HydroWatch

Thursday, 10 August 2023 Issue: 1373

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)	**1884**	**390**	**2273**	**253**		**2526**
Storage Change (GWh)	-155	14	-142	-55		-196

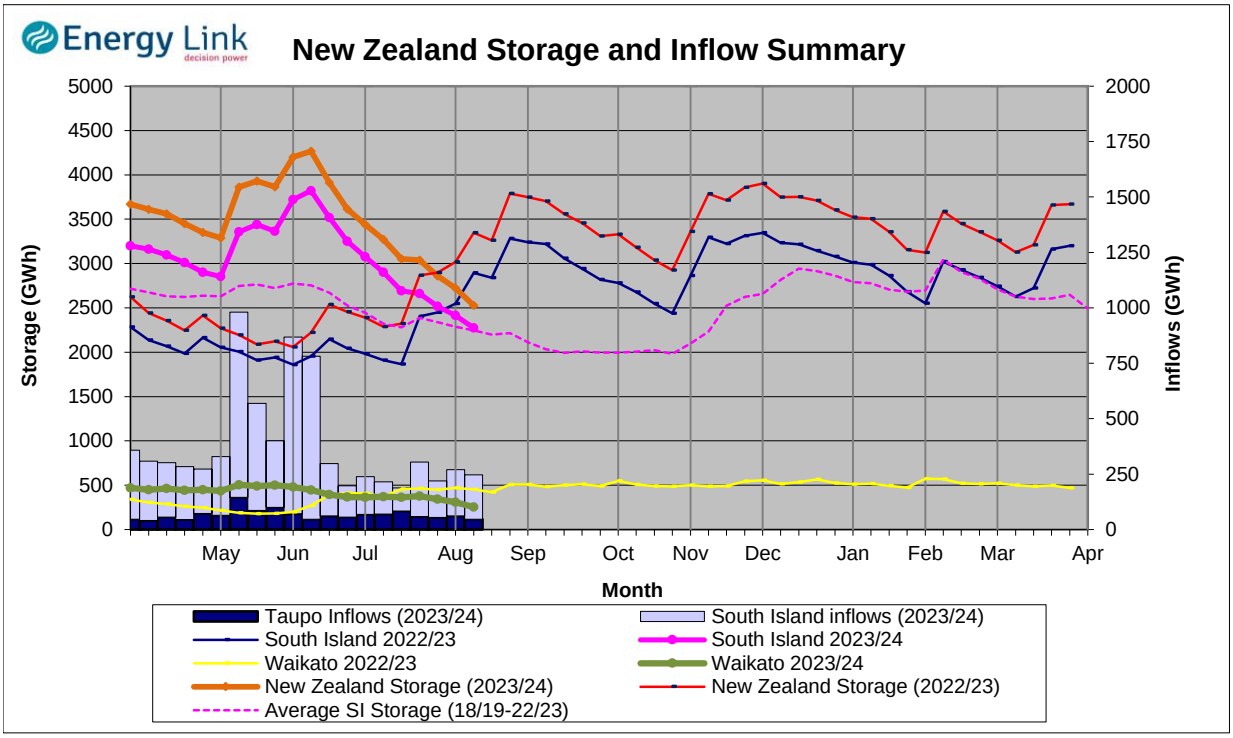
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island		New Zealand
Current Storage (GWh)	**2226**	**253**		**2479**

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 196.3 GWh over the last week. South Island controlled storage decreased 7.6% to 1884 GWh; South Island uncontrolled storage increased 3.6% to 390 GWh; with Taupo storage decreasing 17.8% to 253 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato		NZ
This Week	**342**	**129**	**1802**	**253**		**2526**
Last Week	328	142	1945	308		2723
% Change	4.5%	-9.1%	-7.4%	-17.8%		-7.2%
Inflow (GWh)						
This Week	**125**	**32**	**43**	**46**		**247**
Last Week	130	36	44	61		271
% Change	-3.2%	-10.4%	-1.2%	-24.5%		-8.7%

