HydroWatch

Thursday, 17 December 2020 Issue: 1235

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)	**1623**	**384**	**2007**	**469**	**2476**
Storage Change (GWh)	-60	11	-48	0	-49

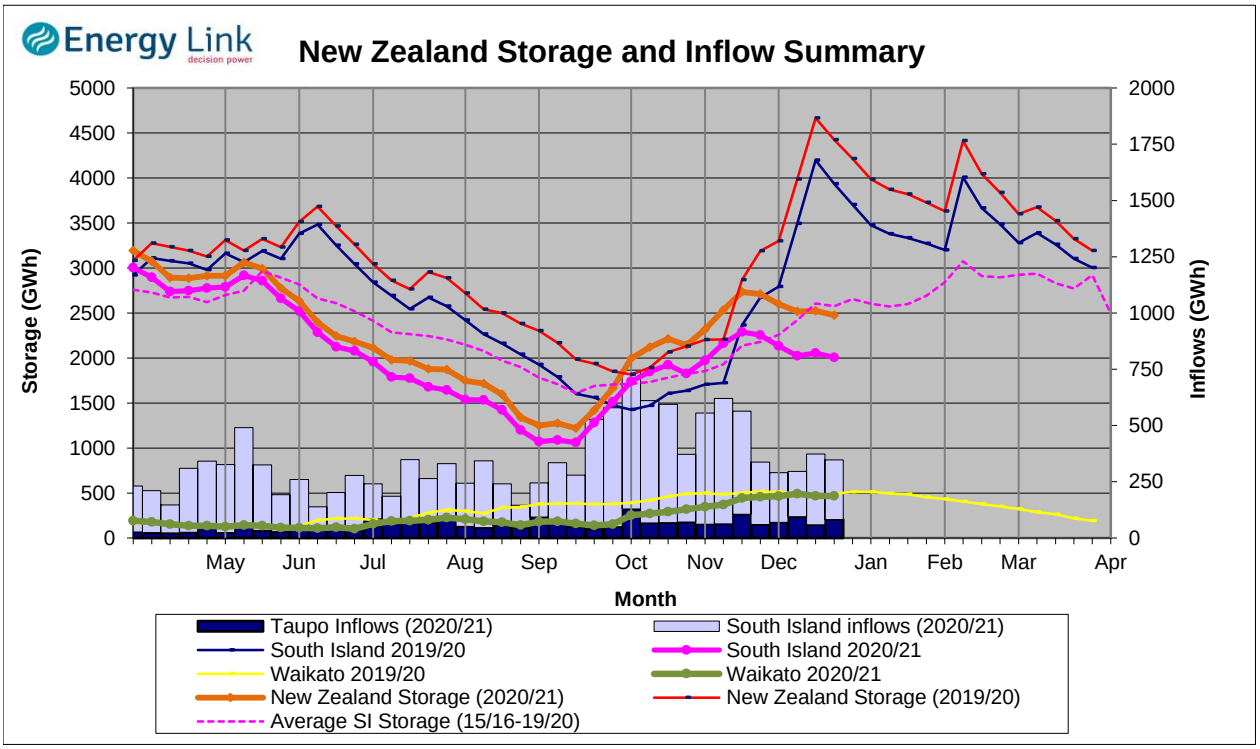
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	**1922**	**469**	**2391**

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 48.9 GWh over the last week. South Island controlled storage decreased 3.5% to 1623 GWh; South Island uncontrolled storage increased 3% to 384 GWh; with Taupo storage remaining steady at 469 GWh.



Thursday, 17 December 2020					
Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	**299**	**261**	**1448**	**469**	**2476**
Last Week	283	266	1507	469	2525
% Change	5.4%	-1.8%	-3.9%	-0.1%	-1.9%
Inflow (GWh)					
This Week	**100**	**52**	**114**	**82**	**347**
Last Week	152	58	106	58	374
% Change	-34.3%	-11.2%	7.4%	40.9%	-7.2%

