



Thursday, 23 July 2020

Issue: 1214

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)	1275	370	1645	225	1870
Storage Change (GWh)	-67	32	-34	24	-10

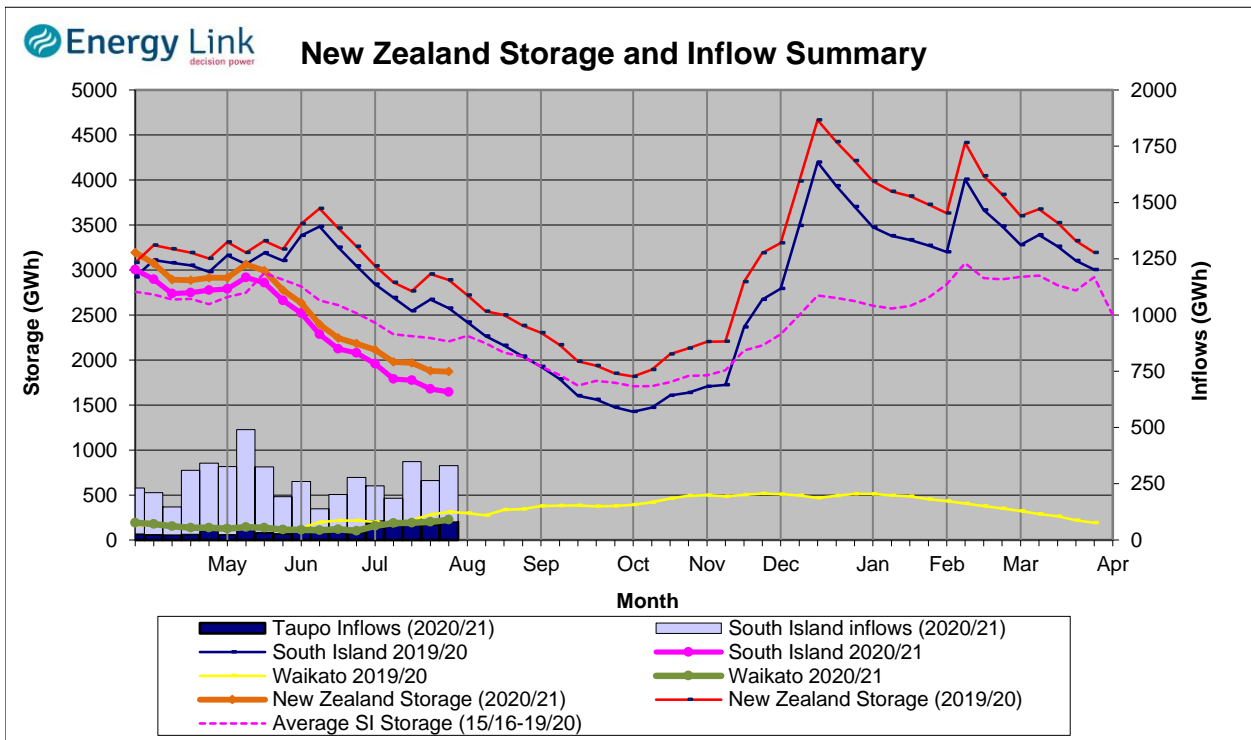
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	1535	225	1760

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 9.9 GWh over the last week. South Island controlled storage decreased 5% to 1275 GWh; South Island uncontrolled storage increased 9.6% to 370 GWh; with Taupo storage increasing 12.2% to 225 GWh.



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	Manapouri	Clutha	Waitaki	Waikato	NZ
Storage (GWh)					
<b>This Week</b>	<b>261</b>	<b>199</b>	<b>1186</b>	<b>225</b>	<b>1870</b>
Last Week	252	171	1257	200	1880
% Change	3.5%	16.8%	-5.7%	12.2%	-0.5%
Inflow (GWh)					
<b>This Week</b>	<b>82</b>	<b>85</b>	<b>82</b>	<b>81</b>	<b>331</b>
Last Week	78	58	59	69	265
% Change	5.6%	46.0%	38.8%	16.9%	24.9%

