

# HydroWatch

Thursday, 21 May 2020

Issue: 1205

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)	2357	305	2662	114	2777
Storage Change (GWh)	-112	-82	-195	-20	-215

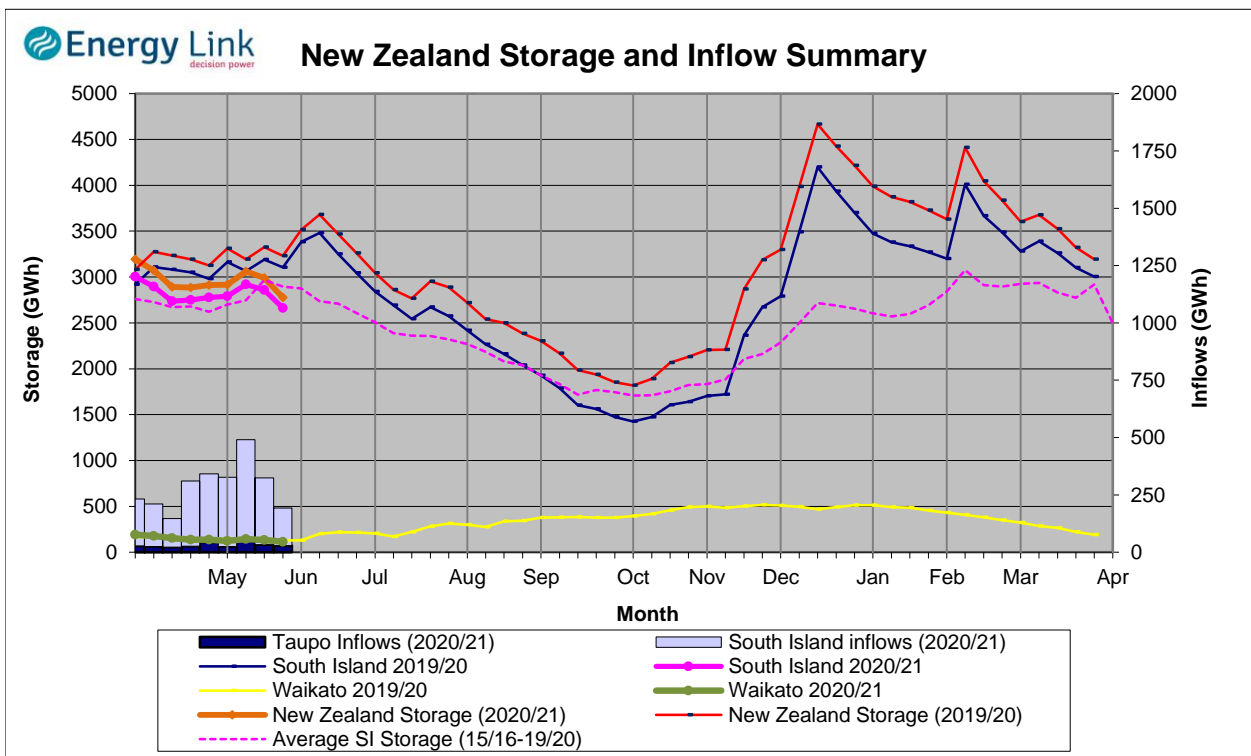
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2574	114	2688

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 215 GWh over the last week. South Island controlled storage decreased 4.6% to 2357 GWh; South Island uncontrolled storage decreased 21.2% to 305 GWh; with Taupo storage decreasing 15.2% to 114 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	217	307	2138	114	2777
Last Week	281	347	2228	135	2991
% Change	-22.7%	-11.7%	-4.0%	-15.2%	-7.2%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	38	43	84	29	193
Last Week	87	52	152	33	325
% Change	-56.8%	-18.4%	-44.7%	-14.0%	-40.6%

