


Thursday, 05 October 2023
Issue: 1381
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)	1476	741	2218	367	2585
Storage Change (GWh)	14	-123	-108	38	-70

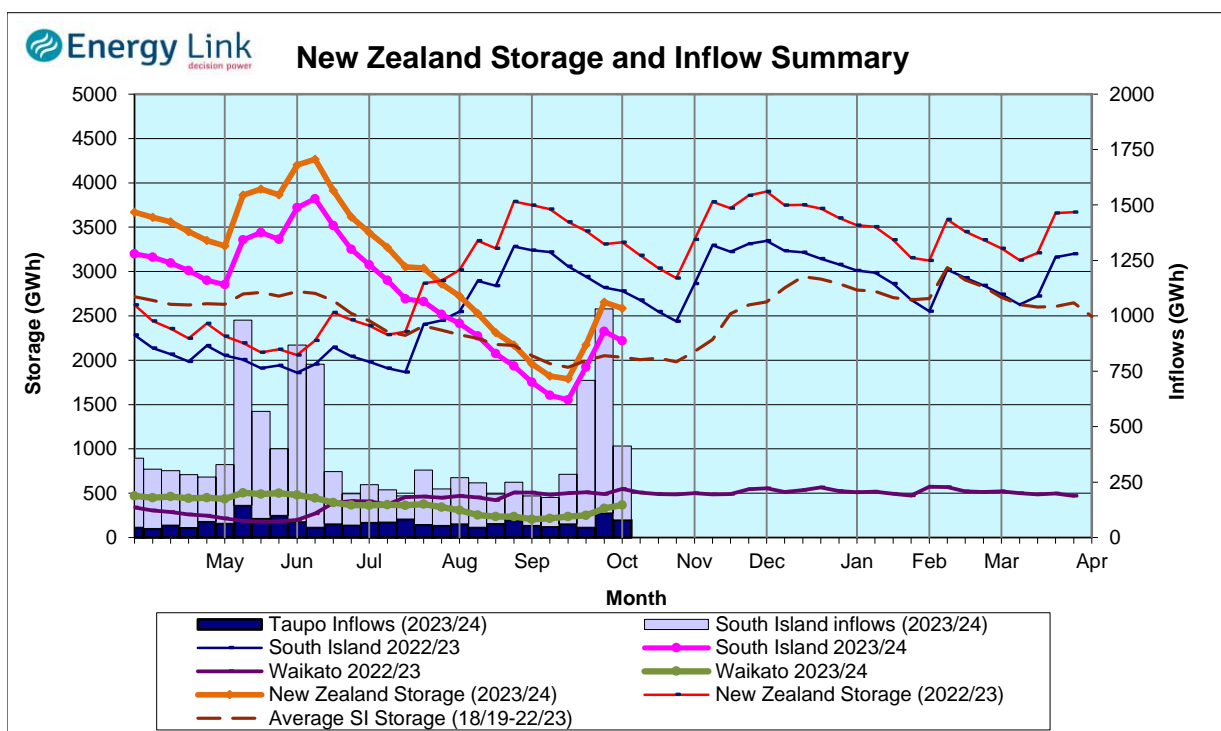
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2041	367	2408

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 70.5 GWh over the last week. South Island controlled storage increased 1% to 1476 GWh; South Island uncontrolled storage decreased 14.2% to 741 GWh; with Taupo storage increasing 11.5% to 367 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	564	276	1378	367	2585
Last Week	647	303	1376	329	2655
% Change	-12.7%	-9.2%	0.1%	11.5%	-2.7%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	150	85	98	80	413
Last Week	396	261	263	111	1031
% Change	-62.2%	-67.4%	-62.5%	-28.5%	-60.0%

