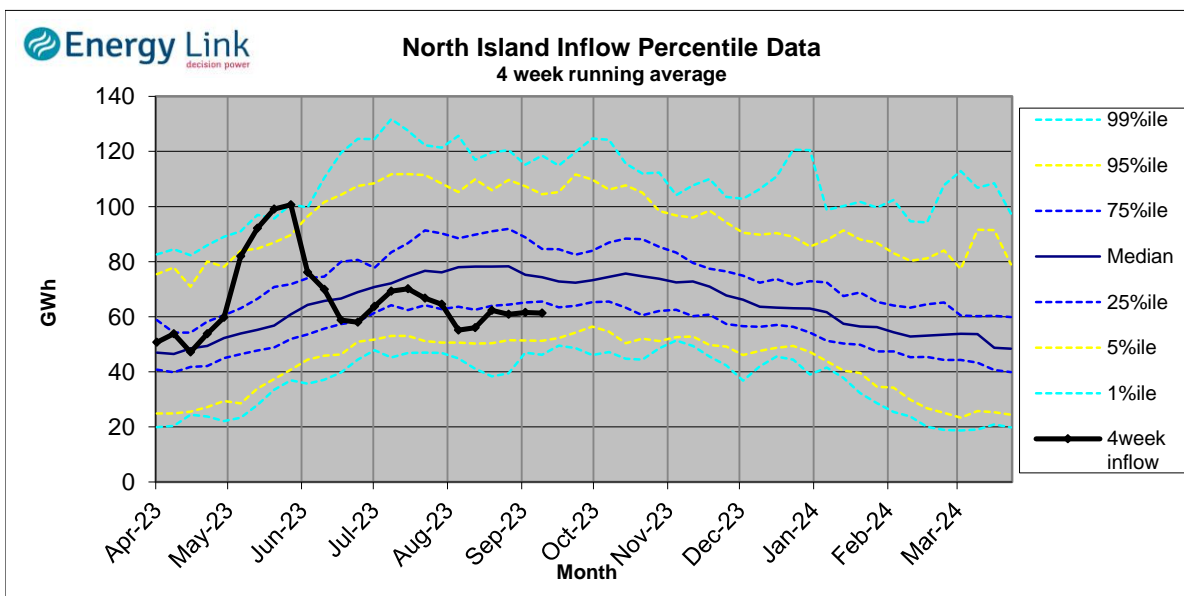
Inflow Summary

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.

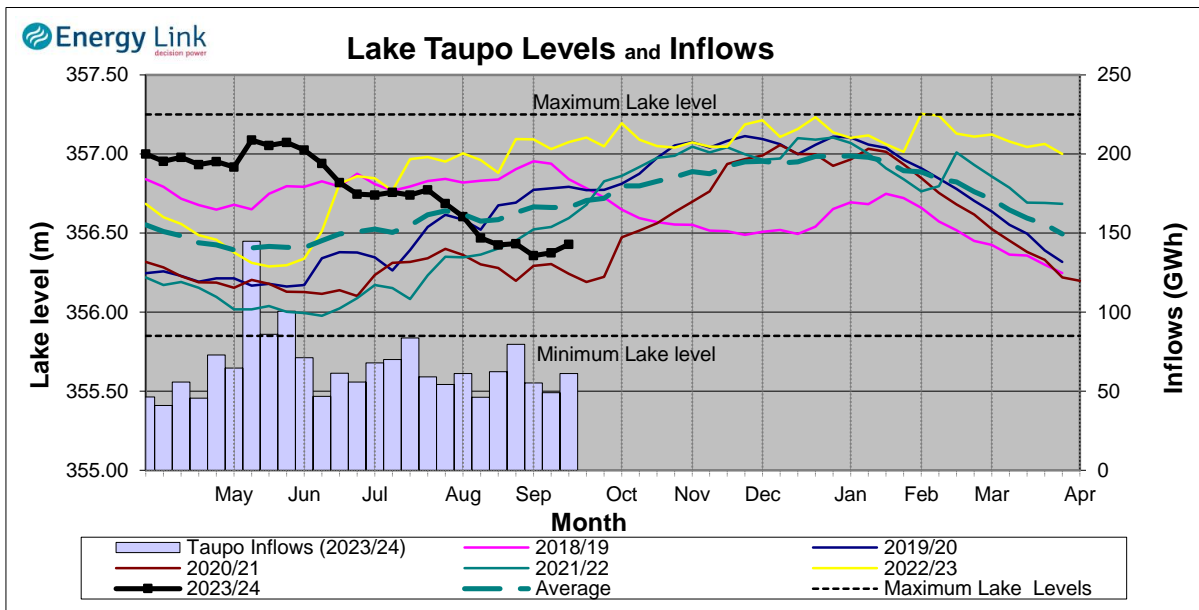
South Island Inflows - The past four weeks of S. I. inflows rank as the 28th driest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 17th driest on record.