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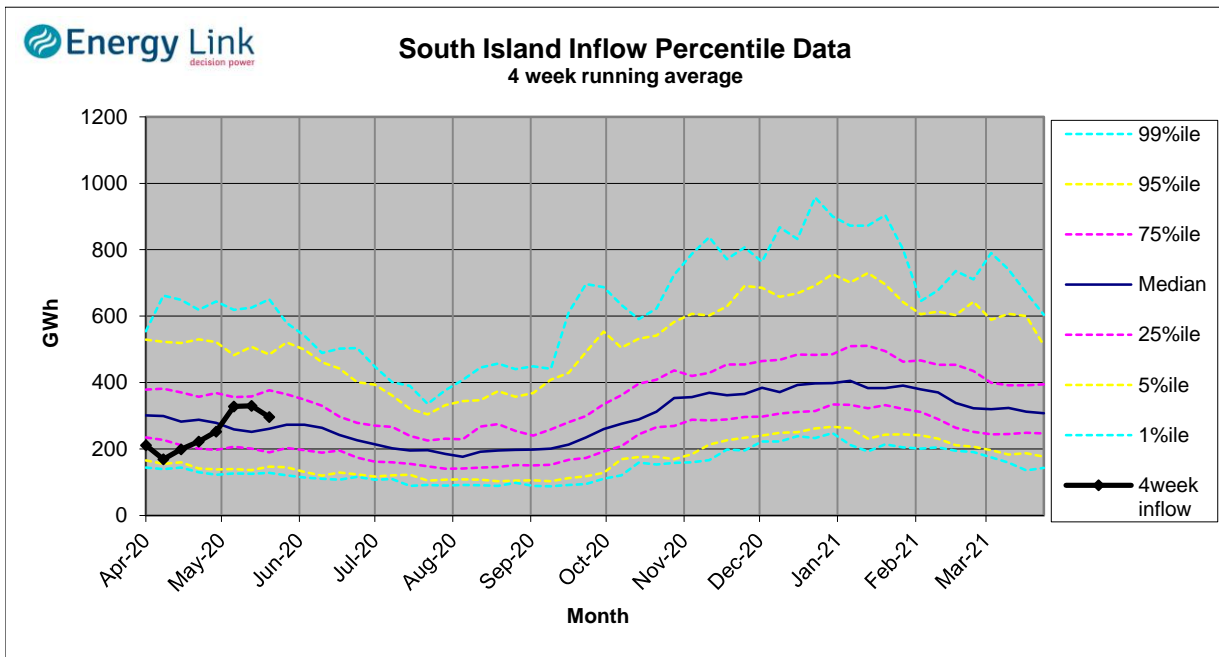
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	176.96	65	22	-16
	Te Anau	201.88	153		
Clutha	Wakatipu	309.68	32	127	-30
	Wanaka	277.20	56	211	
	Hawea	343.97	219	196	
Waitaki	Tekapo	710.58	866		-35
	Pukaki	528.26	1272		
Waikato	Taupo	356.13	114		109

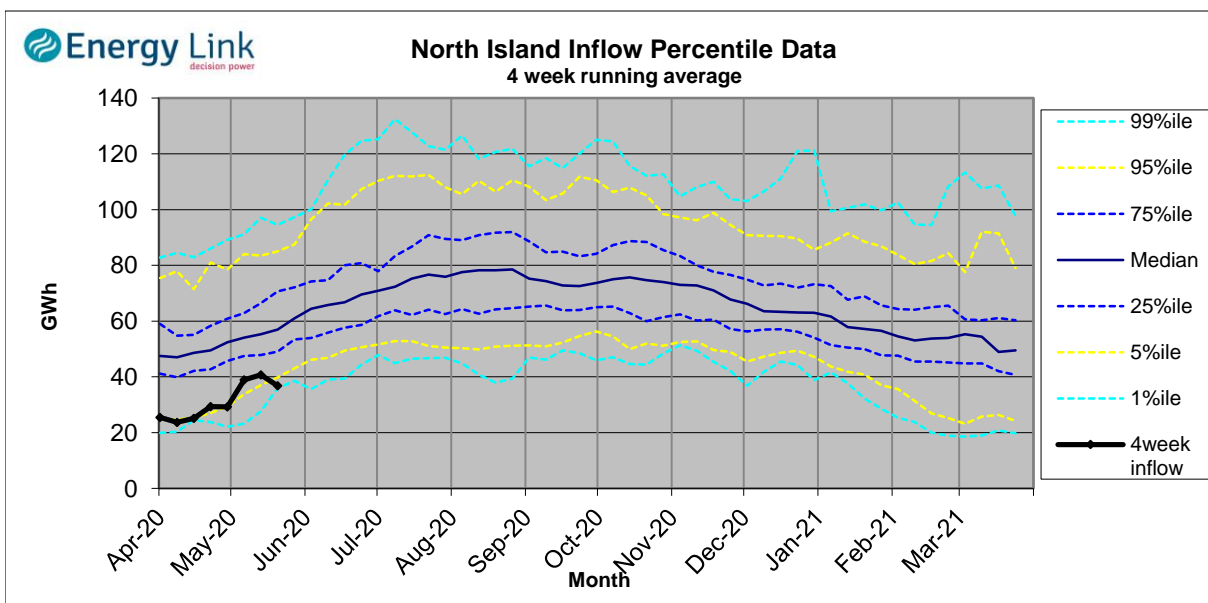
Inflow Summary

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.