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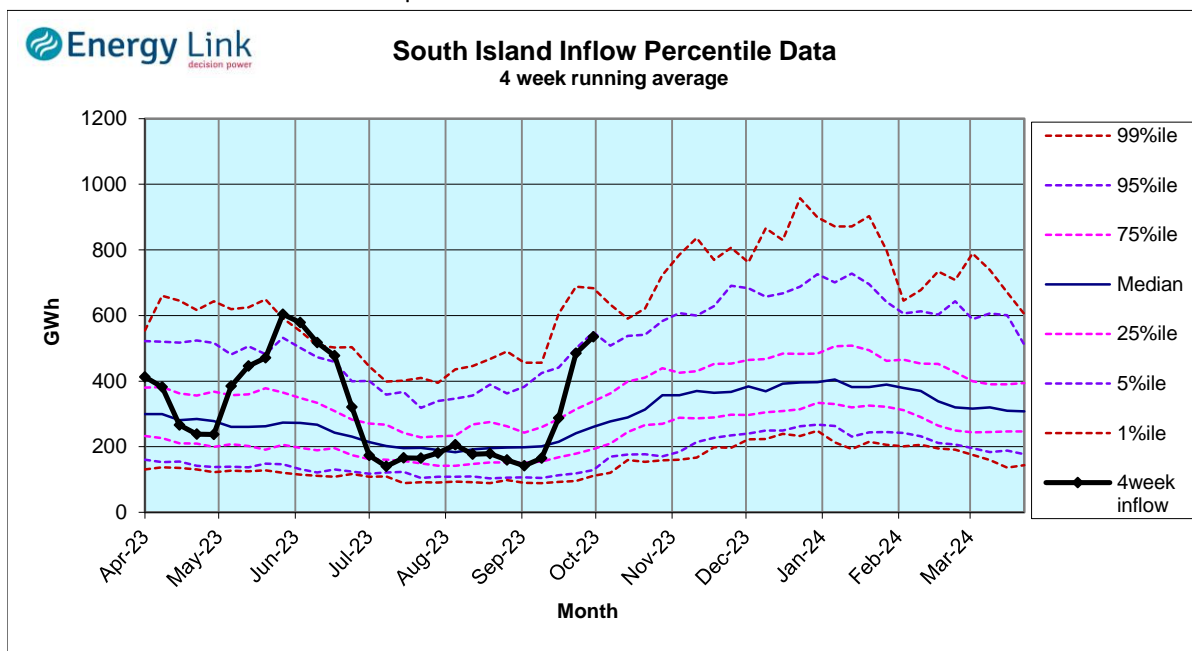
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	179.36	208	531	-92
	Te Anau	203.24	356		
Clutha	Wakatipu	310.33	82	341	-40
	Wanaka	278.00	95	373	-101
	Hawea	340.74	99	11	-1
Waitaki	Tekapo	706.00	377		
	Pukaki	526.20	1001		
Waikato	Taupo	356.75	367		