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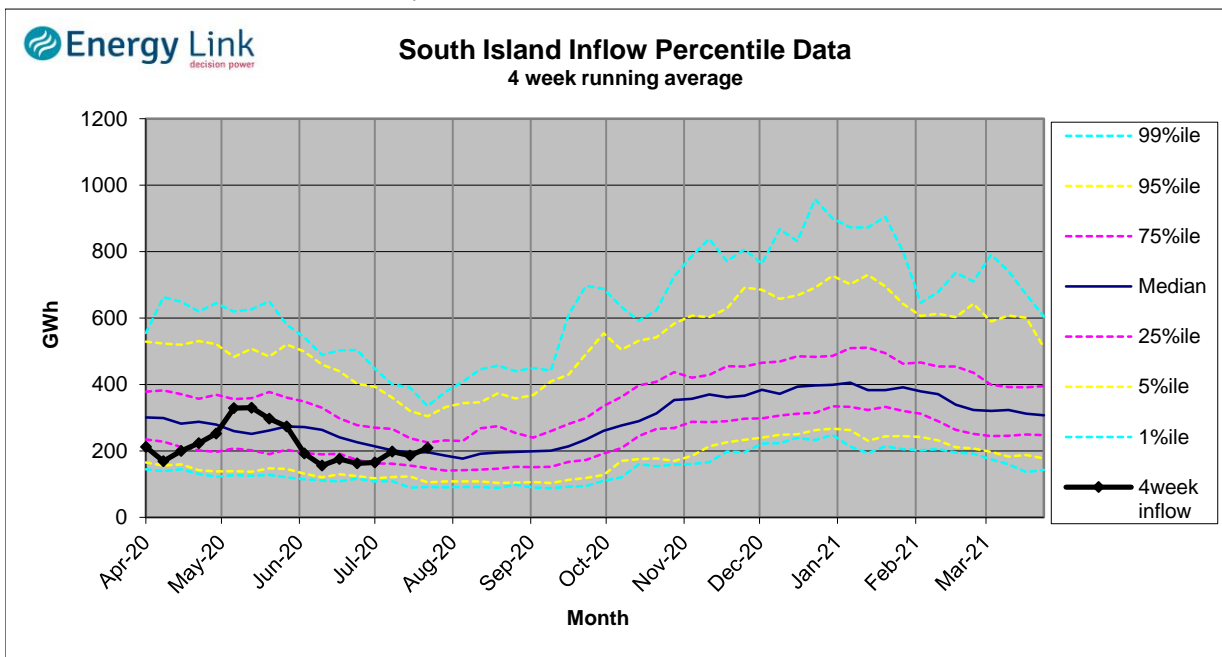
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.26	83	41	-24
	Te Anau	202.05	178		
Clutha	Wakatipu	309.87	47	128	11
	Wanaka	277.35	63	182	4
	Hawea	340.49	89	54	-12
Waitaki	Tekapo	707.60	542		
	Pukaki	523.42	643		
Waikato	Taupo	356.40	225		

