



Thursday, 28 September 2023

Issue: 1380

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)	1462	864	2326	329	2655
Storage Change (GWh)	175	229	404	78	482

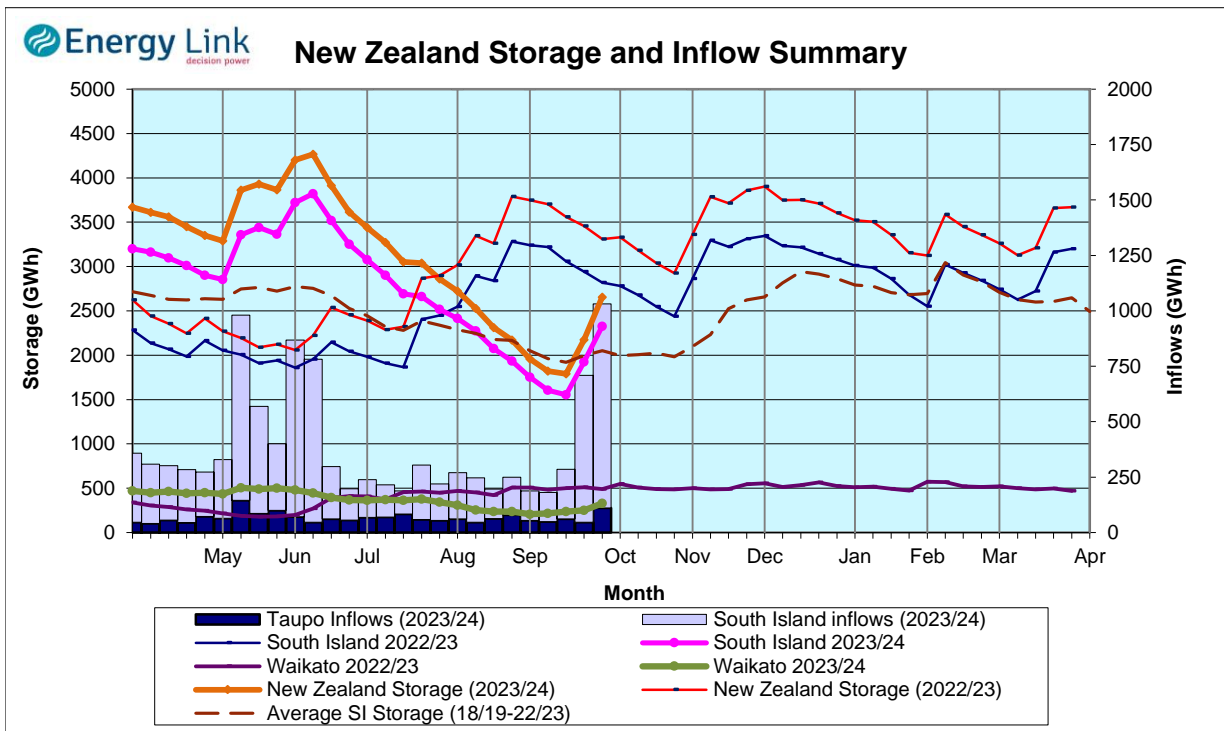
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2109	329	2438

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 481.9 GWh over the last week. South Island controlled storage increased 13.6% to 1462 GWh; South Island uncontrolled storage increased 36.1% to 864 GWh; with Taupo storage increasing 31% to 329 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	647	303	1376	329	2655
Last Week	506	177	1239	251	2173
% Change	27.8%	71.4%	11.1%	31.0%	22.2%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	396	261	263	111	1031
Last Week	329	133	199	47	709
% Change	20.2%	96.0%	32.0%	137.2%	45.5%