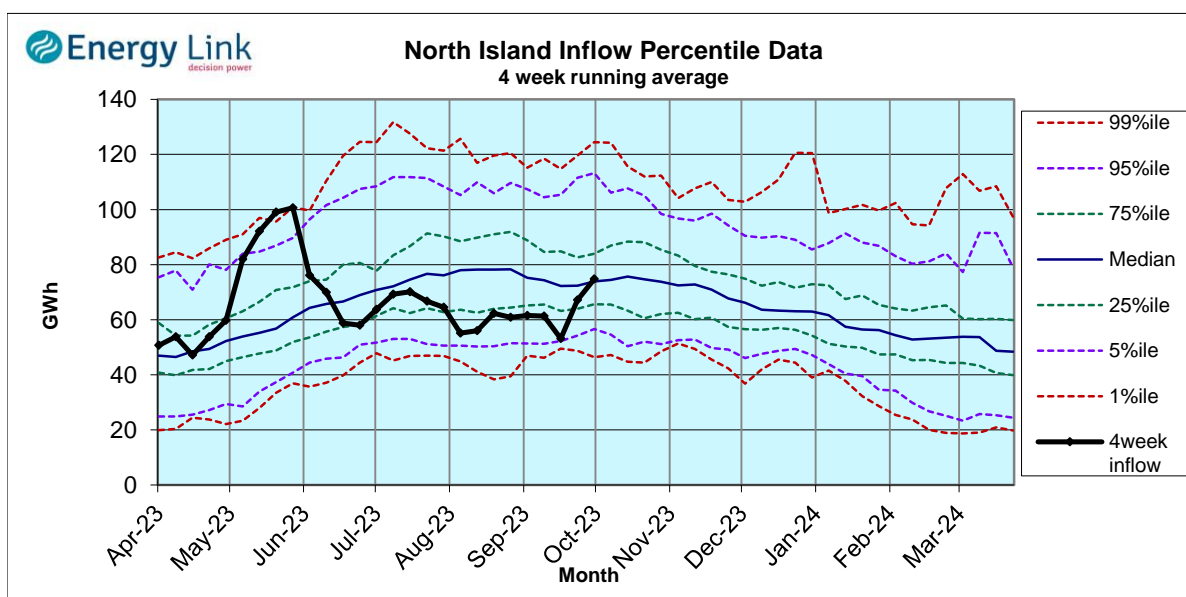
Inflow Summary

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.

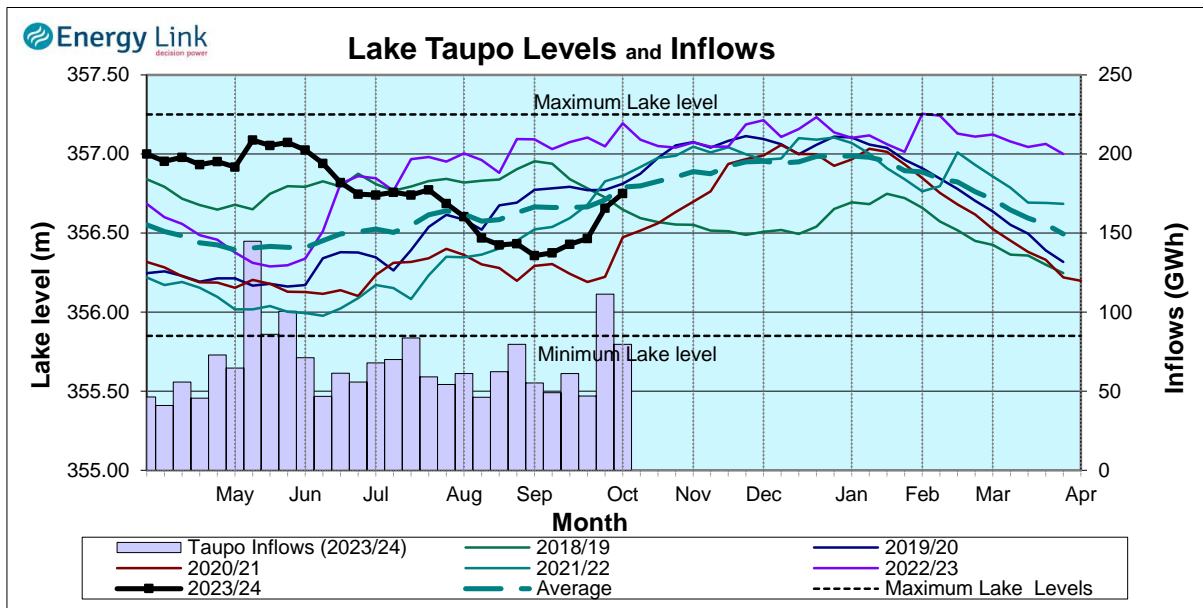
South Island Inflows - The past four weeks of S. I. inflows rank as the 7th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 44th wettest on record.