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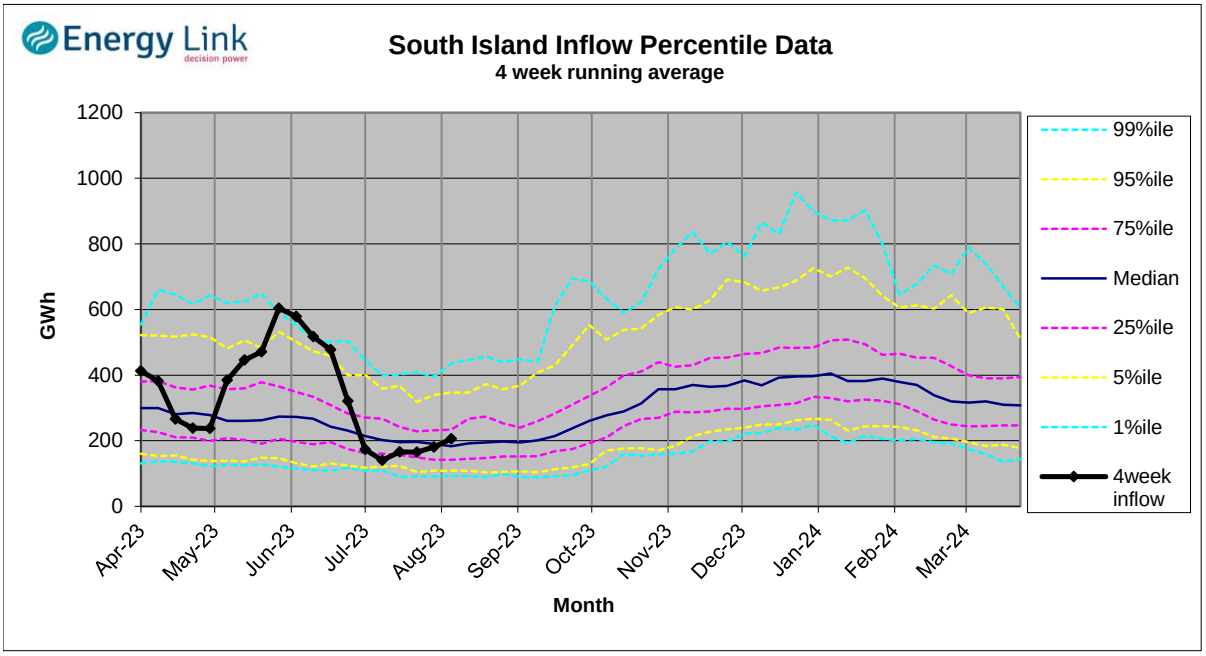
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	178.03	128	52	28
	Te Anau	202.29	214		
Clutha	Wakatipu	309.56	23	89	13
	Wanaka	276.57	24	101	4
	Hawea	340.29	82	100	-51
Waitaki	Tekapo	706.82	460		
	Pukaki	528.78	1341		
Waikato	Taupo	356.47	253		