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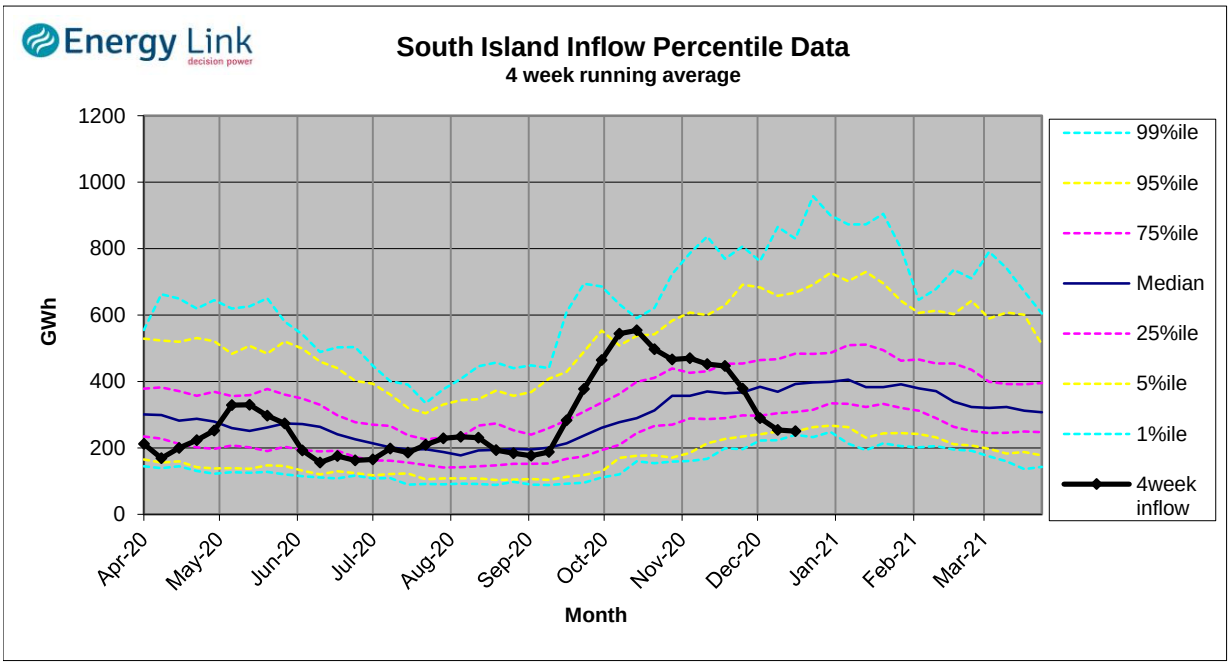
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	**177.80**	**115**	**17**	**0**
	Te Anau	**202.09**	**184**		
Clutha	Wakatipu	**309.76**	**39**	**135**	**6**
	Wanaka	**277.02**	**47**	**180**	**1**
	Hawea	**342.82**	**176**	**48**	**5**
Waitaki	Tekapo	**707.62**	**544**		
	Pukaki	**525.45**	**903**		
Waikato	Taupo	**357.00**	**469**		