Waikato System

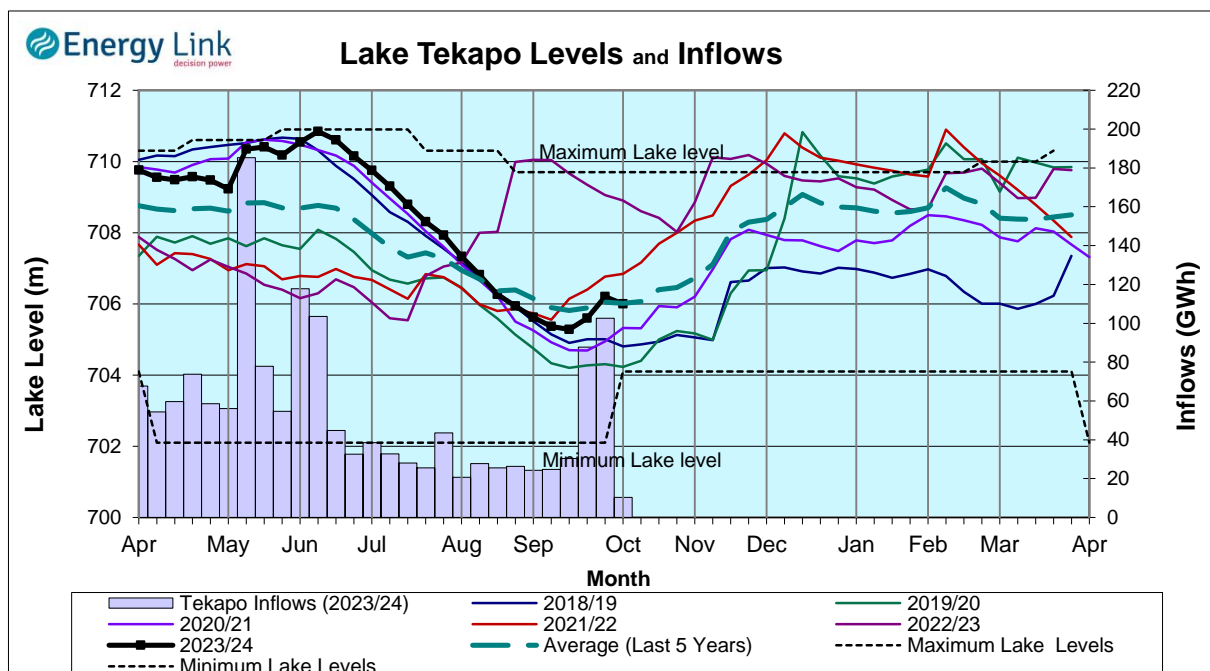


Lake Levels - Lake Taupo storage increased to 64.3% of nominal full at 367 GWh.

Inflows - Inflows decreased 28.5% to 80 GWh.

Generation - Average generation increased 10% to 378.4 MW.

Tekapo



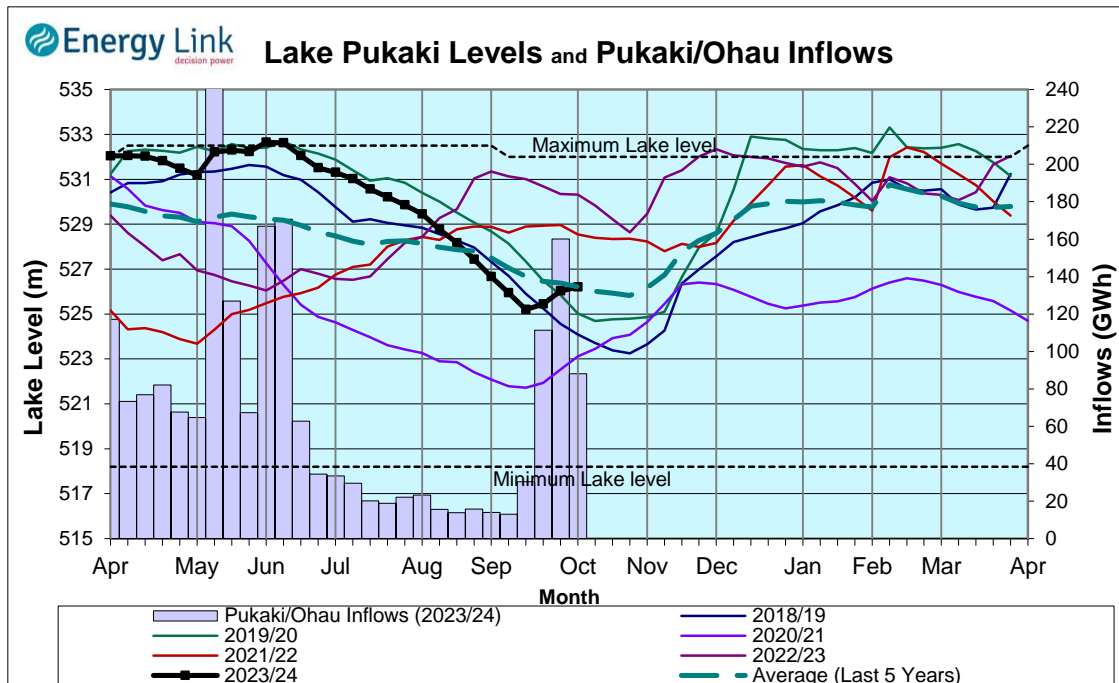
Lake Levels - Lake Tekapo ended the week 52% nominally full with storage falling to 377 GWh.

