



Thursday, 23 December 2021

Issue: 1288

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)	2681	491	3173	506	3679
Storage Change (GWh)	84	128	211	-4	207

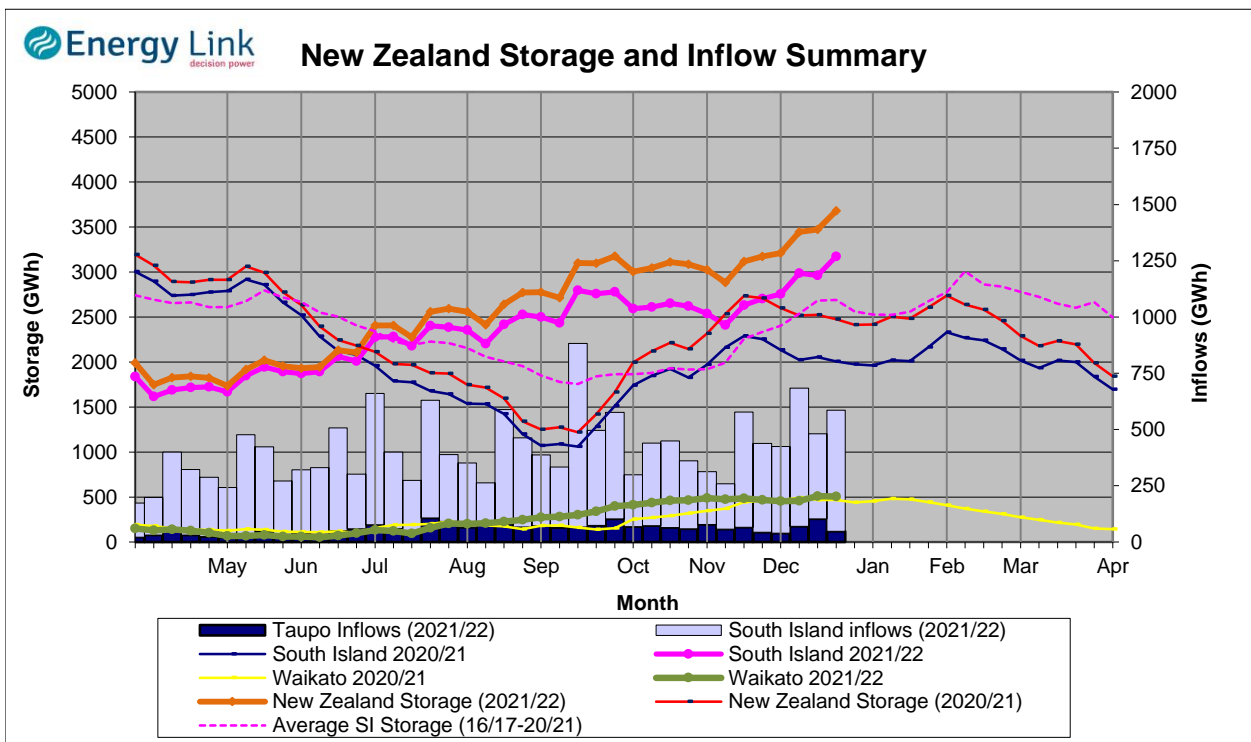
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	3035	506	3542

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 207.4 GWh over the last week. South Island controlled storage increased 3.2% to 2681 GWh; South Island uncontrolled storage increased 35.1% to 491 GWh; with Taupo storage decreasing 0.7% to 506 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	354	400	2419	506	3679
Last Week	245	375	2342	510	3472
% Change	44.7%	6.7%	3.3%	-0.7%	6.0%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	201	99	238	47	586
Last Week	32	61	285	103	480
% Change	538.9%	63.1%	-16.5%	-54.0%	22.0%

