



Thursday, 16 December 2021

Issue: 1287

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)	2598	364	2962	510	3472
Storage Change (GWh)	59	-84	-25	53	28

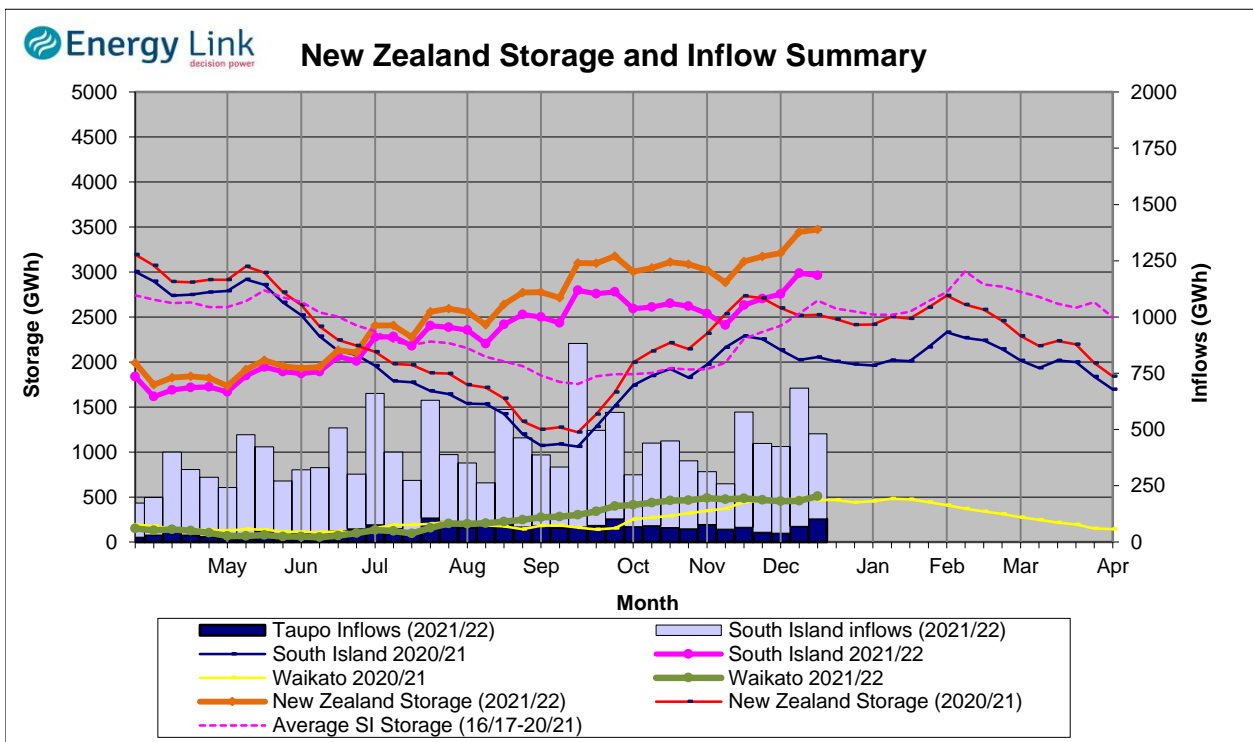
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2843	510	3352

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 28 GWh over the last week. South Island controlled storage increased 2.3% to 2598 GWh; South Island uncontrolled storage decreased 18.8% to 364 GWh; with Taupo storage increasing 11.5% to 510 GWh.



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	Manapouri	Clutha	Waitaki	Waikato		NZ
Storage (GWh)						
<b>This Week</b>	245	375	2342	510		3472
Last Week	309	397	2281	457		3444
% Change	-20.9%	-5.5%	2.7%	11.5%		0.8%
Inflow (GWh)						
<b>This Week</b>	32	61	285	103		480
Last Week	92	106	416	69		684
% Change	-65.7%	-42.7%	-31.5%	48.4%		-29.7%

