



Thursday, 01 June 2023

Issue: 1363

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)	2937	784	3721	480	4201
Storage Change (GWh)	123	234	357	-20	338

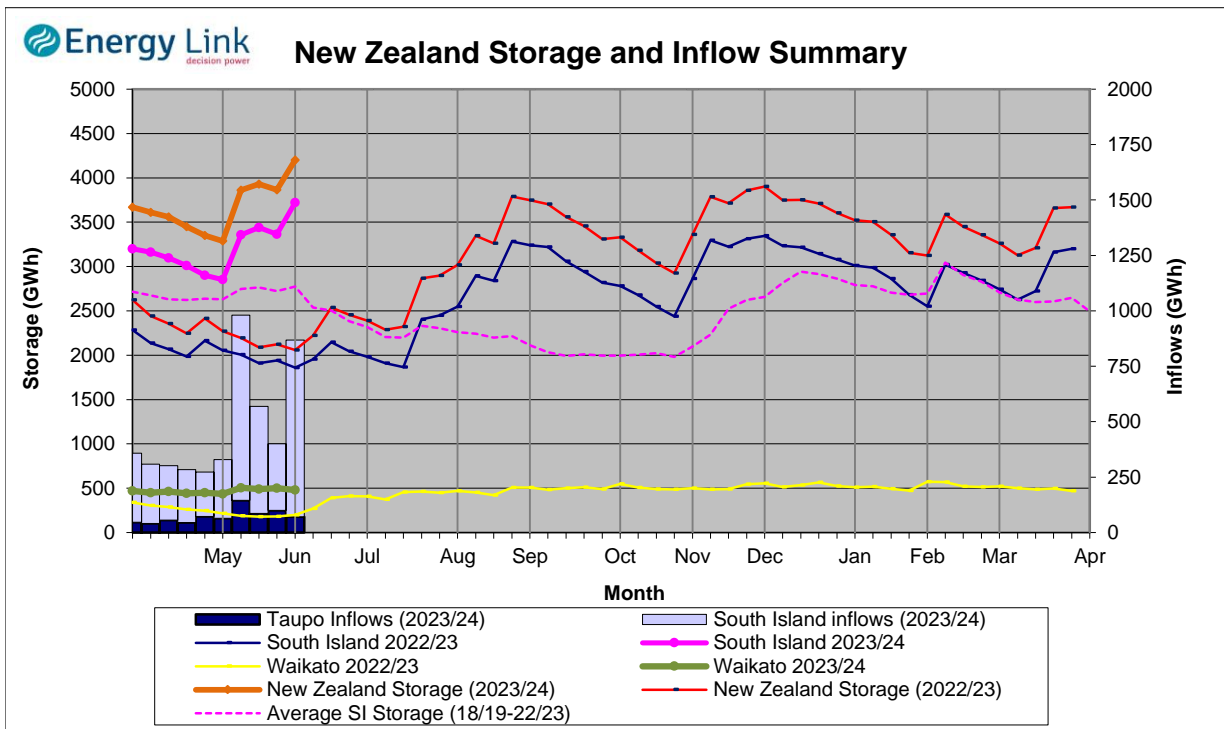
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	3543	480	4022

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 337.5 GWh over the last week. South Island controlled storage increased 4.4% to 2937 GWh; South Island uncontrolled storage increased 42.6% to 784 GWh; with Taupo storage decreasing 3.9% to 480 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	605	386	2730	480	4201
Last Week	439	294	2631	499	3863
% Change	37.9%	31.3%	3.8%	-3.9%	8.7%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	341	171	285	71	868
Last Week	120	58	122	101	401
% Change	184.8%	193.2%	133.5%	-29.2%	116.7%

