

# HydroWatch

Thursday, 02 August 2018

Issue: 1111

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)	1918	526	2444	396	2840
Storage Change (GWh)	-49	27	-22	-9	-31

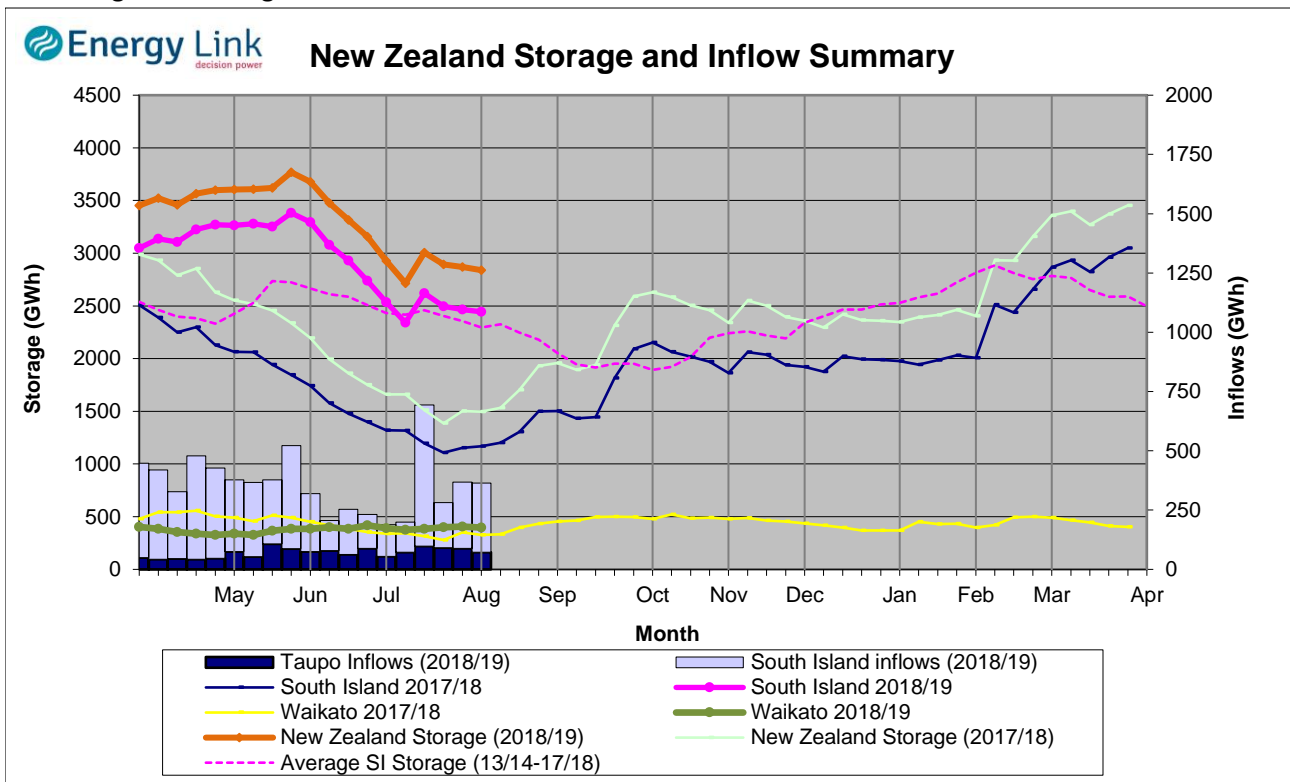
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2342	396	2738

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 31.2 GWh over the last week. South Island controlled storage decreased 2.5% to 1918 GWh; South Island uncontrolled storage increased 5.3% to 526 GWh; with Taupo storage decreasing 2.2% to 396 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	424	174	1846	396	2840
Last Week	396	168	1902	405	2871
% Change	7.2%	3.1%	-2.9%	-2.2%	-1.1%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	157	60	73	73	364
Last Week	134	69	77	89	369
% Change	17.6%	-12.3%	-5.7%	-17.8%	-1.4%

