



Thursday, 20 April 2023

Issue: 1357

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)	2698	311	3009	442	3451
Storage Change (GWh)	-29	-60	-88	-19	-107

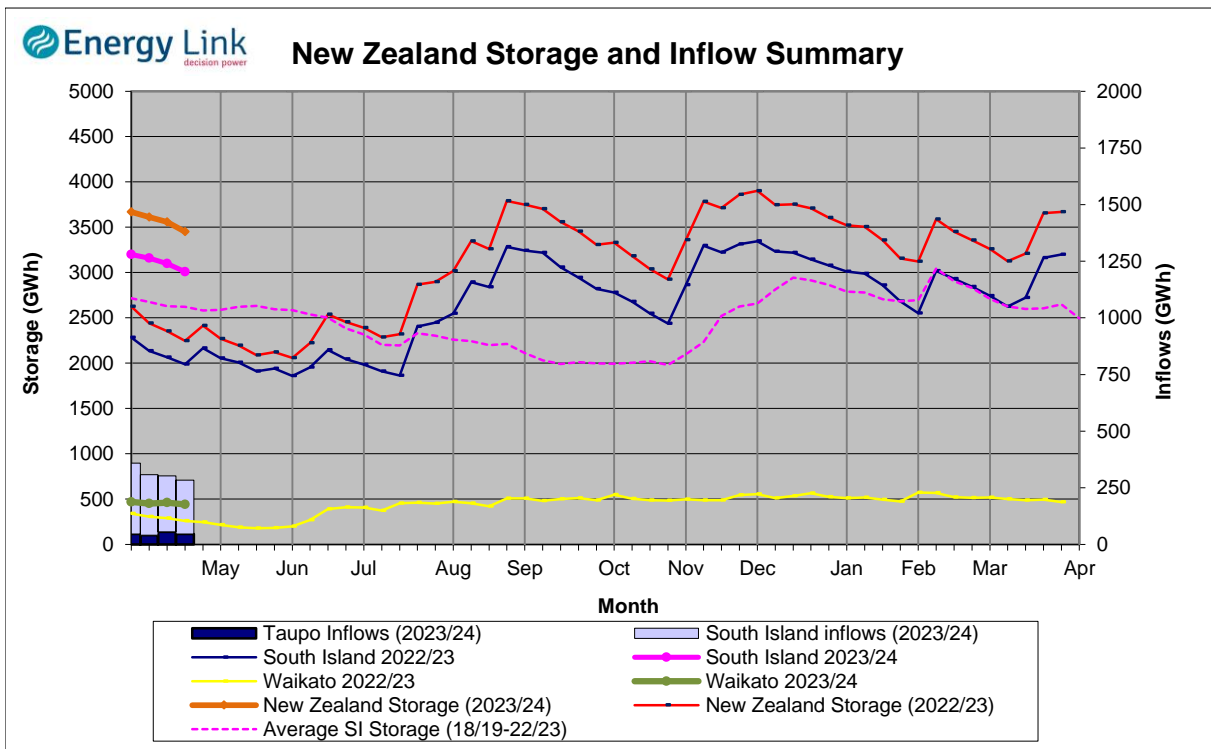
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2920	442	3362

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 107.5 GWh over the last week. South Island controlled storage decreased 1% to 2698 GWh; South Island uncontrolled storage decreased 16.1% to 311 GWh; with Taupo storage decreasing 4.2% to 442 GWh.



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	Manapouri	Clutha	Waitaki	Waikato	NZ
Storage (GWh)					
<b>This Week</b>	222	280	2507	442	3451
Last Week	272	299	2527	461	3558
% Change	-18.4%	-6.2%	-0.8%	-4.2%	-3.0%
Inflow (GWh)					
<b>This Week</b>	34	48	156	46	284
Last Week	54	56	137	56	302
% Change	-35.9%	-14.3%	14.1%	-18.2%	-6.0%