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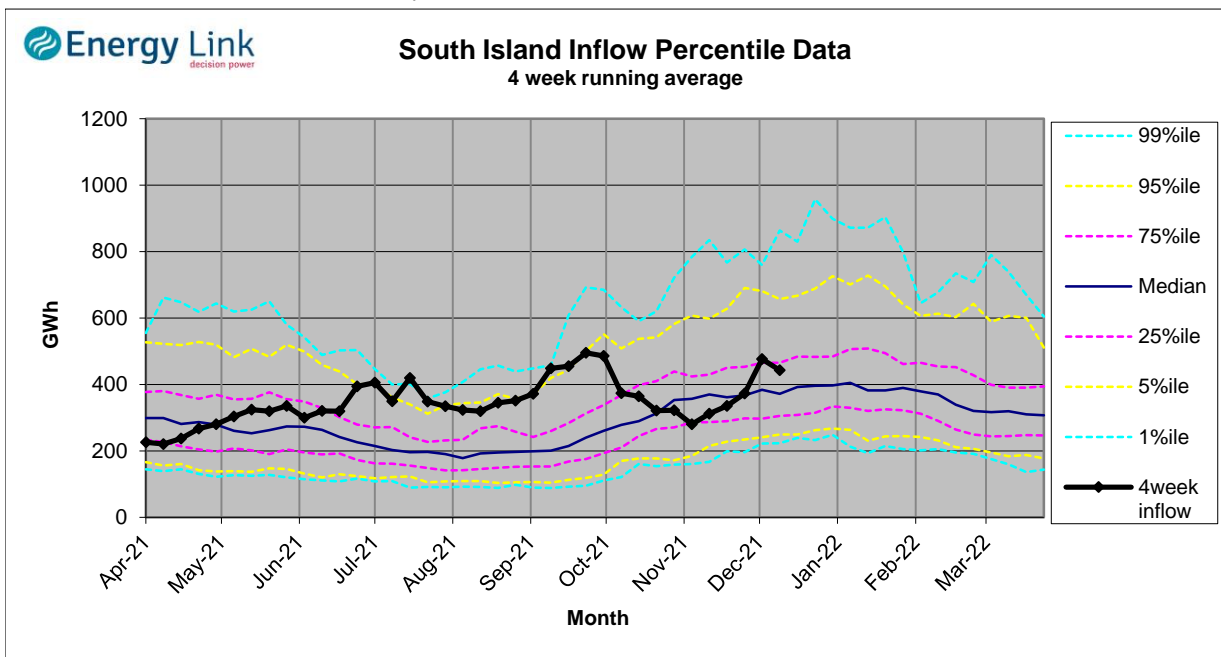
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.37	89	17	-1
	Te Anau	201.90	156		
Clutha	Wakatipu	309.91	50	183	-14
	Wanaka	277.48	69	263	
	Hawea	344.95	256	83	
Waitaki	Tekapo	710.39	845		
	Pukaki	529.94	1497		
Waikato	Taupo	357.10	510		45