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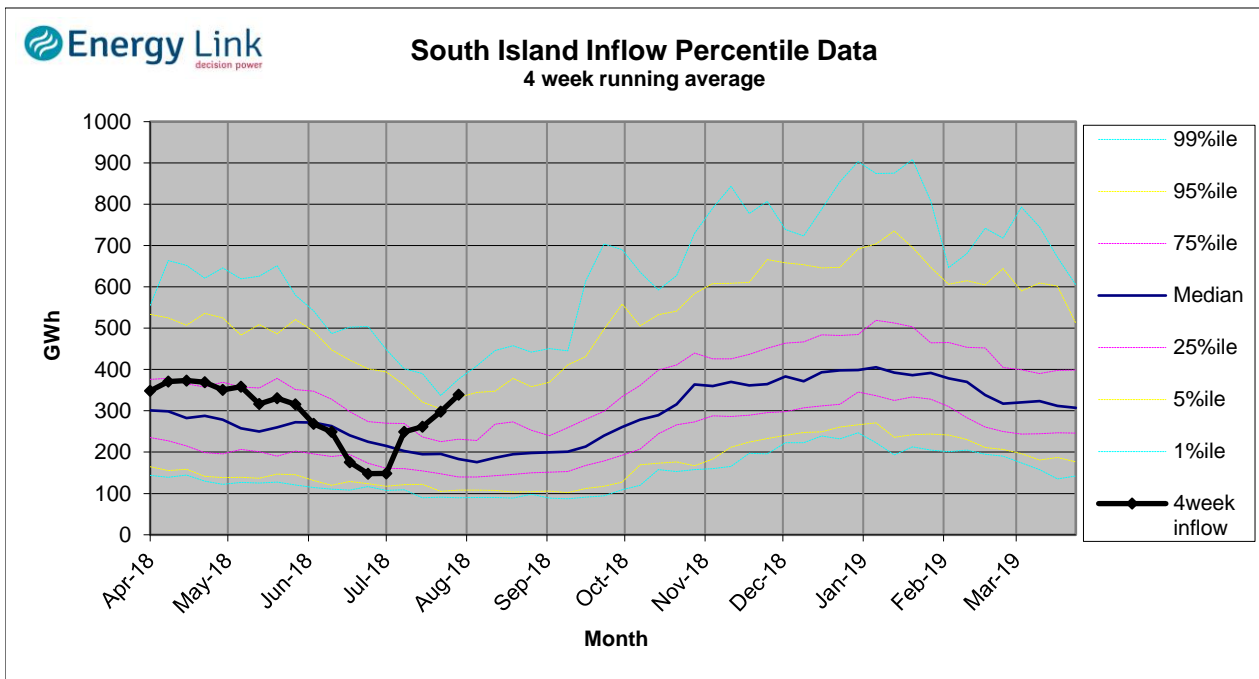
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	178.17	137	36	-12
	Te Anau	202.78	287		
Clutha	Wakatipu	309.87	47	166	-4
	Wanaka	277.19	55	176	
	Hawea	340.01	72	11	
Waitaki	Tekapo	707.17	497		0
	Pukaki	528.84	1349		
Waikato	Taupo	356.82	396		0

