

# HydroWatch

Thursday, 14 March 2019

Issue: 1143

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)	1965	371	2336	207	2543
Storage Change (GWh)	-27	-10	-37	-2	-39

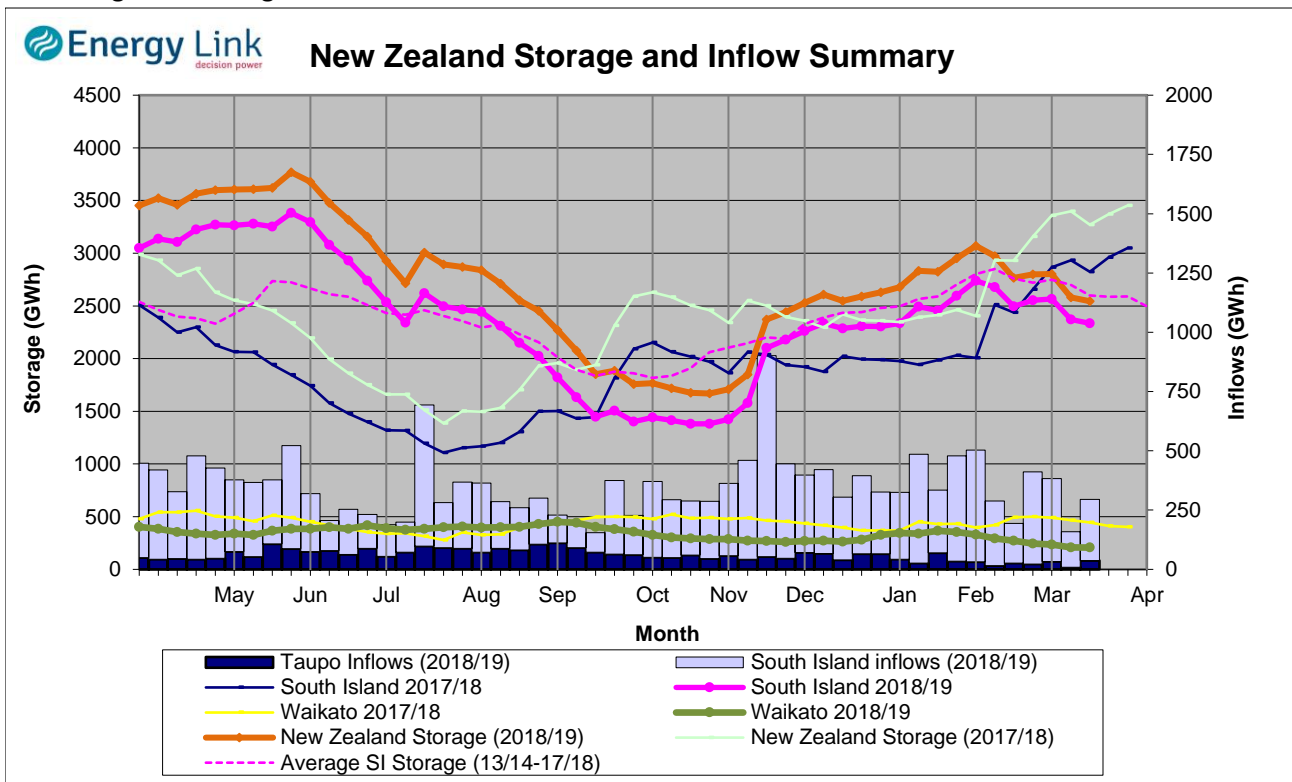
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2256	207	2463

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 39.3 GWh over the last week. South Island controlled storage decreased 1.4% to 1965 GWh; South Island uncontrolled storage decreased 2.6% to 371 GWh; with Taupo storage decreasing 1.2% to 207 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	291	209	1836	207	2543
Last Week	301	221	1851	210	2582
% Change	-3.4%	-5.4%	-0.8%	-1.2%	-1.5%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
<b>This Week</b>	81	51	125	38	295
Last Week	49	30	72	8	159
% Change	66.3%	71.3%	73.7%	355.2%	85.7%