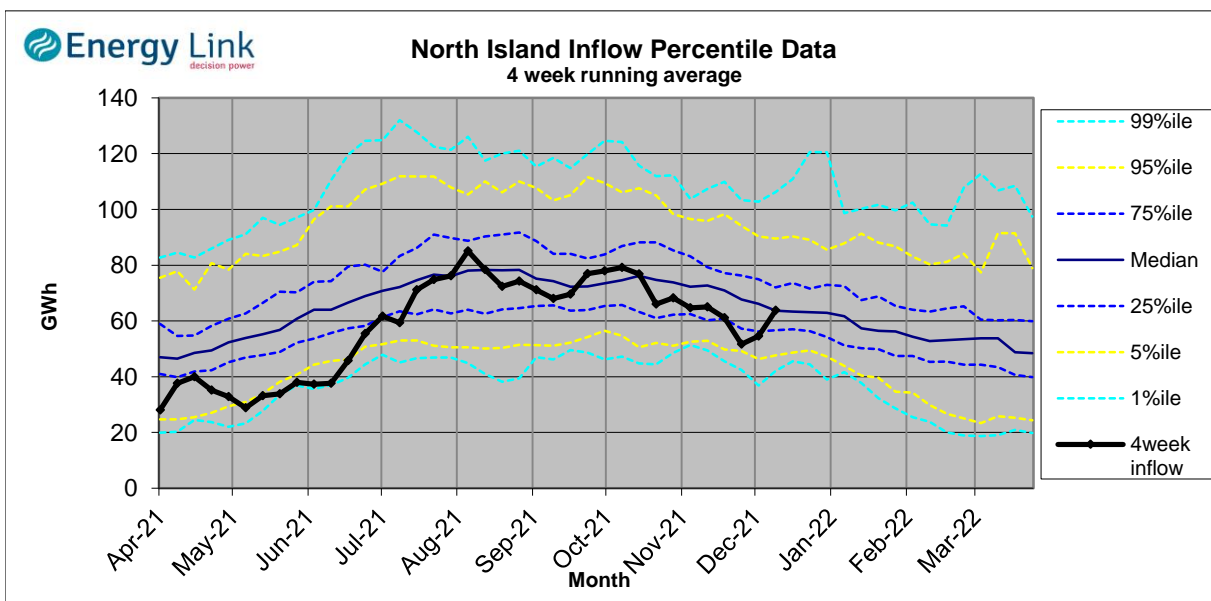
Inflow Summary

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.

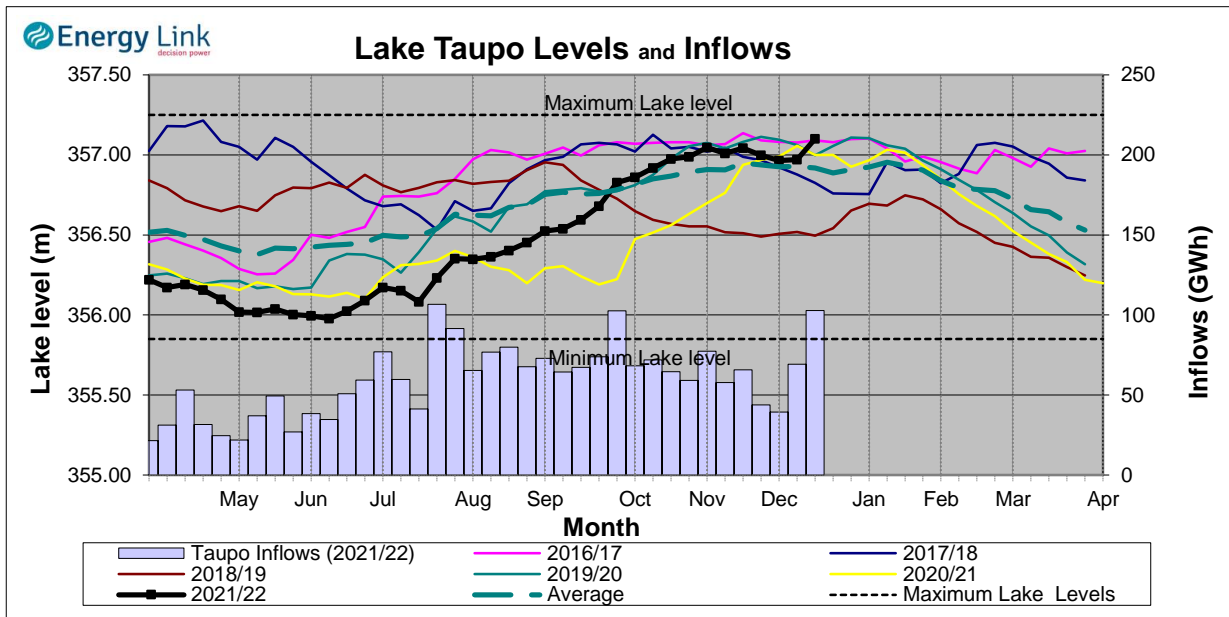
**South Island Inflows** - The past four weeks of S. I. inflows rank as the 26th wettest on record.