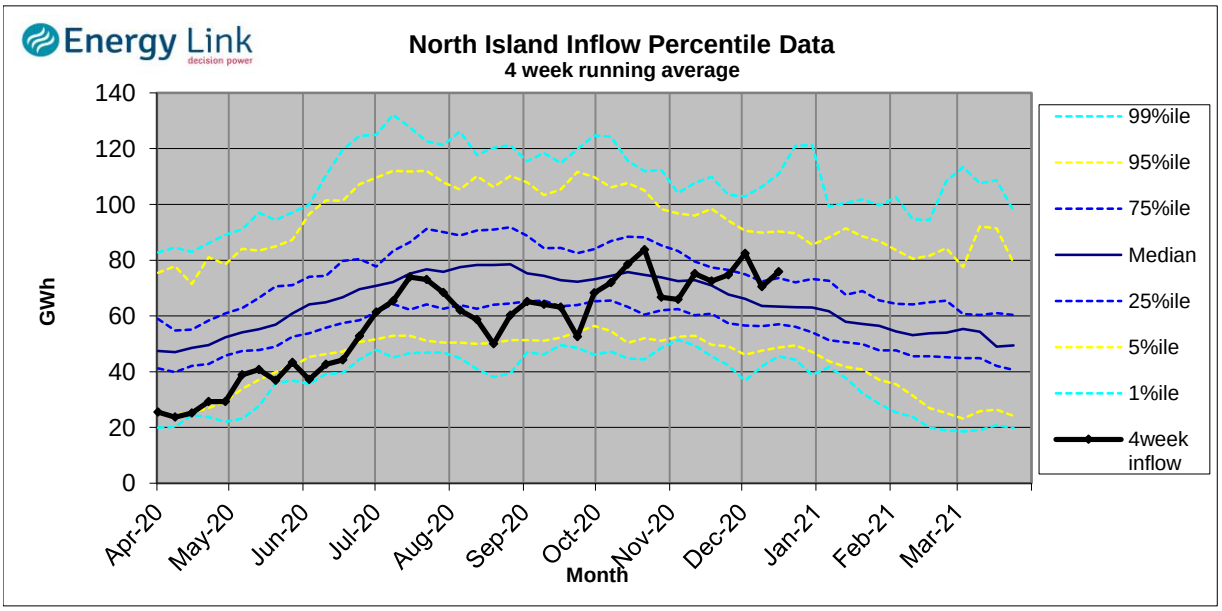
Inflow Summary

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.

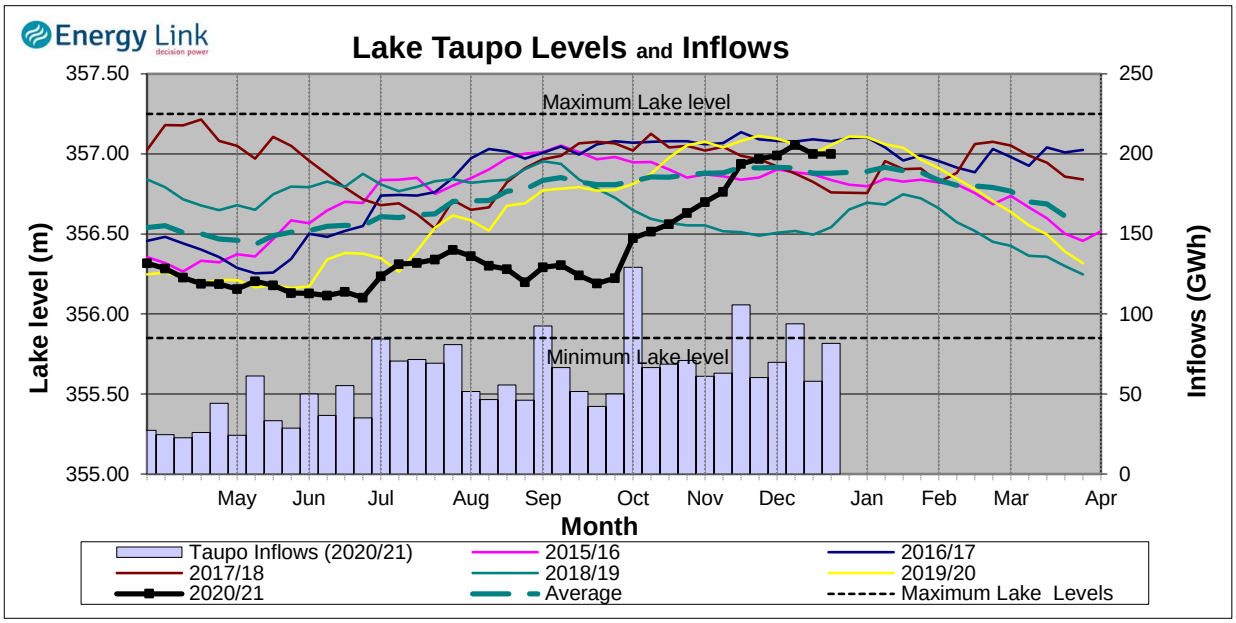
South Island Inflows - The past four weeks of S. I. inflows rank as the 6th driest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 17th wettest on record.