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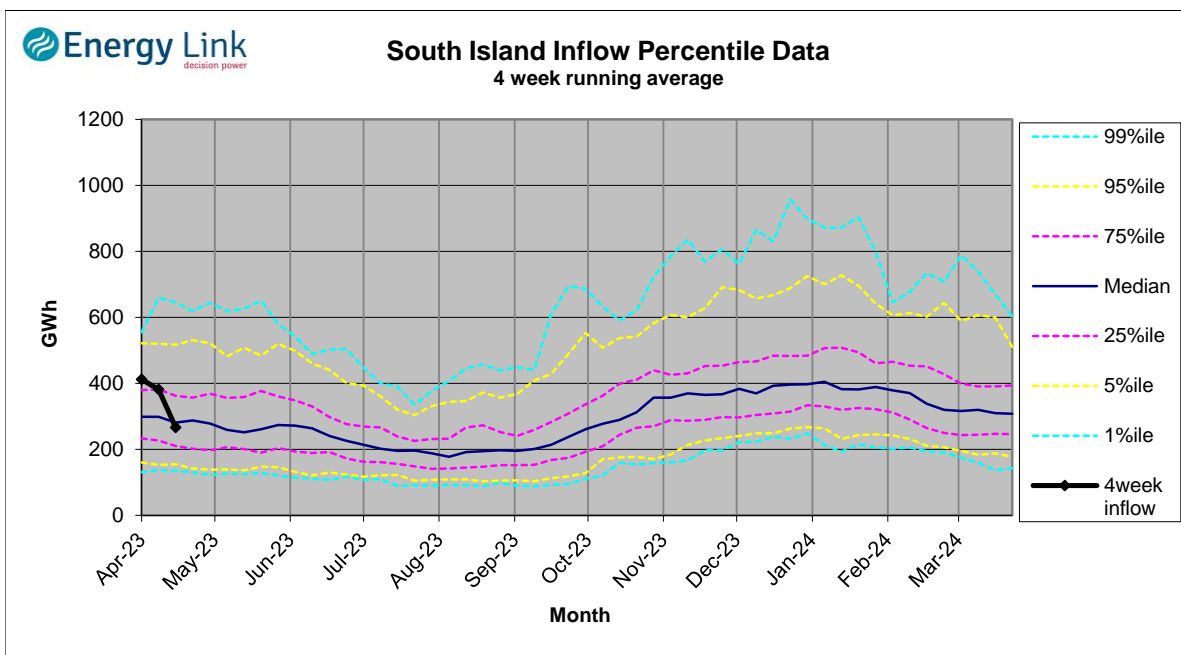
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.16	77	15	0
	Te Anau	201.83	145		
Clutha	Wakatipu	309.76	39	148	-25
	Wanaka	277.11	51	179	-24
	Hawea	343.22	191	101	58
Waitaki	Tekapo	709.57	754		
	Pukaki	531.82	1754		
Waikato	Taupo	356.93	442		