**North Island Inflows** - The past four weeks of N. I. inflows rank as the 45th wettest on record.



# Waikato System

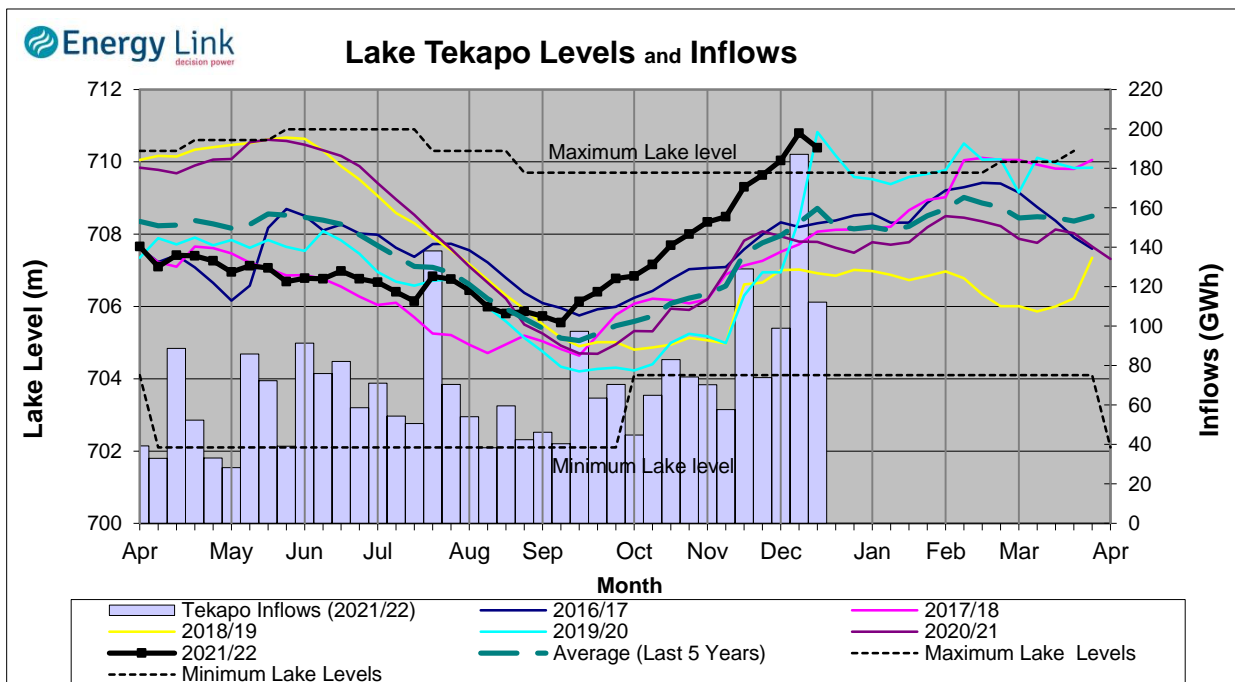


**Lake Levels** - Lake Taupo storage increased to 89.3% of nominal full at 510 GWh.

**Inflows** - Inflows increased 48.4% to 103 GWh.

**Generation** - Average generation decreased 13.6% to 359.2 MW.

# Tekapo



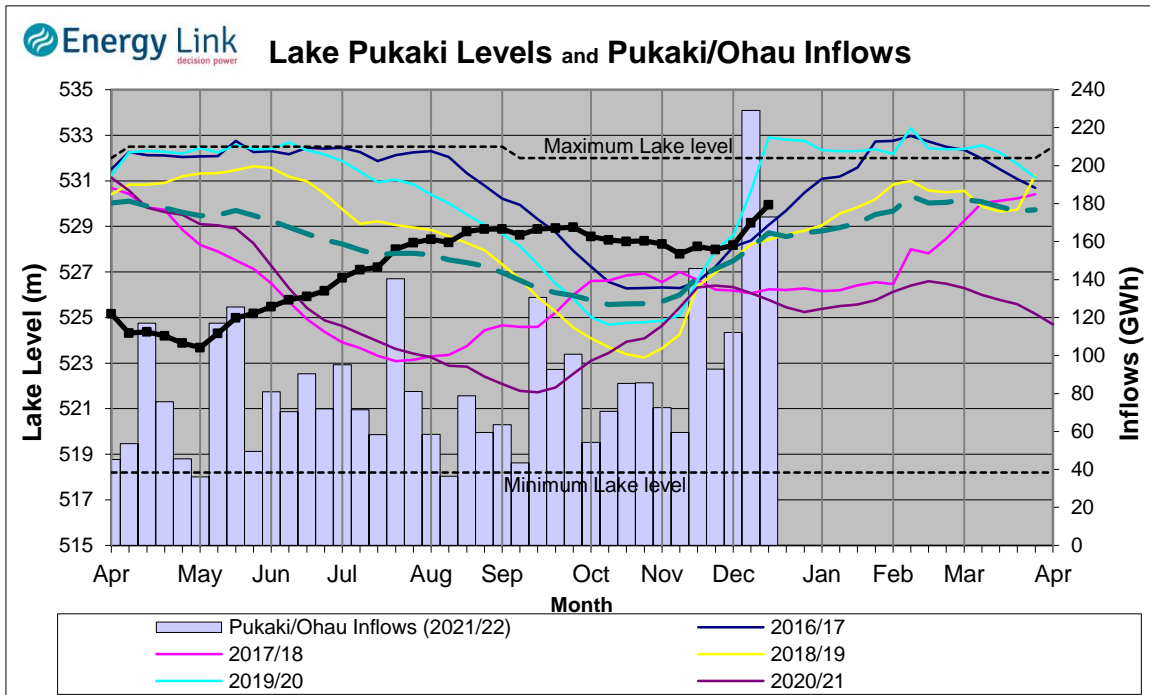
**Lake Levels** - Lake Tekapo ended the week 117% nominally full with storage falling to 845 GWh.