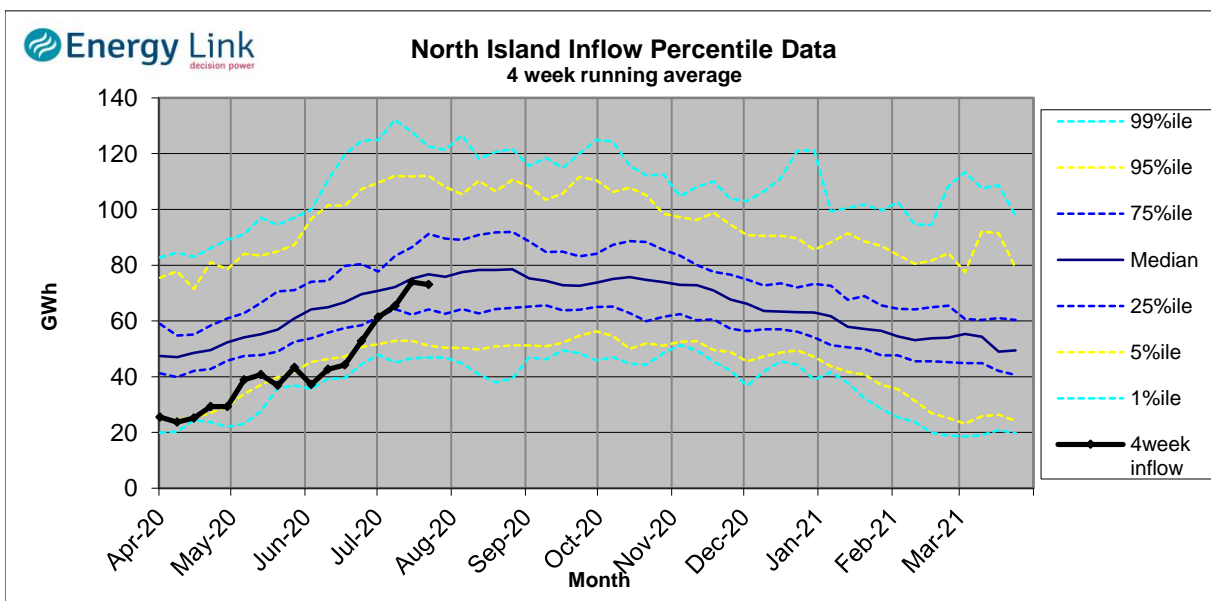
Inflow Summary

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.

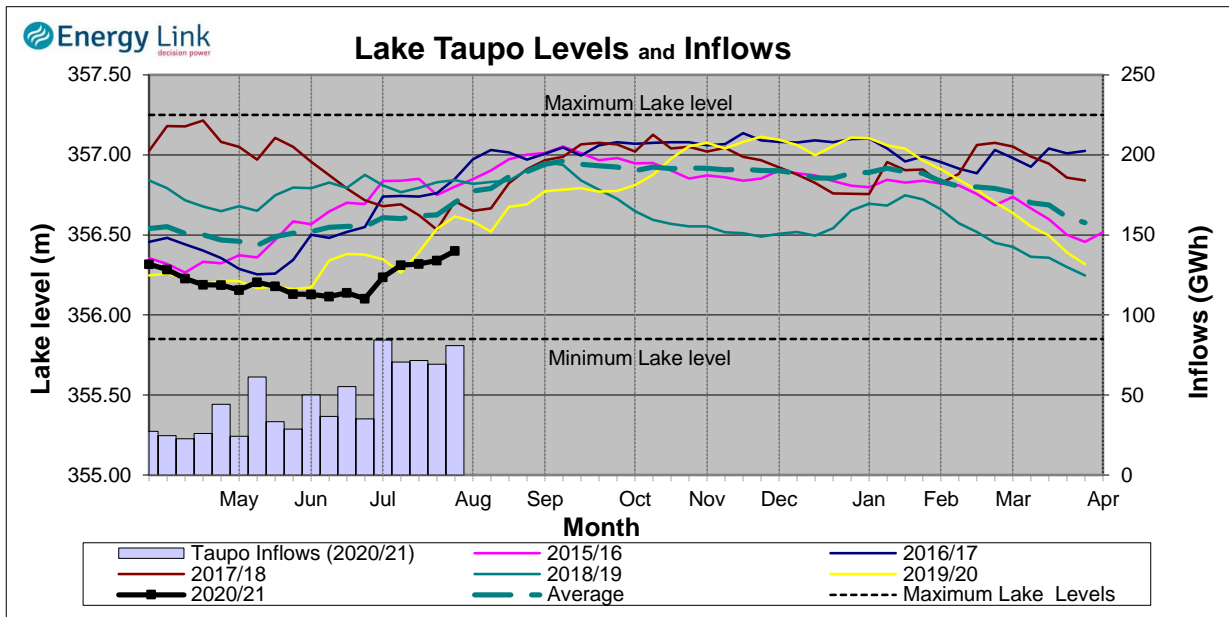
**South Island Inflows** - The past four weeks of S. I. inflows rank as the 37th wettest on record.