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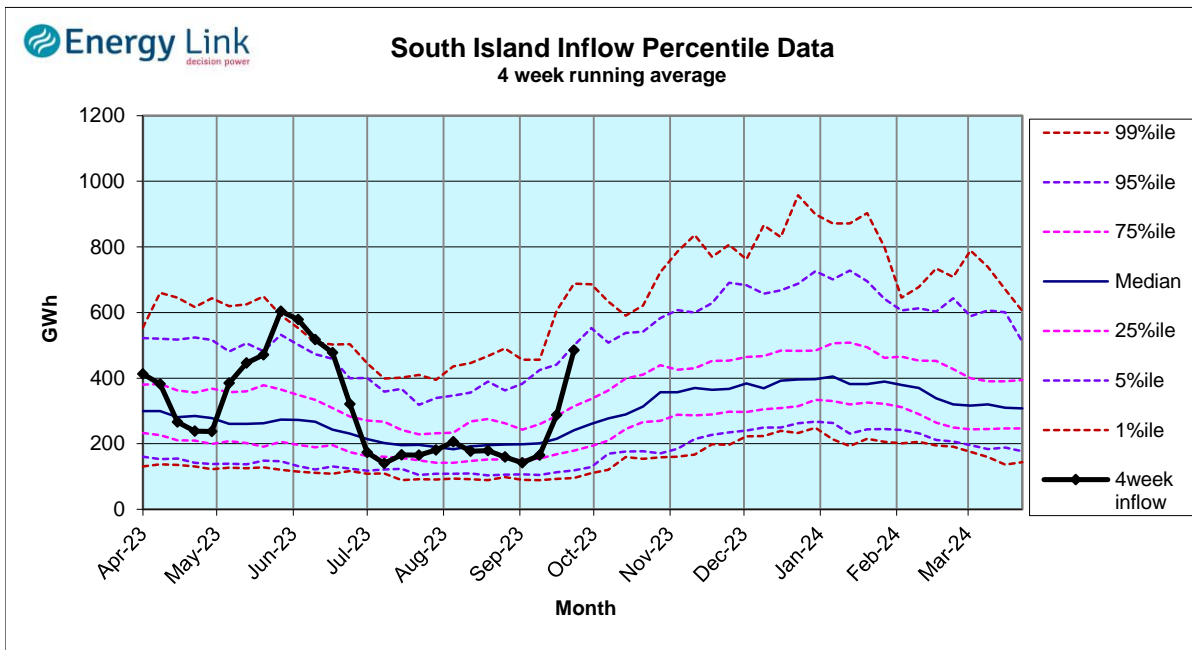
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	179.61	223	622	573
	Te Anau	203.69	423		
Clutha	Wakatipu	310.60	102	381	251
	Wanaka	278.40	115	474	
	Hawea	340.40	86	12	
Waitaki	Tekapo	706.20	397		286
	Pukaki	526.03	979		
Waikato	Taupo	356.66	329		-5