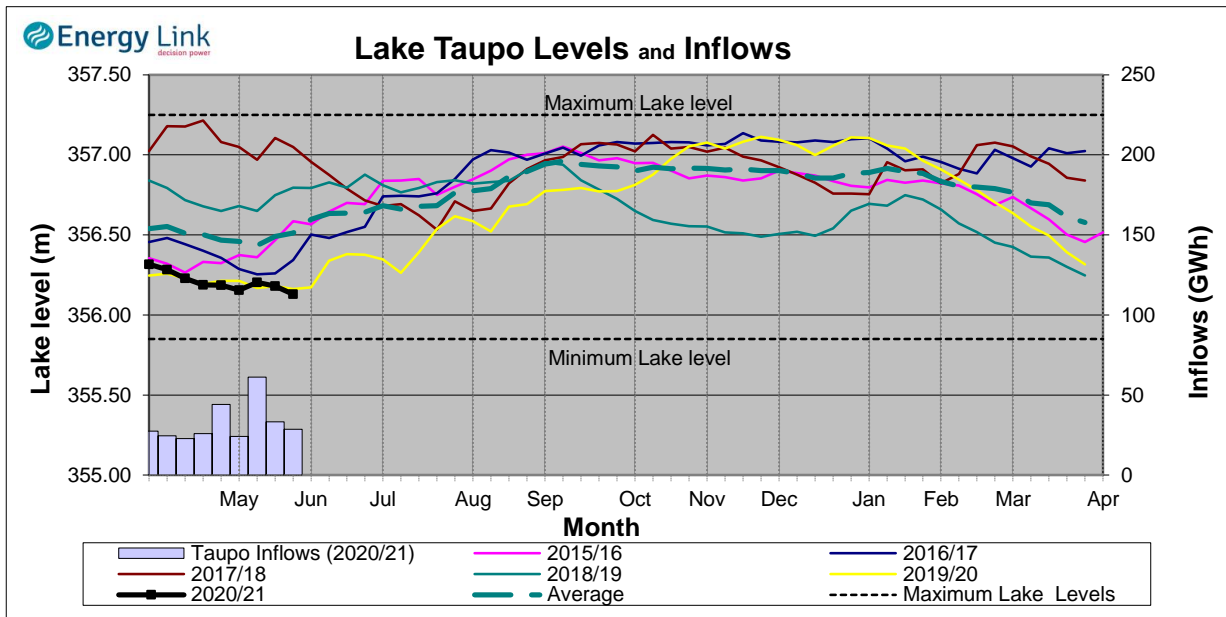
**South Island Inflows** - The past four weeks of S. I. inflows rank as the 37th wettest on record.