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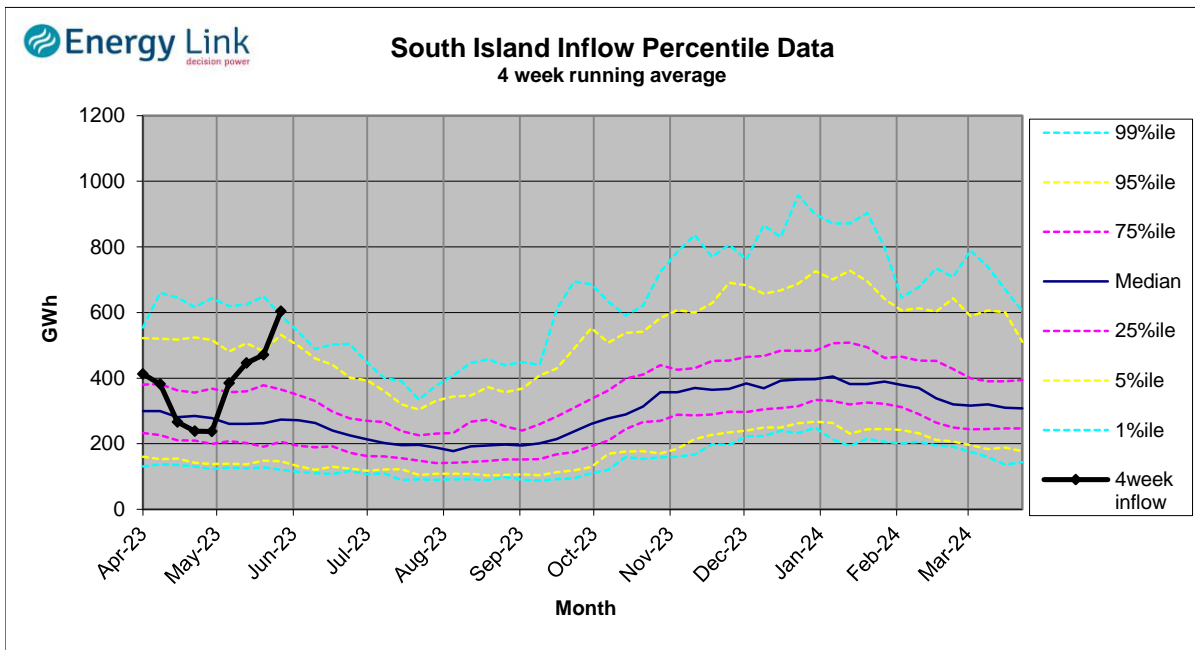
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	179.10	193	214	91
	Te Anau	203.62	413		
Clutha	Wakatipu	310.17	70	204	8
	Wanaka	278.27	109	291	
	Hawea	343.66	207	13	
Waitaki	Tekapo	710.54	862		47
	Pukaki	532.65	1868		
Waikato	Taupo	357.03	480		0