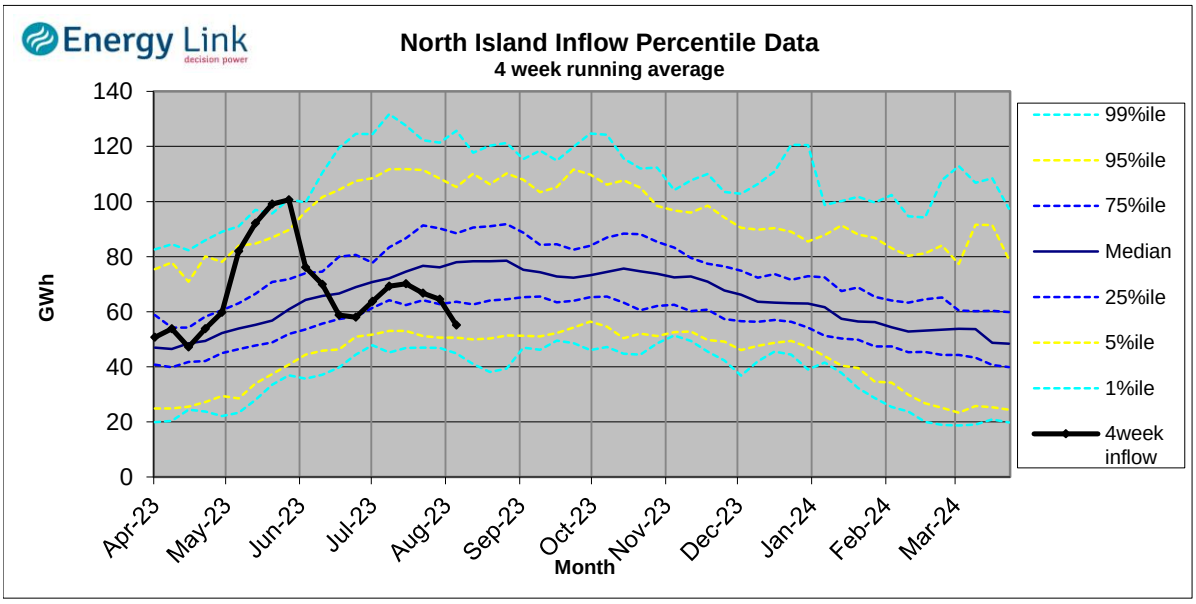
Inflow Summary

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.

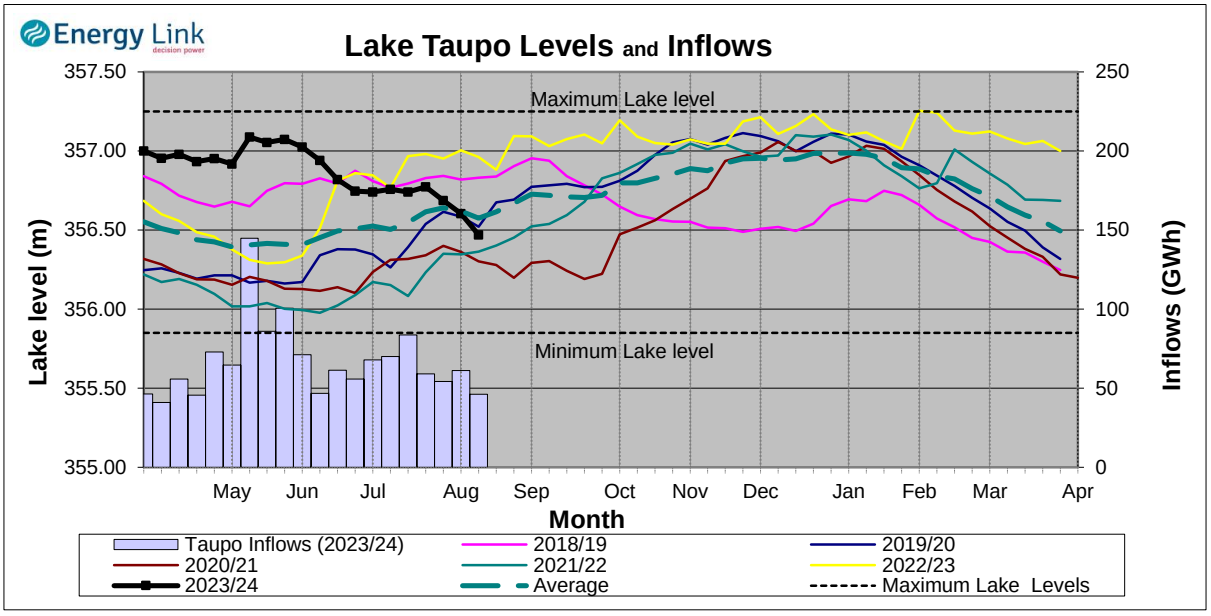
South Island Inflows - The past four weeks of S. I. inflows rank as the 34th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 11th driest on record.