**North Island Inflows** - The past four weeks of N. I. inflows rank as the 40th driest on record.



# Waikato System

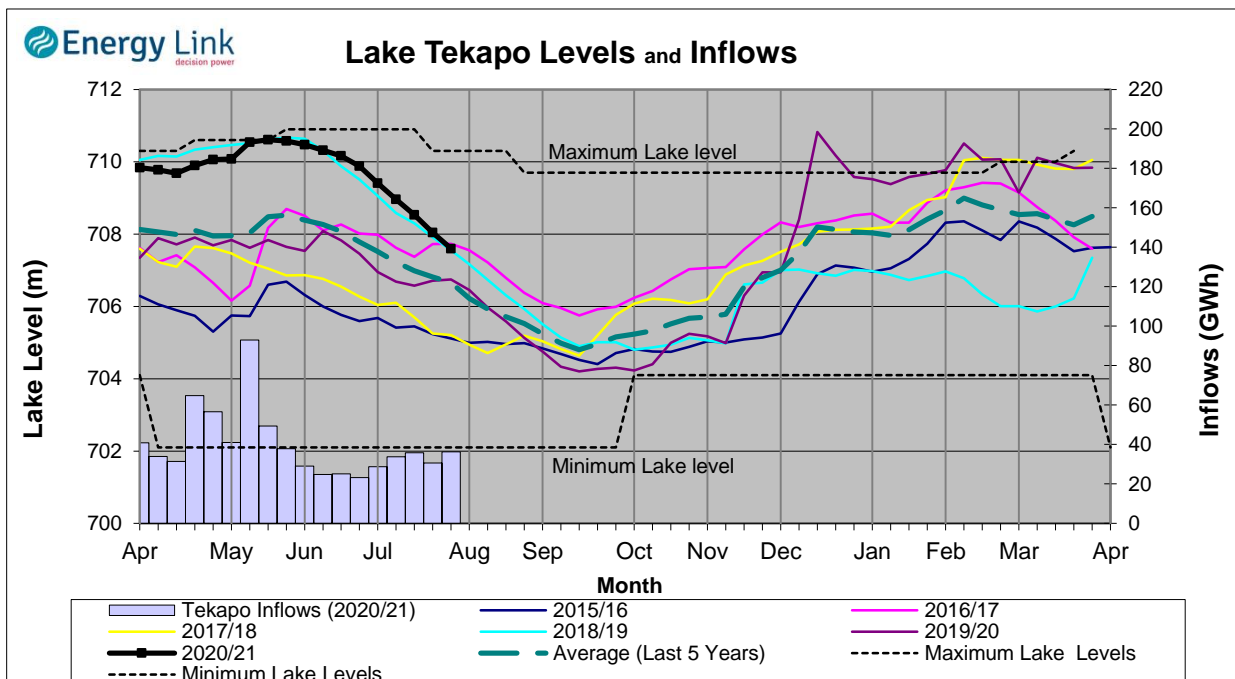


**Lake Levels** - Lake Taupo storage increased to 39.4% of nominal full at 225 GWh.

**Inflows** - Inflows increased 16.9% to 81 GWh.

**Generation** - Average generation decreased 8.1% to 402 MW.

# Tekapo



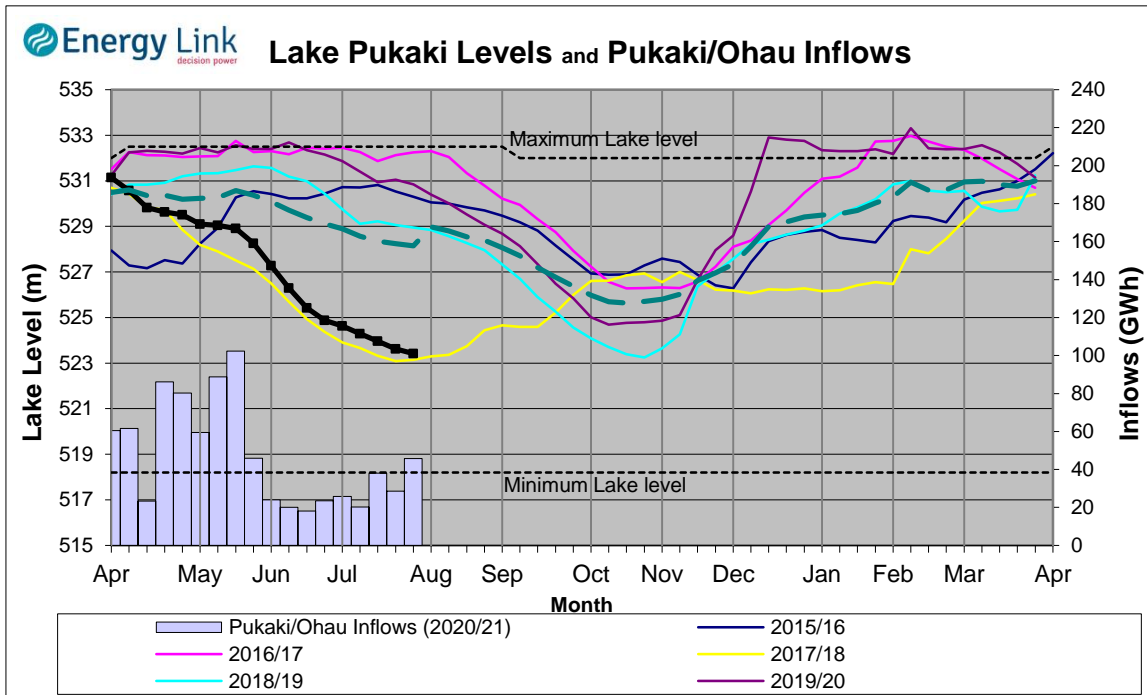
**Lake Levels** - Lake Tekapo ended the week 64% nominally full with storage falling to 542 GWh.