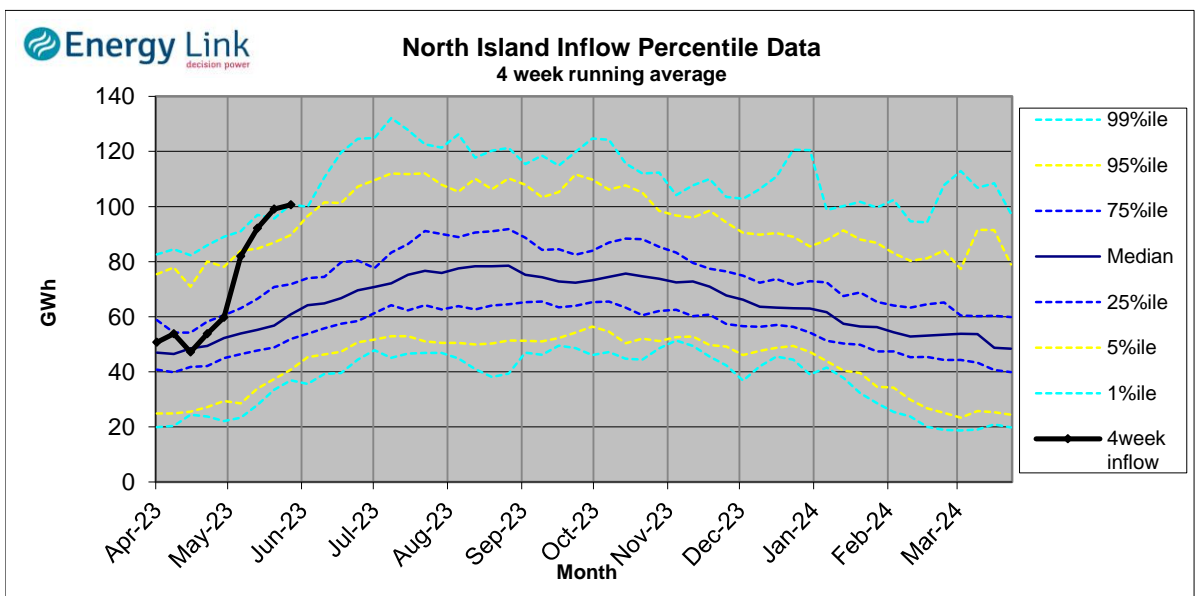
Inflow Summary

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.

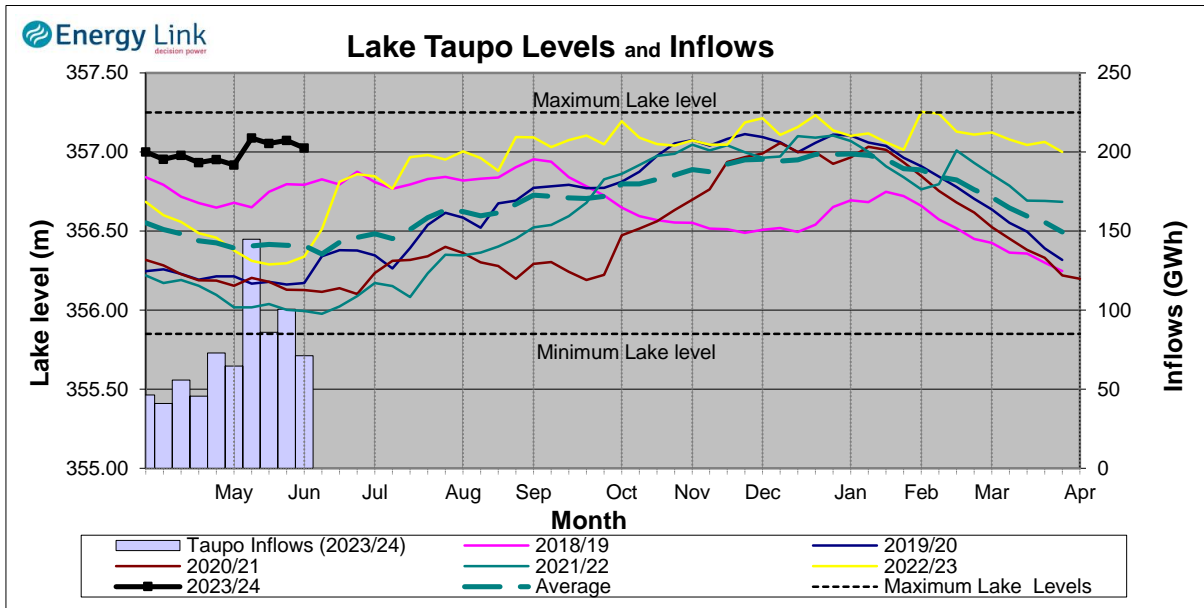
**South Island Inflows** - The past four weeks of S. I. inflows rank as the wettest on record.