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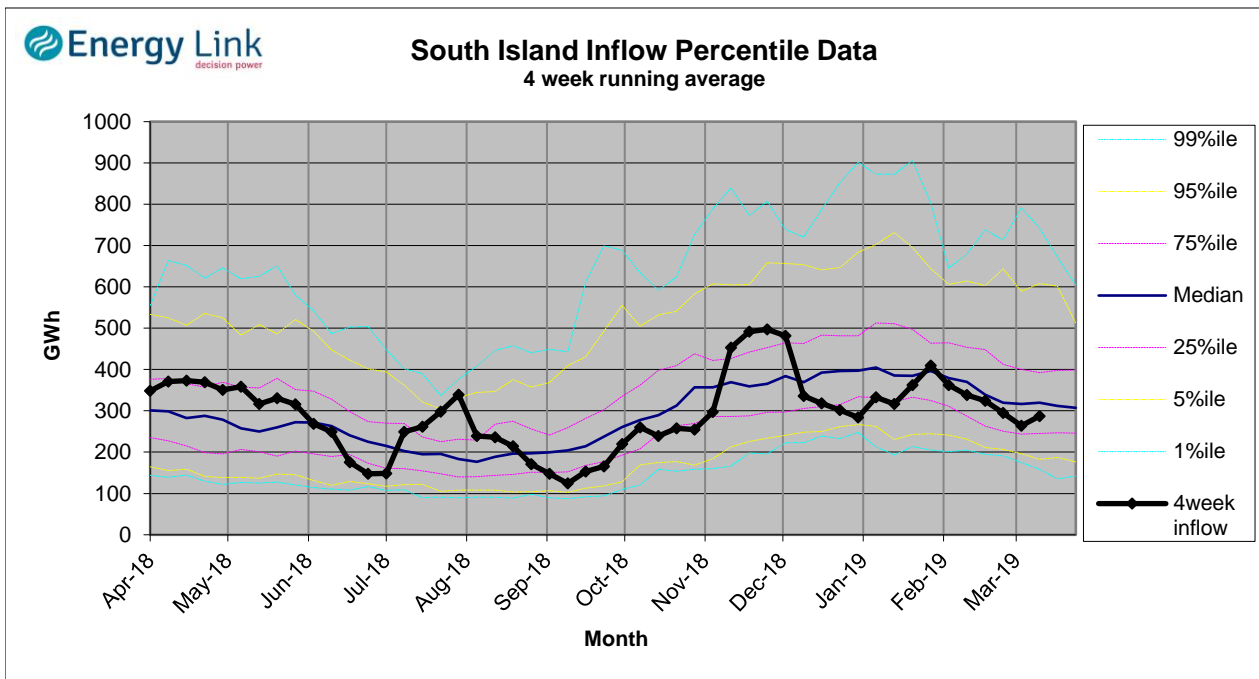
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.72	110	20	3
	Te Anau	202.07	181		
Clutha	Wakatipu	309.72	36	127	-10
	Wanaka	276.97	44	162	
	Hawea	341.57	129	117	
Waitaki	Tekapo	706.00	377		11
	Pukaki	529.66	1460		
Waikato	Taupo	356.36	207		-19