Waikato System

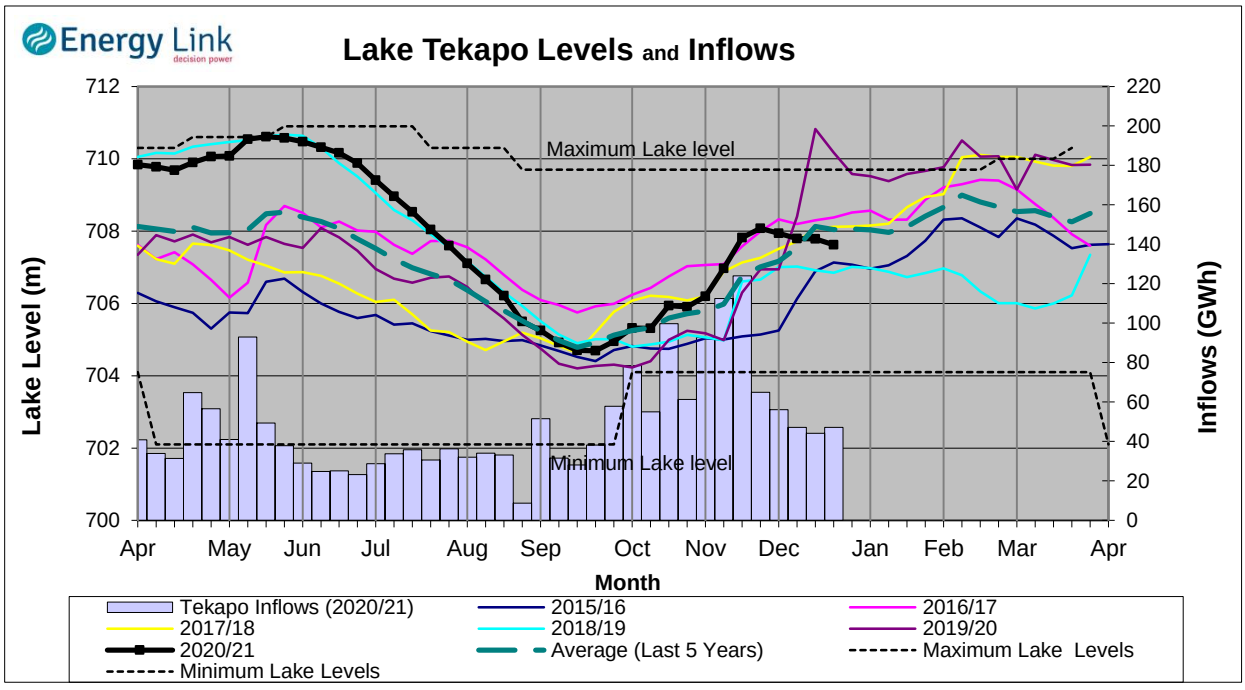


Lake Levels - Lake Taupo storage remained steady at 82.1% of nominal full at 469 GWh.

Inflows - Inflows increased 40.9% to 82 GWh.

Generation - Average generation increased 0.9% to 516.9 MW.

Tekapo



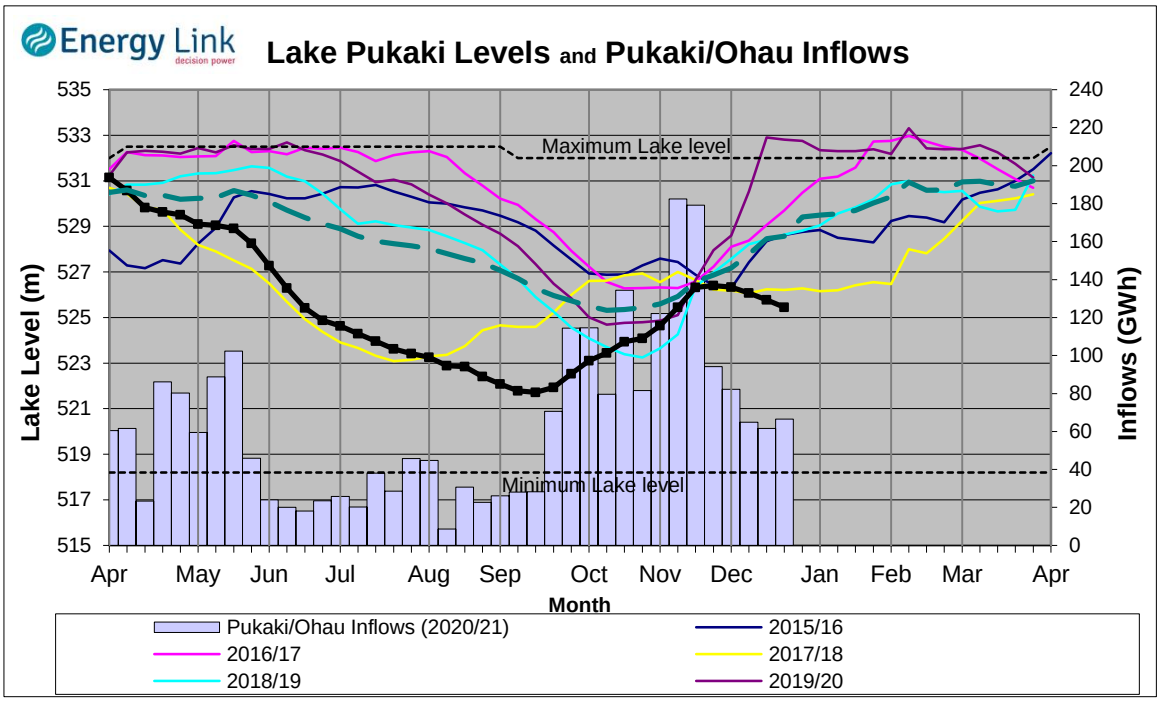
Lake Levels - Lake Tekapo ended the week 75% nominally full with storage falling to 544 GWh.