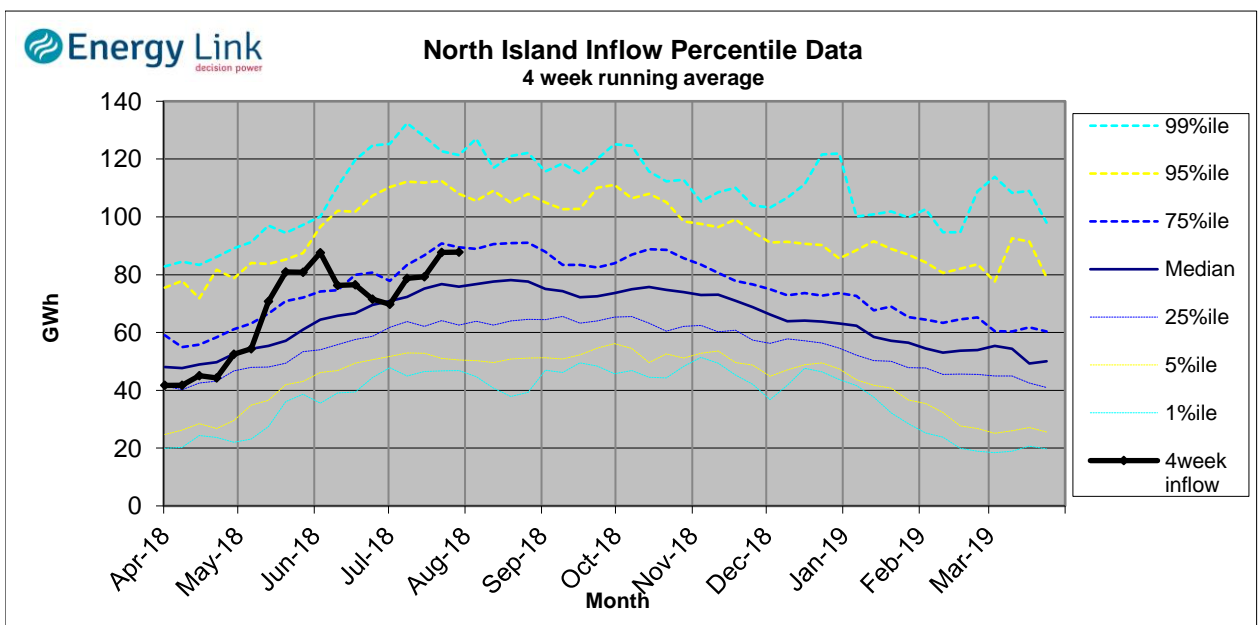
Inflow Summary

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.

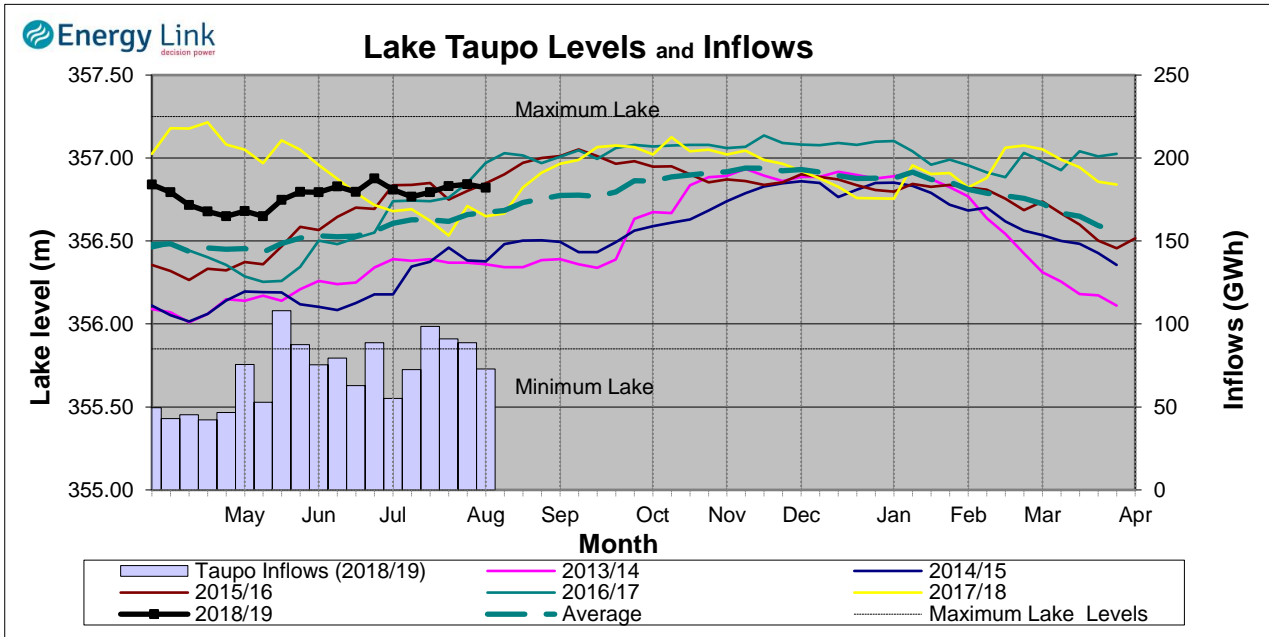
**South Island Inflows -** The past four weeks of S. I. inflows rank as the 5th wettest on record.