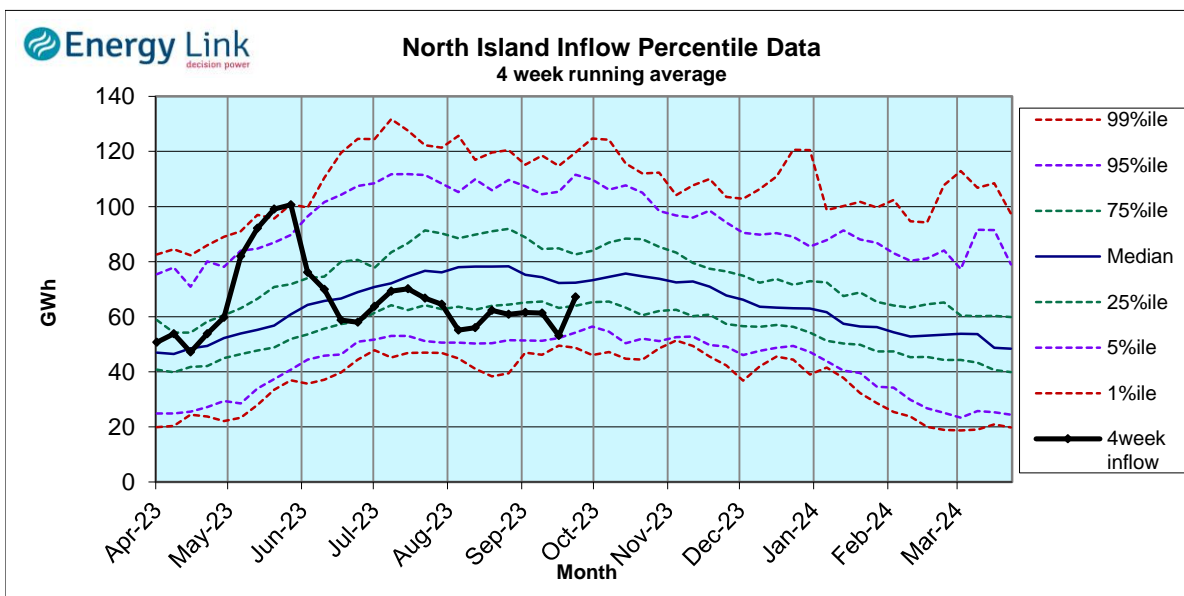
Inflow Summary

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.

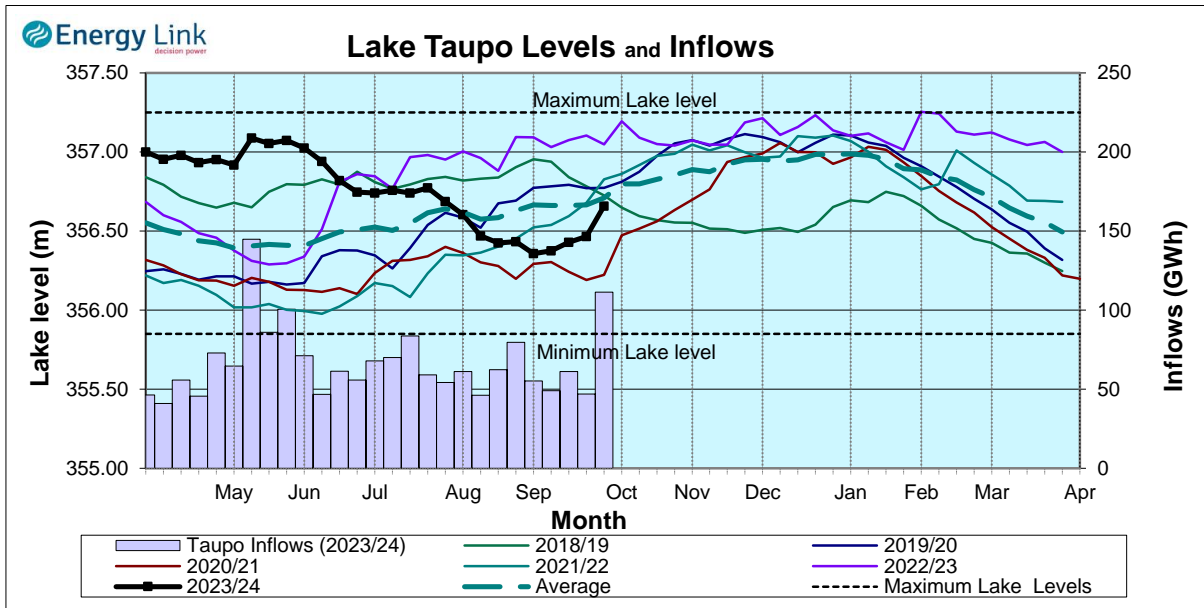
South Island Inflows - The past four weeks of S. I. inflows rank as the 7th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 29th driest on record.