Inflows - Inflows into tekapo decreased 89.9% to 10 GWh.

Generation - Average Tekapo generation decreased 26.8% to 64.7 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 56% nominally full with storage increasing to 1001 GV

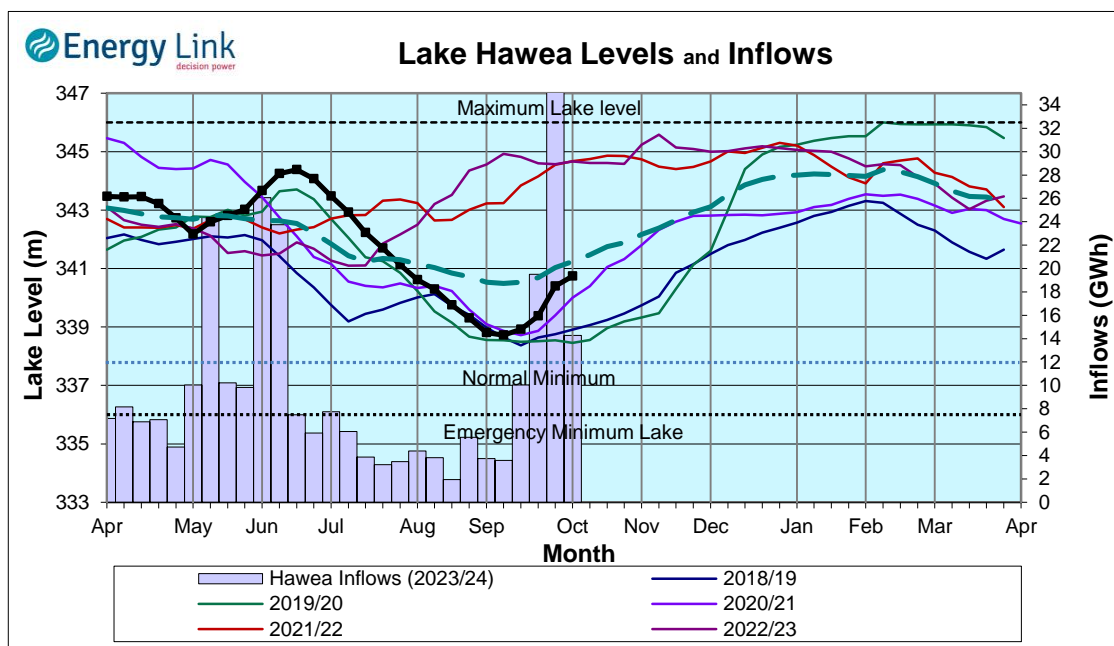
Inflows - Inflows into the Waitaki System decreased 44.9% to 88 GWh.

Generation - Average Waitaki generation decreased 24% to 688.5 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River fell to 42.6 cumecs while Waitaki River flows were lower than last week averaging 335.6 cumecs.