**North Island Inflows -** The past four weeks of N. I. inflows rank as the 30th wettest on record.



# Waikato System

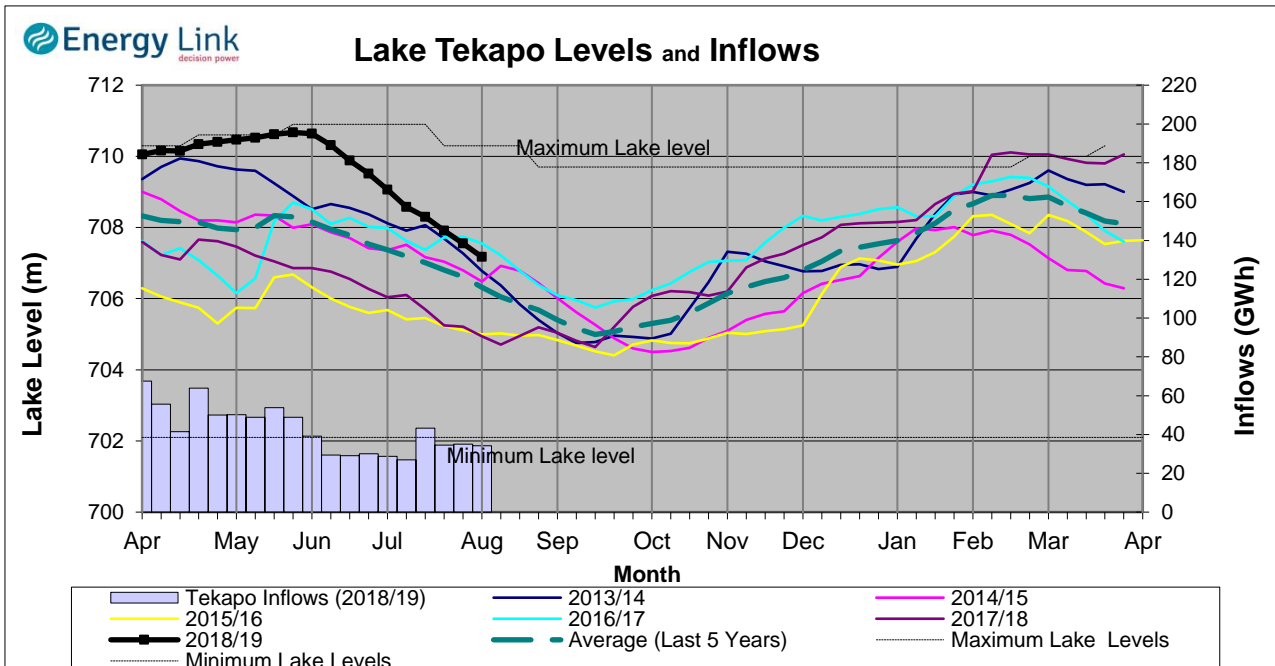


**Lake Levels** - Lake Taupo storage fell to 69.3% of nominal full at 396 GWh.