Waikato System

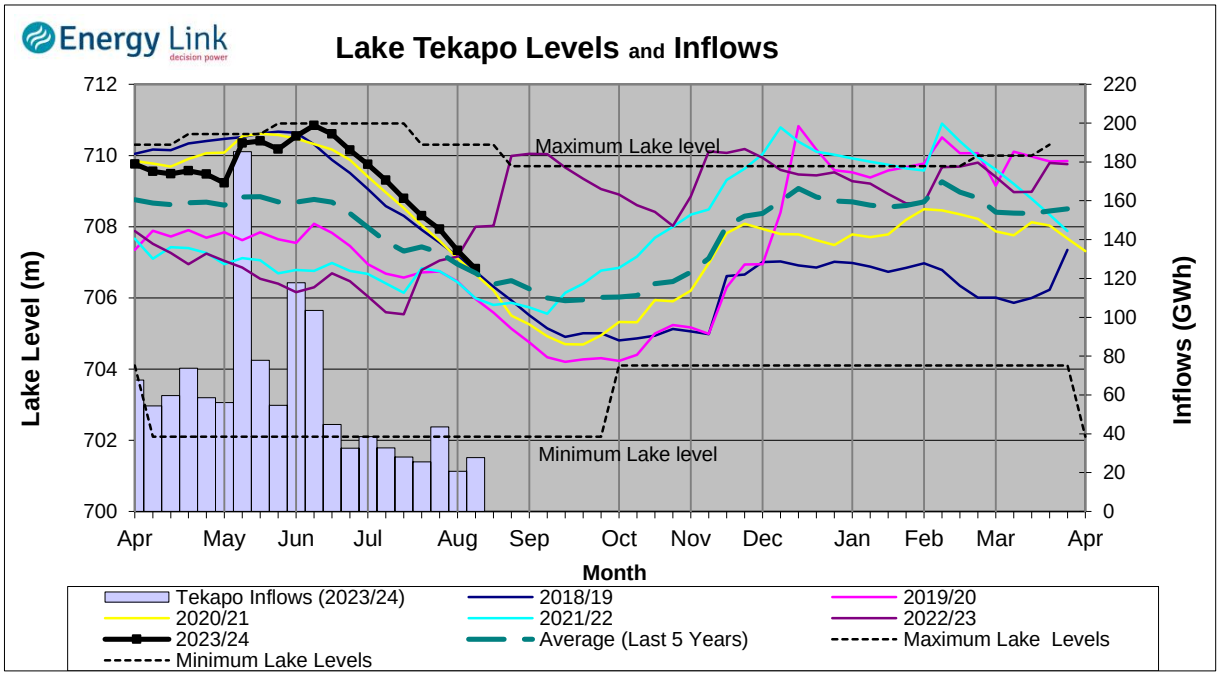


Lake Levels - Lake Taupo storage fell to 44.3% of nominal full at 253 GWh.

Inflows - Inflows decreased 24.5% to 46 GWh.

Generation - Average generation increased 7.6% to 605.6 MW.

Tekapo



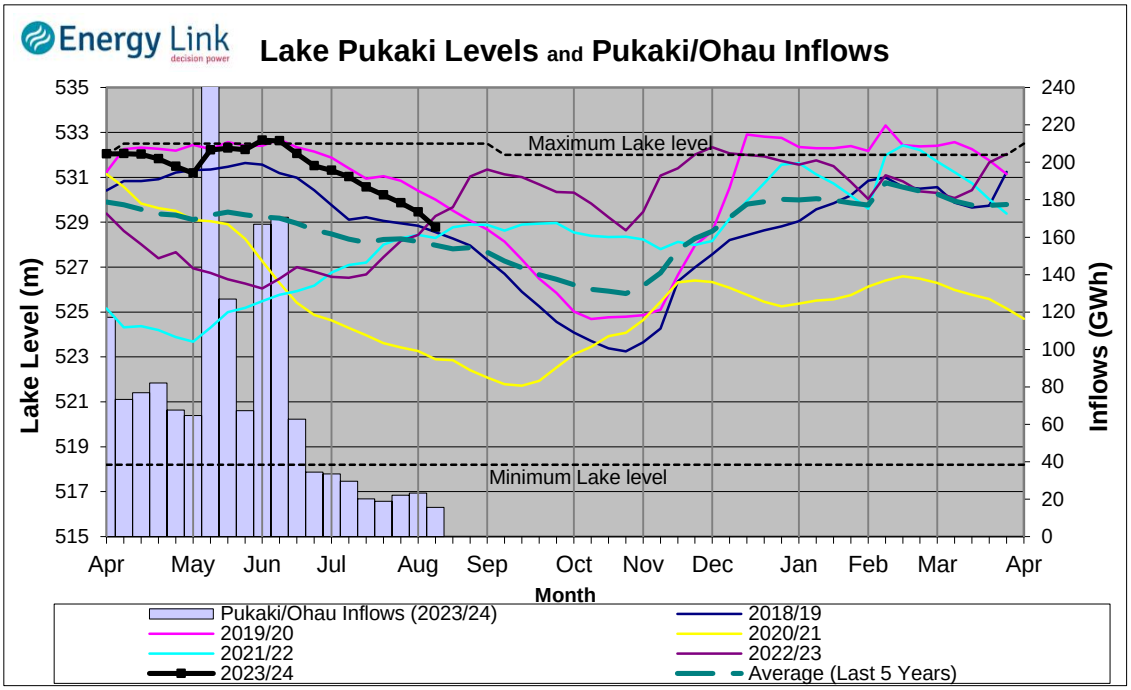
Lake Levels - Lake Tekapo ended the week 58% nominally full with storage falling to 460 GWh.