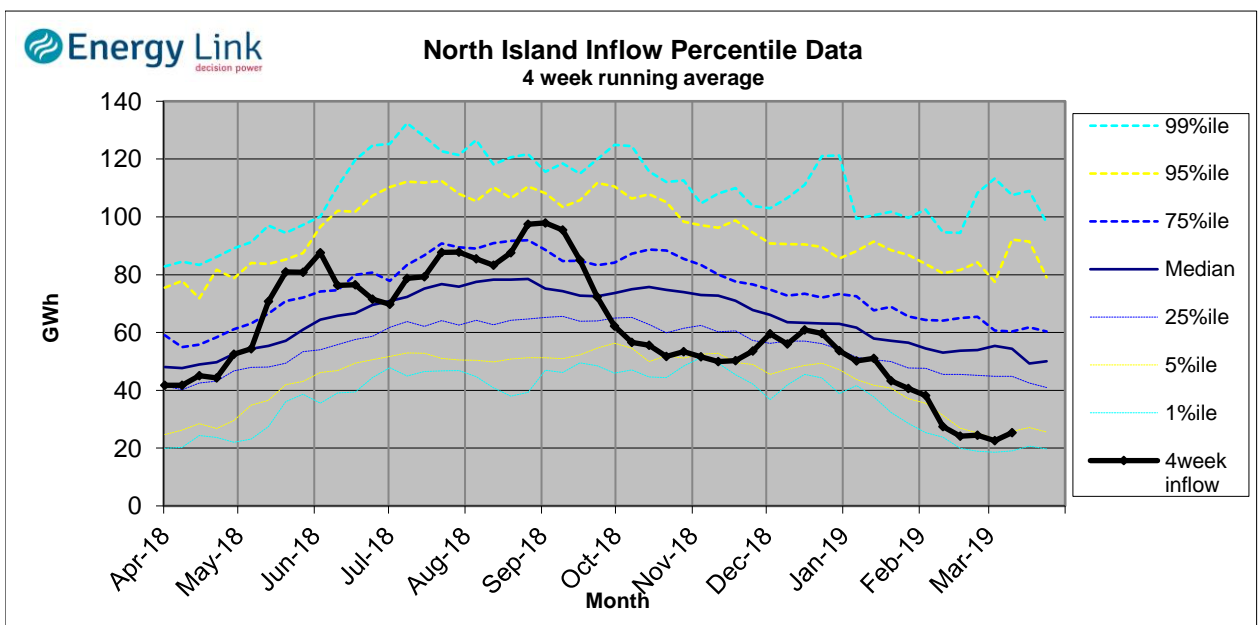
Inflow Summary

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.

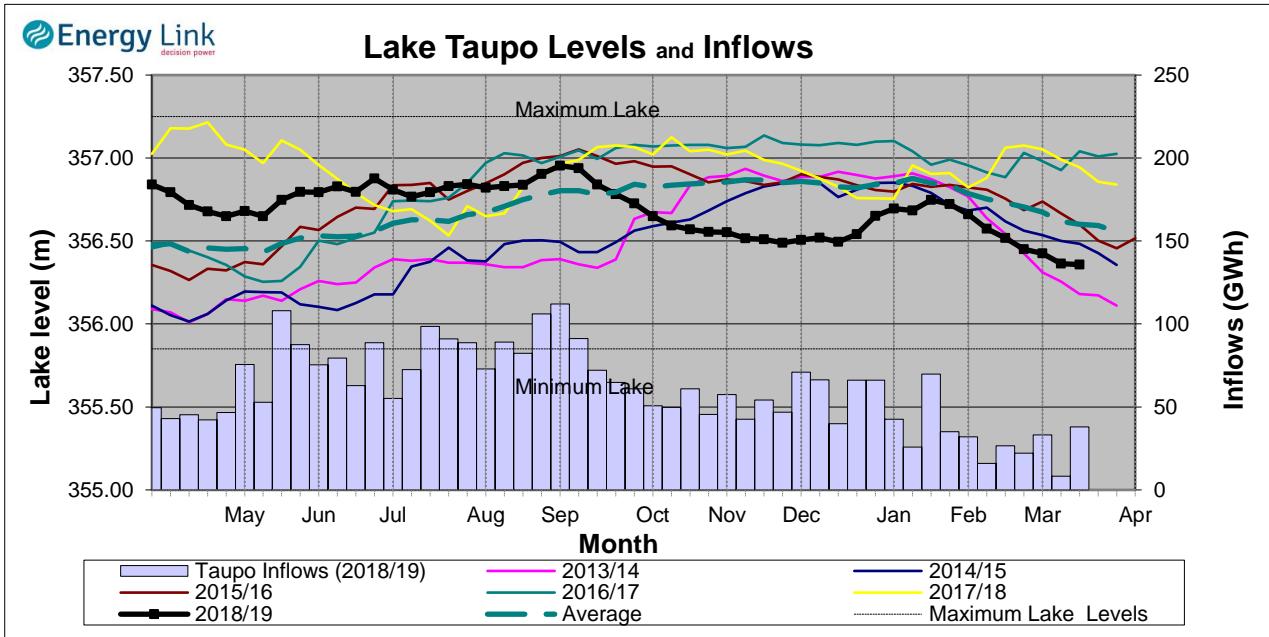
**South Island Inflows -** The past four weeks of S. I. inflows rank as the 34th driest on record.