**North Island Inflows** - The past four weeks of N. I. inflows rank as the 3rd driest on record.



# Waikato System

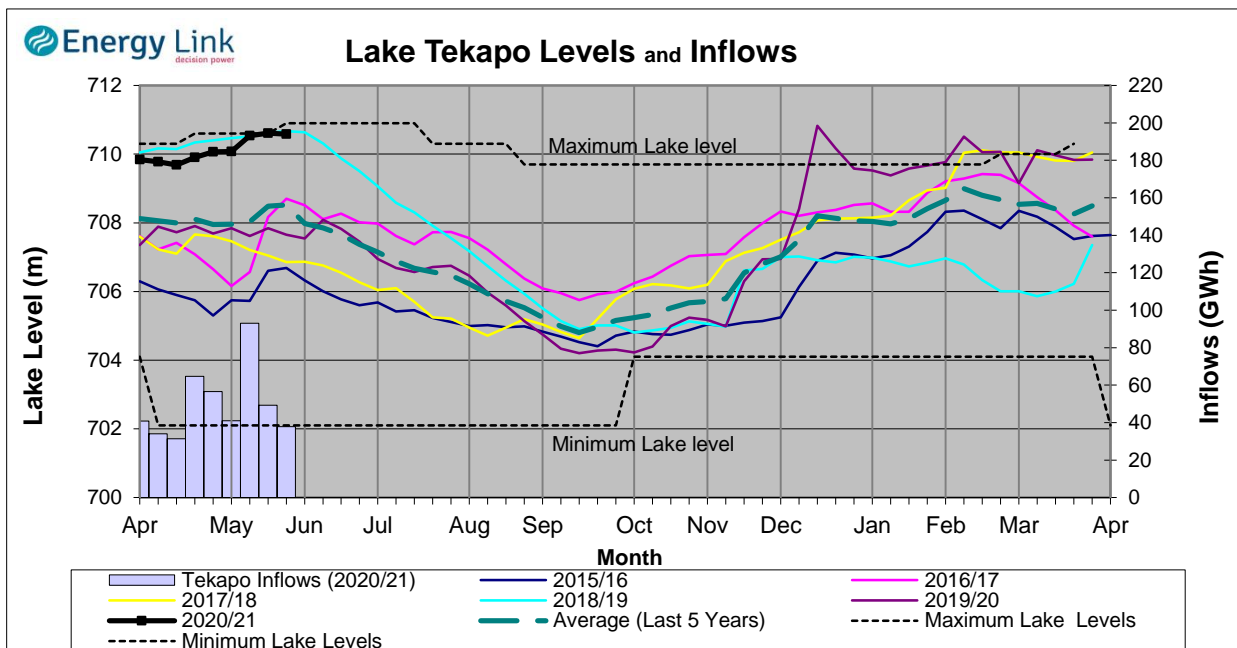


**Lake Levels** - Lake Taupo storage fell to 20% of nominal full at 114 GWh.

**Inflows** - Inflows decreased 14% to 29 GWh.

**Generation** - Average generation increased 6.4% to 331.9 MW.

# Tekapo



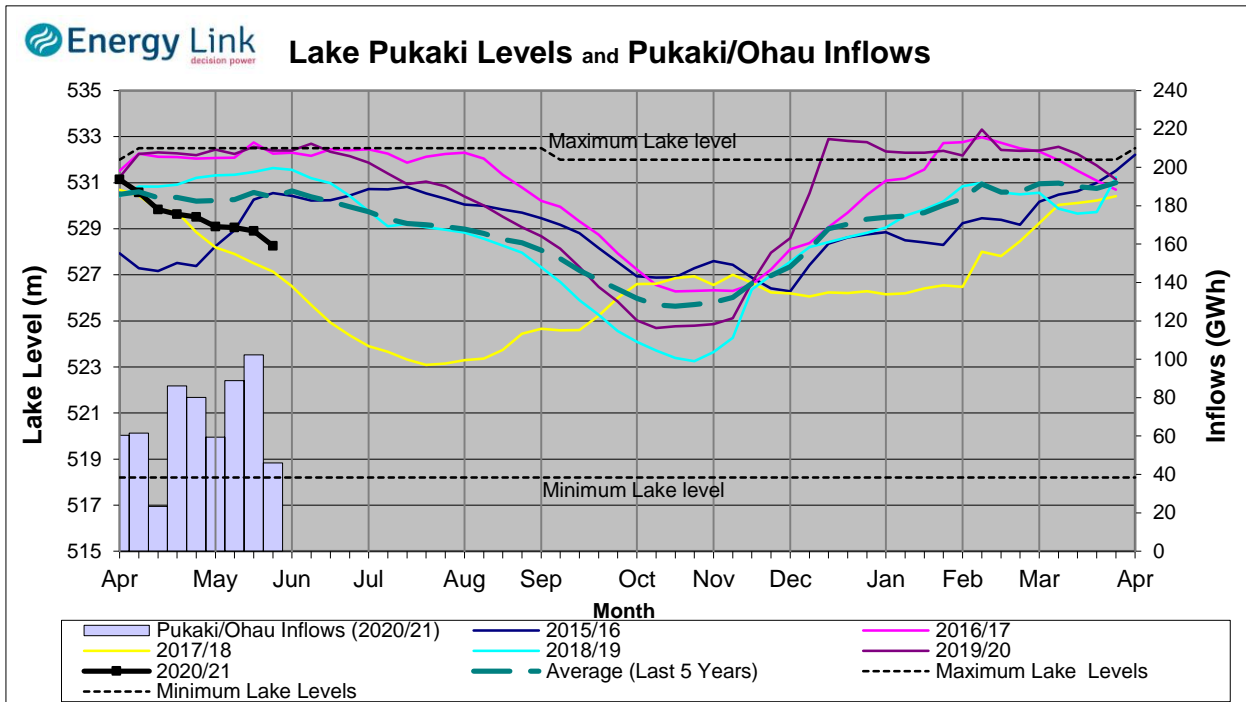
**Lake Levels** - Lake Tekapo ended the week 106% nominally full with storage falling to 866 GWh.