Inflows - Inflows into tekapo increased 34.5% to 28 GWh.

Generation - Average Tekapo generation decreased 3.2% to 170.7 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 73% nominally full with storage falling to 1341 GWh.

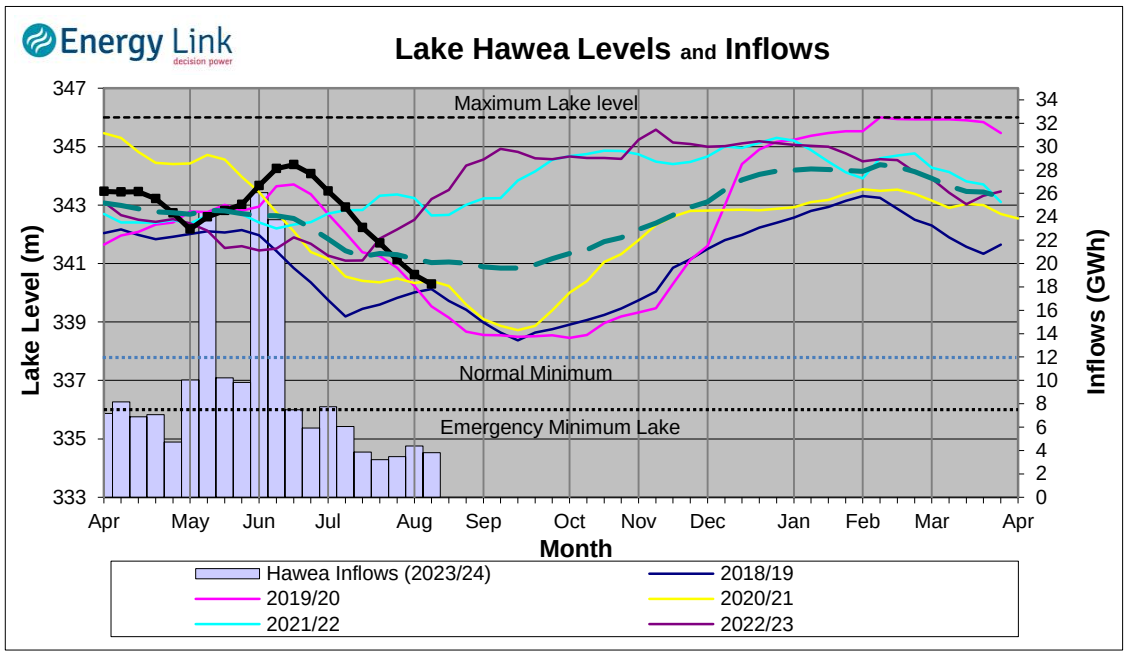
Inflows - Inflows into the Waitaki System decreased 32.9% to 16 GWh.

Generation - Average Waitaki generation increased 17.8% to 1042.7 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 16 cumecs while Waitaki River flows were higher than last week averaging 441.1 cumecs.