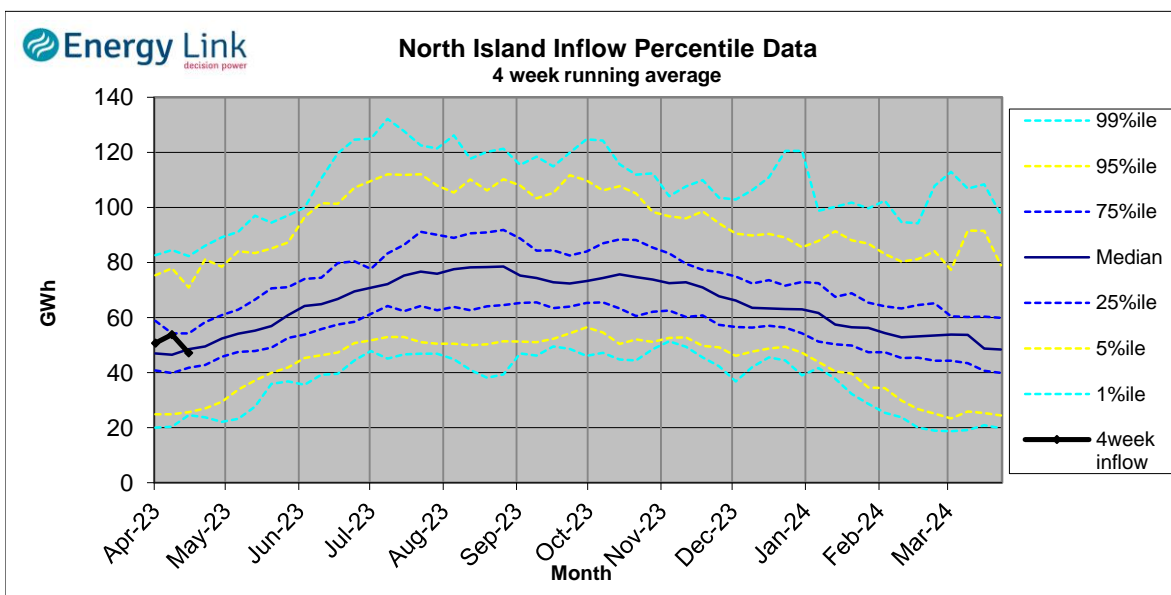
Inflow Summary

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.

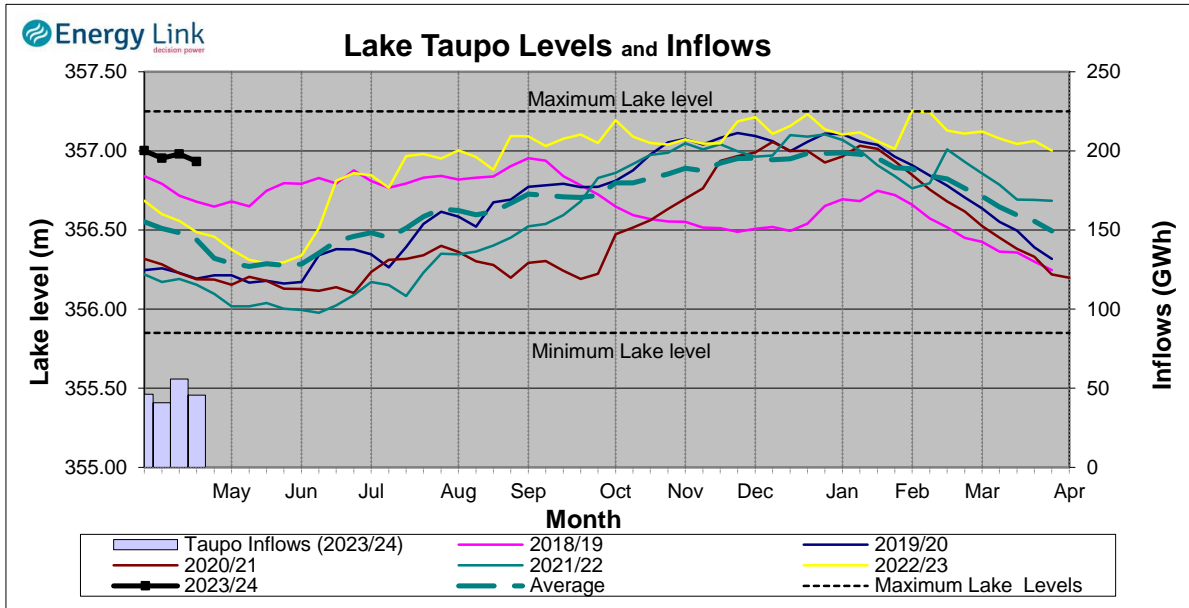
**South Island Inflows** - The past four weeks of S. I. inflows rank as the 44th driest on record.