**North Island Inflows -** The past four weeks of N. I. inflows rank as the 4th driest on record.



# Waikato System

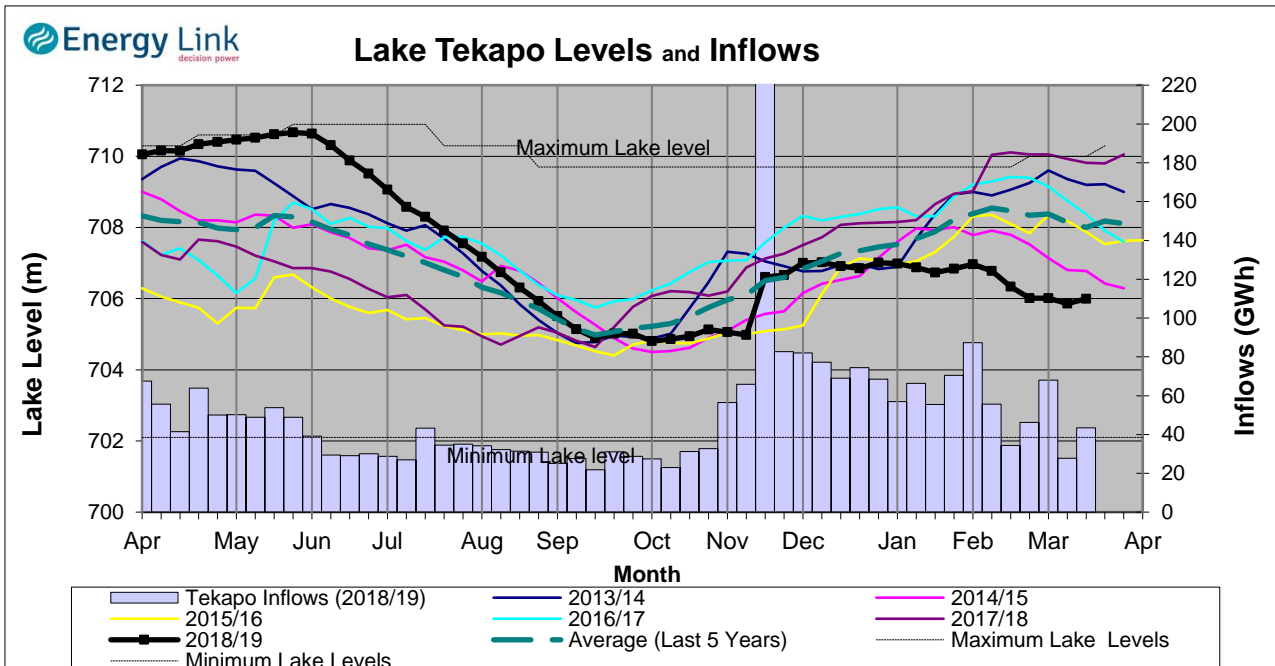


**Lake Levels** - Lake Taupo storage fell to 36.3% of nominal full at 207 GWh.

