

HydroWatch

Thursday, 31 January 2019

Issue: 1137

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)	2291	447	2738	330	3069
Storage Change (GWh)	109	32	141	-25	116

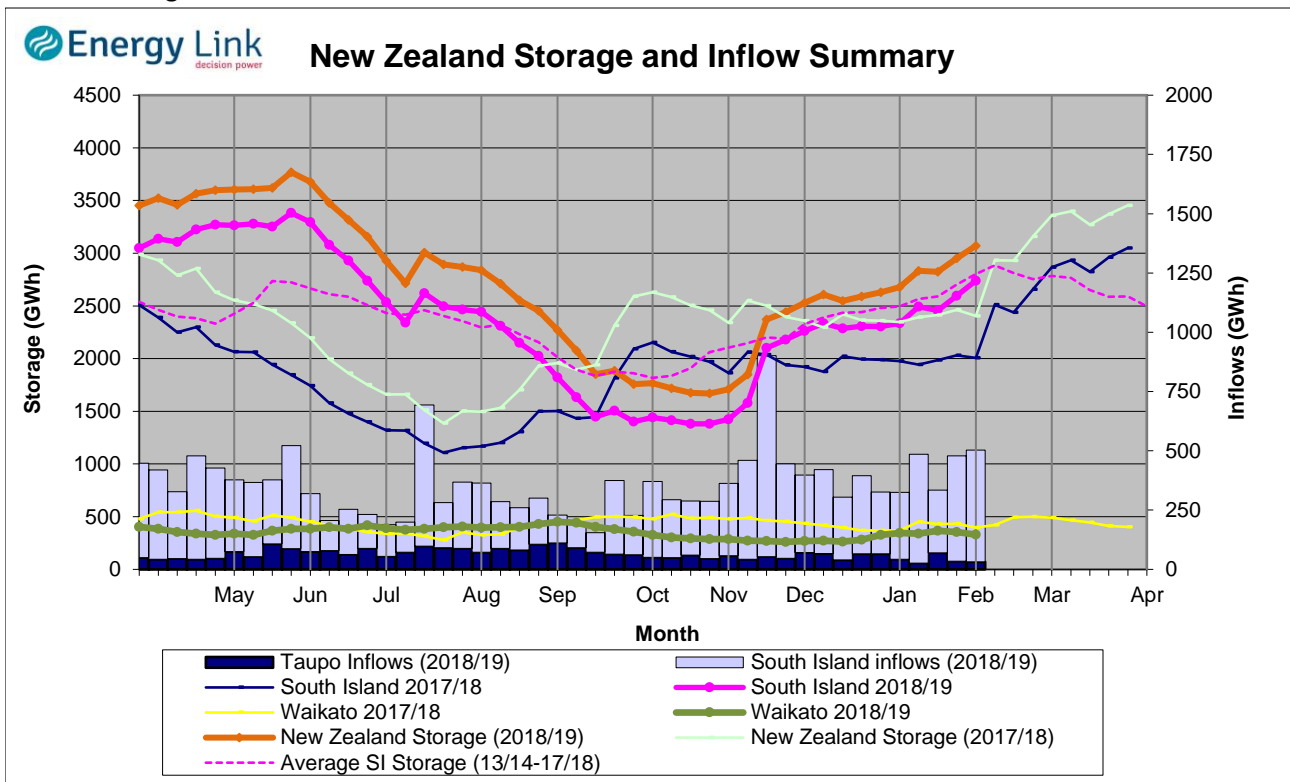
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2611	330	2942

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 115.8 GWh over the last week. South Island controlled storage increased 5% to 2291 GWh; South Island uncontrolled storage increased 7.7% to 447 GWh; with Taupo storage decreasing 7.1% to 330 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	320	321	2097	330	3069
Last Week	294	308	1994	356	2953
% Change	8.7%	4.0%	5.2%	-7.1%	3.9%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	110	79	281	32	502
Last Week	142	75	225	35	478
% Change	-22.7%	4.9%	24.7%	-8.6%	5.0%