Clutha System



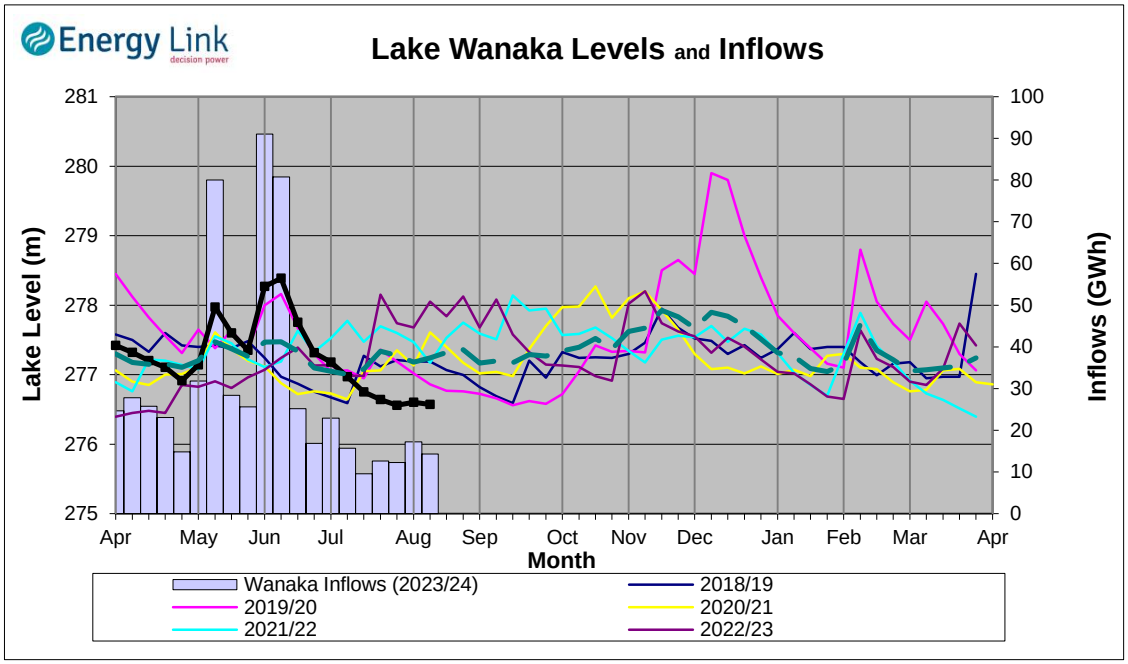
Lake Levels - Total storage for the Clutha System decreased 9.1% to 129 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 27.7%, 21.2% and 21.8% nominally full respectively.

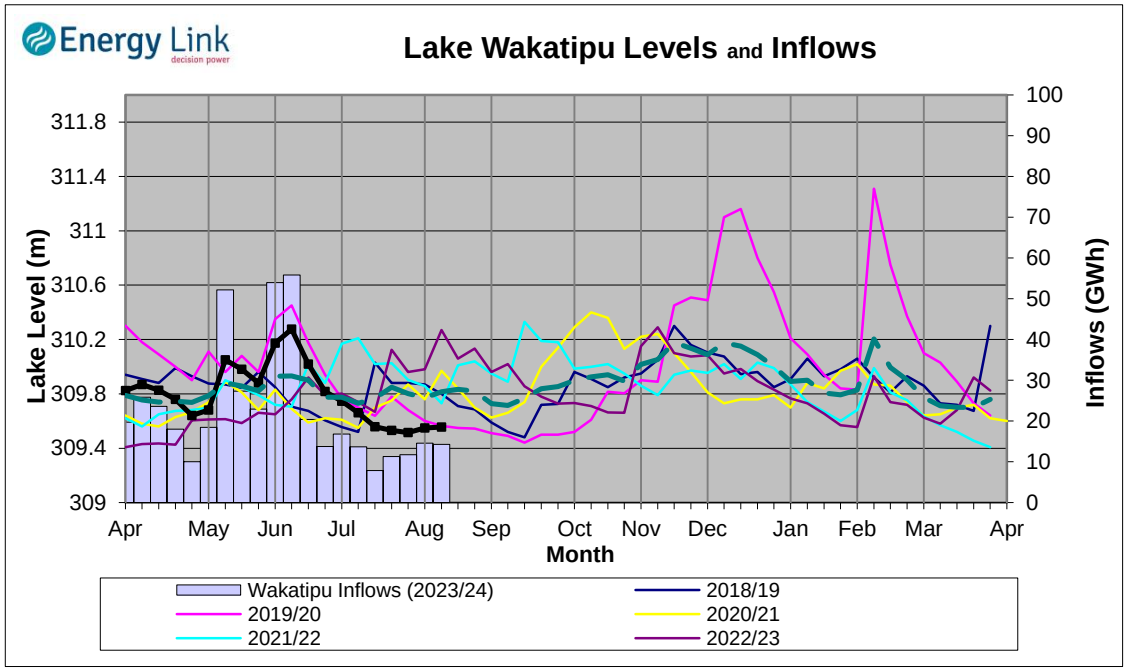
Inflows - Total Inflows into the Clutha System 10.4% lower at 32 GWh.