**Inflows** - Inflows increased 355.2% to 38 GWh.

**Generation** - Average generation increased 5.1% to 309.6 MW.

# Tekapo



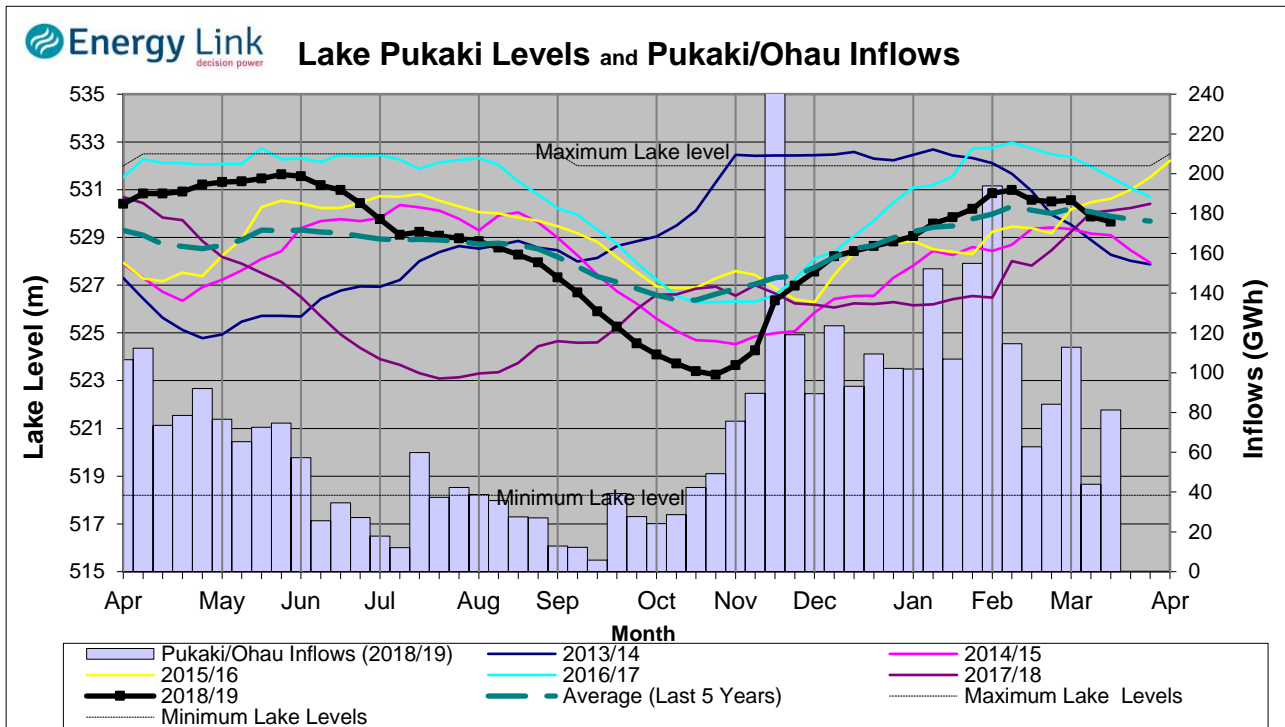
**Lake Levels** - Lake Tekapo ended the week 50% nominally full with storage increasing to 377 GWh.