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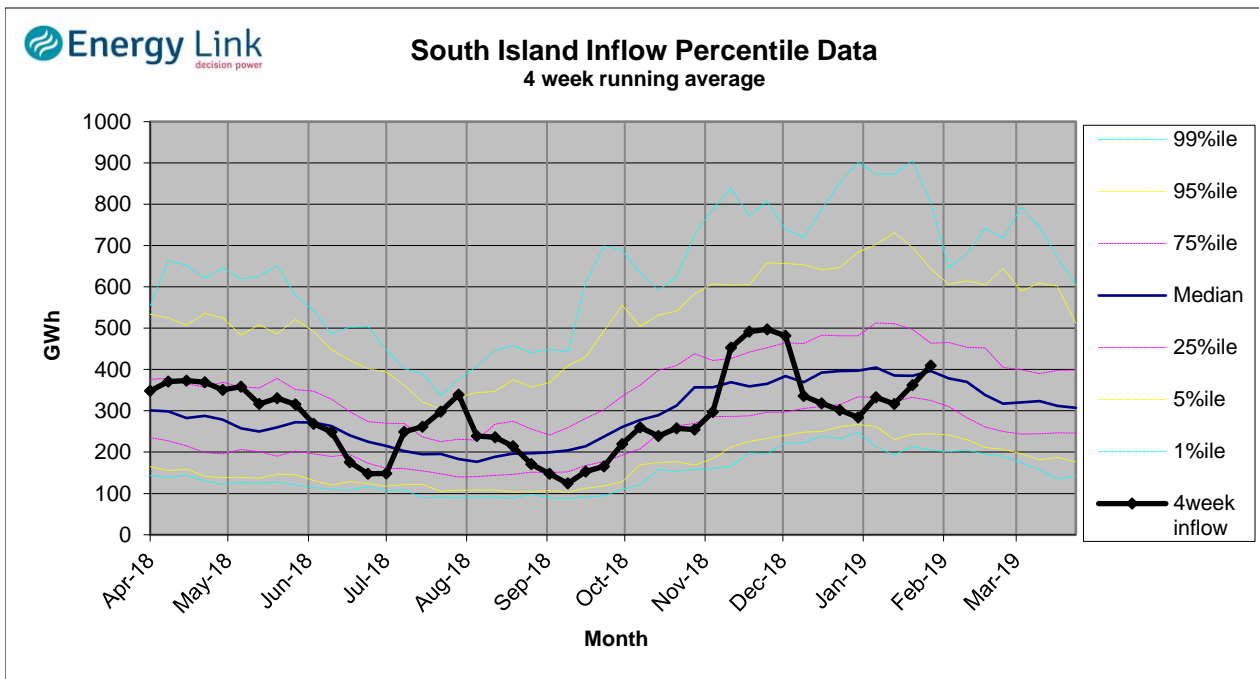
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	177.81	115	21	4
	Te Anau	202.23	205		
Clutha	Wakatipu	310.06	61	187	18
	Wanaka	277.40	66	226	
	Hawea	343.31	194	14	
Waitaki	Tekapo	706.97	476		
	Pukaki	530.85	1621		
Waikato	Taupo	356.66	330		