Waikato System

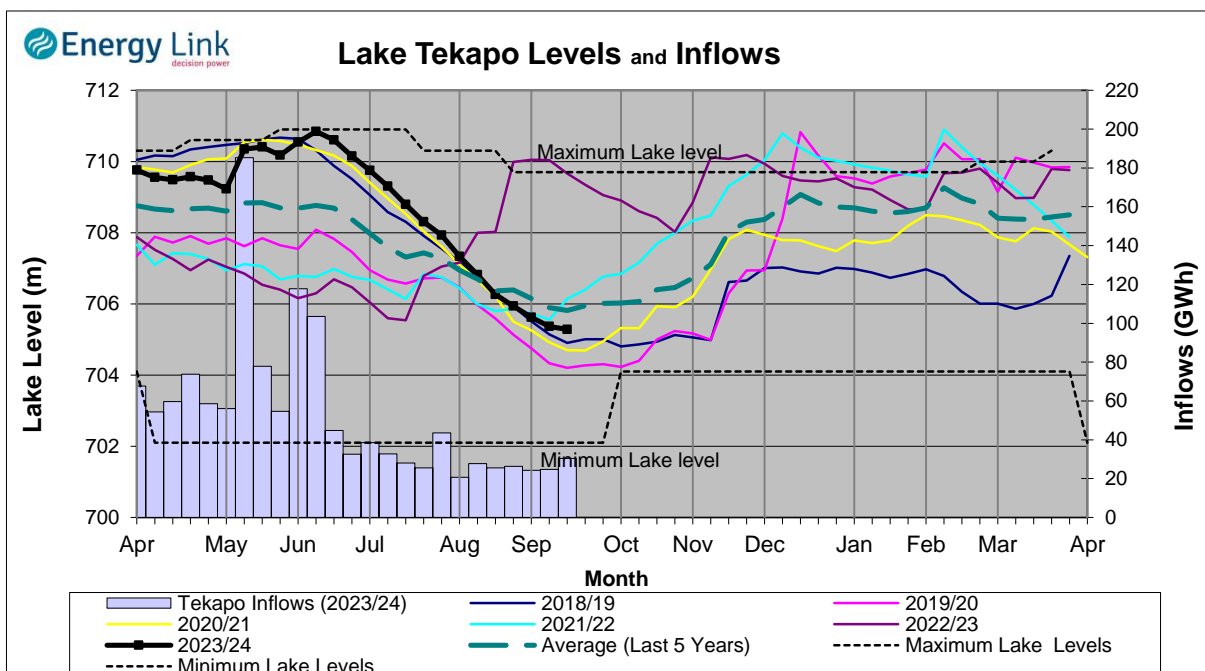


Lake Levels - Lake Taupo storage increased to 41.4% of nominal full at 237 GWh.

Inflows - Inflows increased 24.6% to 61 GWh.

Generation - Average generation decreased 5.6% to 335.2 MW.