Waikato System

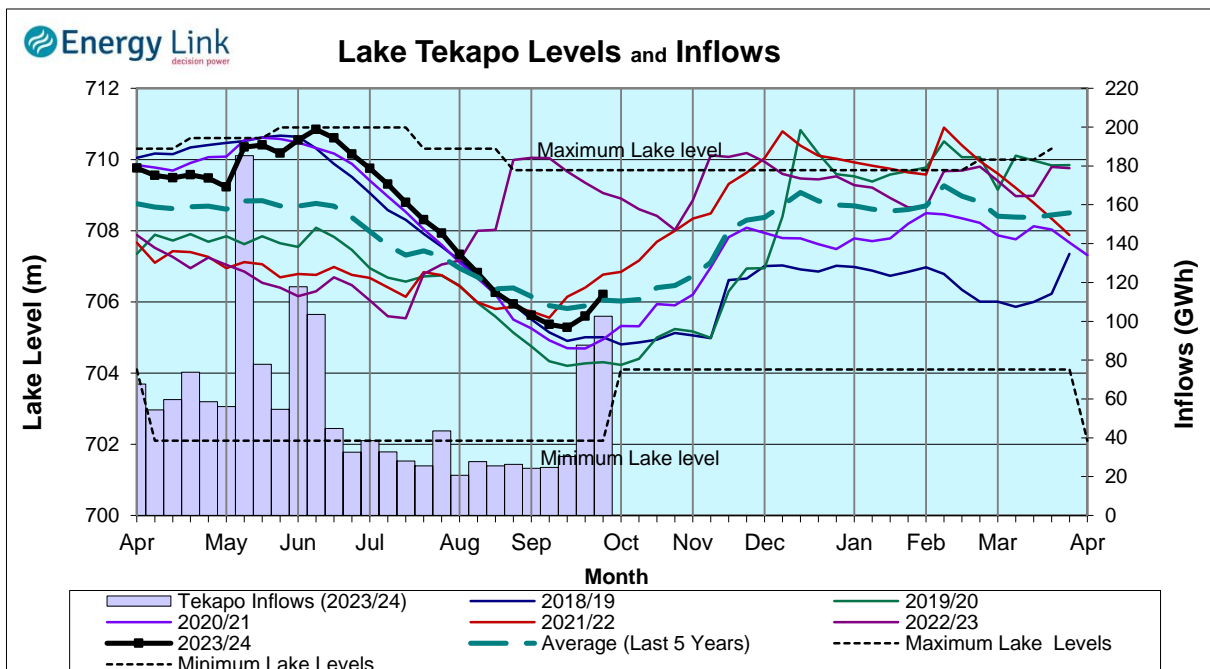


Lake Levels - Lake Taupo storage increased to 57.7% of nominal full at 329 GWh.

Inflows - Inflows increased 137.2% to 111 GWh.

Generation - Average generation increased 16.8% to 344 MW.

Tekapo



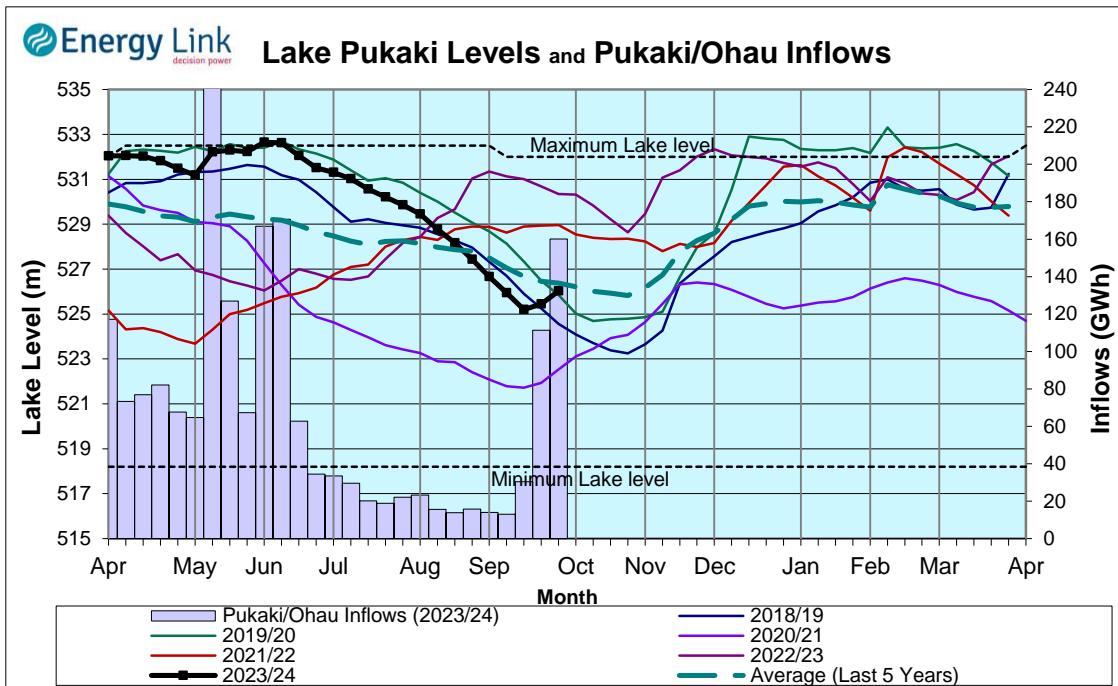
Lake Levels - Lake Tekapo ended the week 55% nominally full with storage increasing to 397 GWh.