**North Island Inflows** - The past four weeks of N. I. inflows rank as the 2nd wettest on record.



## Waikato System

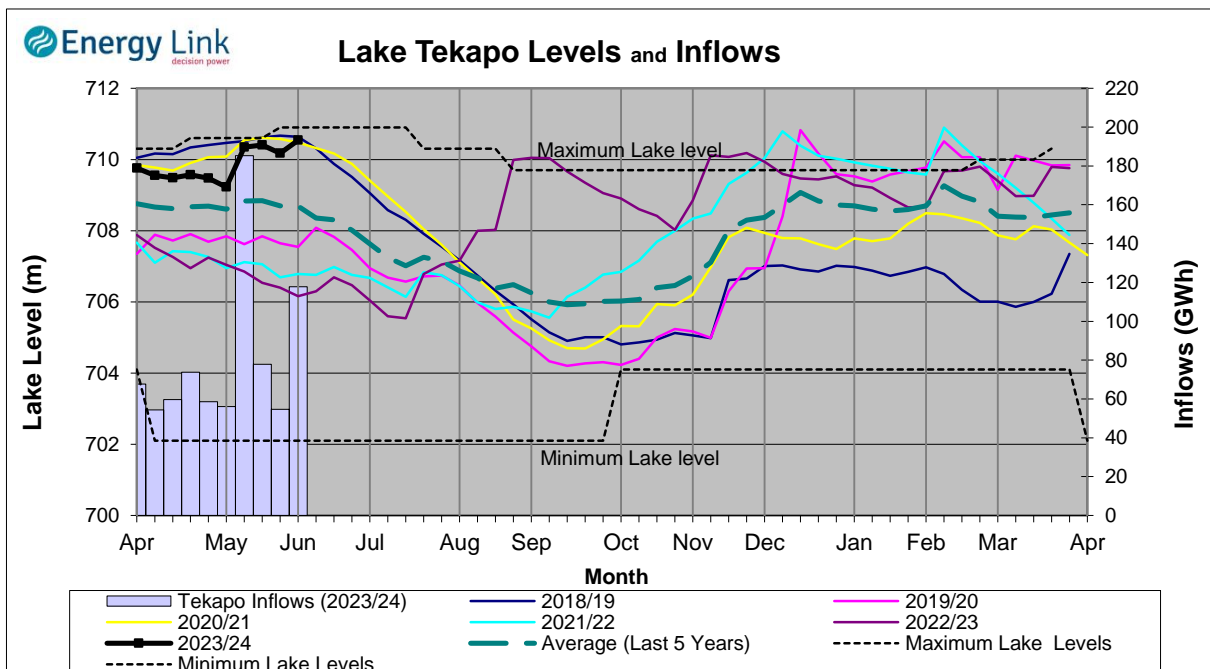


**Lake Levels** - Lake Taupo storage fell to 84% of nominal full at 480 GWh.

**Inflows** - Inflows decreased 29.2% to 71 GWh.

**Generation** - Average generation decreased 12.2% to 521.4 MW.

## Tekapo



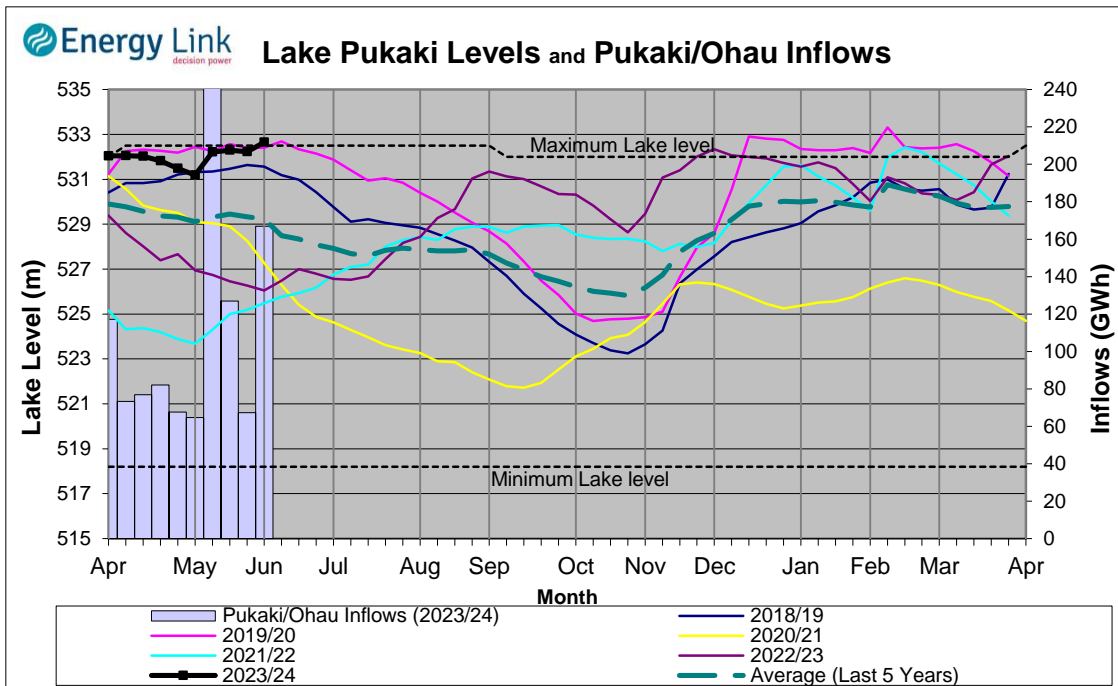
**Lake Levels** - Lake Tekapo ended the week 105% nominally full with storage increasing to 862 GWh.