Tekapo



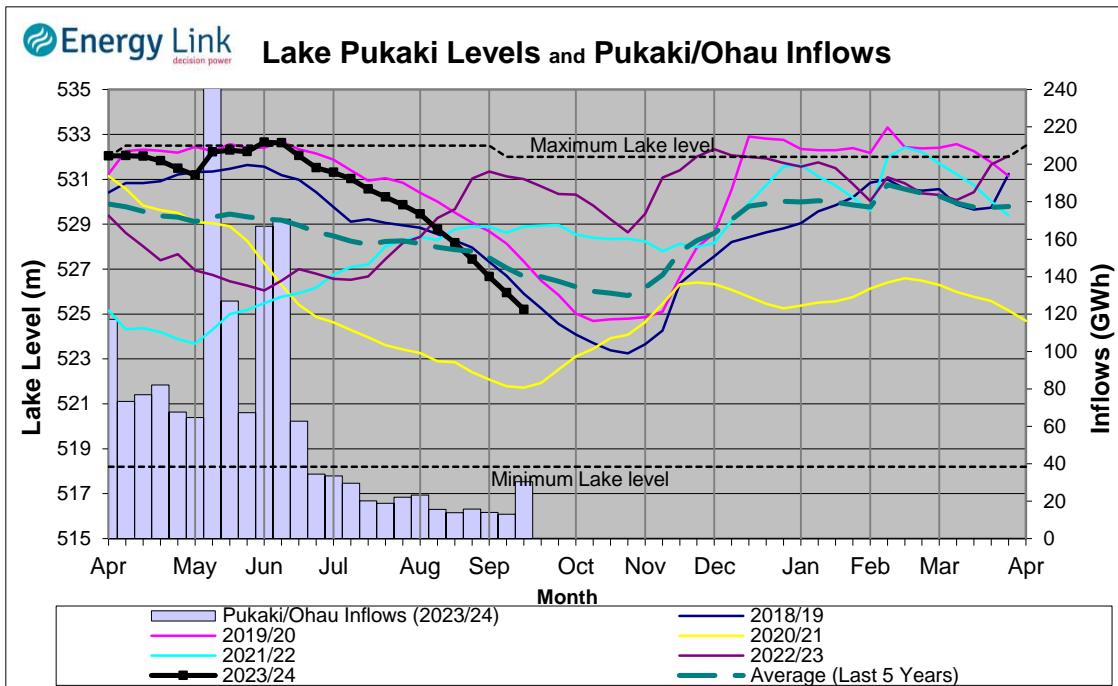
Lake Levels - Lake Tekapo ended the week 42% nominally full with storage falling to 305 GWh.

Inflows - Inflows into tekapo increased 23.2% to 30 GWh.

Generation - Average Tekapo generation decreased 24.1% to 77.3 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 49% nominally full with storage falling to 871 GWh.

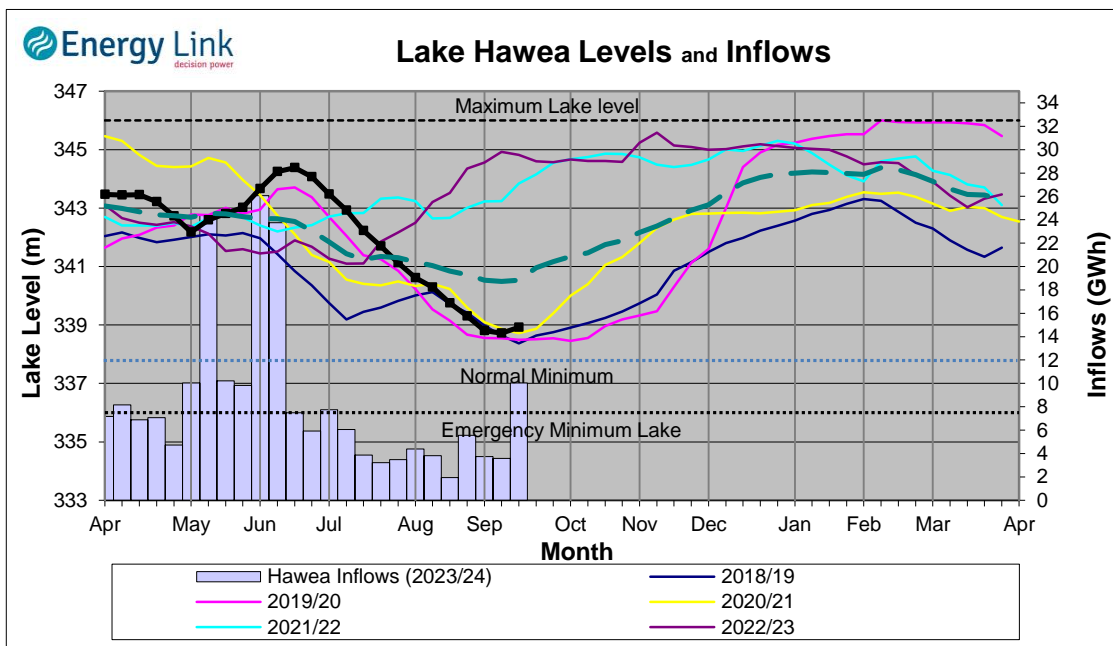
Inflows - Inflows into the Waitaki System increased 133.4% to 30 GWh.