Inflows - Inflows into tekapo increased 17.1% to 103 GWh.

Generation - Average Tekapo generation decreased 23.9% to 88.5 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 55% nominally full with storage increasing to 979 GWI

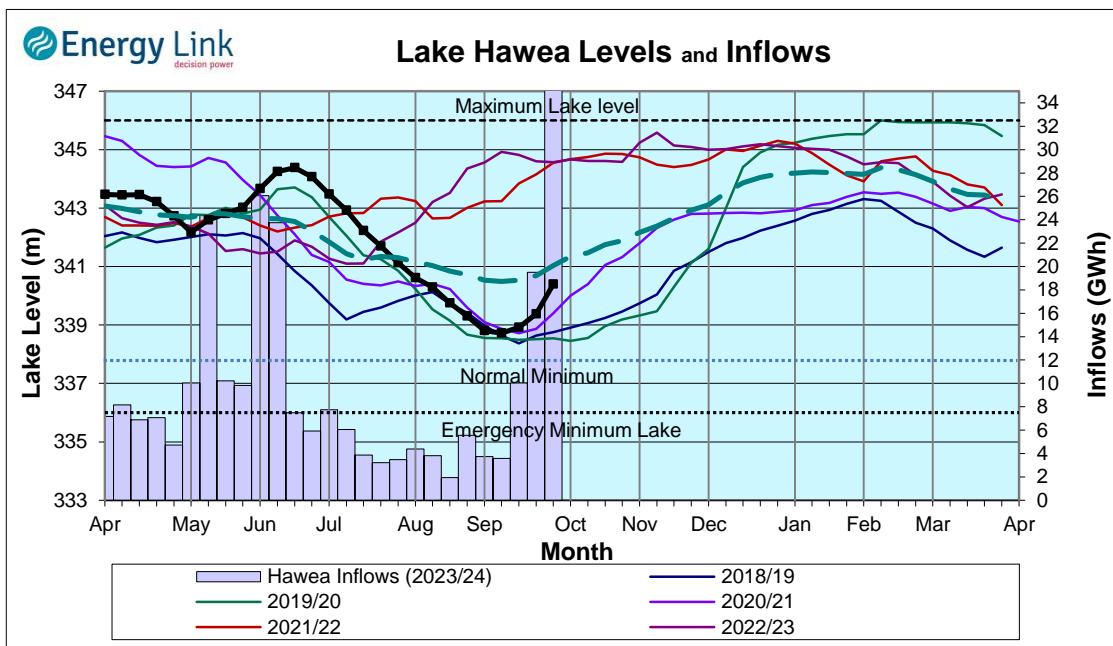
Inflows - Inflows into the Waitaki System increased 43.7% to 160 GWh.

Generation - Average Waitaki generation increased 17.7% to 906.3 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 107 cumecs while Waitaki River flows were higher than last week averaging 467.6 cumecs.