**Inflows** - Inflows into tekapo increased 56.2% to 43 GWh.

**Generation** - Average Tekapo generation decreased 30.9% to 62.9 MW.

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

# Waitaki System



**Lake Levels** - Lake Pukaki ended the week 82% nominally full with storage falling to 1460 GWh.

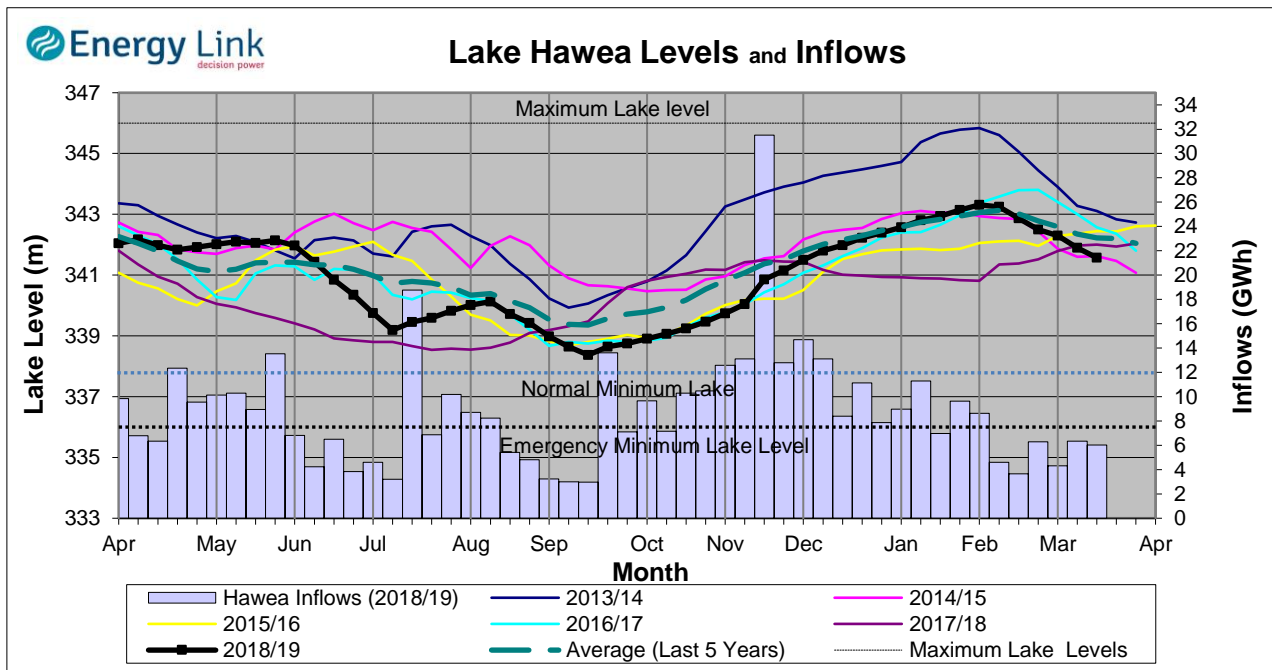
**Inflows** - Inflows into the Waitaki System increased 84.7% to 81 GWh.

**Generation** - Average Waikati generation decreased 14.4% to 863.7 MW.

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

**River Flows** - Flows from the Ahuriri River increased to 15.3 cumecs while Waitaki River flows were lower than last week averaging 368.4 cumecs.