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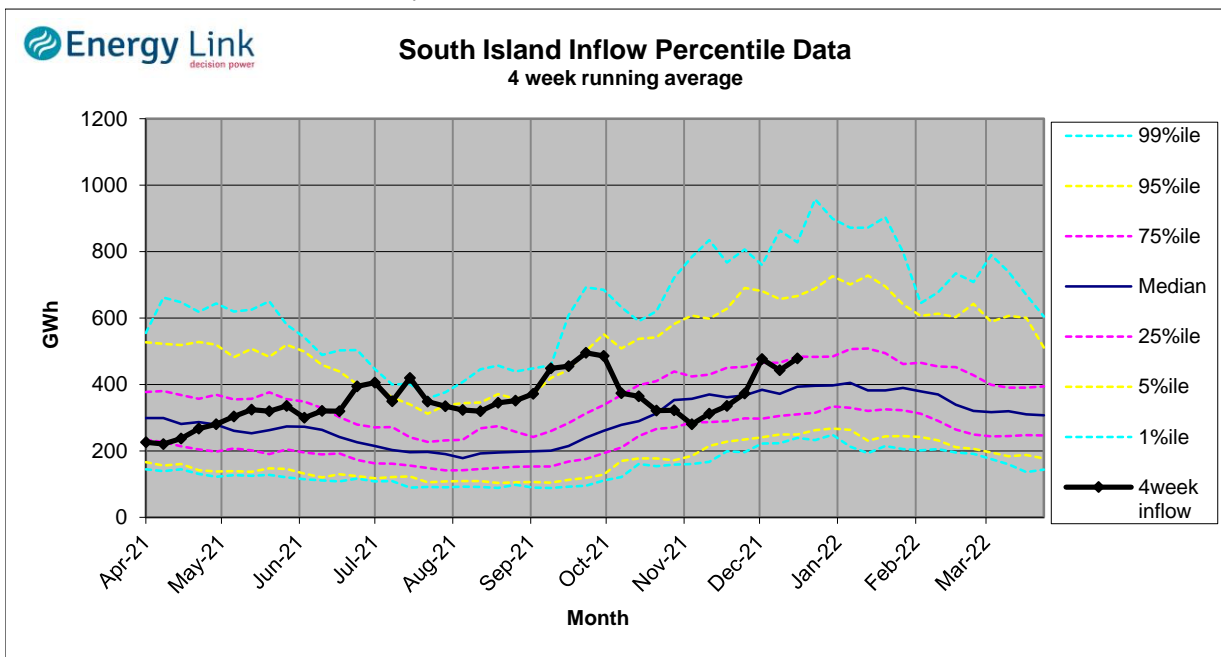
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	178.00	127	20	4
	Te Anau	202.38	227		
Clutha	Wakatipu	310.03	59	184	1
	Wanaka	277.66	79	247	
	Hawea	345.13	262	45	
Waitaki	Tekapo	710.11	813		
	Pukaki	530.74	1606		
Waikato	Taupo	357.09	506		