Clutha System



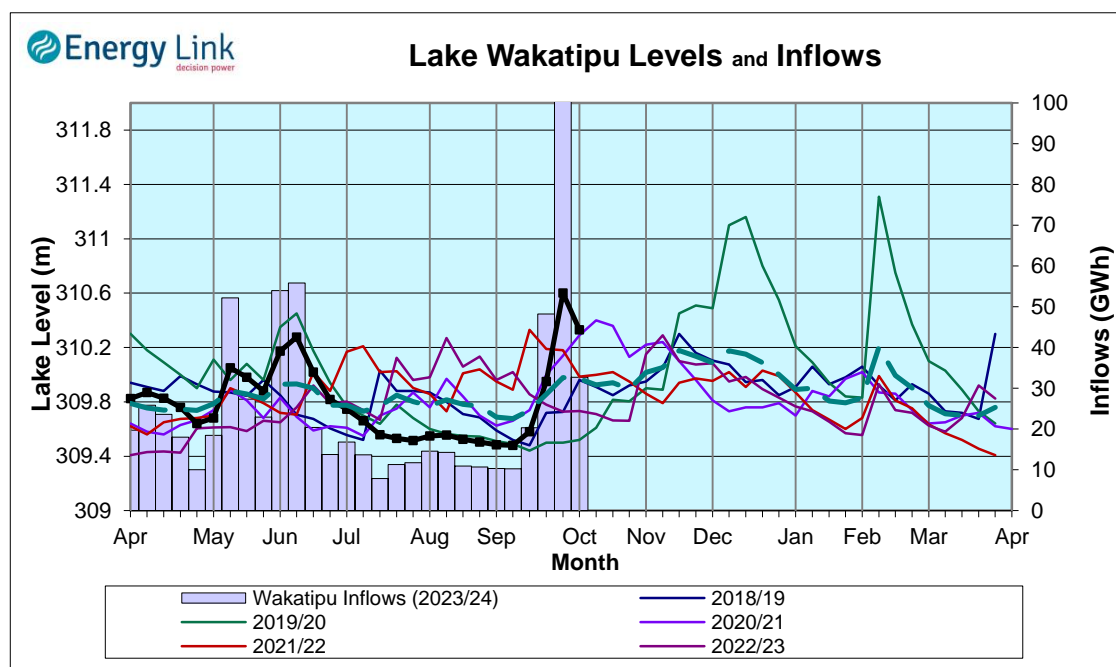
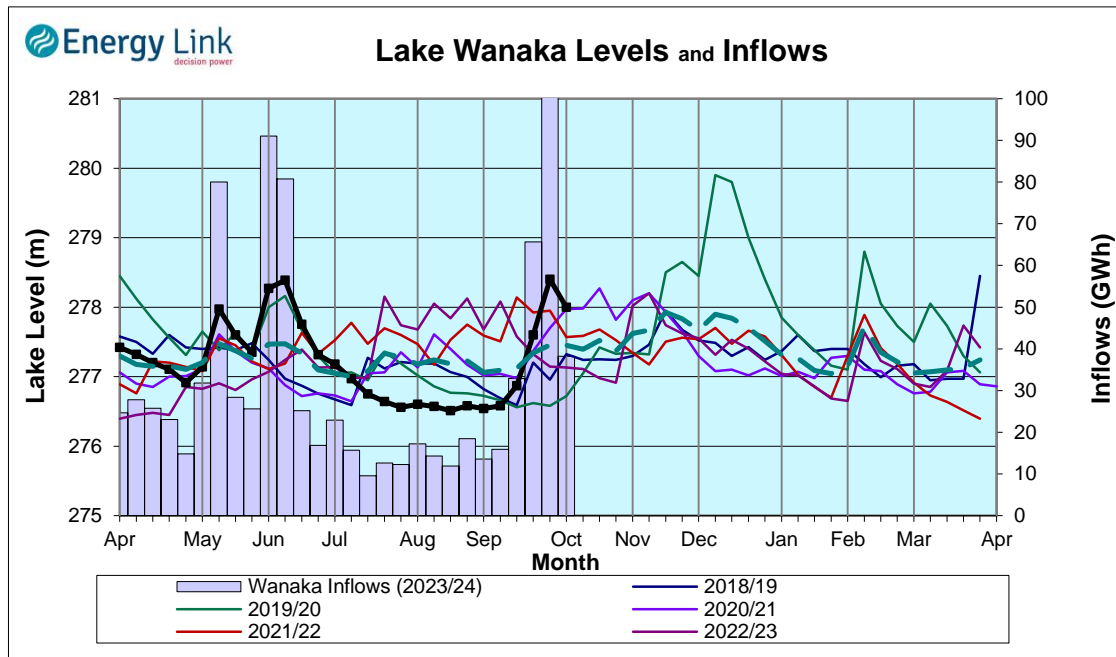
Lake Levels - Total storage for the Clutha System decreased 9.2% to 276 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 33.3%, 83.4% and 77.1% nominally full respectively.