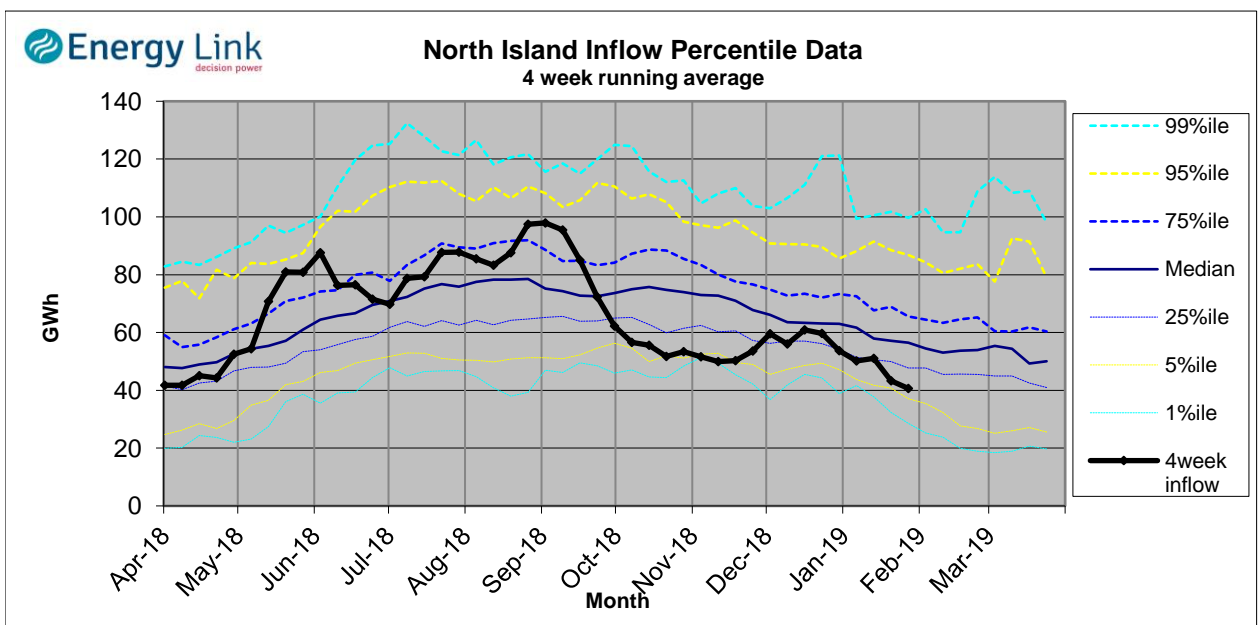
Inflow Summary

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.

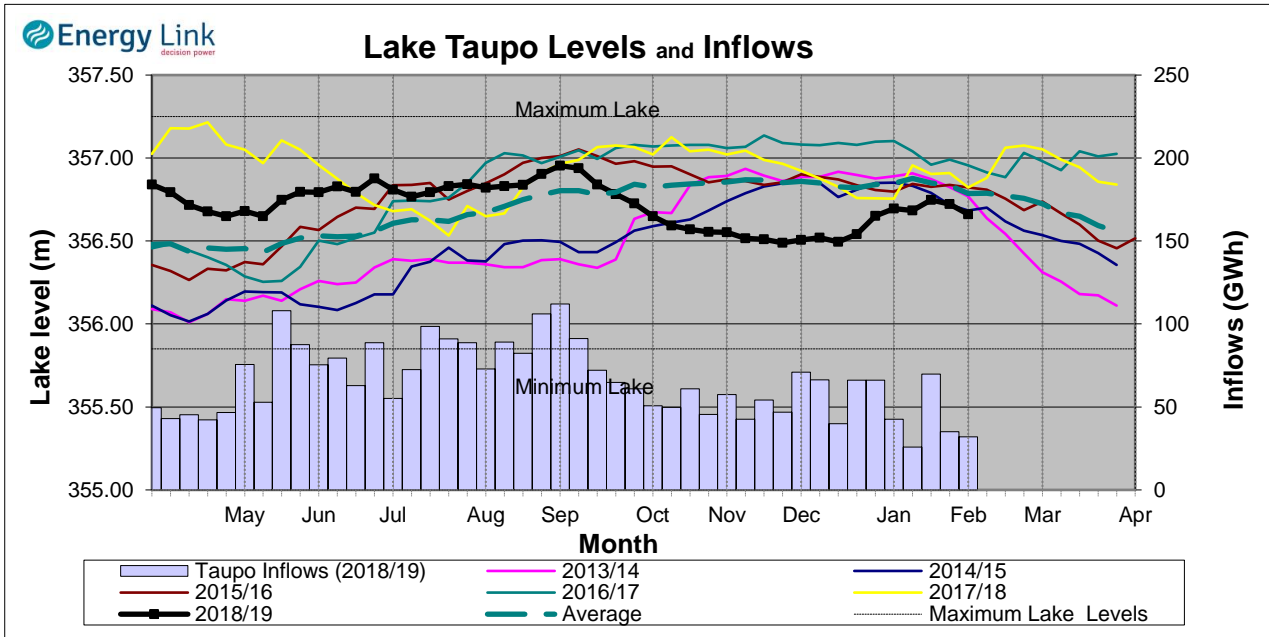
South Island Inflows - The past four weeks of S. I. inflows rank as the 40th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 9th driest on record.