**Inflows** - Inflows into tekapo decreased 23.2% to 38 GWh.

**Generation** - Average Tekapo generation remained steady at 74.3 MW.

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

## Waitaki System



**Lake Levels** - Lake Pukaki ended the week 69% nominally full with storage falling to 1272 GWh.

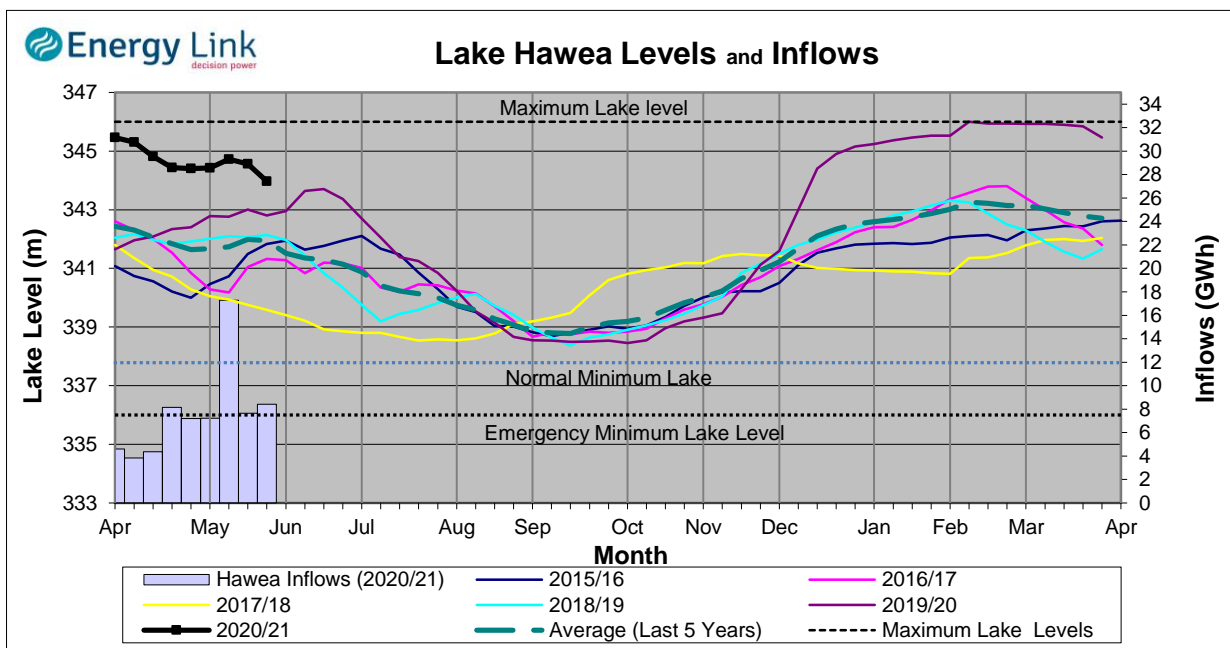
**Inflows** - Inflows into the Waitaki System decreased 55.1% to 46 GWh.

**Generation** - Average Waikati generation increased 8% to 1027.7 MW.

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

**River Flows** - Flows from the Ahuriri River fell to 18.4 cumecs while Waitaki River flows were higher than last week averaging 420.7 cumecs.

