

HydroWatch

Thursday, 16 March 2017

Issue: 1039

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)	2503	304	2807	486	3293
Storage Change (GWh)	-120	-58	-178	46	-132

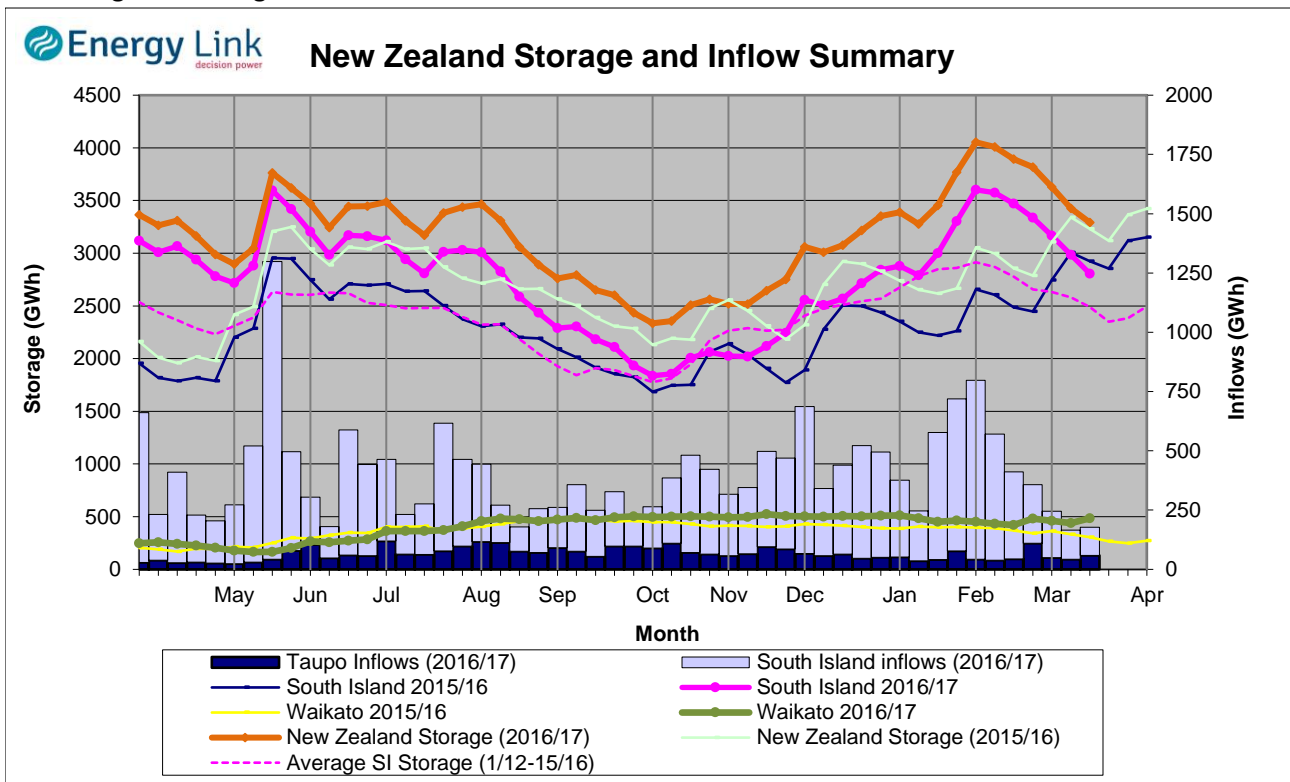
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

Transpower Security of Supply	South Island	North Island	New Zealand
Current Storage (GWh)	2750	486	3235

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 131.5 GWh over the last week. South Island controlled storage decreased 4.6% to 2503 GWh; South Island uncontrolled storage decreased 16% to 304 GWh; with Taupo storage increasing 10.6% to 486 GWh.