**Inflows** - Inflows into tekapo increased 18.6% to 36 GWh.

**Generation** - Average Tekapo generation decreased 0.5% to 174.3 MW.

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

## Waitaki System



**Lake Levels** - Lake Pukaki ended the week 35% nominally full with storage falling to 643 GWh.

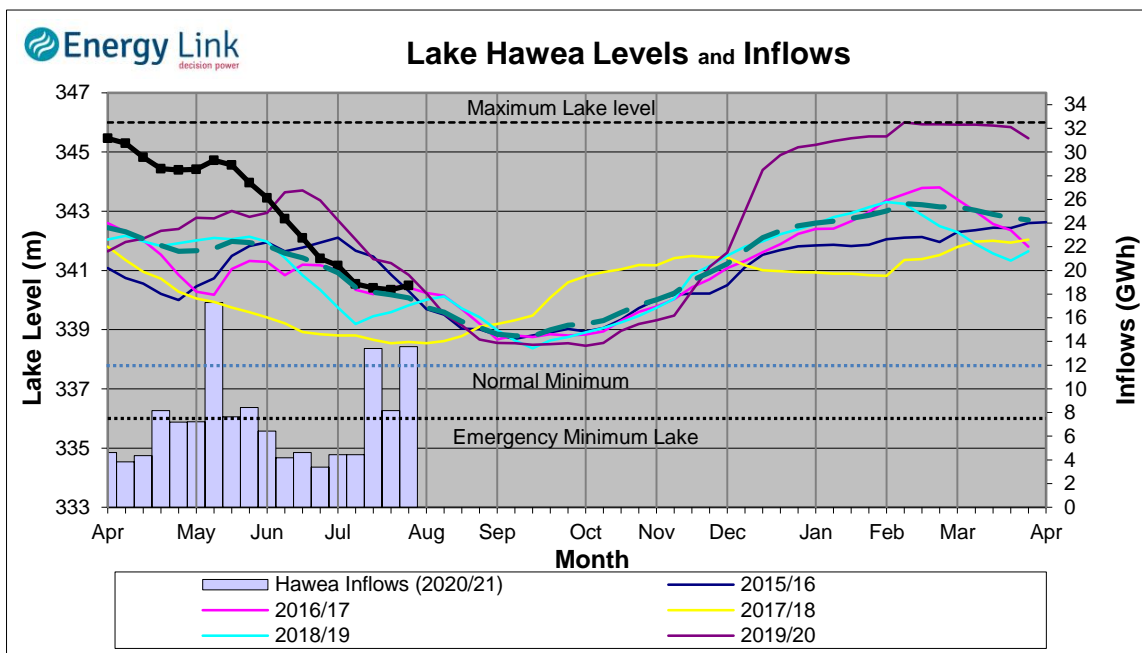
**Inflows** - Inflows into the Waitaki System increased 60.5% to 46 GWh.

**Generation** - Average Waikati generation decreased 3% to 822.9 MW.

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

**River Flows** - Flows from the Ahuriri River fell to 22.3 cumecs while Waitaki River flows were lower than last week averaging 342.3 cumecs.