# Clutha System



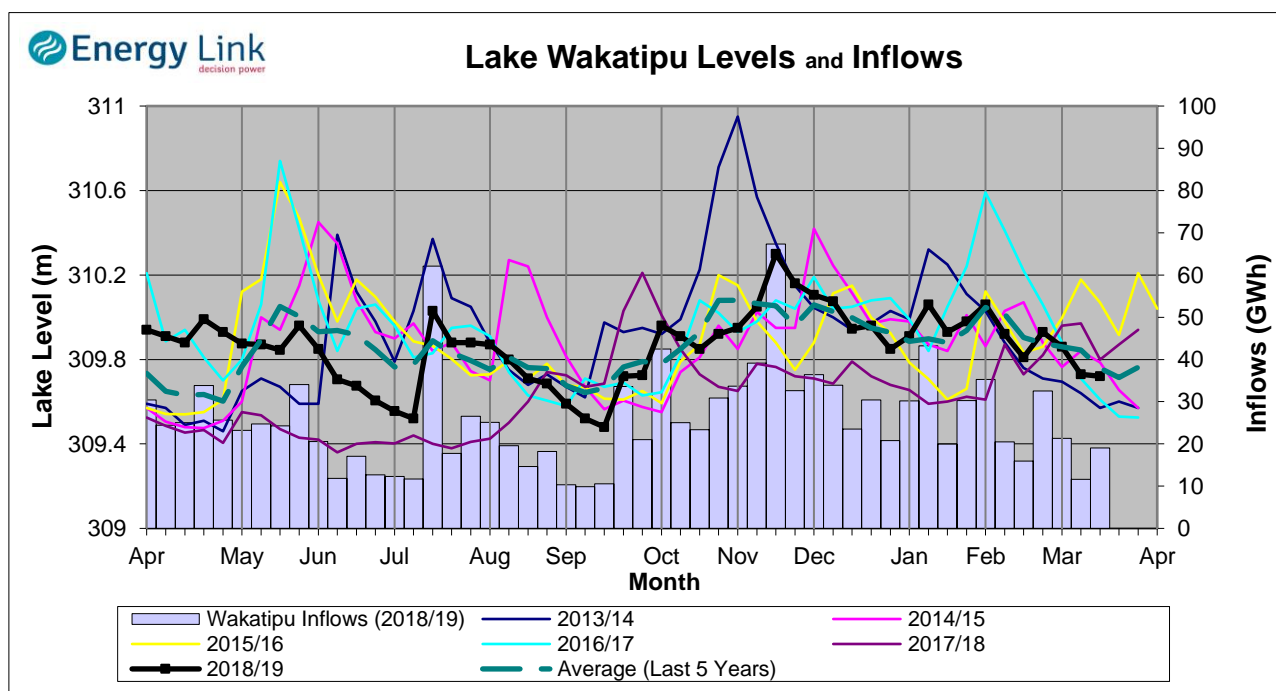
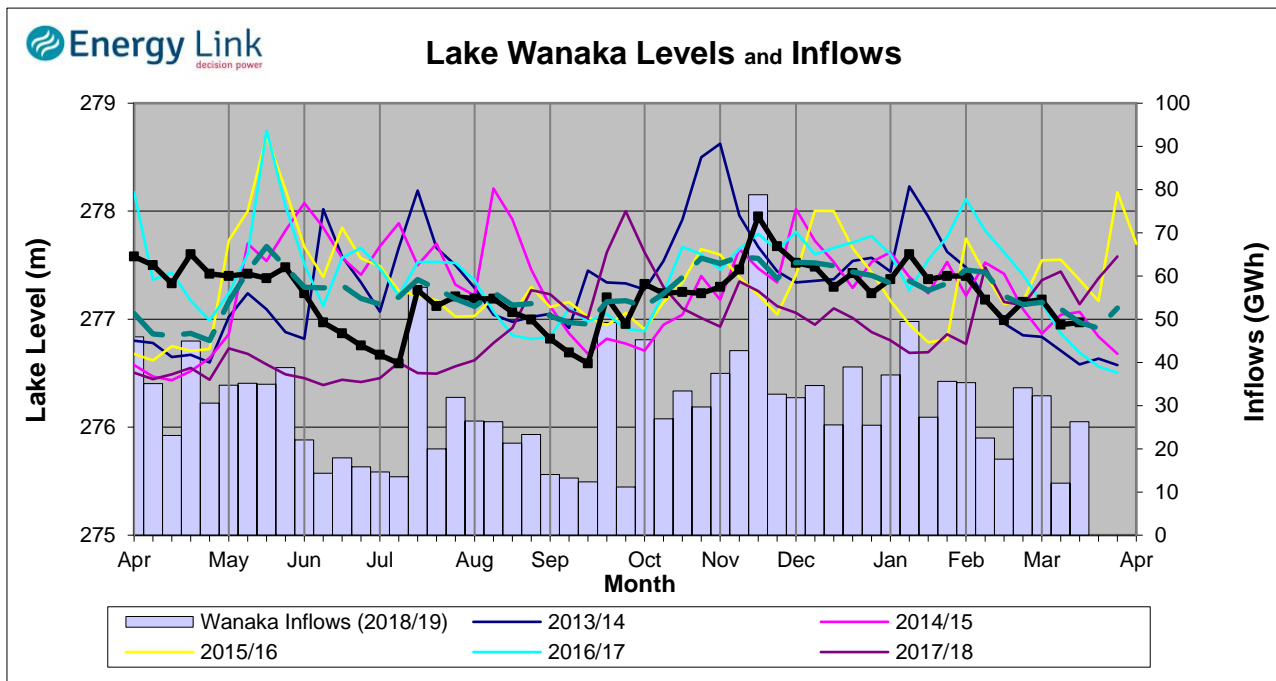
**Lake Levels** - Total storage for the Clutha System decreased 5.4% to 209 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 43.7%, 38.6% and 33.6% nominally full respectively.