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Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	247	224	2337	486	3293
Last Week	288	256	2440	439	3424
% Change	-14.4%	-12.7%	-4.3%	10.6%	-3.8%
Inflow (GWh)	Manapouri	Clutha	Waitaki	Waikato	NZ
This Week	18	25	75	59	177
Last Week	19	26	78	43	166
% Change	-6.1%	-3.4%	-3.9%	38.5%	6.8%

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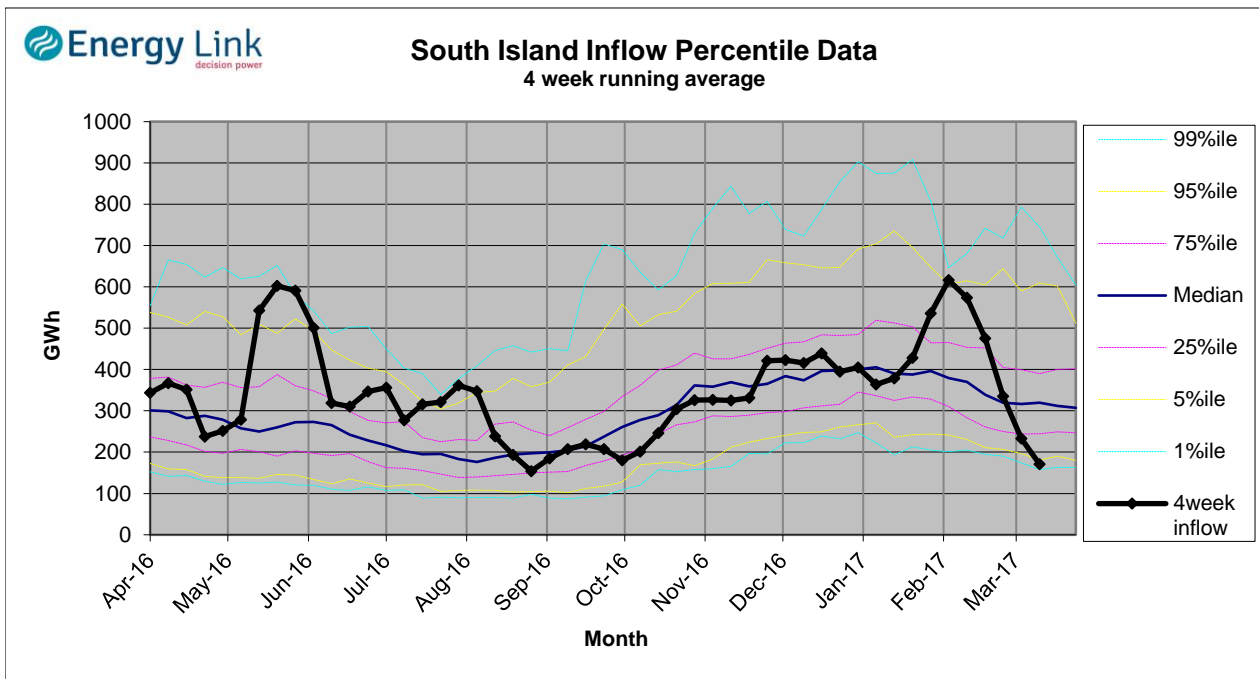
Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	178.17	137	18	0
	Te Anau	201.60	110		
Clutha	Wakatipu	309.61	27	118	-30
	Wanaka	276.69	30	131	-32
	Hawea	342.57	166	120	-2
Waitaki	Tekapo	708.37	624		
	Pukaki	531.52	1713		
Waikato	Taupo	357.04	486		