## Clutha System



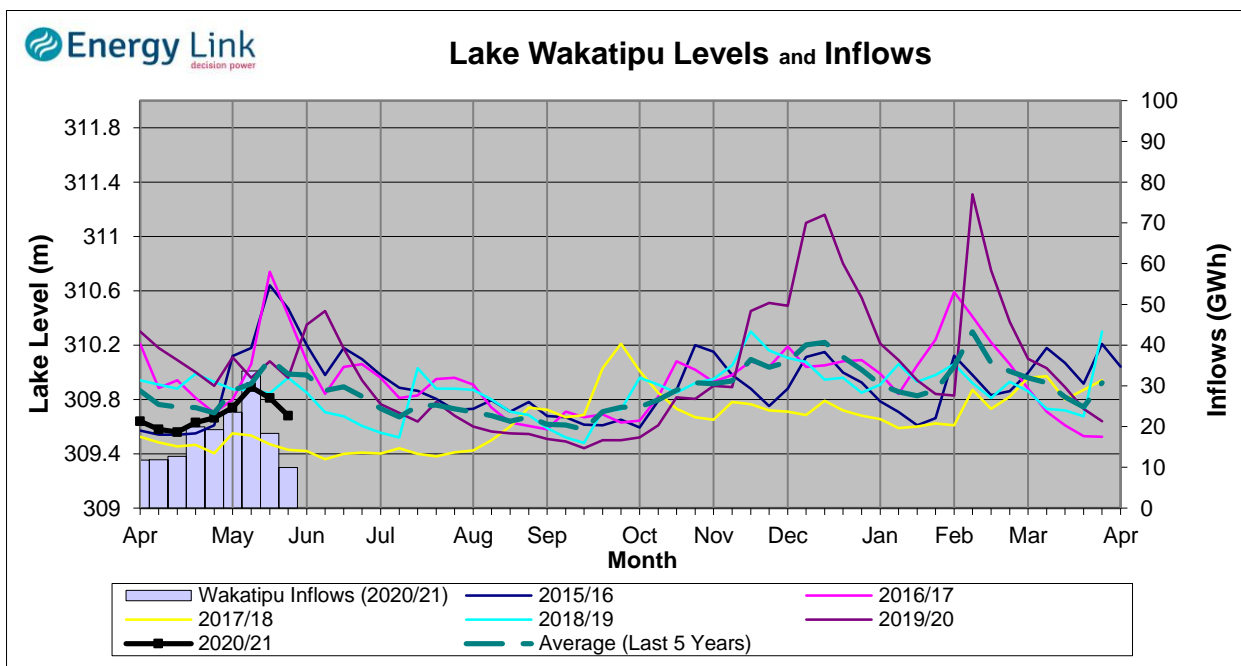
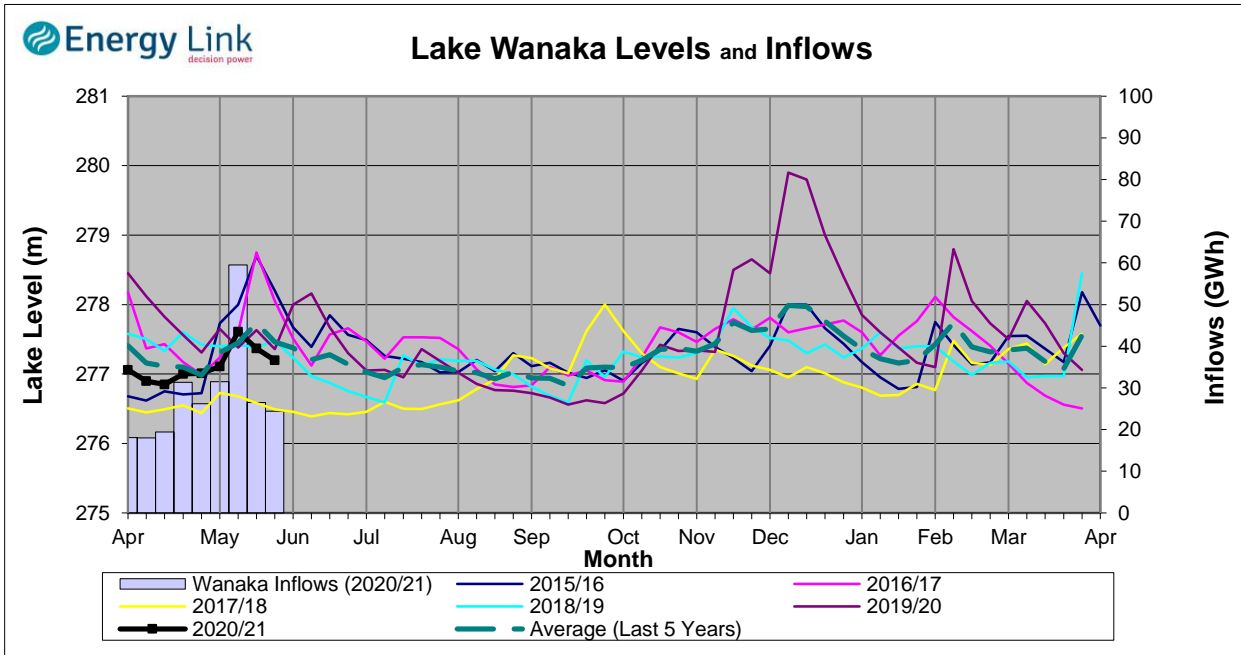
**Lake Levels** - Total storage for the Clutha System decreased 11.7% to 307 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 74%, 48.6% and 30.7% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 18.4% lower at 43 GWh.