Inflows - Inflows into tekapo increased 6.5% to 47 GWh.

Generation - Average Tekapo generation increased 46.6% to 117.7 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 51% nominally full with storage falling to 903 GWh.

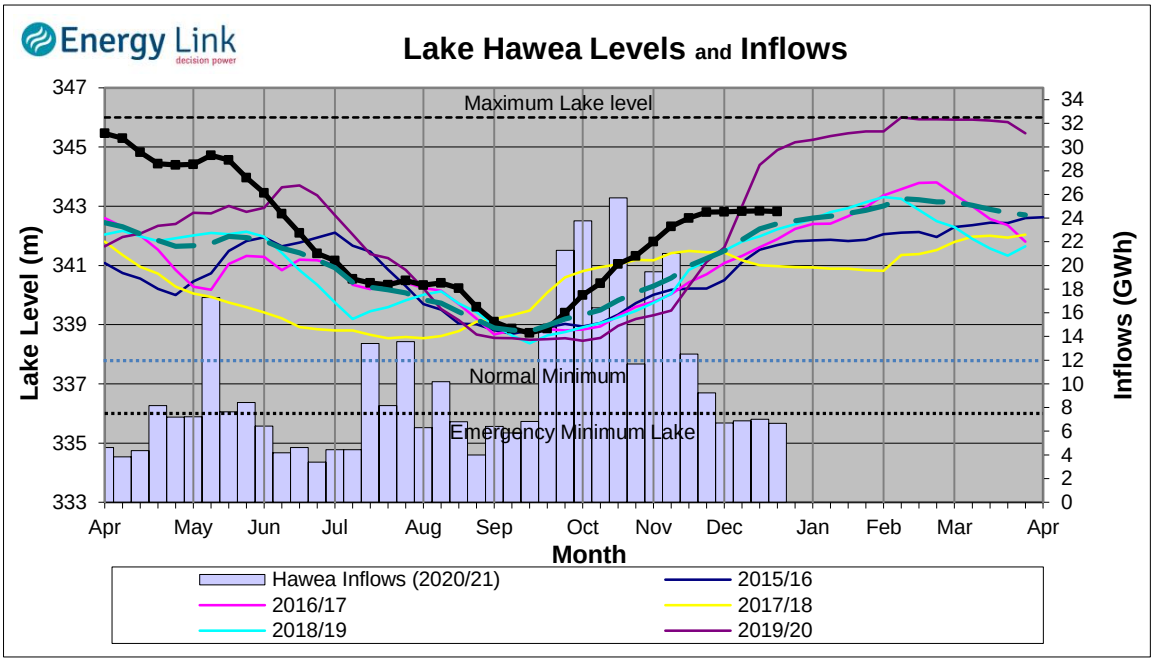
Inflows - Inflows into the Waitaki System increased 8% to 66 GWh.

Generation - Average Waikati generation increased 8.1% to 970 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River fell to 19.3 cumecs while Waitaki River flows were lower than last week averaging 389.2 cumecs.