Waikato System

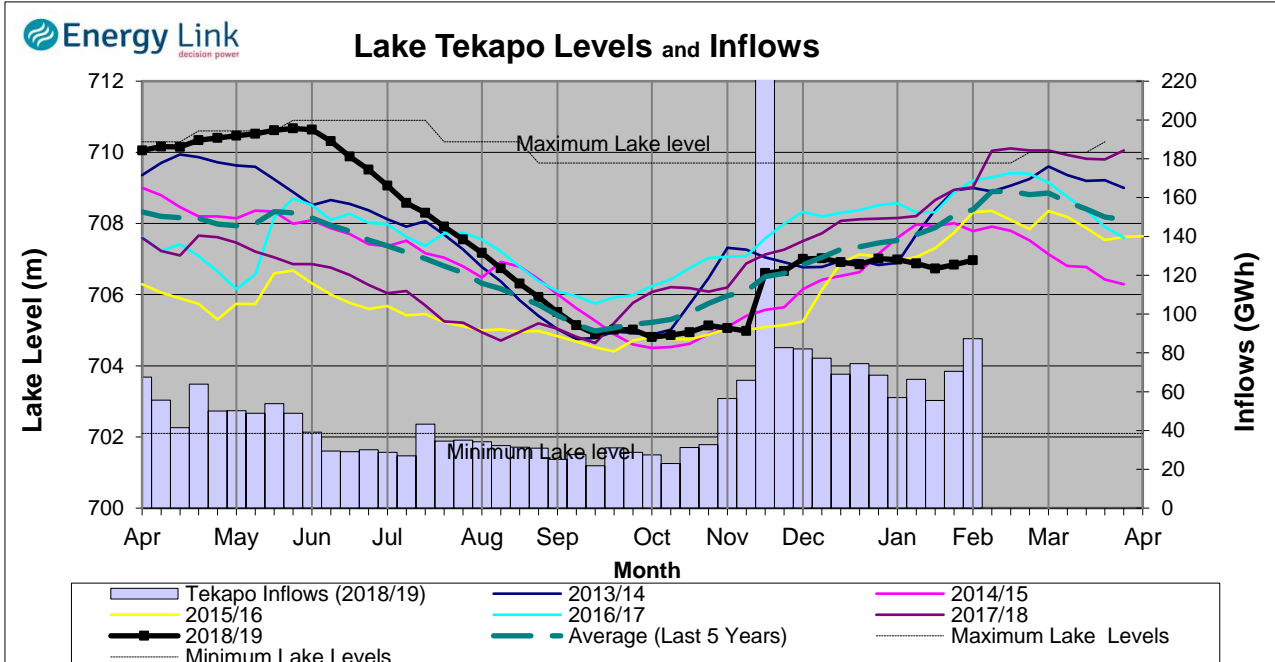


Lake Levels - Lake Taupo storage fell to 57.9% of nominal full at 330 GWh.

Inflows - Inflows decreased 8.6% to 32 GWh.

Generation - Average generation increased 16% to 383.9 MW.