Generation - Average generation was 3.9% lower at 336 MW.

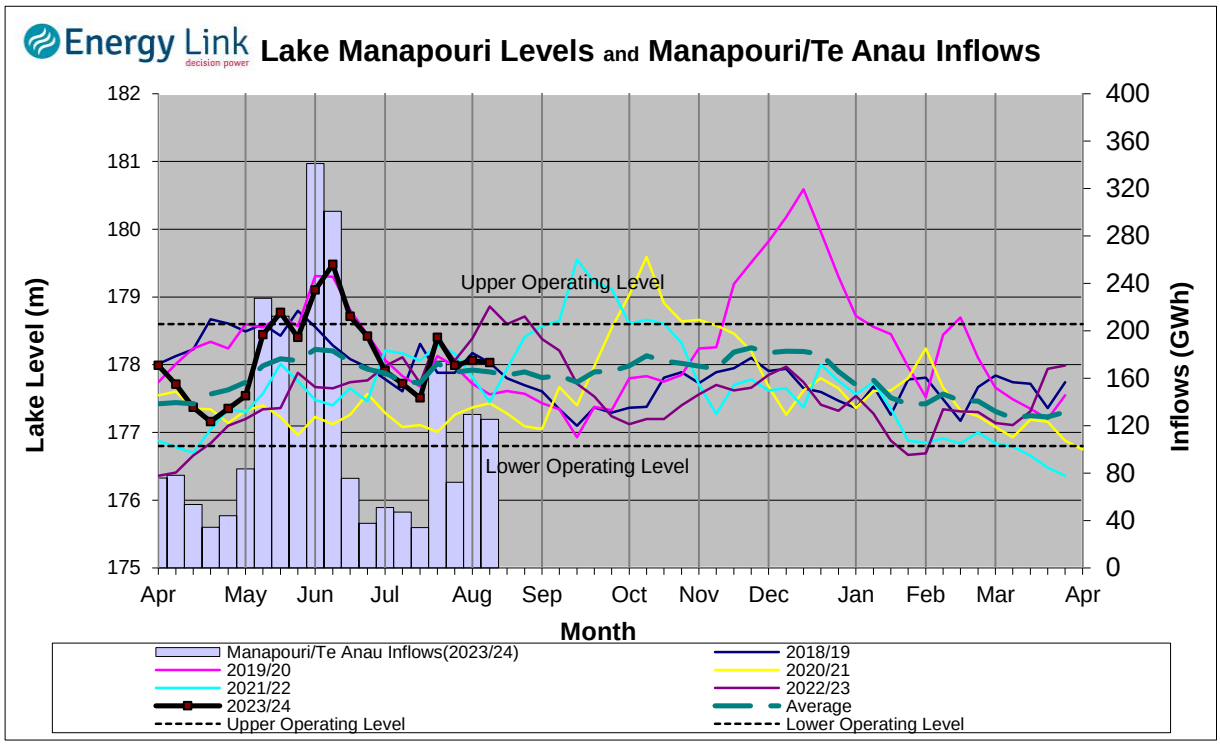
Hydro Spill - The was no estimated spill

River Flows - Total outflows from the lakes and Shotover River fell to 324.9 cumecs. This comprised of 100 cumecs from Lake Hawea, 101 cumecs from Lake Wanaka, 89 cumecs from Lake Wakatipu and 35 cumecs from the Shotover River.





Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 4.5% to 342 GWh with Lake Manapouri ending the week 79% nominally full and Lake Te Anau ending the week 77.7% nominally full.

Inflows - Total inflows into the Manapouri System decreased 3.2% to 125 GWh.

Generation - Average generation was 3.7% higher at 598 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 51.7 cumecs.

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