Clutha System



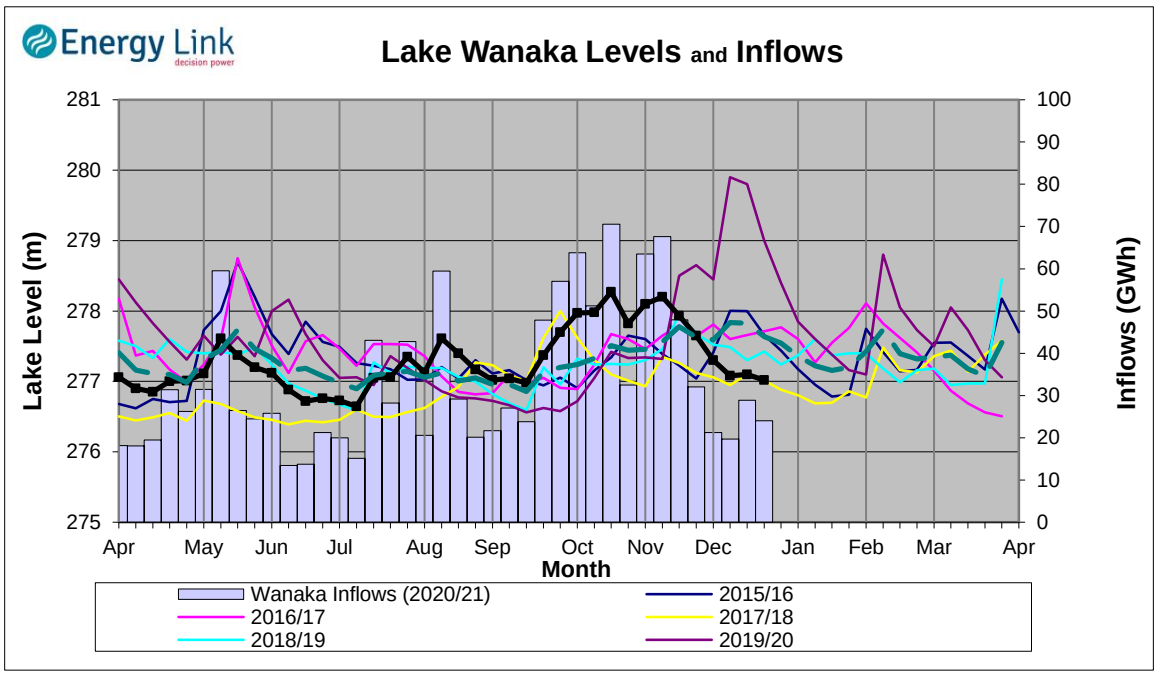
Lake Levels - Total storage for the Clutha System decreased 1.8% to 261 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 59.5%, 40.8% and 36.4% nominally full respectively.

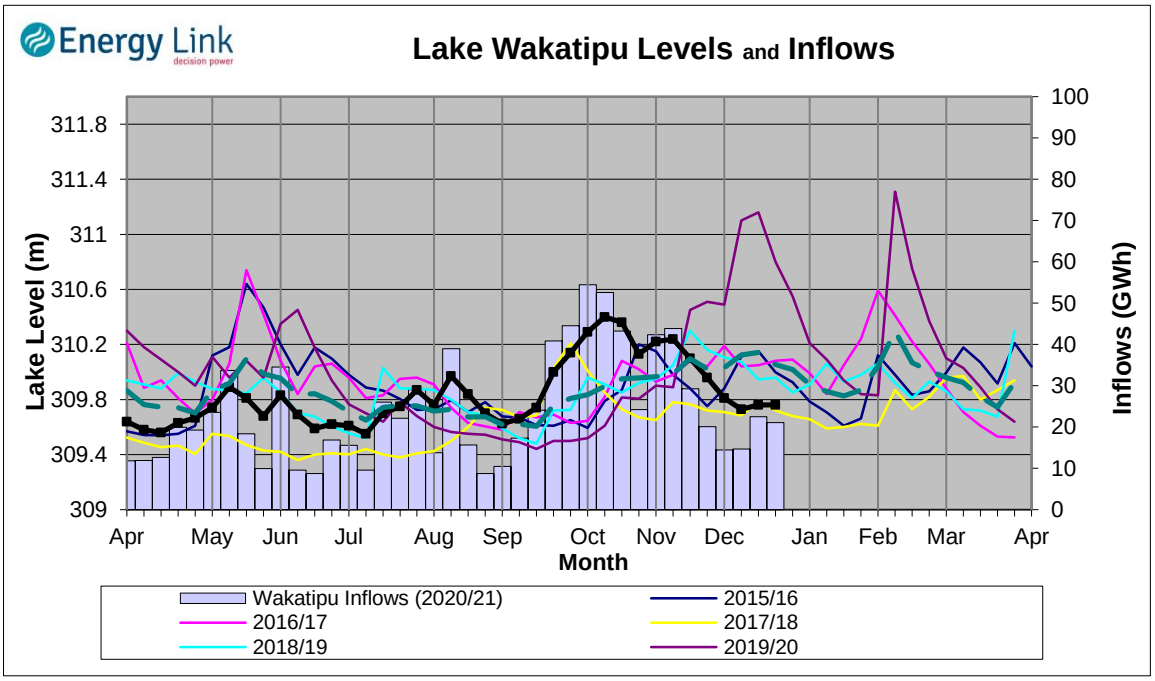
Inflows - Total Inflows into the Clutha System 11.2% lower at 52 GWh.