**Inflows** - Inflows into tekapo increased 115.8% to 118 GWh.

**Generation** - Average Tekapo generation decreased 2.1% to 159.7 MW.

**Hydro Spill** - Lake Tekapo did not spill.

# Waitaki System



**Lake Levels** - Lake Pukaki ended the week 101% nominally full with storage increasing to 1868 G

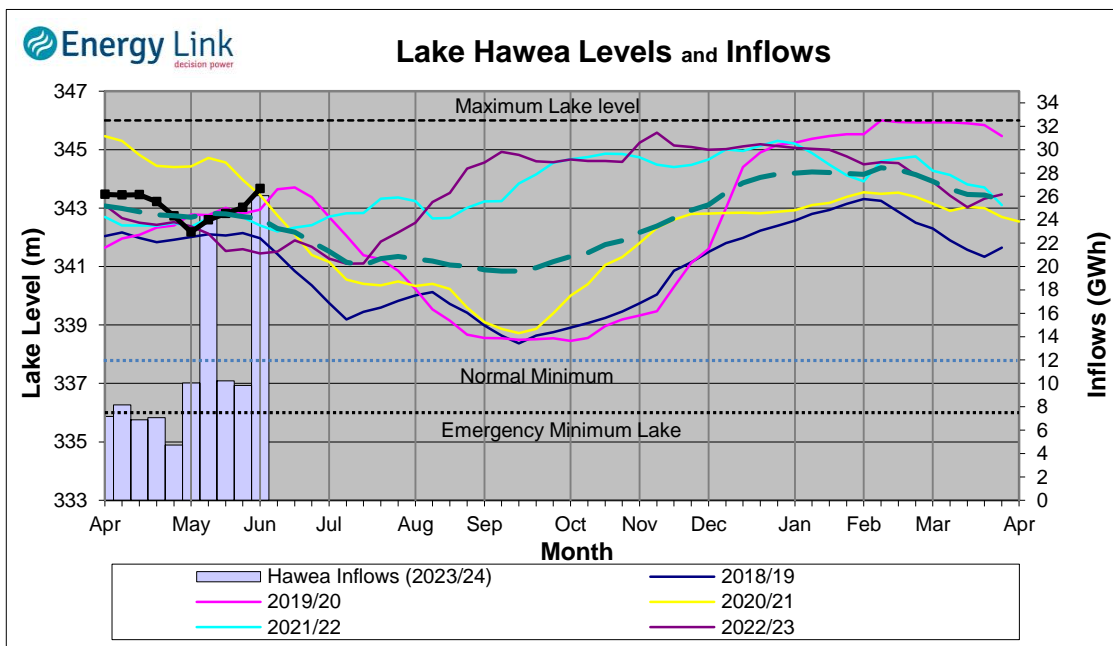
**Inflows** - Inflows into the Waitaki System increased 147.8% to 167 GWh.

**Generation** - Average Waitaki generation increased 4% to 914.3 MW.

**Hydro Spill** - Lake Pukaki spill was 97 cumecs.

**River Flows** - Flows from the Ahuriri River increased to 47.2 cumecs while Waitaki River flows were higher than last week averaging 453.6 cumecs.