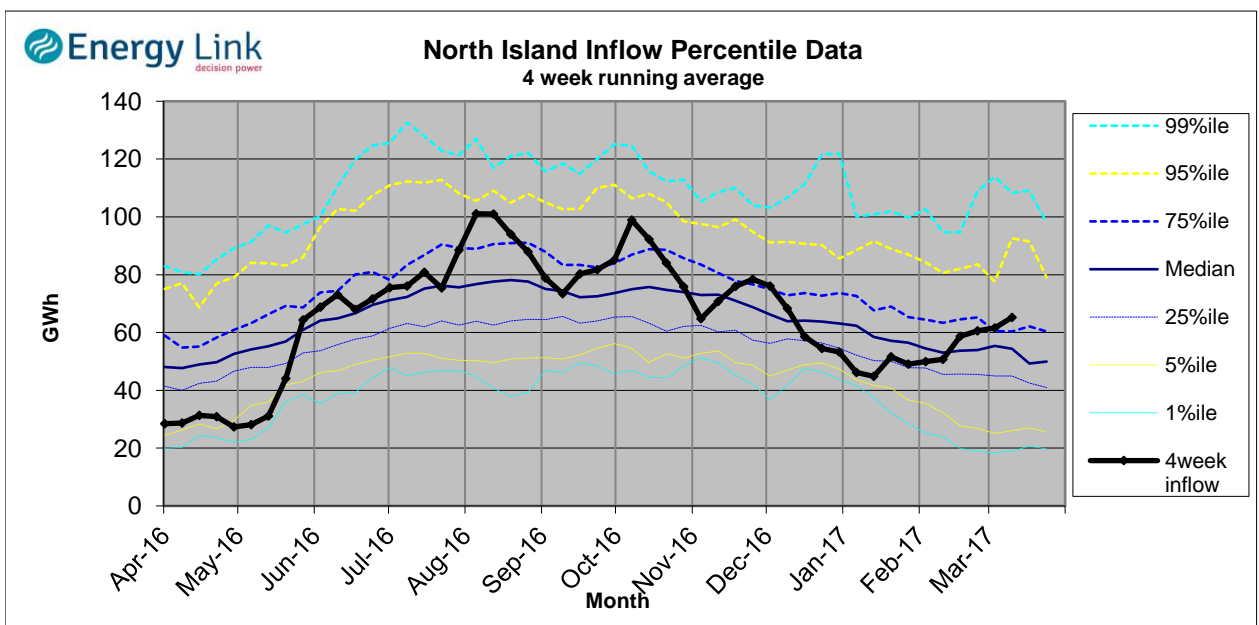
Inflow Summary

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.

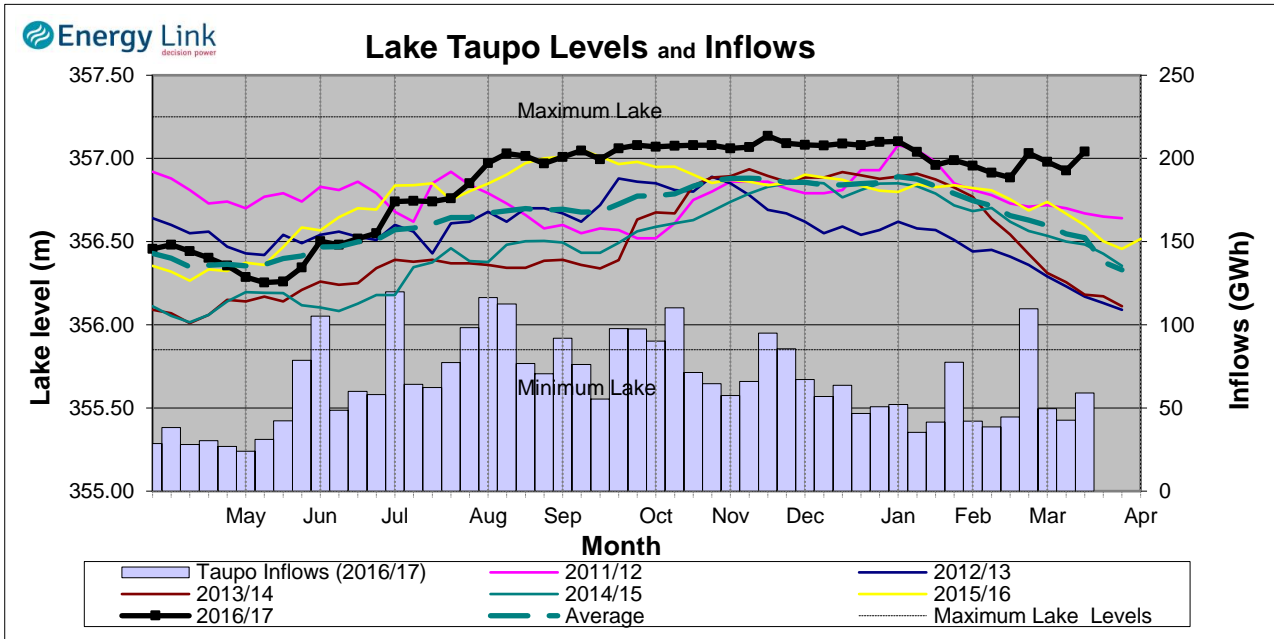
South Island Inflows - The past four weeks of S. I. inflows rank as the 4th driest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 17th wettest on record.