Generation - Average Waitaki generation increased 2.9% to 975.4 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 15.2 cumecs while Waitaki River flows were lower than last week averaging 385.8 cumecs.

Clutha System



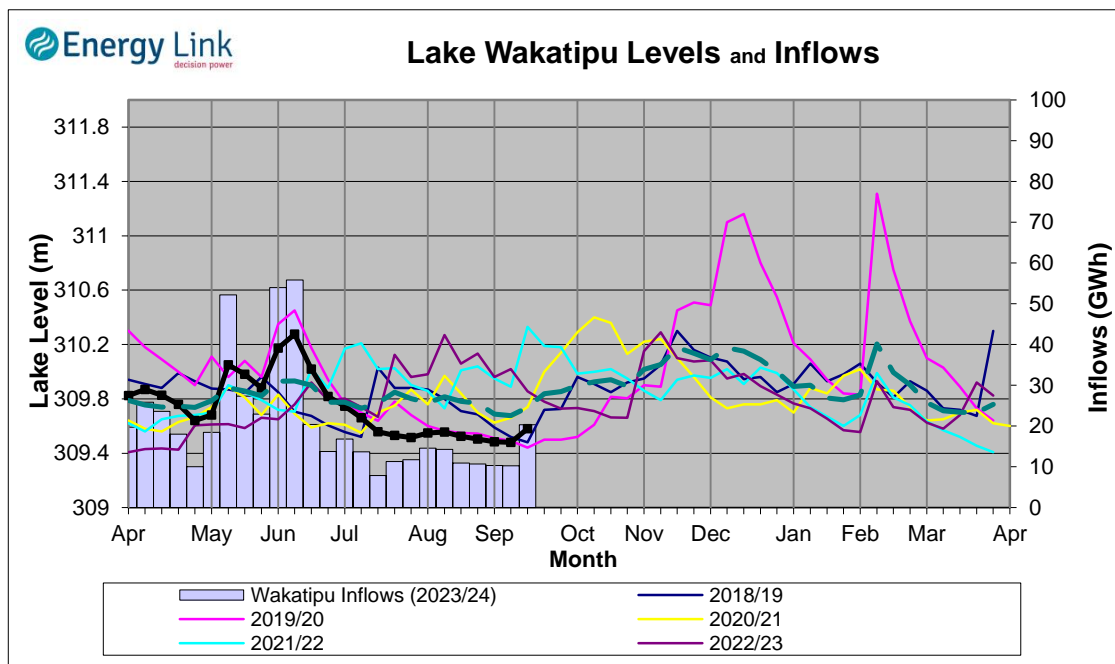
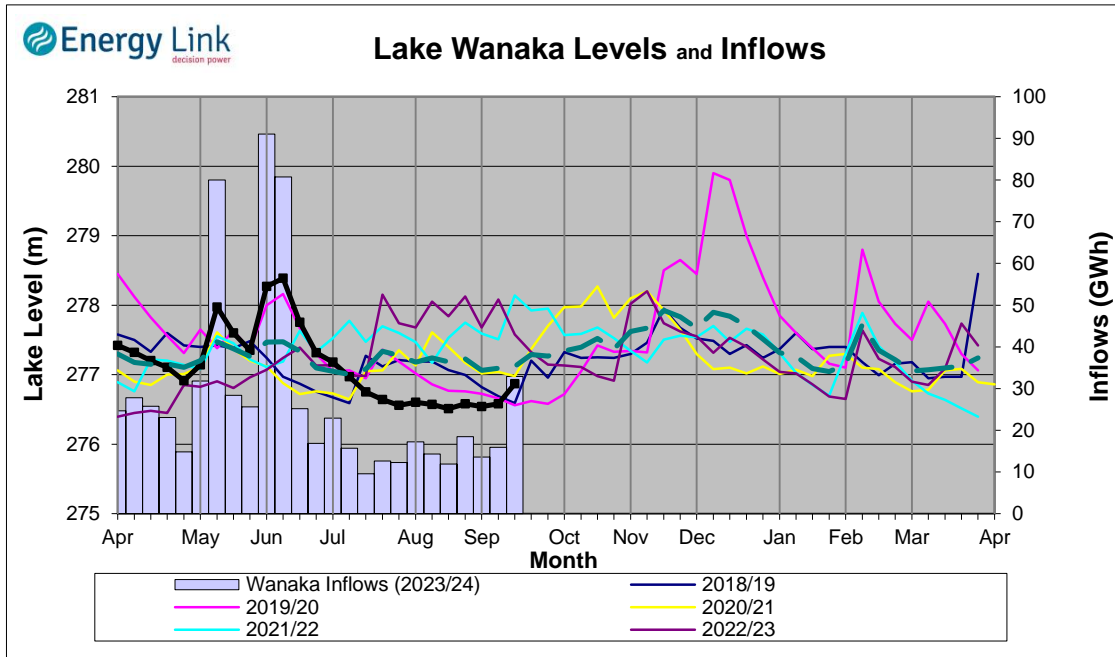
Lake Levels - Total storage for the Clutha System increased by 43.9% to 96 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 10.8%, 34.3% and 23.6% nominally full respectively.