Clutha System



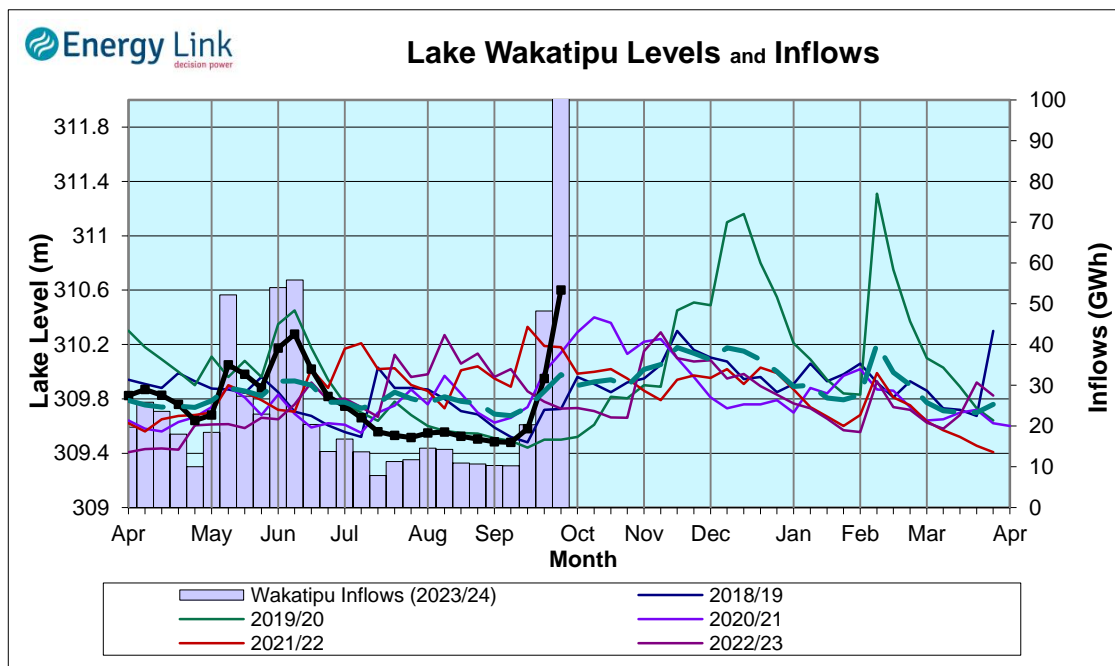
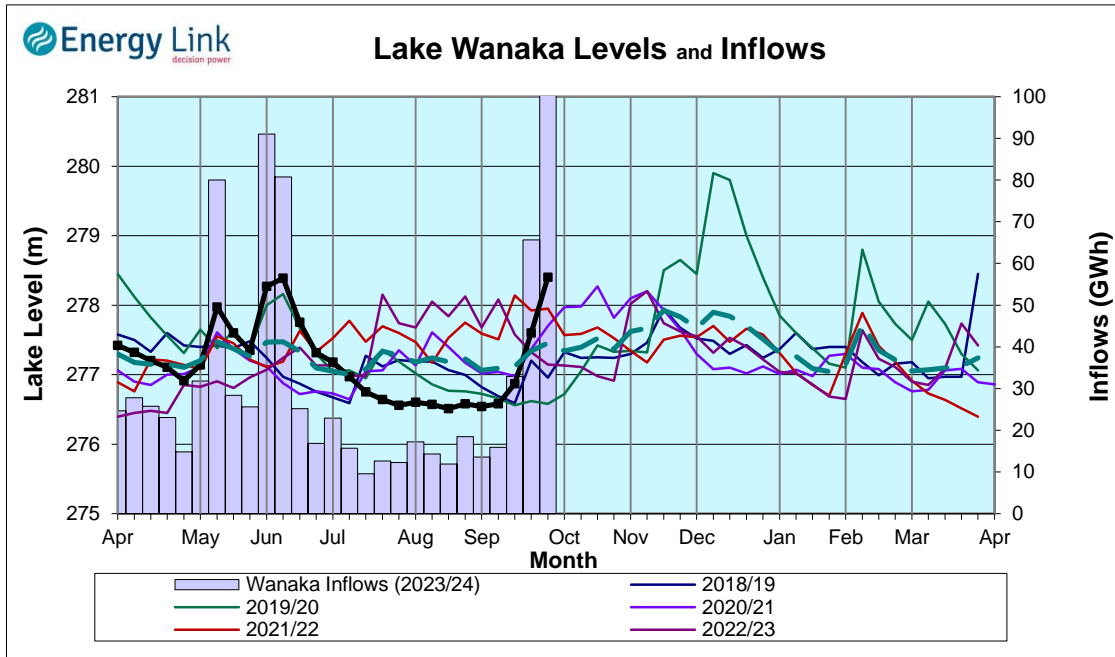
Lake Levels - Total storage for the Clutha System increased by 71.4% to 303 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 29.1%, 100.8% and 96.4% nominally full respectively.