**North Island Inflows** - The past four weeks of N. I. inflows rank as the 42nd driest on record.



# Waikato System

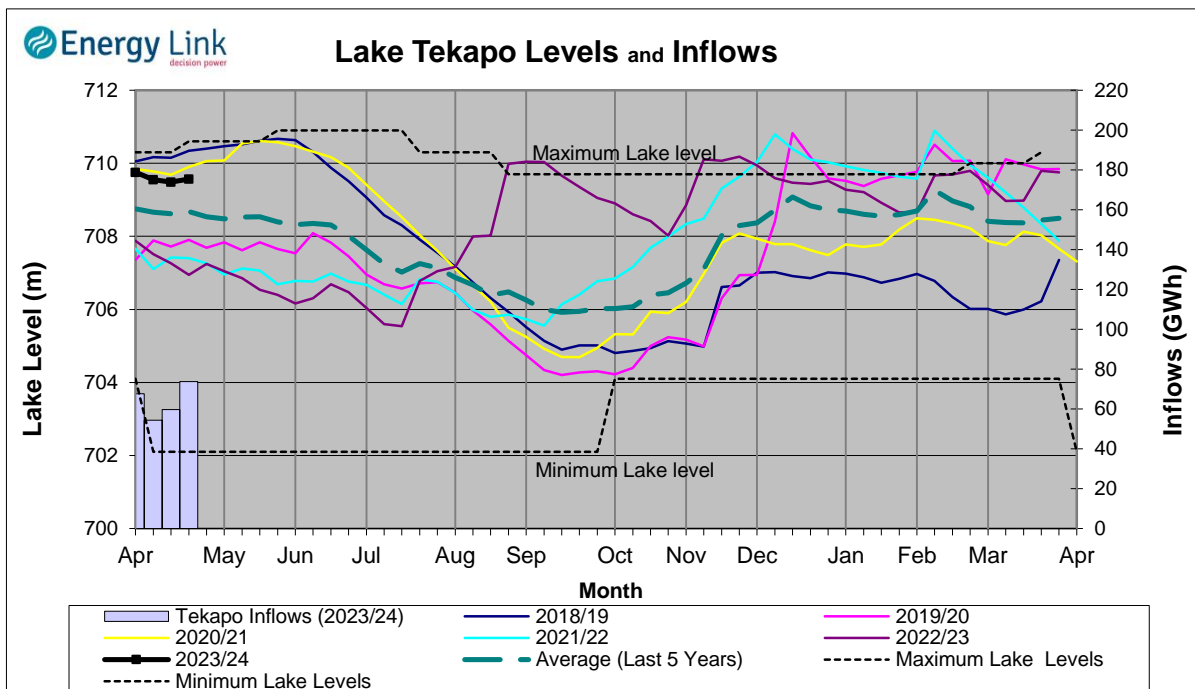


**Lake Levels** - Lake Taupo storage fell to 77.4% of nominal full at 442 GWh.

**Inflows** - Inflows decreased 18.2% to 46 GWh.

**Generation** - Average generation increased 19.4% to 435.6 MW.

# Tekapo



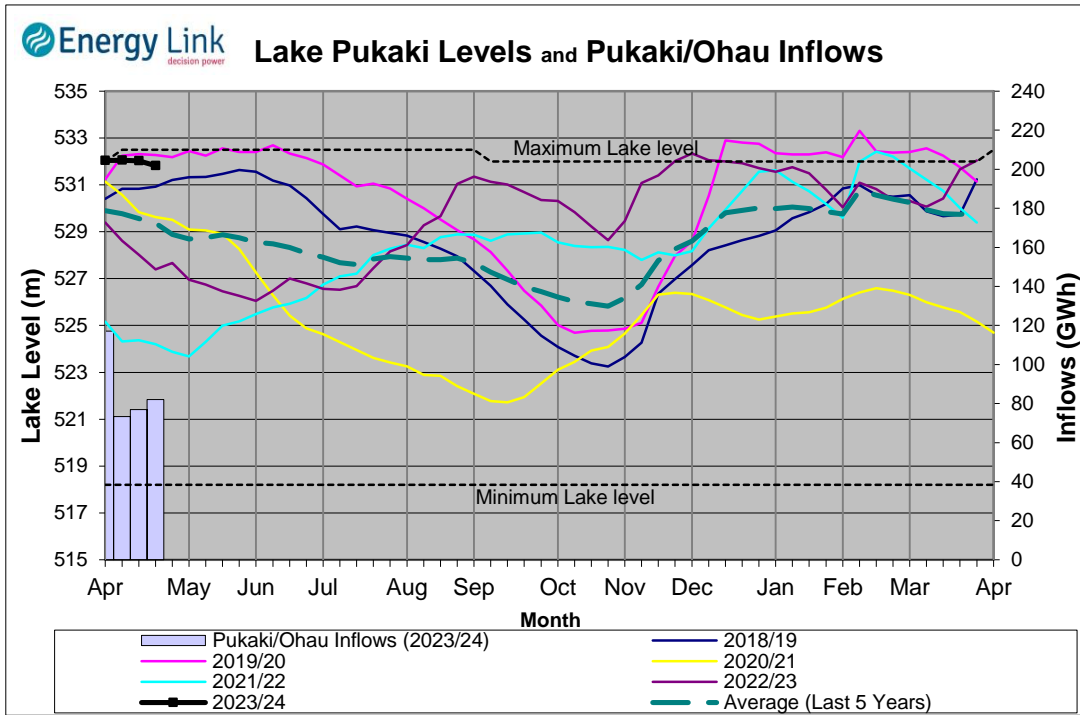
**Lake Levels** - Lake Tekapo ended the week 95% nominally full with storage increasing to 754 GWh.