**Inflows** - Inflows into tekapo decreased 40.1% to 112 GWh.

**Generation** - Average Tekapo generation decreased 5.3% to 84.8 MW.

**Hydro Spill** - Lake Tekapo spill was 173 cumecs.

## Waitaki System



**Lake Levels** - Lake Pukaki ended the week 84% nominally full with storage increasing to 1497 GW

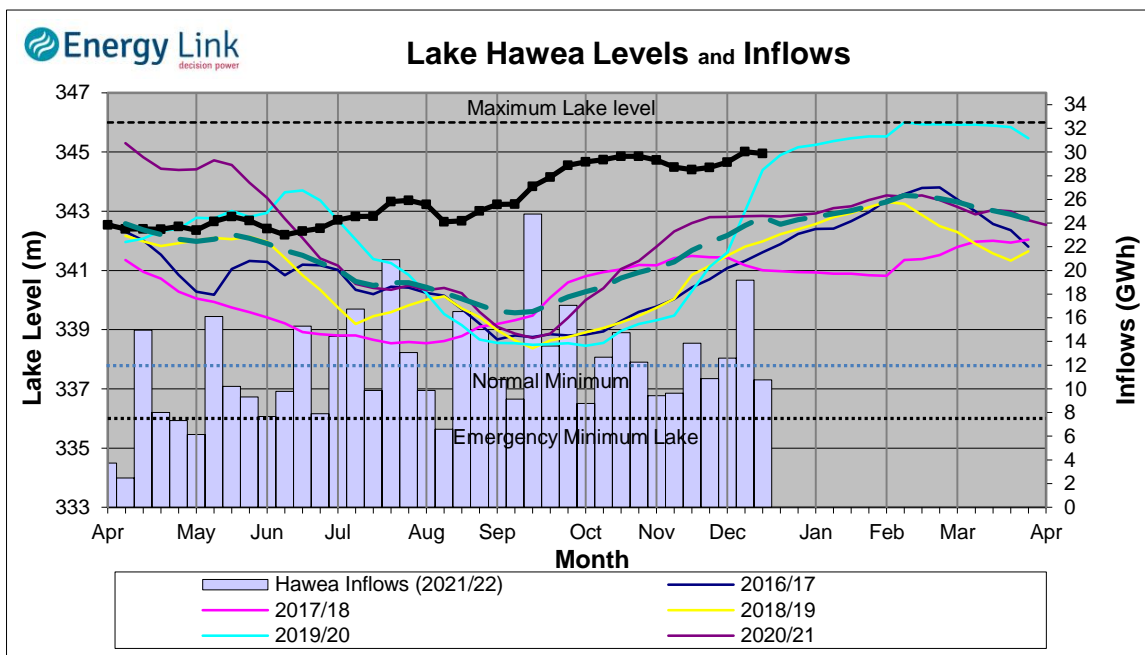
**Inflows** - Inflows into the Waitaki System decreased 24.5% to 173 GWh.

**Generation** - Average Waikati generation decreased 7.8% to 912.4 MW.

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

**River Flows** - Flows from the Ahuriri River fell to 34.6 cumecs while Waitaki River flows remained steady averaging 476.1 cumecs.