Tekapo



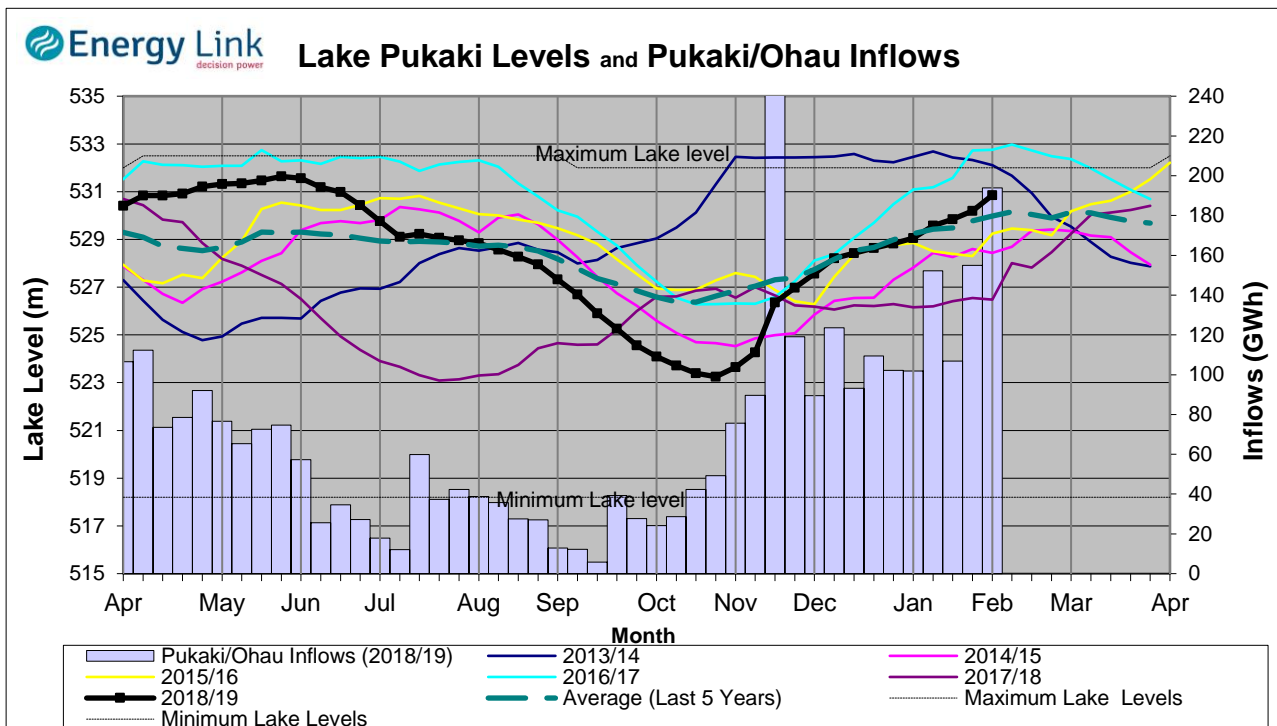
Lake Levels - Lake Tekapo ended the week 66% nominally full with storage increasing to 476 GWh.

Inflows - Inflows into tekapo increased 23.9% to 87 GWh.

Generation - Average Tekapo generation increased 26.1% to 156.6 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 91% nominally full with storage increasing to 1621 GWh.