Inflows - Total Inflows into the Clutha System 112.5% higher at 63 GWh.

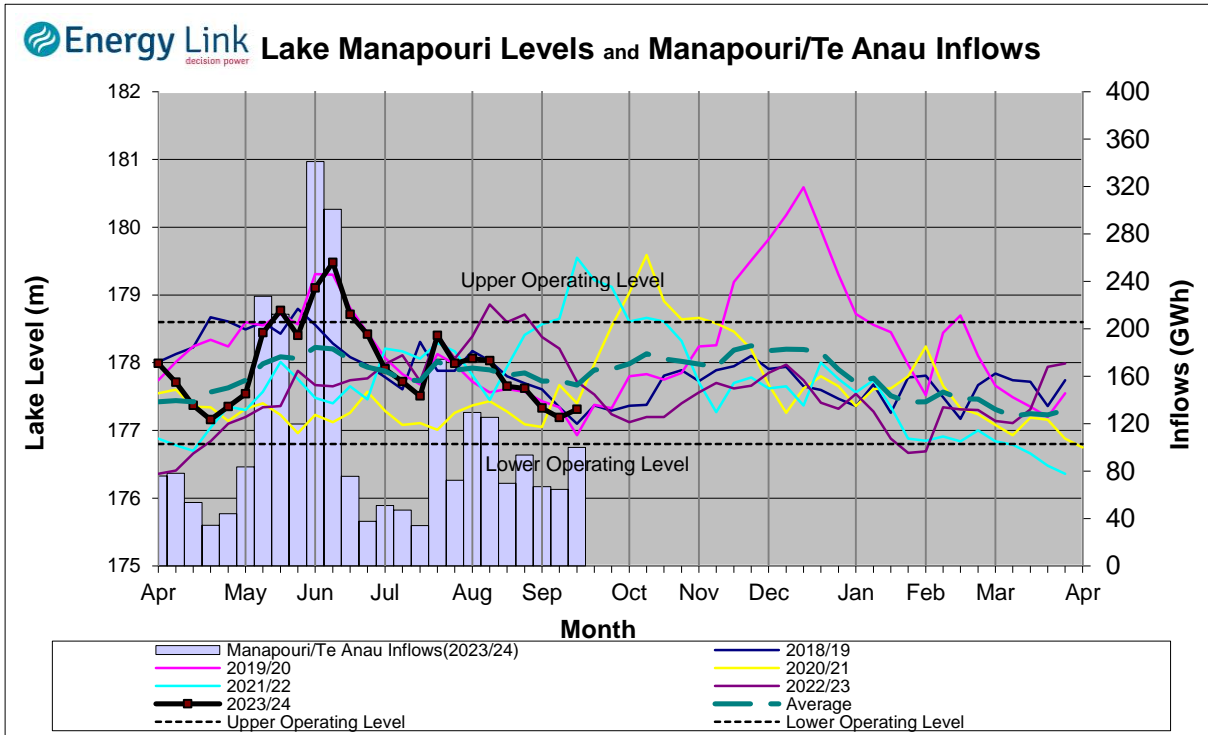
Generation - Average generation was 9.8% higher at 268 MW.

Hydro Spill - There was no estimated spill

River Flows - Total outflows from the lakes and Shotover River increased to 262.5 cumecs. This comprised of 18 cumecs from Lake Hawea, 119 cumecs from Lake Wanaka, 82 cumecs from Lake Wakatipu and 45 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 8.5% to 281 GWh with Lake Manapouri ending the week 52.6% nominally full and Lake Te Anau ending the week 71.2% nominally full.

Inflows - Total inflows into the Manapouri System increased 55% to 100 GWh.

Generation - Average generation was 11.2% lower at 464 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 12.7 cumecs.

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