## Clutha System



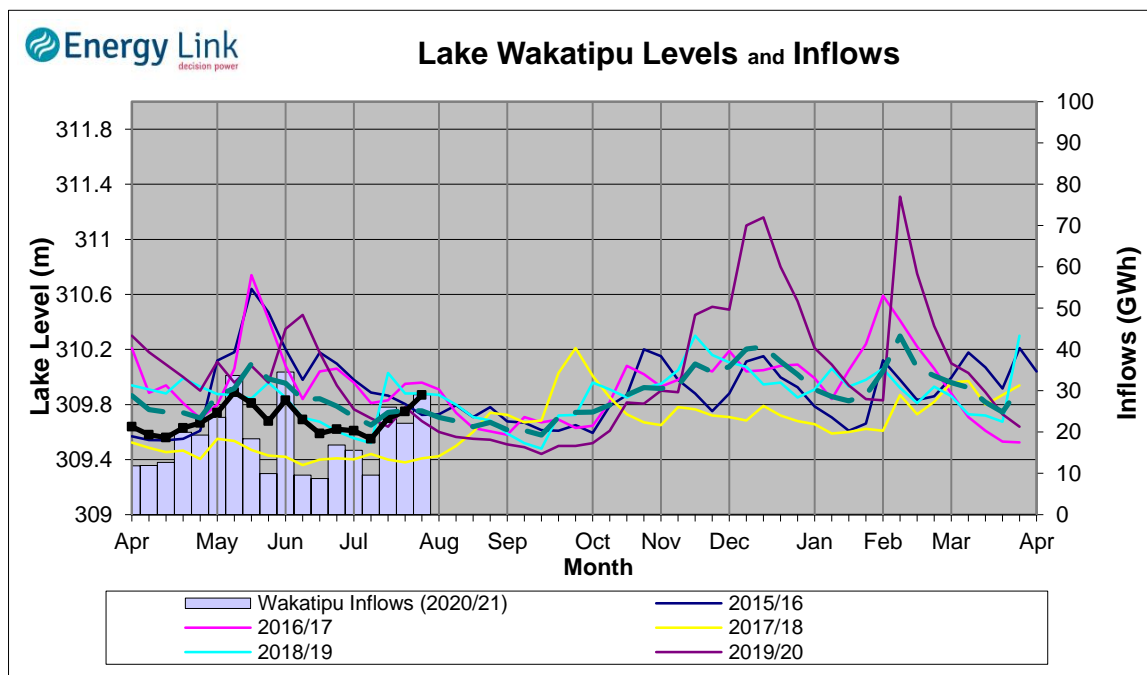
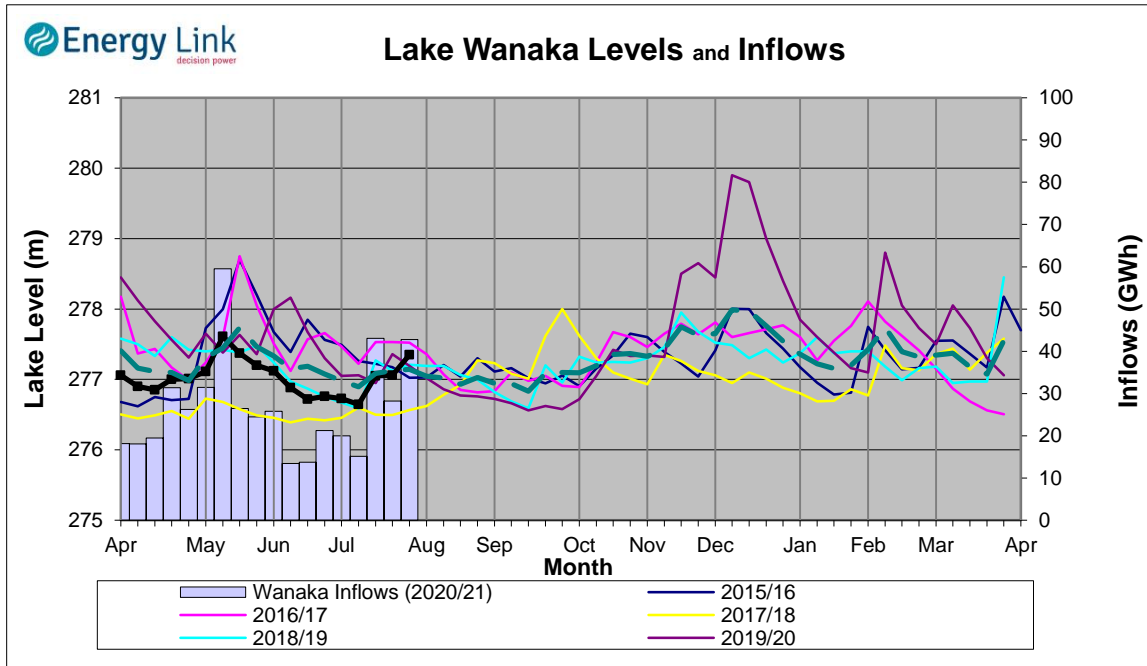
**Lake Levels** - Total storage for the Clutha System increased by 16.8% to 199 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 30.2%, 55.1% and 44.3% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 46% higher at 85 GWh.