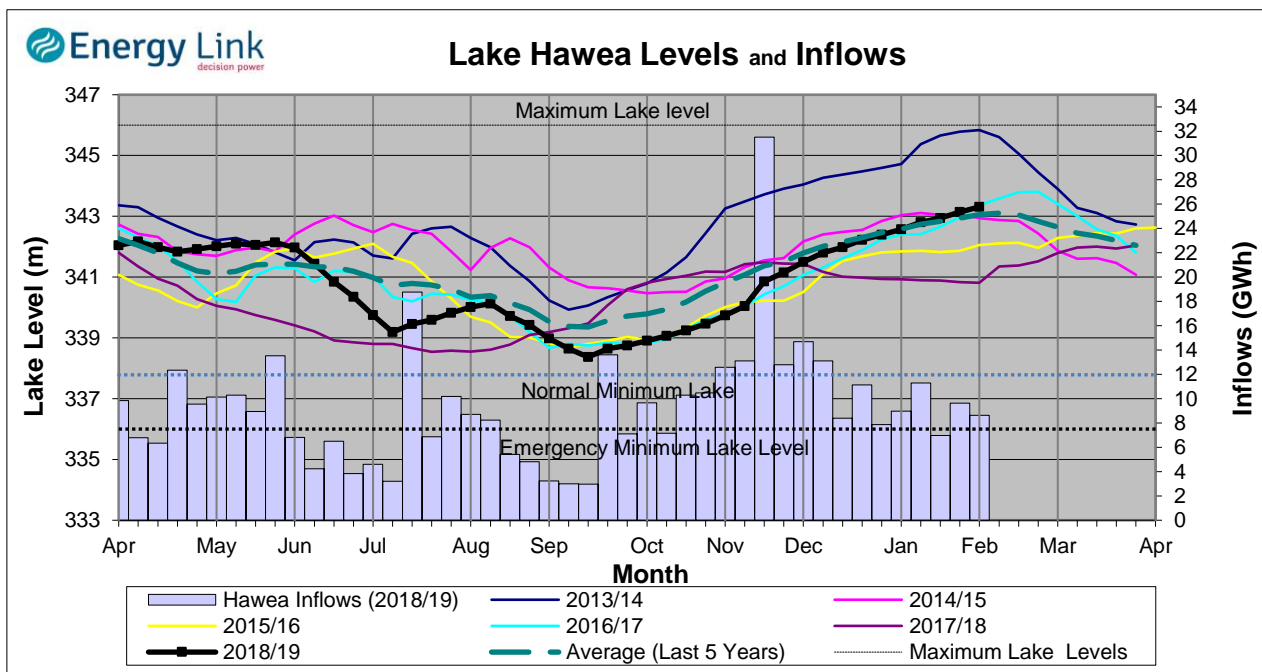
Inflows - Inflows into the Waitaki System increased 25.1% to 194 GWh.

Generation - Average Waikati generation increased 2% to 975.4 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 24.7 cumecs while Waitaki River flows were lower than last week averaging 380.6 cumecs.