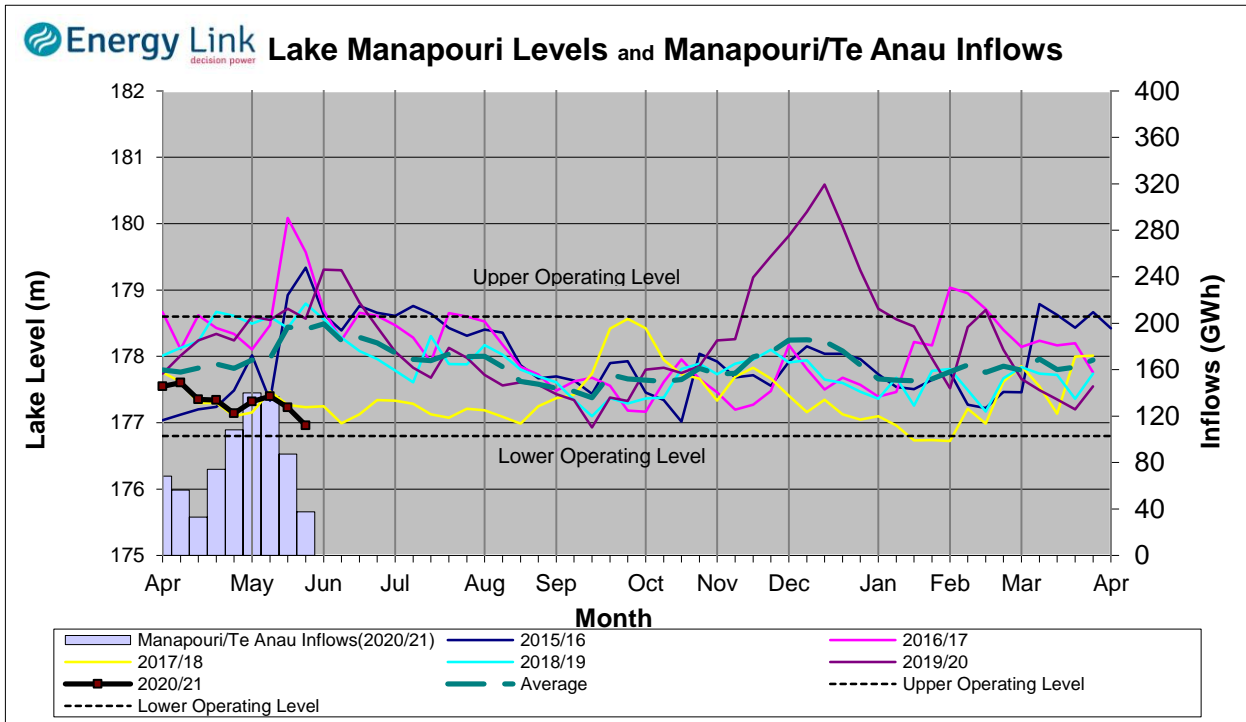
**Generation** - Average generation was 5.8% higher at 511 MW.

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

**River Flows** - Total outflows from the lakes and Shotover River increased to 557.3 cumecs. This comprised of 196 cumecs from Lake Hawea, 211 cumecs from Lake Wanaka, 127 cumecs from Lake Wakatipu and 23 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System decreased 22.7% to 217 GWh with Lake Manapouri ending the week 39.8% nominally full and Lake Te Anau ending the week 55.4% nominally full.

**Inflows** - Total inflows into the Manapouri System decreased 56.8% to 38 GWh.

**Generation** - Average generation was 10.8% lower at 604 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 22 cumecs.

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