**Inflows** - Total Inflows into the Clutha System 71.3% higher at 51 GWh.

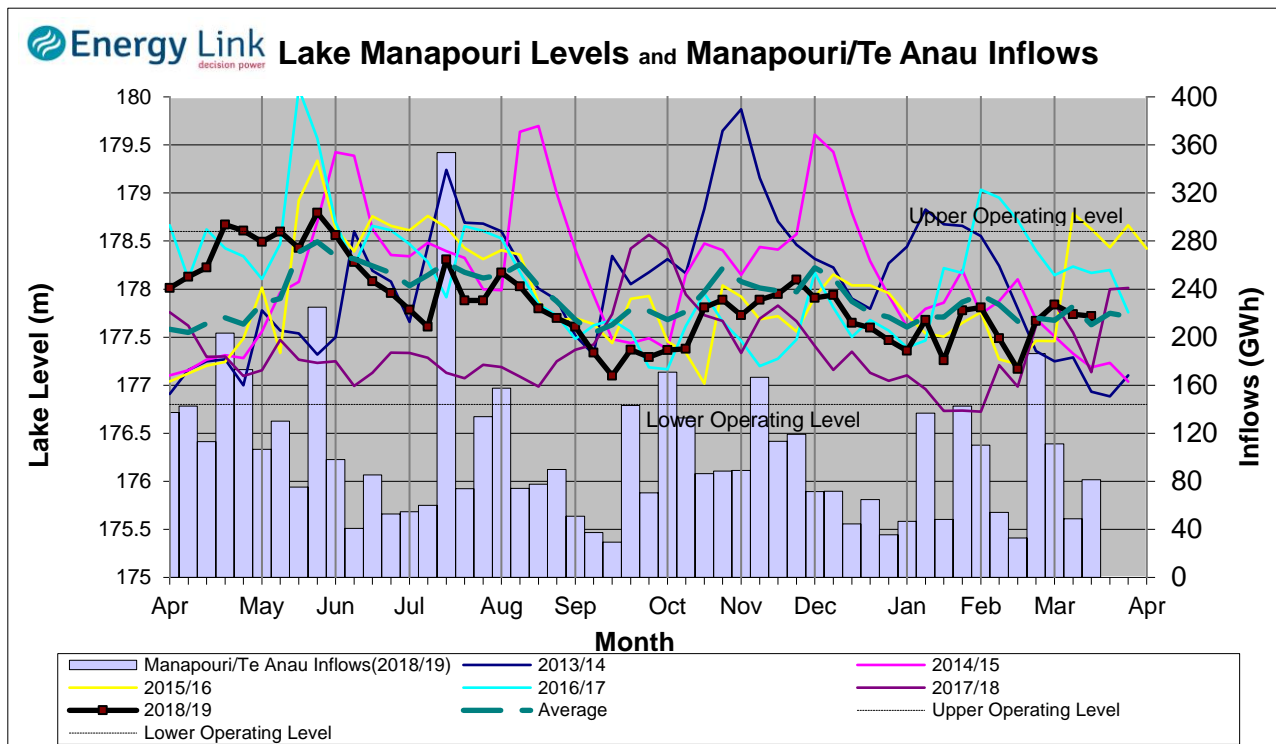
**Generation** - Average generation was 0.6% lower at 415 MW.

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

**River Flows** - Total outflows from the lakes and Shotover River fell to 432 cumecs. This comprised of 117 cumecs from Lake Hawea, 162 cumecs from Lake Wanaka, 127 cumecs from Lake Wakatipu and 26 cumecs from the Shotover River.



### Manapouri System



**Lake Levels** - Total storage for the Manapouri System decreased 3.4% to 291 GWh with Lake Manapouri ending the week 67.6% nominally full and Lake Te Anau ending the week 65.8% nominally full.

**Inflows** - Total inflows into the Manapouri System increased 66.3% to 81 GWh.

**Generation** - Average generation was 7% lower at 544 MW.

**Hydro Spill** - Estimated spill at the Mararoa Weir was 20.1 cumecs.

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