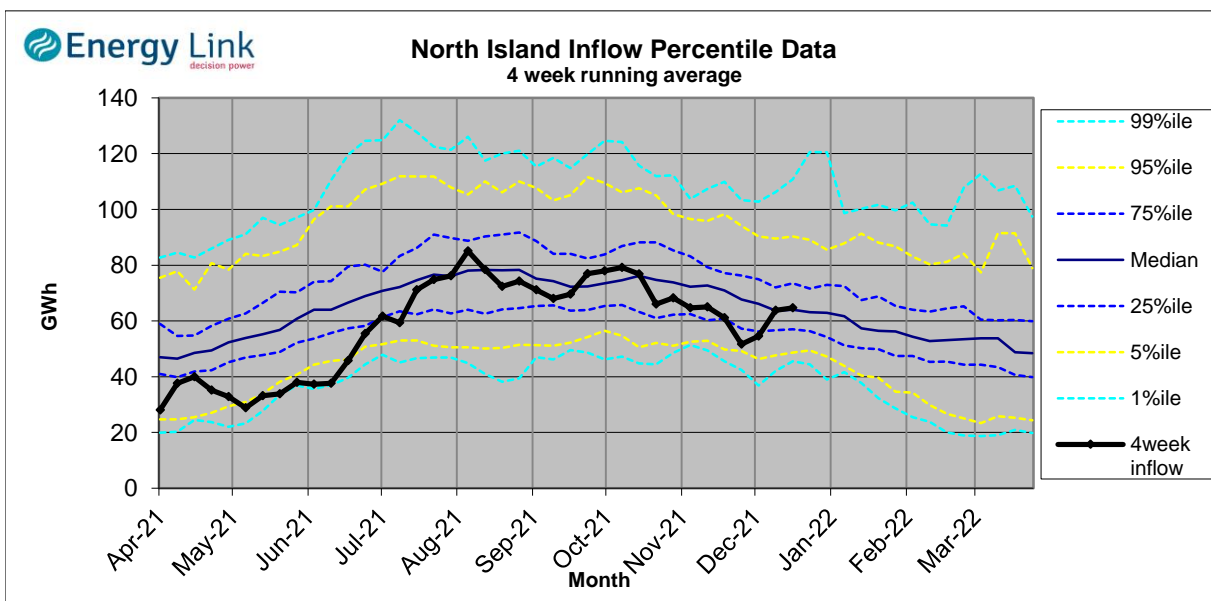
Inflow Summary

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.

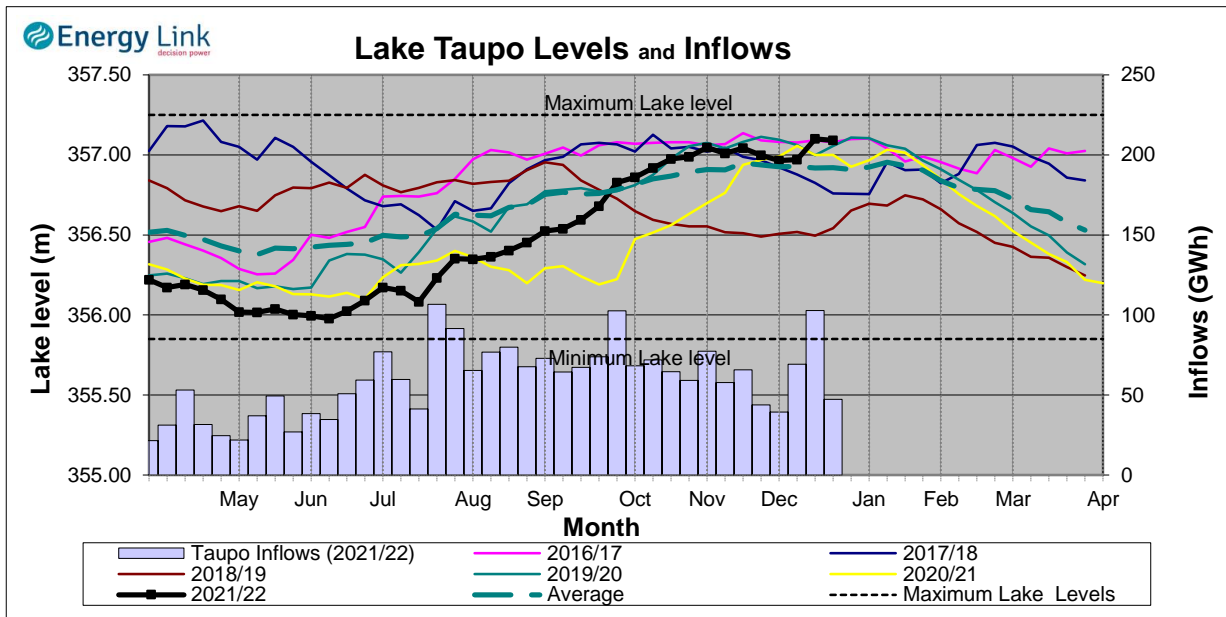
South Island Inflows - The past four weeks of S. I. inflows rank as the 27th wettest on record.