Waikato System

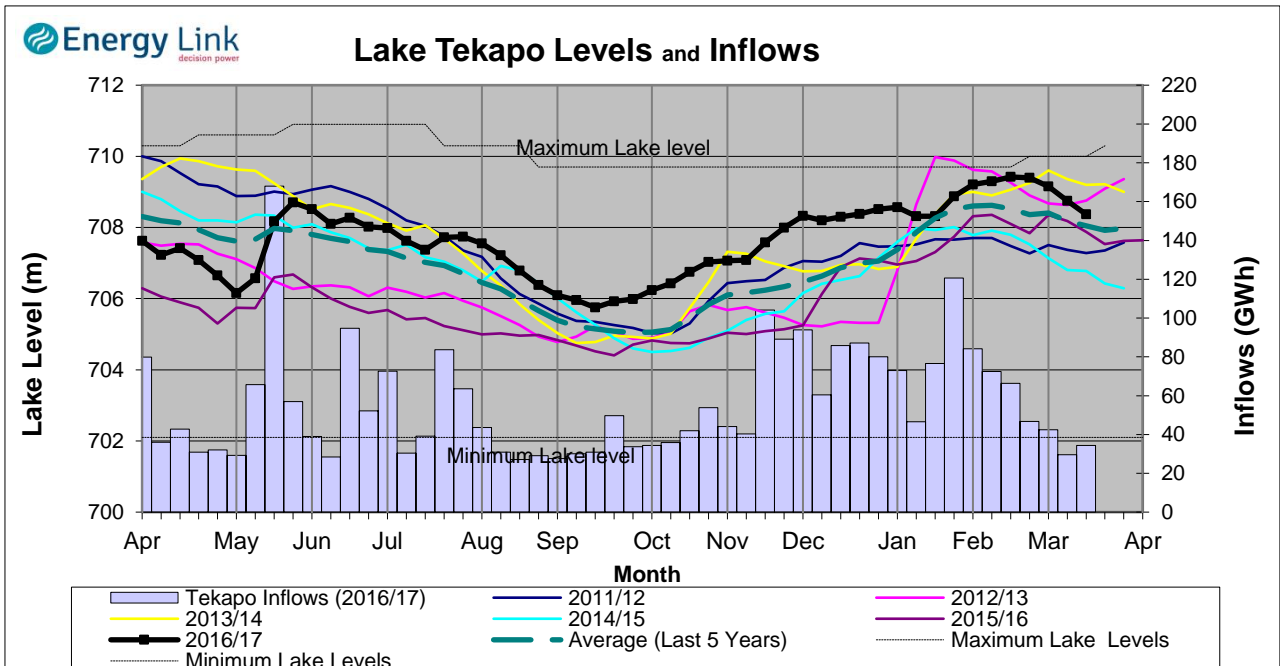


Lake Levels - Lake Taupo storage increased to 85.1% of nominal full at 486 GWh.

Inflows - Inflows increased 38.5% to 59 GWh.

Generation - Average generation decreased 6.4% to 403.3 MW.