# Clutha System



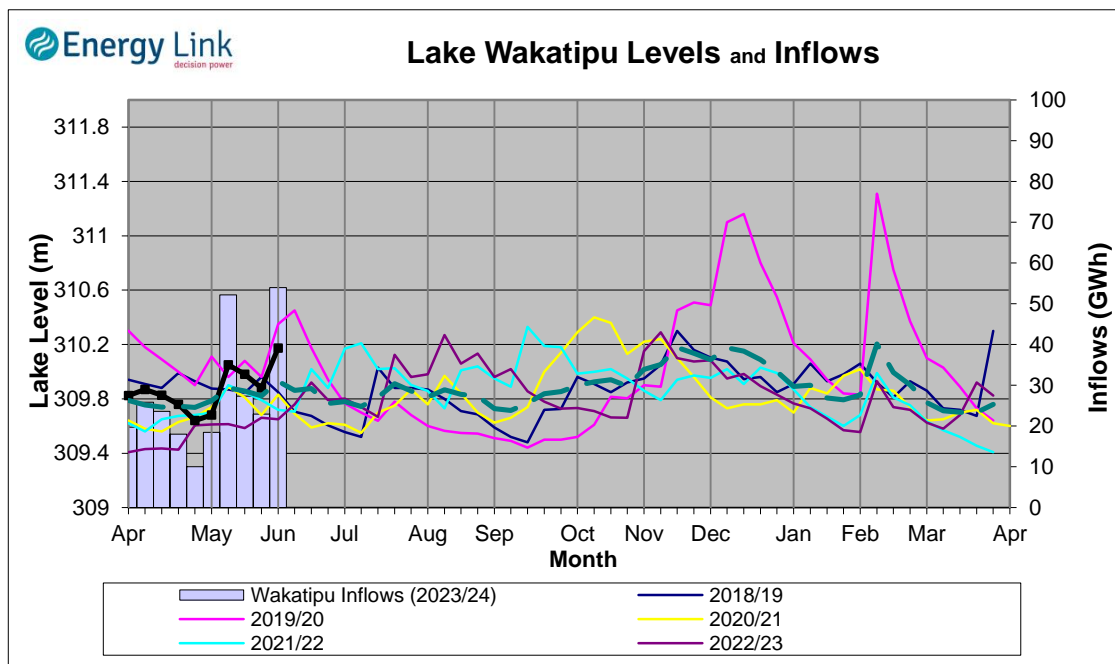
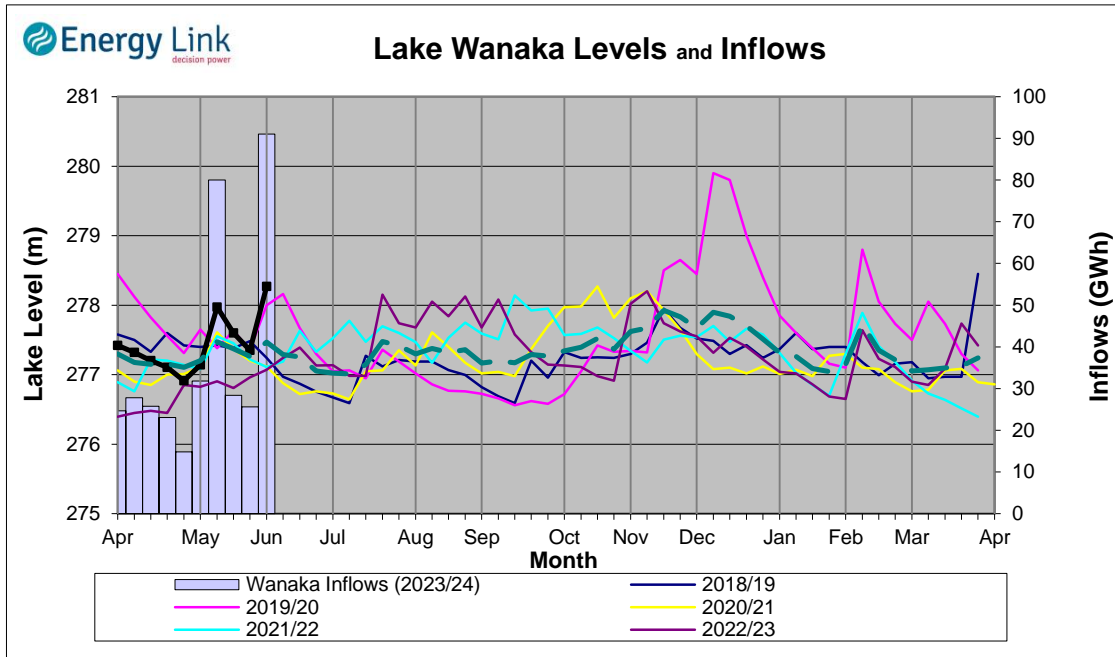
**Lake Levels** - Total storage for the Clutha System increased by 31.3% to 386 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 70.2%, 95% and 66% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 193.2% higher at 171 GWh.