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



Waikato System

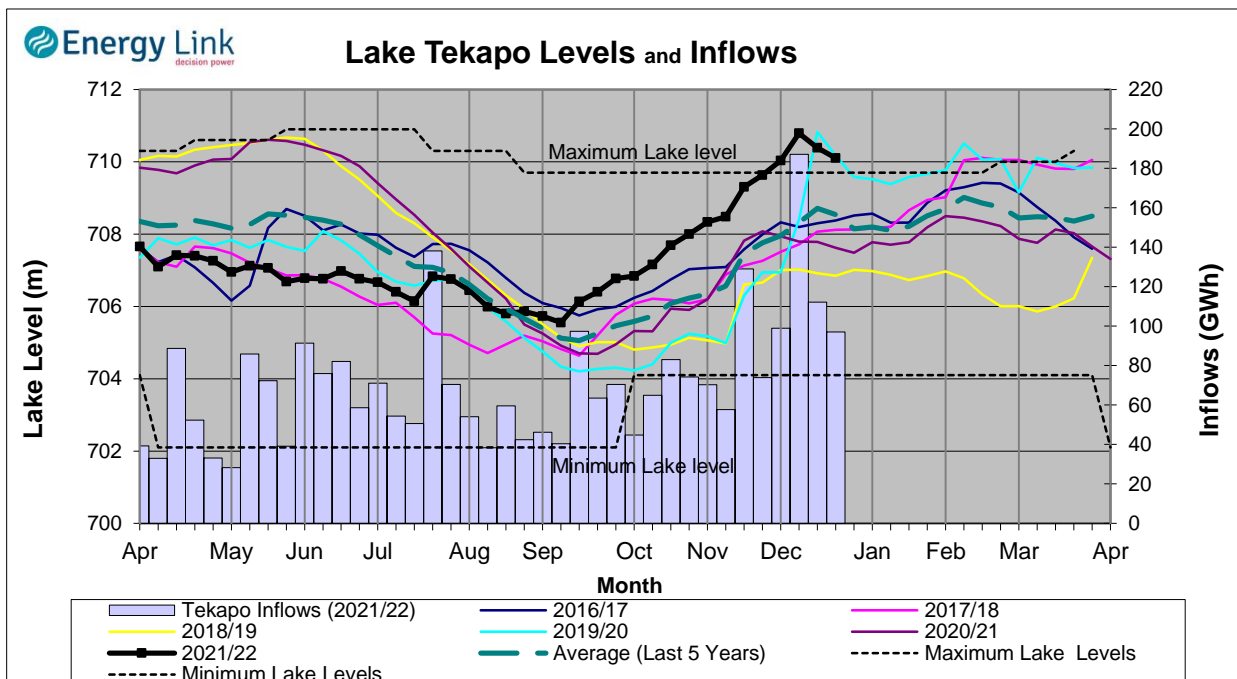


Lake Levels - Lake Taupo storage fell to 88.7% of nominal full at 506 GWh.

Inflows - Inflows decreased 54% to 47 GWh.

Generation - Average generation increased 12.1% to 402.9 MW.

Tekapo



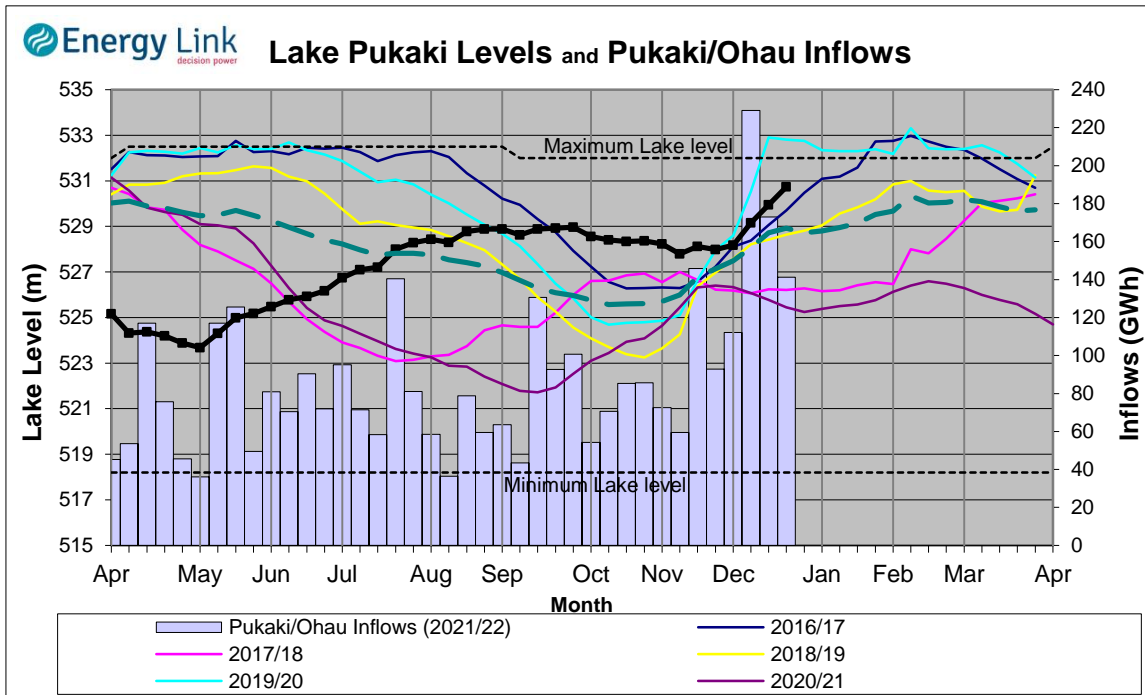
Lake Levels - Lake Tekapo ended the week 112% nominally full with storage falling to 813 GWh.