**Inflows** - Inflows decreased 17.8% to 73 GWh.

**Generation** - Average generation decreased 1.2% to 553.8 MW.

# Tekapo



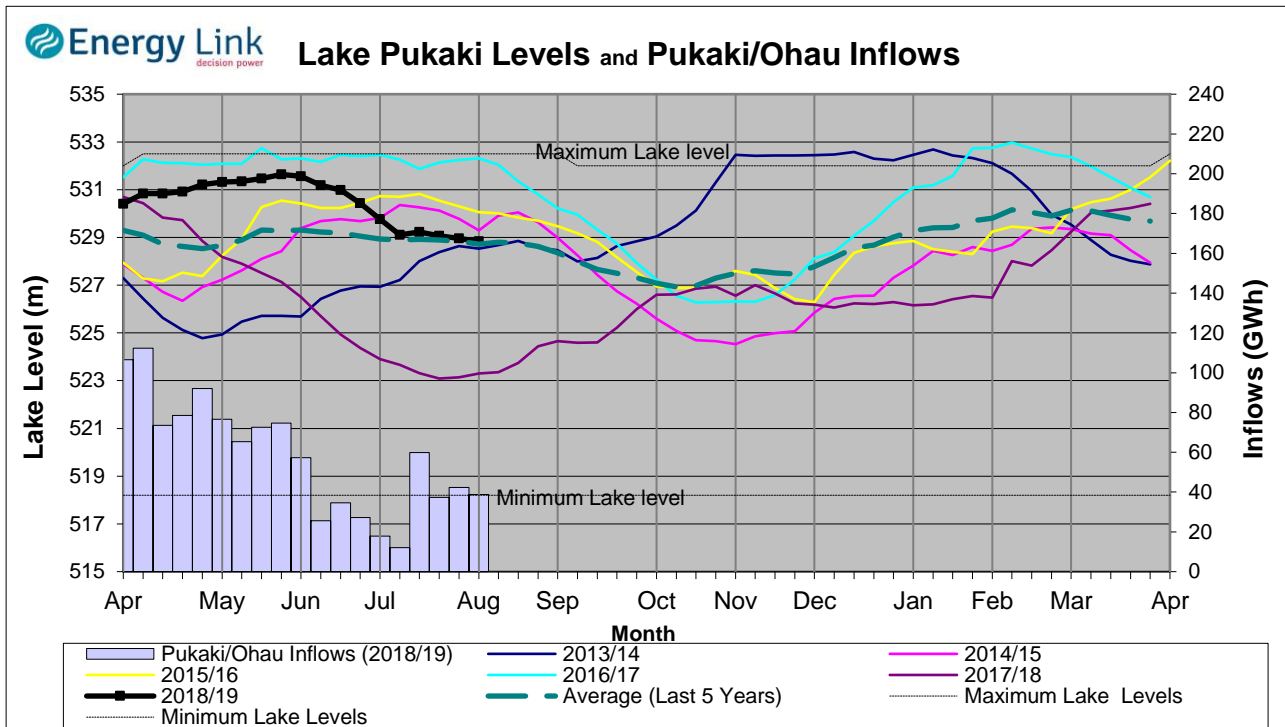
**Lake Levels** - Lake Tekapo ended the week 58% nominally full with storage falling to 497 GWh.