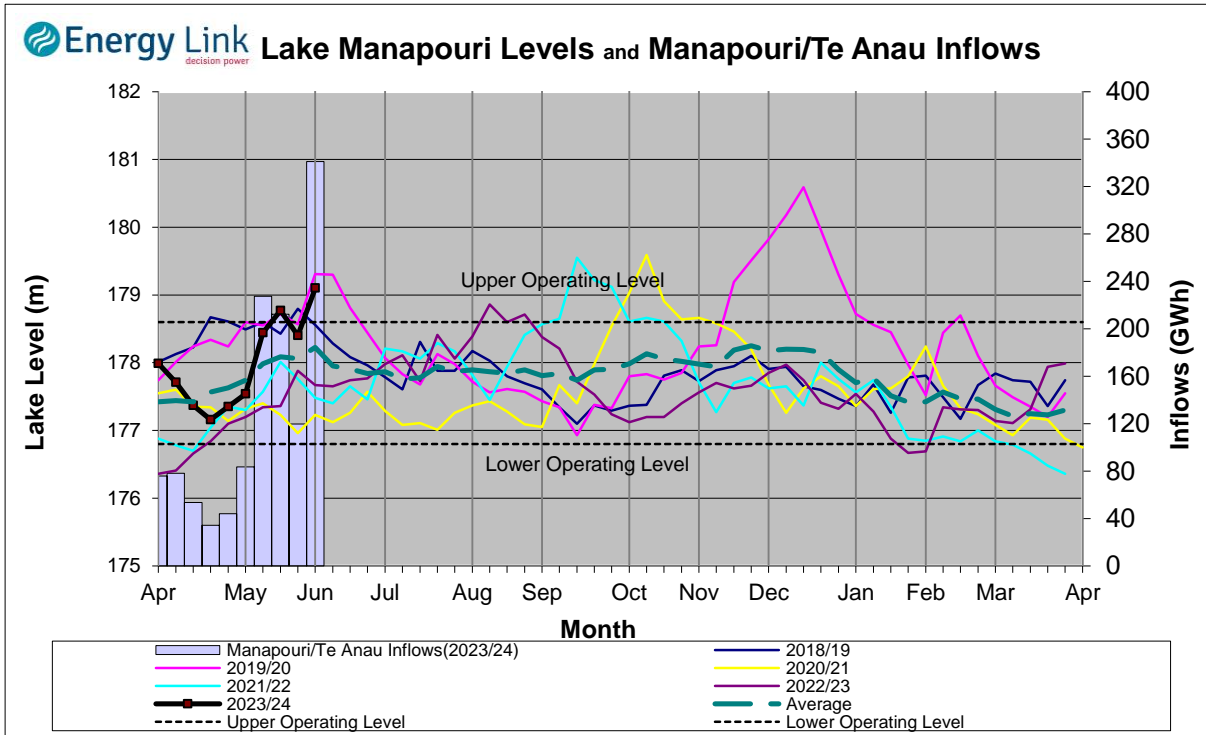
**Generation** - Average generation was 8.6% lower at 453 MW.

**Hydro Spill** - Estimate Spill is 86.6 cumecs.

**River Flows** - Total outflows from the lakes and Shotover River increased to 589.2 cumecs. This comprised of 13 cumecs from Lake Hawea, 291 cumecs from Lake Wanaka, 204 cumecs from Lake Wakatipu and 82 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System increased by 37.9% to 605 GWh with Lake Manapouri ending the week 118.5% nominally full and Lake Te Anau ending the week 150% nominally full.

**Inflows** - Total inflows into the Manapouri System increased 184.8% to 341 GWh.

**Generation** - Average generation was 2.9% higher at 732 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 214 cumecs.

**Operating Range** - Lakes Manapouri and Te Anau are operating in the middle of their respective 'High operating range'.