Inflows - Inflows into tekapo decreased 13.5% to 97 GWh.

Generation - Average Tekapo generation increased 5.5% to 89.5 MW.

Hydro Spill - Lake Tekapo spill was 128.4 cumecs.

Waitaki System



Lake Levels - Lake Pukaki ended the week 90% nominally full with storage increasing to 1606 GW

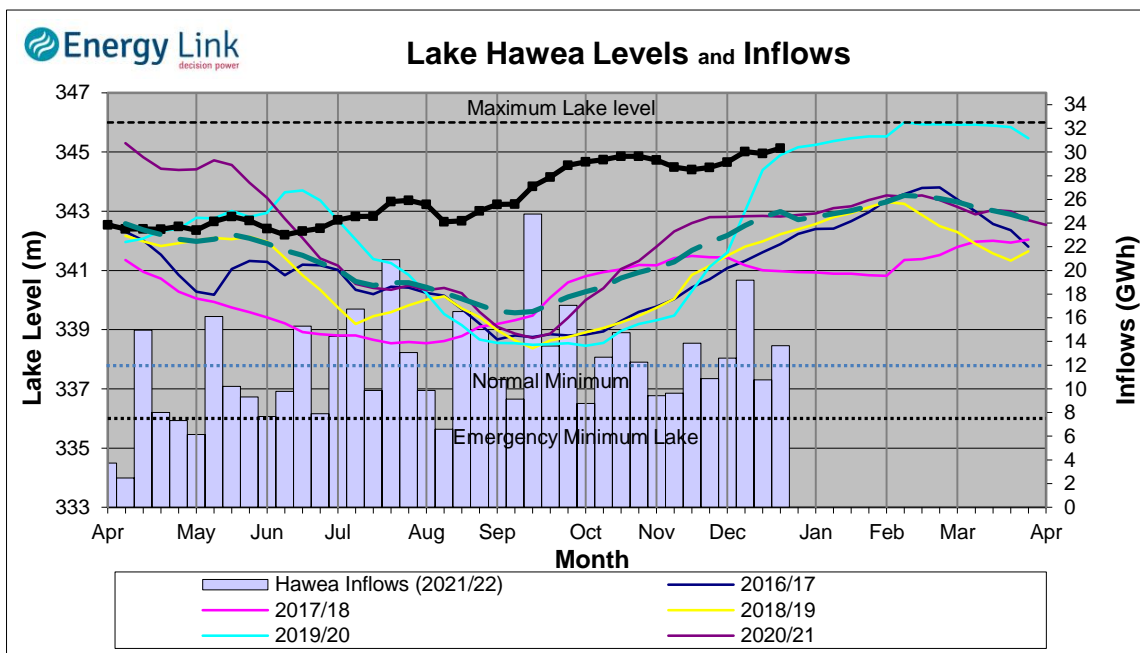
Inflows - Inflows into the Waitaki System decreased 18.4% to 141 GWh.

Generation - Average Waikati generation decreased 21.6% to 715.1 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 36.2 cumecs while Waitaki River flows were lower than last week averaging 433.8 cumecs.