Clutha System



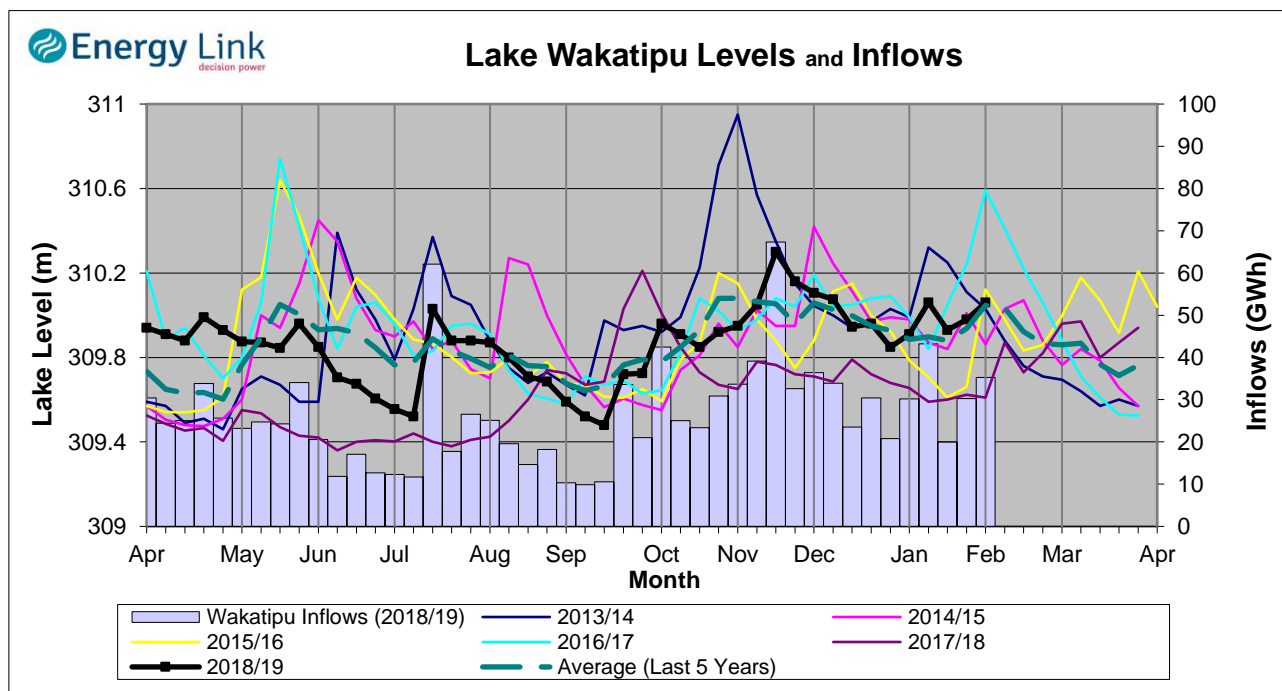
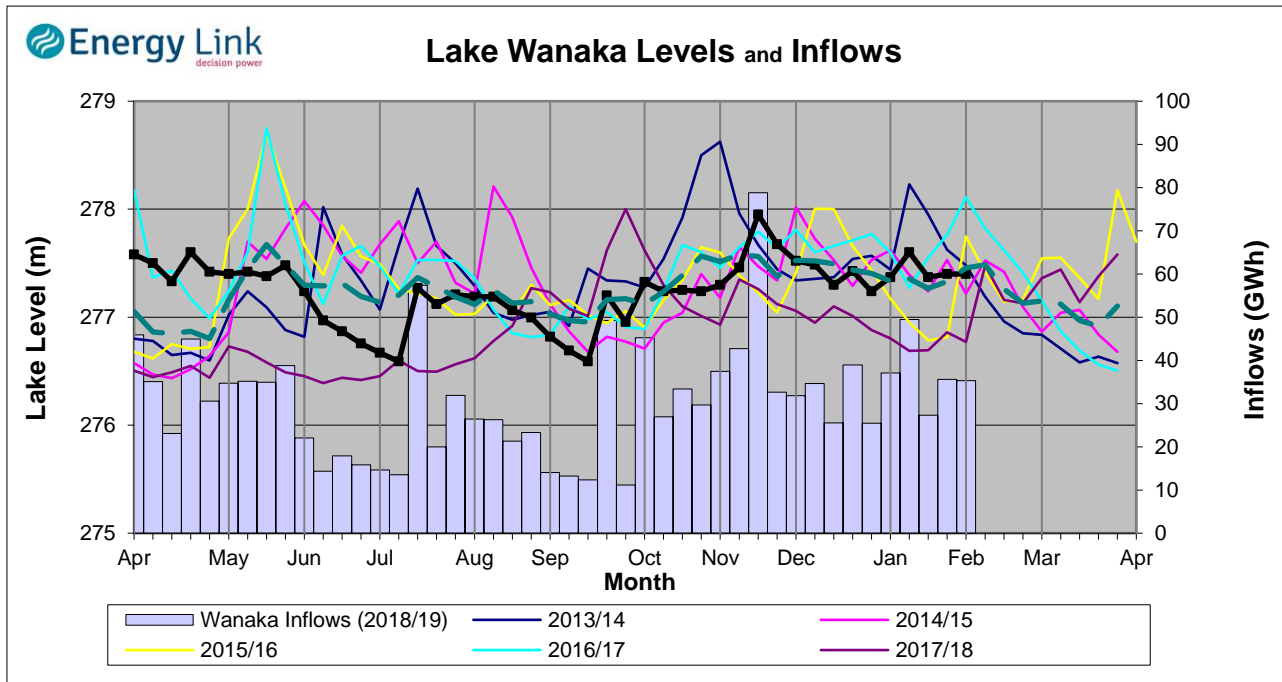
Lake Levels - Total storage for the Clutha System increased by 4% to 321 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 65.7%, 57.3% and 57.9% nominally full respectively.