Inflows - Total Inflows into the Clutha System 67.4% lower at 85 GWh.

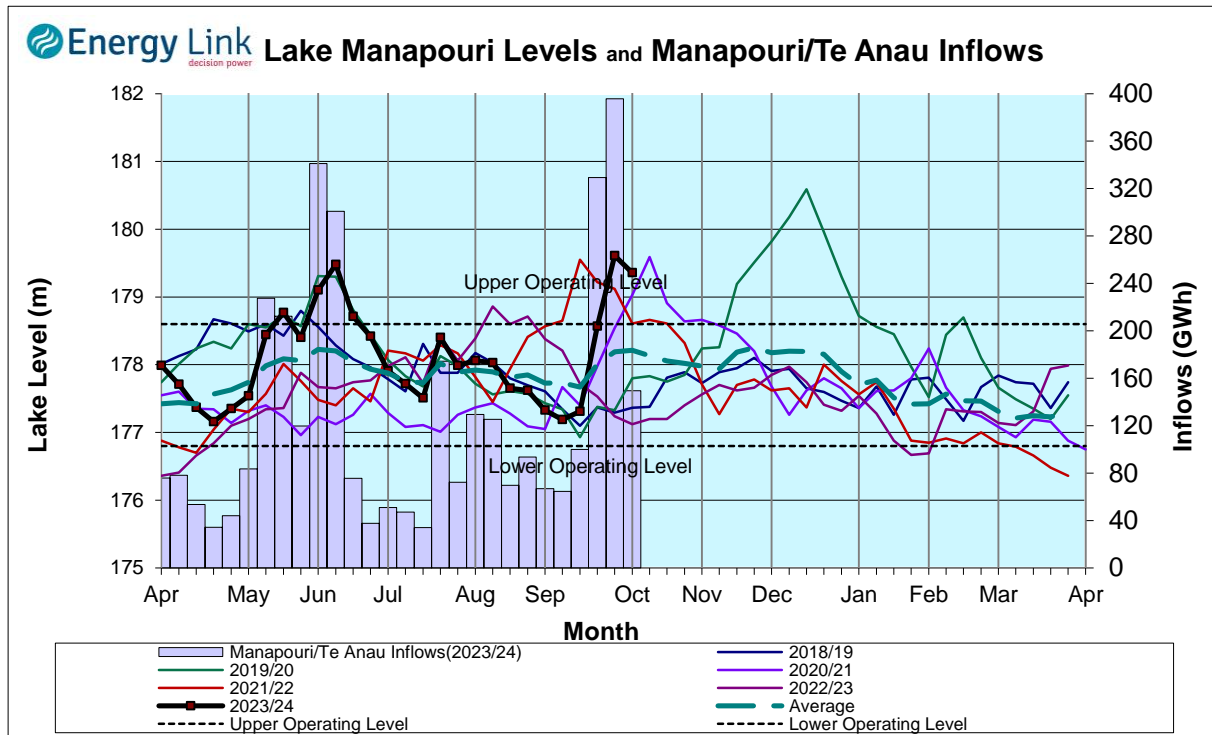
Generation - Average generation was 13.1% higher at 634 MW.

Hydro Spill - Estimate Spill is 153.7 cumecs.

River Flows - Total outflows from the lakes and Shotover River fell to 837.2 cumecs. This comprised of 11 cumecs from Lake Hawea, 373 cumecs from Lake Wanaka, 341 cumecs from Lake Wakatipu and 112 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System decreased 12.7% to 564 GWh with Lake Manapouri ending the week 128.2% nominally full and Lake Te Anau ending the week 129.3% nominally full.

Inflows - Total inflows into the Manapouri System decreased 62.2% to 150 GWh.

Generation - Average generation was 0.9% higher at 590 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 530.8 cumecs.

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