**Inflows** - Inflows into tekapo decreased 2.5% to 34 GWh.

**Generation** - Average Tekapo generation increased 1.1% to 156.6 MW.

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

## Waitaki System



**Lake Levels** - Lake Pukaki ended the week 73% nominally full with storage falling to 1349 GWh.

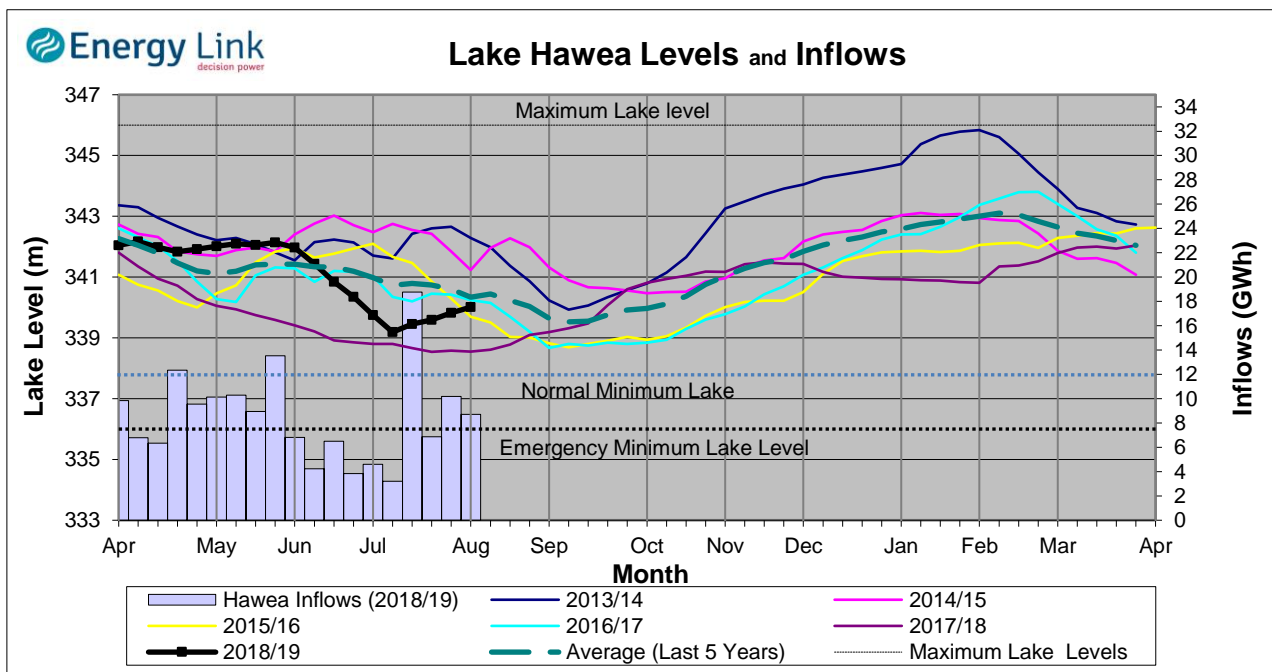
**Inflows** - Inflows into the Waitaki System decreased 8.4% to 39 GWh.

**Generation** - Average Waikati generation decreased 5.9% to 702.4 MW.

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

**River Flows** - Flows from the Ahuriri River fell to 24.3 cumecs while Waitaki River flows were lower than last week averaging 301.3 cumecs.