**Inflows** - Inflows into tekapo increased 23.5% to 74 GWh.

**Generation** - Average Tekapo generation decreased 2.4% to 139.2 MW.

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

## Waitaki System



**Lake Levels** - Lake Pukaki ended the week 95% nominally full with storage falling to 1754 GW

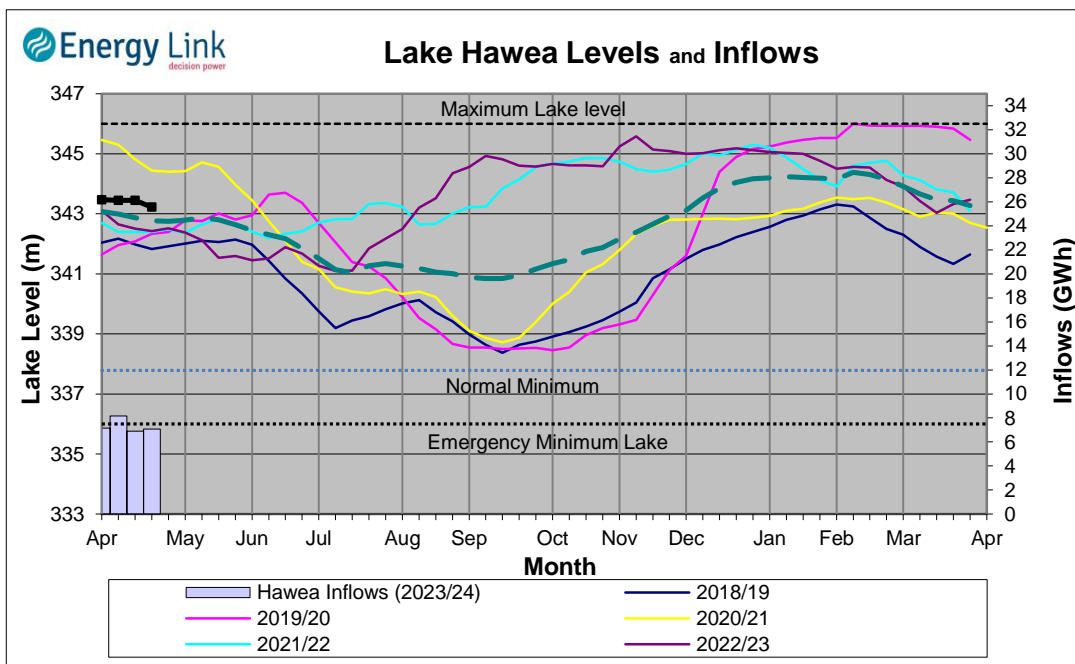
**Inflows** - Inflows into the Waitaki System increased 6.7% to 82 GWh.

**Generation** - Average Waitaki generation increased 21% to 1014.3 MW.

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

**River Flows** - Flows from the Ahuriri River increased to 32.5 cumecs while Waitaki River flows were higher than last week averaging 434.2 cumecs.