## Clutha System



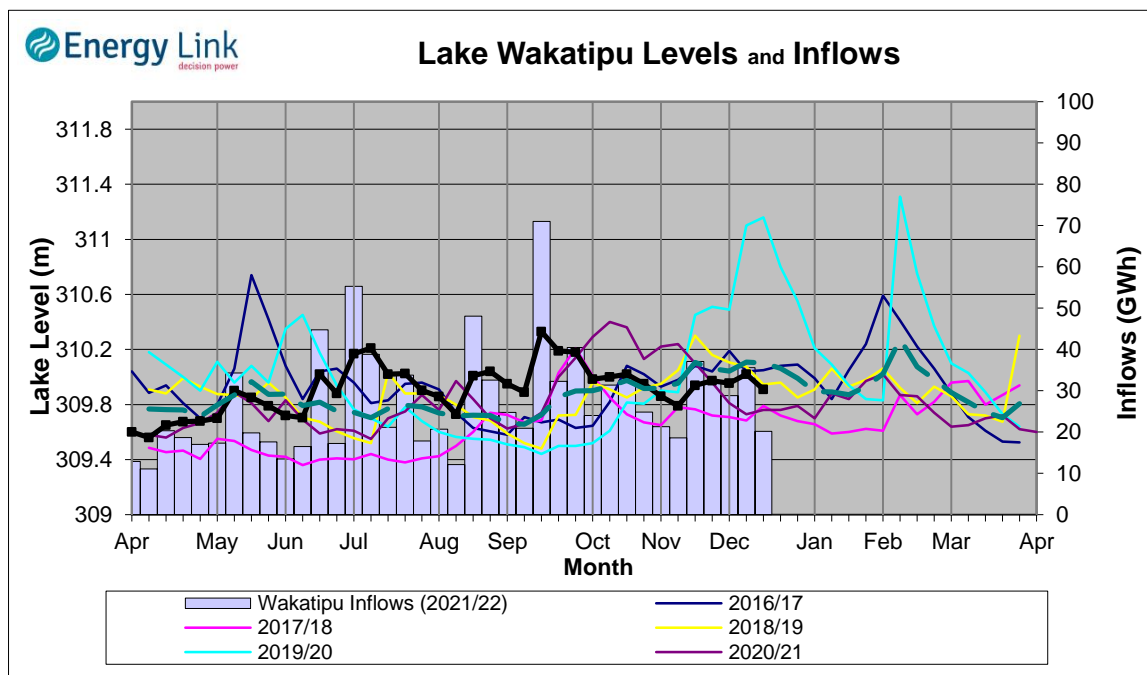
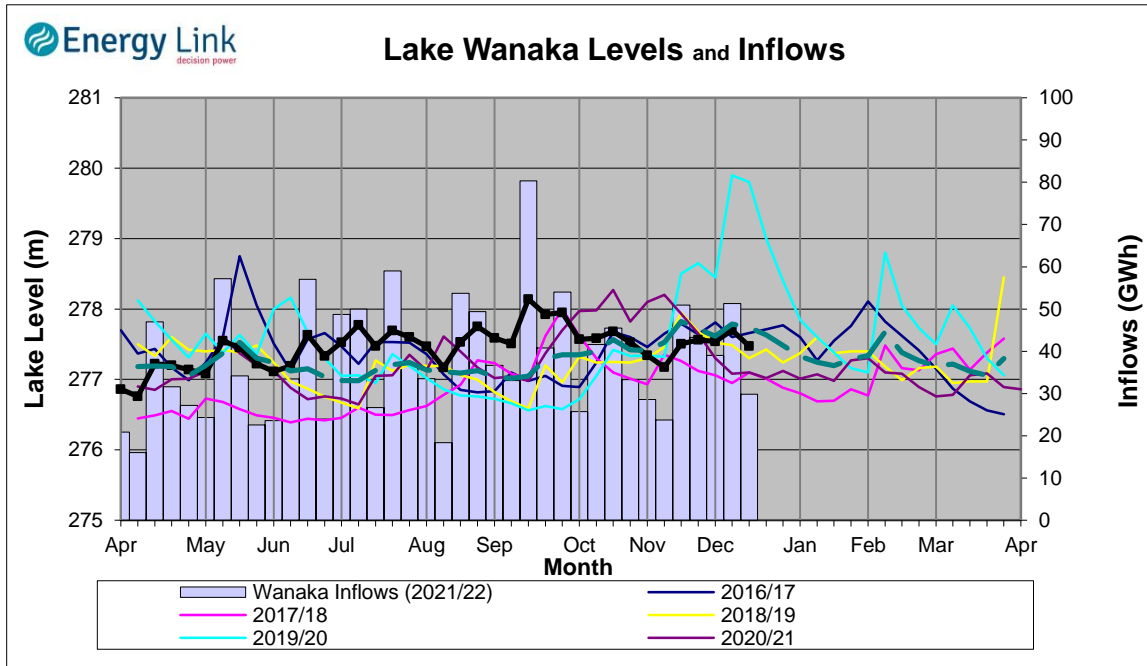
**Lake Levels** - Total storage for the Clutha System decreased 5.5% to 375 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 86.6%, 60.6% and 47.1% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 42.7% lower at 61 GWh.