Inflows - Total Inflows into the Clutha System 96% higher at 261 GWh.

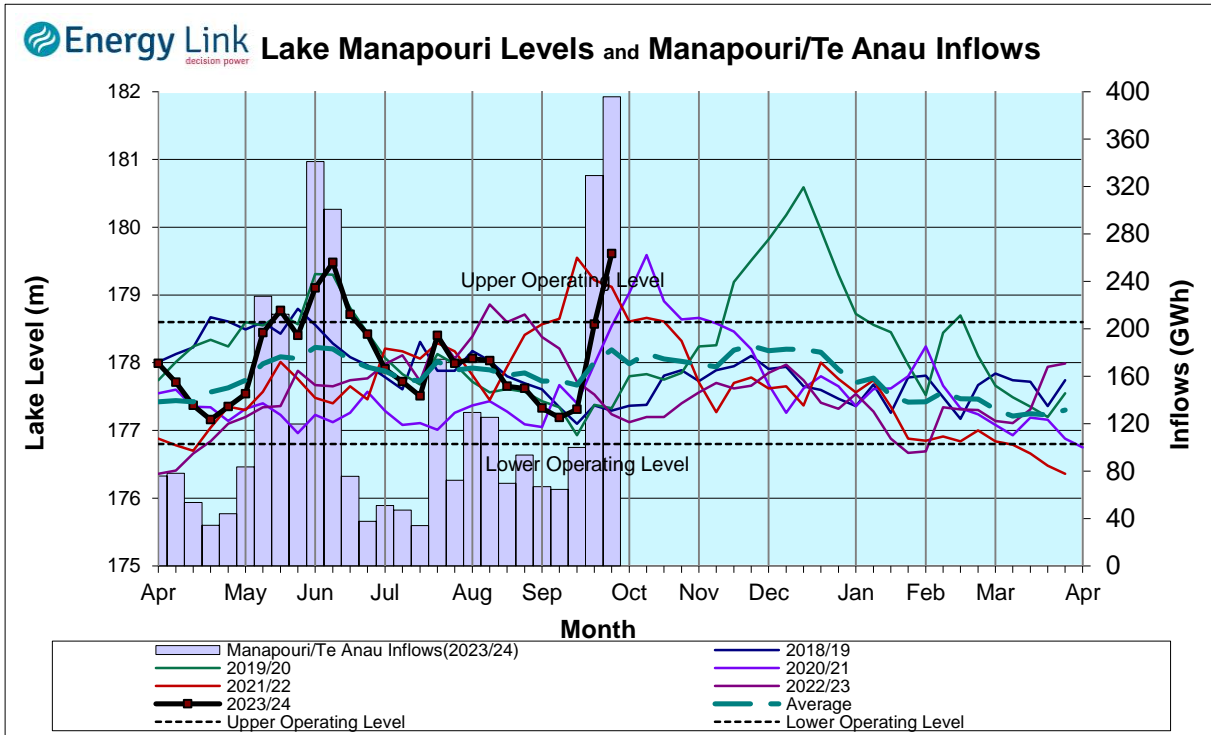
Generation - Average generation was 38.3% higher at 560 MW.

Hydro Spill - Estimate Spill is 498.1 cumecs.

River Flows - Total outflows from the lakes and Shotover River increased to 1108.1 cumecs. This comprised of 12 cumecs from Lake Hawea, 474 cumecs from Lake Wanaka, 381 cumecs from Lake Wakatipu and 241 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 27.8% to 647 GWh with Lake Manapouri ending the week 137.5% nominally full and Lake Te Anau ending the week 153.8% nominally full.

Inflows - Total inflows into the Manapouri System increased 20.2% to 396 GWh.

Generation - Average generation was 3.6% higher at 585 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 622.4 cumecs.

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