## Clutha System



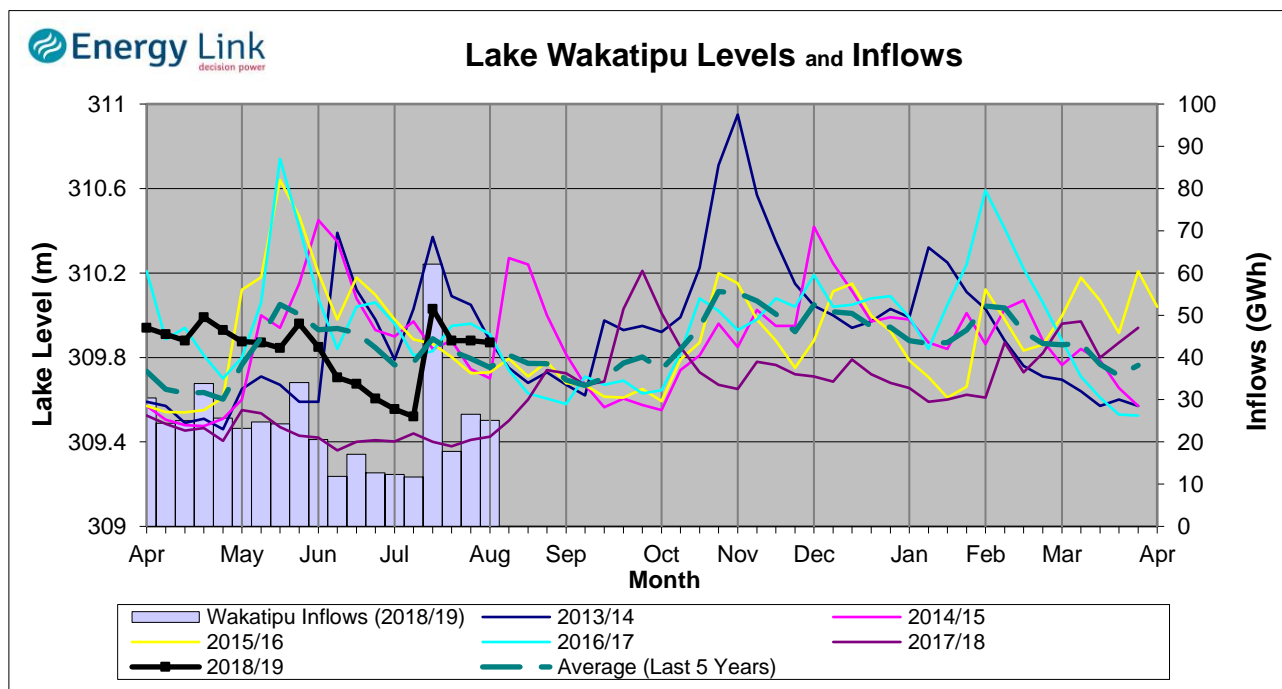
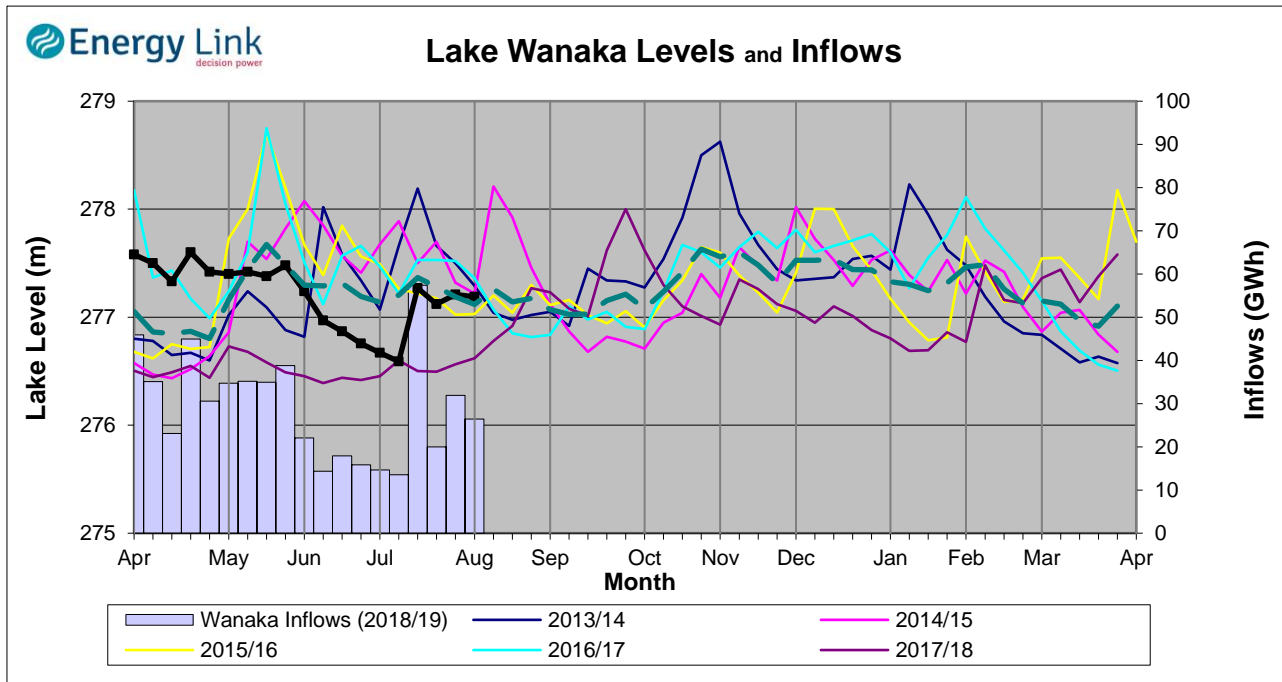
**Lake Levels** - Total storage for the Clutha System increased by 3.1% to 174 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 24.3%, 48.2% and 44.3% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 12.3% lower at 60 GWh.