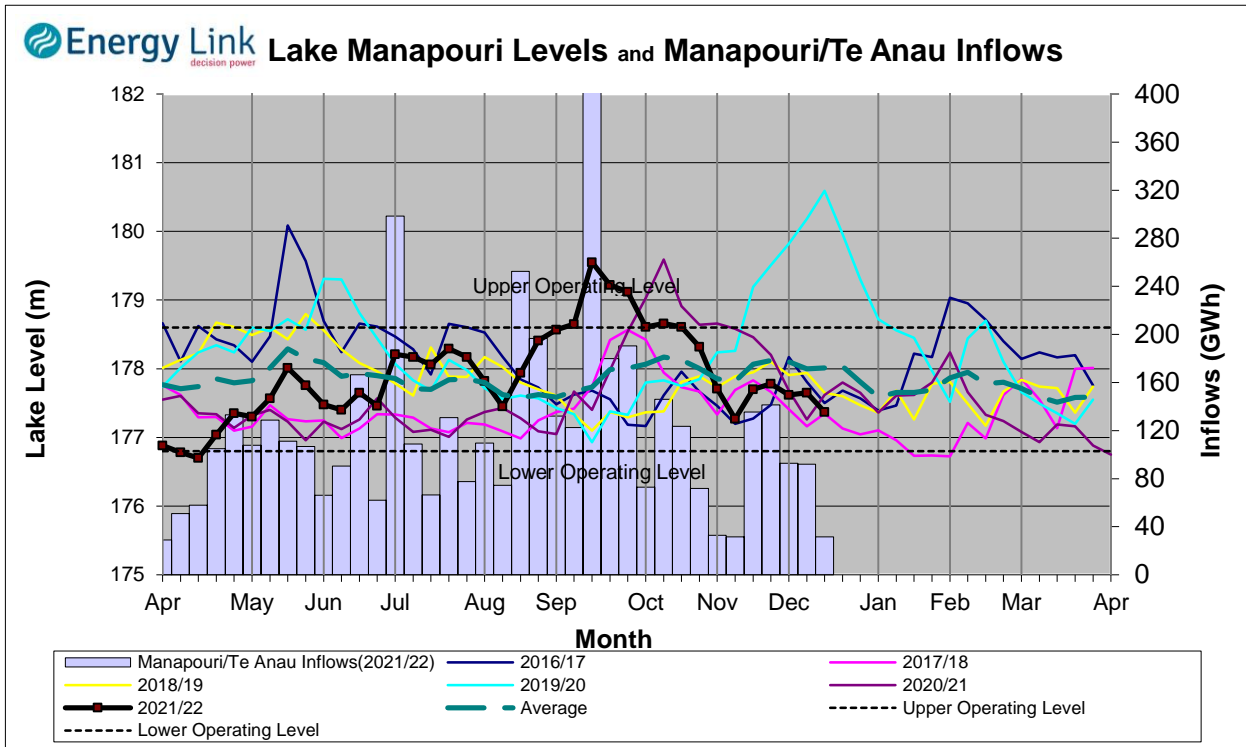
**Generation** - Average generation was remained steady at 533 MW.

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

**River Flows** - Total outflows from the lakes and Shotover River increased to 578.2 cumecs. This comprised of 83 cumecs from Lake Hawea, 263 cumecs from Lake Wanaka, 183 cumecs from Lake Wakatipu and 50 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System decreased 20.9% to 245 GWh with Lake Manapouri ending the week 54.8% nominally full and Lake Te Anau ending the week 56.5% nominally full.

**Inflows** - Total inflows into the Manapouri System decreased 65.7% to 32 GWh.

**Generation** - Average generation was 5.9% lower at 572 MW.

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

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