Tekapo



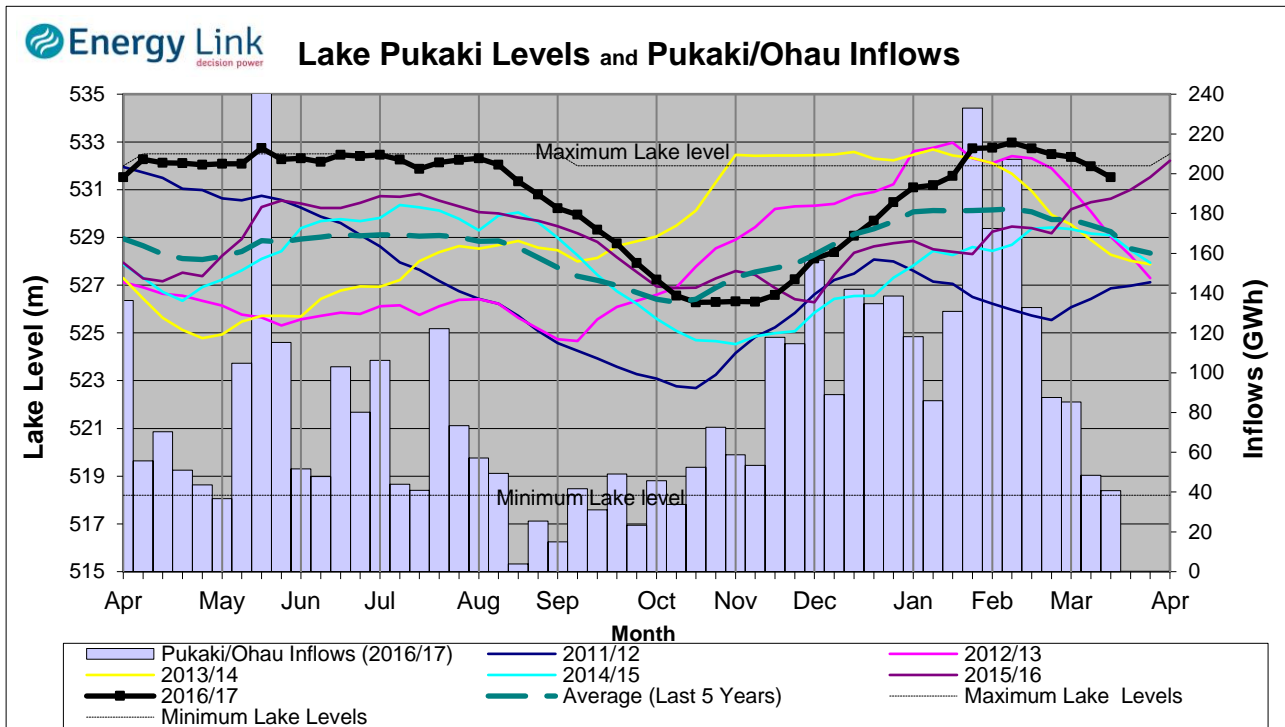
Lake Levels - Lake Tekapo ended the week 82.6% nominally full with storage falling to 624 GWh.

Inflows - Inflows into tekapo increased 16.2% to 34 GWh.

Generation - Average Tekapo generation increased 3.2% to 160.3 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 96.3% nominally full with storage falling to 1713 GWh.

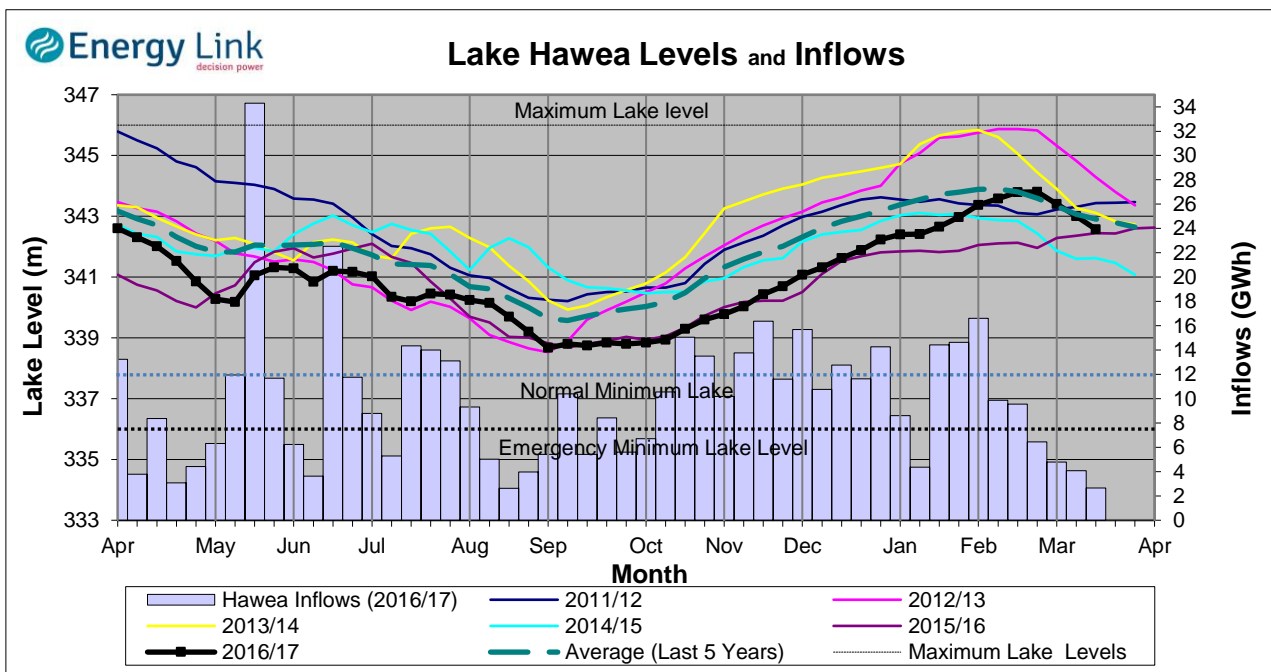
Inflows - Inflows into the Waitaki System decreased 16.1% to 41 GWh.