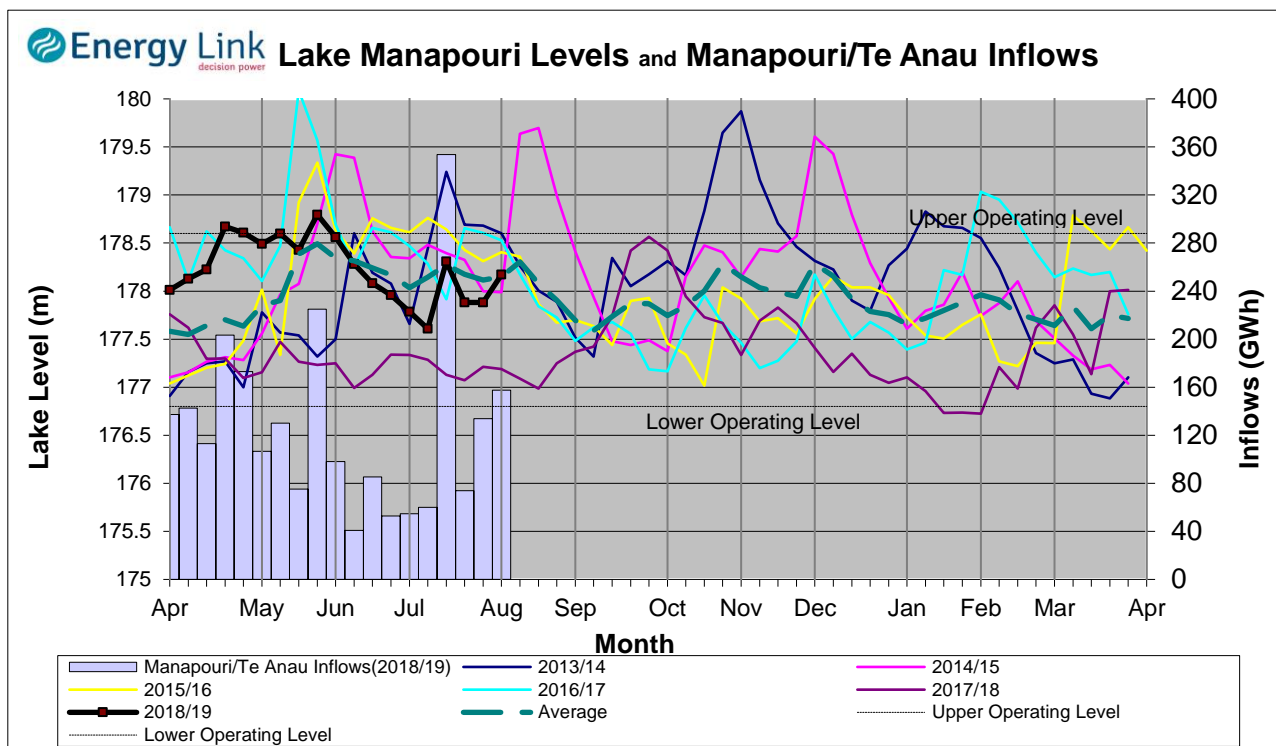
**Generation** - Average generation was 0.9% lower at 424 MW.

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

**River Flows** - Total outflows from the lakes and Shotover River fell to 396.4 cumecs. This comprised of 11 cumecs from Lake Hawea, 176 cumecs from Lake Wanaka, 166 cumecs from Lake Wakatipu and 44 cumecs from the Shotover River.



## Manapouri System



**Lake Levels** - Total storage for the Manapouri System increased by 7.2% to 424 GWh with Lake Manapouri ending the week 84.2% nominally full and Lake Te Anau ending the week 104.3% nominally full.

**Inflows** - Total inflows into the Manapouri System increased 17.6% to 157 GWh.

**Generation** - Average generation was 0% lower at 732 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 36 cumecs.

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