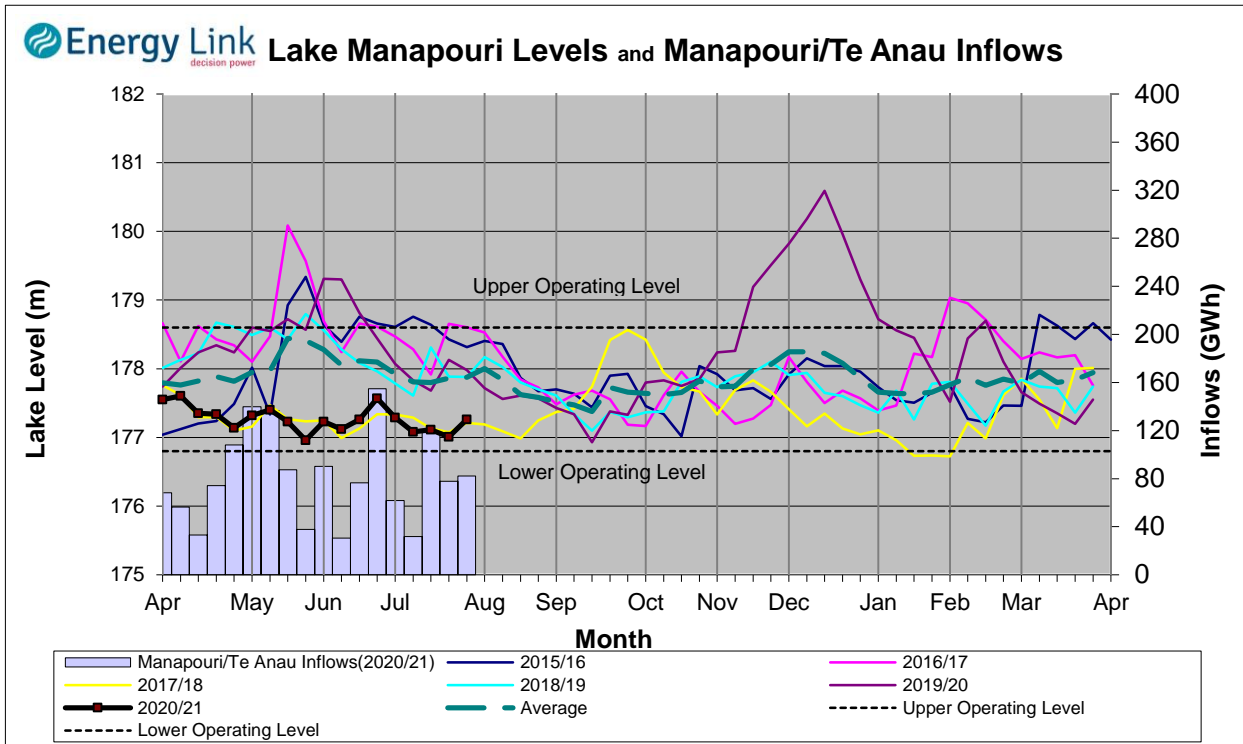
**Generation** - Average generation was 4.2% higher at 421 MW.

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

**River Flows** - Total outflows from the lakes and Shotover River increased to 427.8 cumecs. This comprised of 54 cumecs from Lake Hawea, 182 cumecs from Lake Wanaka, 128 cumecs from Lake Wakatipu and 64 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System increased by 3.5% to 261 GWh with Lake Manapouri ending the week 50.8% nominally full and Lake Te Anau ending the week 64.7% nominally full.

**Inflows** - Total inflows into the Manapouri System increased 5.6% to 82 GWh.

**Generation** - Average generation was 9.1% lower at 437 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 40.7 cumecs.

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