## Clutha System



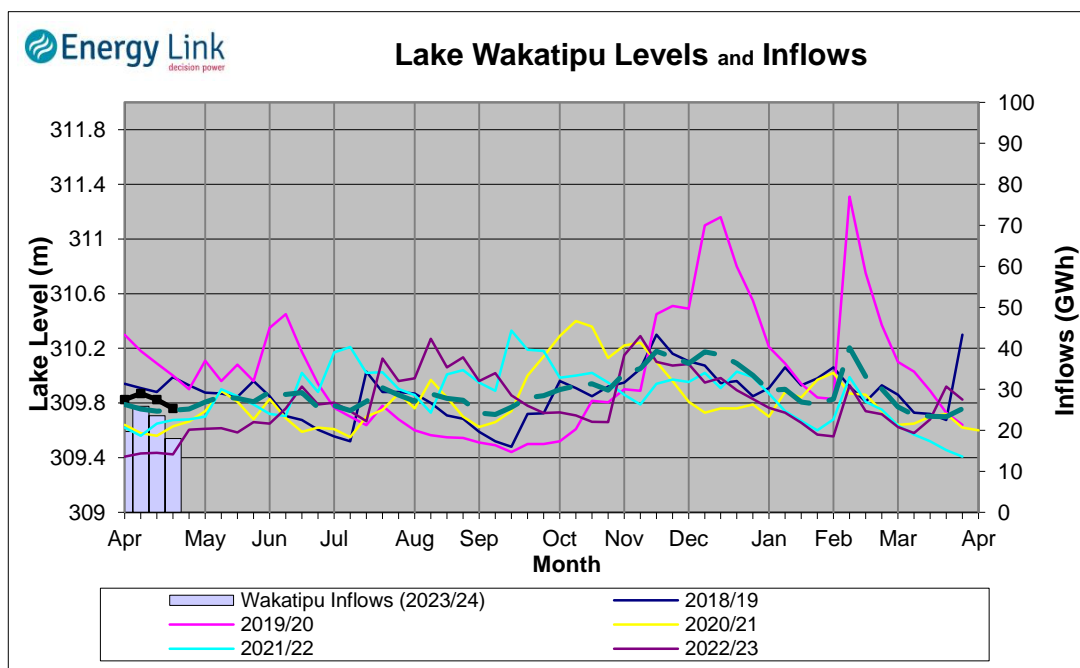
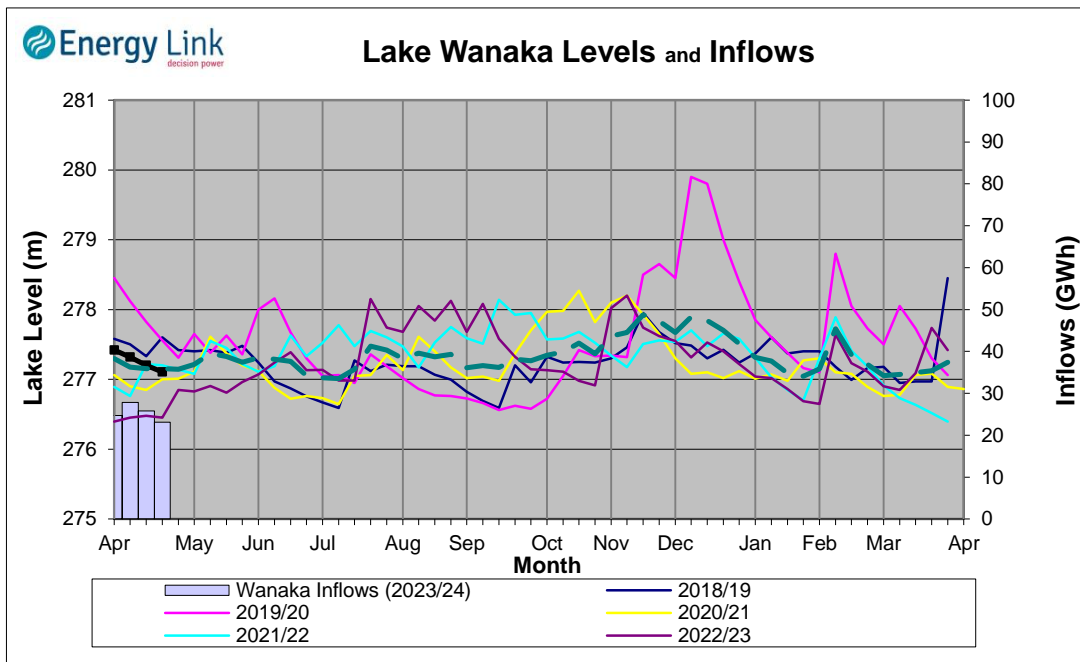
**Lake Levels** - Total storage for the Clutha System decreased 6.2% to 280 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 64.5%, 44.5% and 36.4% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 14.3% lower at 48 GWh.