Clutha System



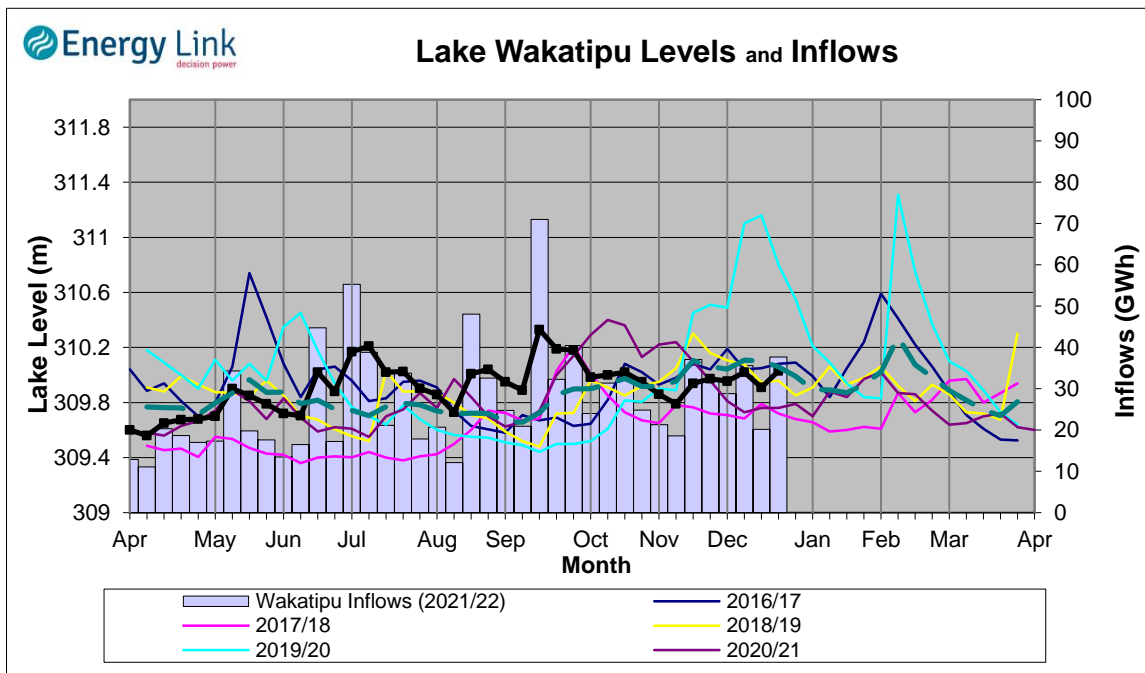
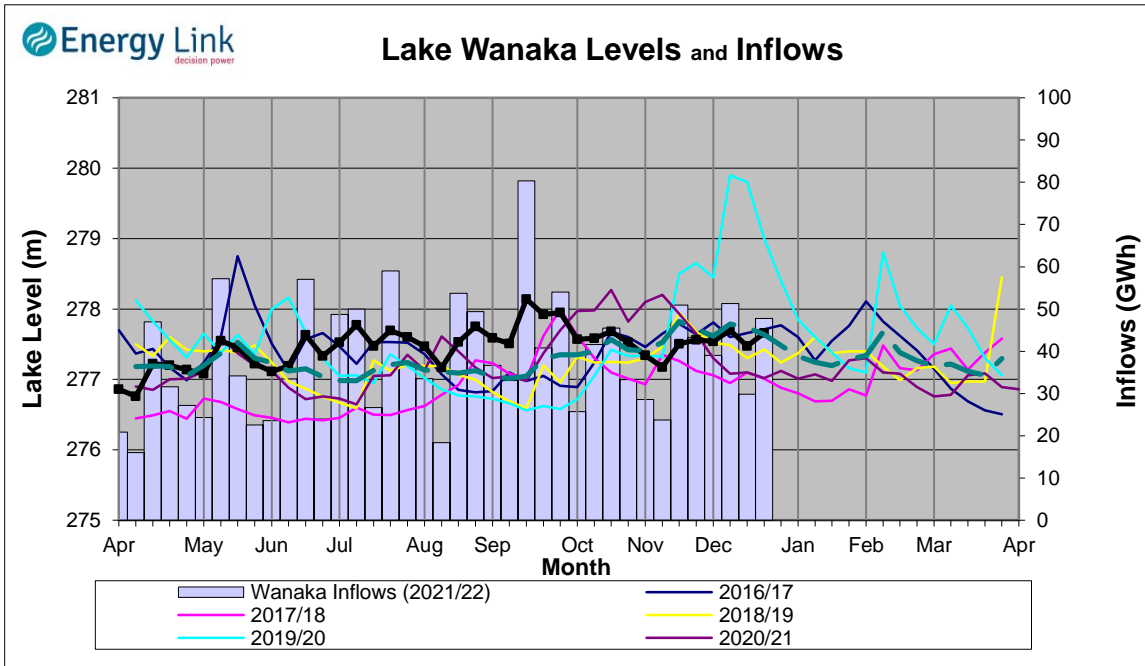
Lake Levels - Total storage for the Clutha System increased by 6.7% to 400 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 88.8%, 68.6% and 55.7% nominally full respectively.