Inflows - Total Inflows into the Clutha System 4.9% higher at 79 GWh.

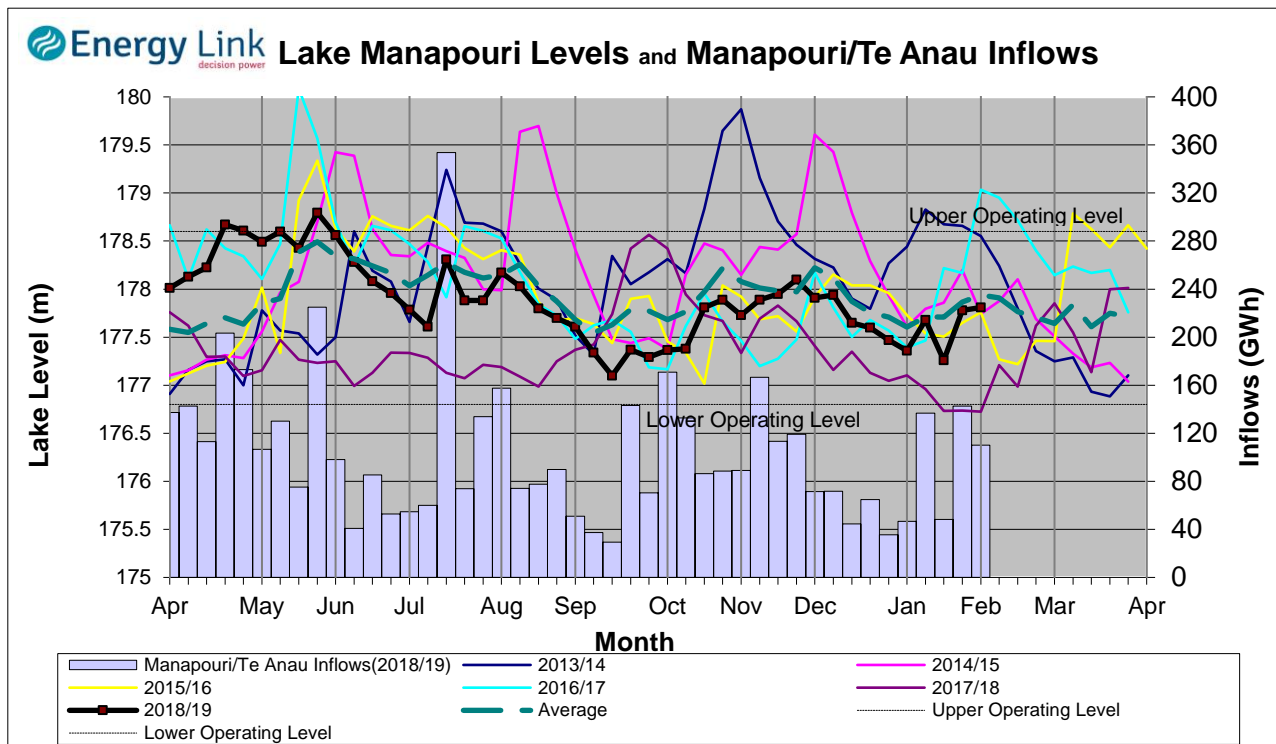
Generation - Average generation was 6.7% higher at 446 MW.

Hydro Spill - There was no estimated spill

River Flows - Total outflows from the lakes and Shotover River increased to 480.1 cumecs. This comprised of 14 cumecs from Lake Hawea, 226 cumecs from Lake Wanaka, 187 cumecs from Lake Wakatipu and 52 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System increased by 8.7% to 320 GWh with Lake Manapouri ending the week 70.9% nominally full and Lake Te Anau ending the week 74.5% nominally full.

Inflows - Total inflows into the Manapouri System decreased 22.7% to 110 GWh.

Generation - Average generation was 13.8% higher at 502 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 20.7 cumecs.

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