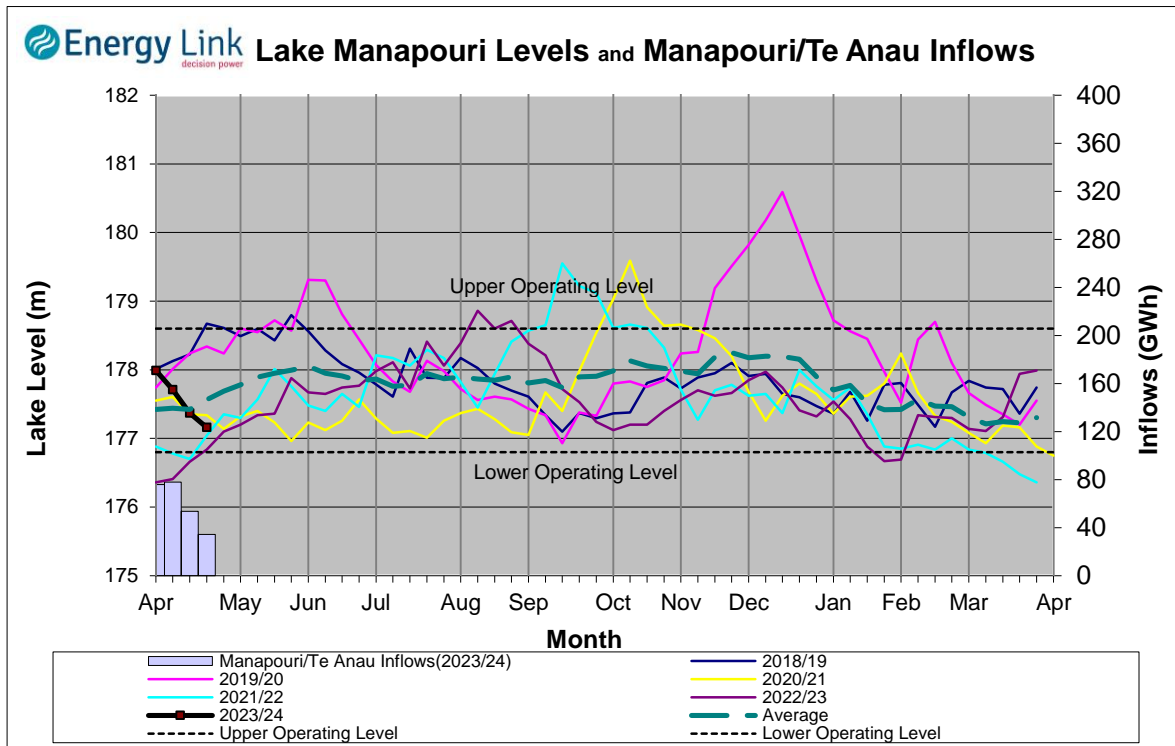
**Generation** - Average generation was 0.5% higher at 453 MW.

**Hydro Spill** - There was no estimated spill

**River Flows** - Total outflows from the lakes and Shotover River increased to 466.3 cumecs. This comprised of 101 cumecs from Lake Hawea, 179 cumecs from Lake Wanaka, 148 cumecs from Lake Wakatipu and 39 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System decreased 18.4% to 222 GWh with Lake Manapouri ending the week 47.1% nominally full and Lake Te Anau ending the week 52.7% nominally full.

**Inflows** - Total inflows into the Manapouri System decreased 35.9% to 34 GWh.

**Generation** - Average generation was 13.9% lower at 501 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 14.7 cumecs.

**Operating Range** - Lakes Manapouri and Te Anau are operating in the lower end of their respective 'Main operating range'.