Inflows - Total Inflows into the Clutha System 63.1% higher at 99 GWh.

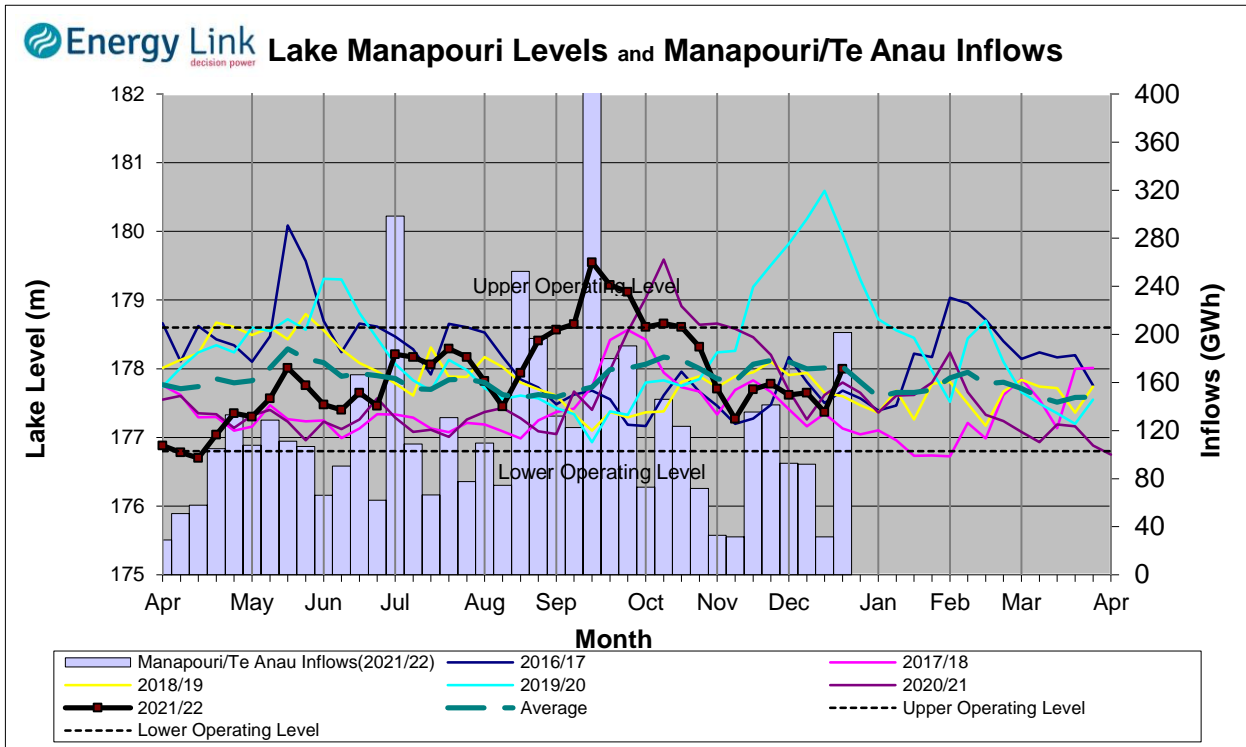
Generation - Average generation was 7.6% lower at 493 MW.

Hydro Spill - There was no estimated spill

River Flows - Total outflows from the lakes and Shotover River fell to 533.7 cumecs. This comprised of 45 cumecs from Lake Hawea, 247 cumecs from Lake Wanaka, 184 cumecs from Lake Wakatipu and 58 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 44.7% to 354 GWh with Lake Manapouri ending the week 77.9% nominally full and Lake Te Anau ending the week 82.6% nominally full.

Inflows - Total inflows into the Manapouri System increased 538.9% to 201 GWh.

Generation - Average generation was 4.1% lower at 549 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 20.4 cumecs.

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