Generation - Average generation was 2.9% lower at 366 MW.

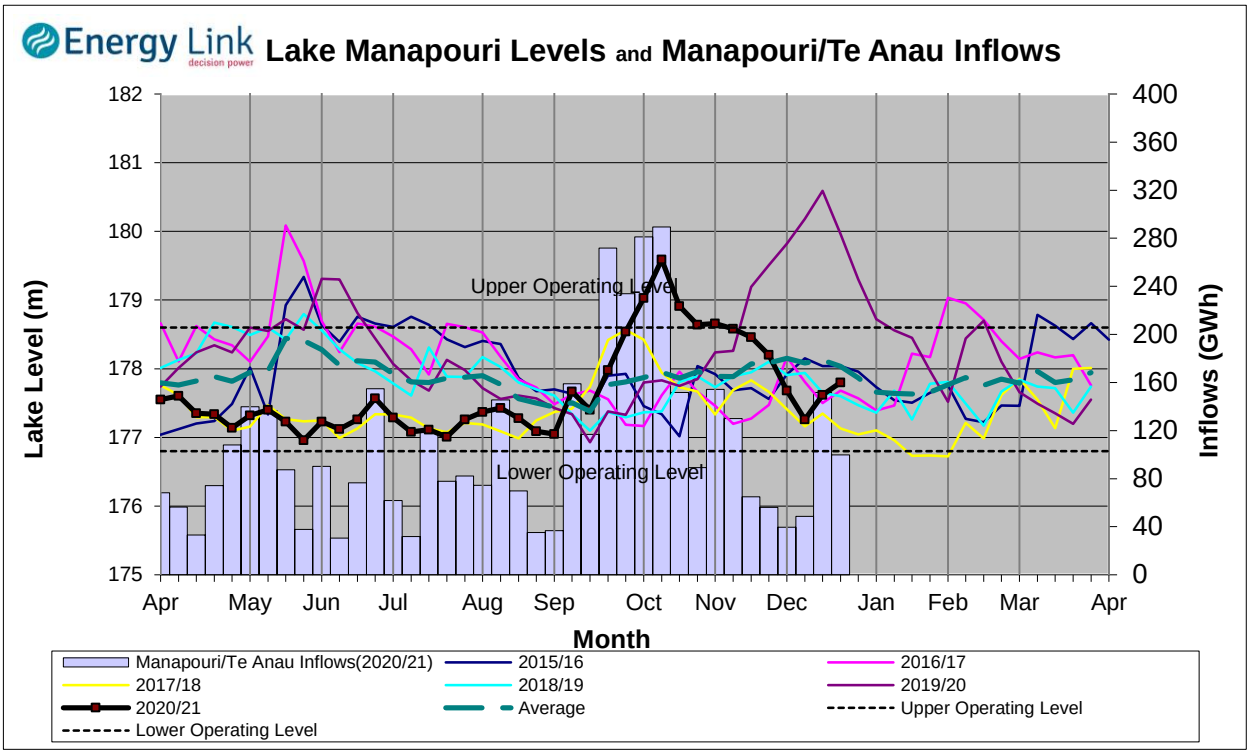
Hydro Spill - The was no estimated spill

River Flows - Total outflows from the lakes and Shotover River increased to 403.1 cumecs. This comprised of 48 cumecs from Lake Hawea, 180 cumecs from Lake Wanaka, 135 cumecs from Lake Wakatipu and 41 cumecs from the Shotover River.





Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 5.4% to 299 GWh with Lake Manapouri ending the week 70.5% nominally full and Lake Te Anau ending the week 66.8% nominally full.

Inflows - Total inflows into the Manapouri System decreased 34.3% to 100 GWh.

Generation - Average generation was 0.7% higher at 503 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 16.8 cumecs.

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