Generation - Average Waikati generation decreased 3.2% to 963.5 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River fell to 11.5 cumecs while Waitaki River flows were lower than last week averaging 381 cumecs.

Clutha System



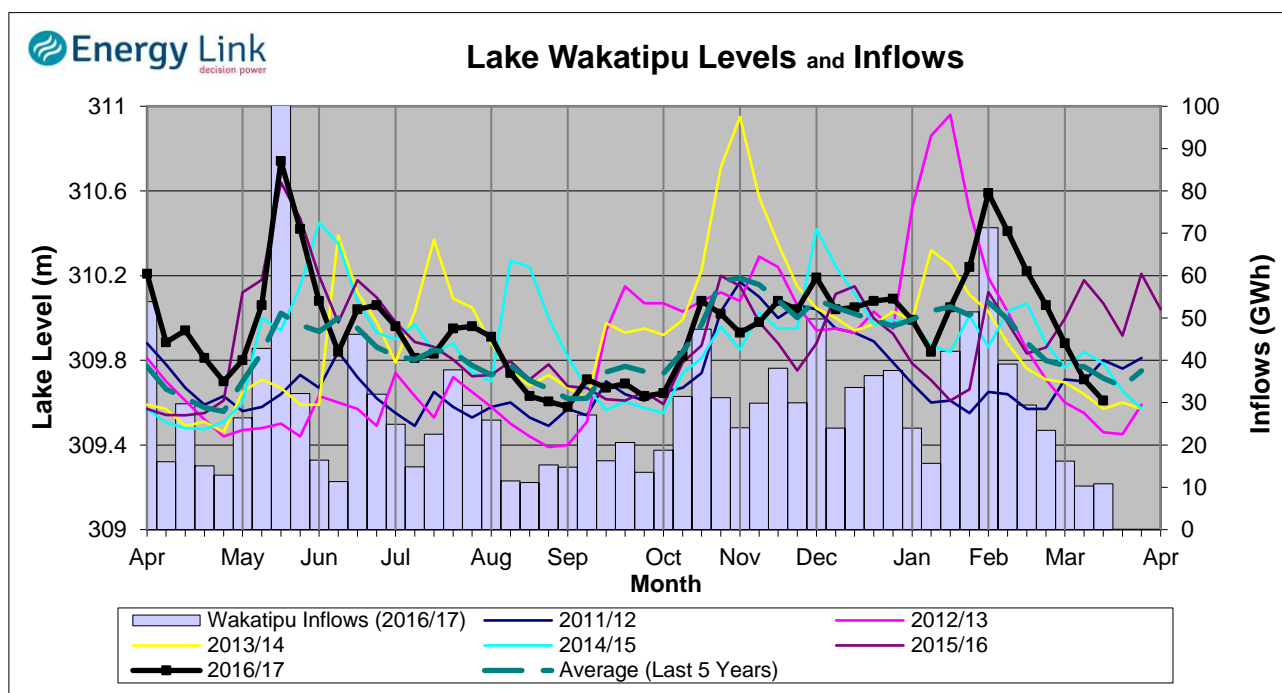
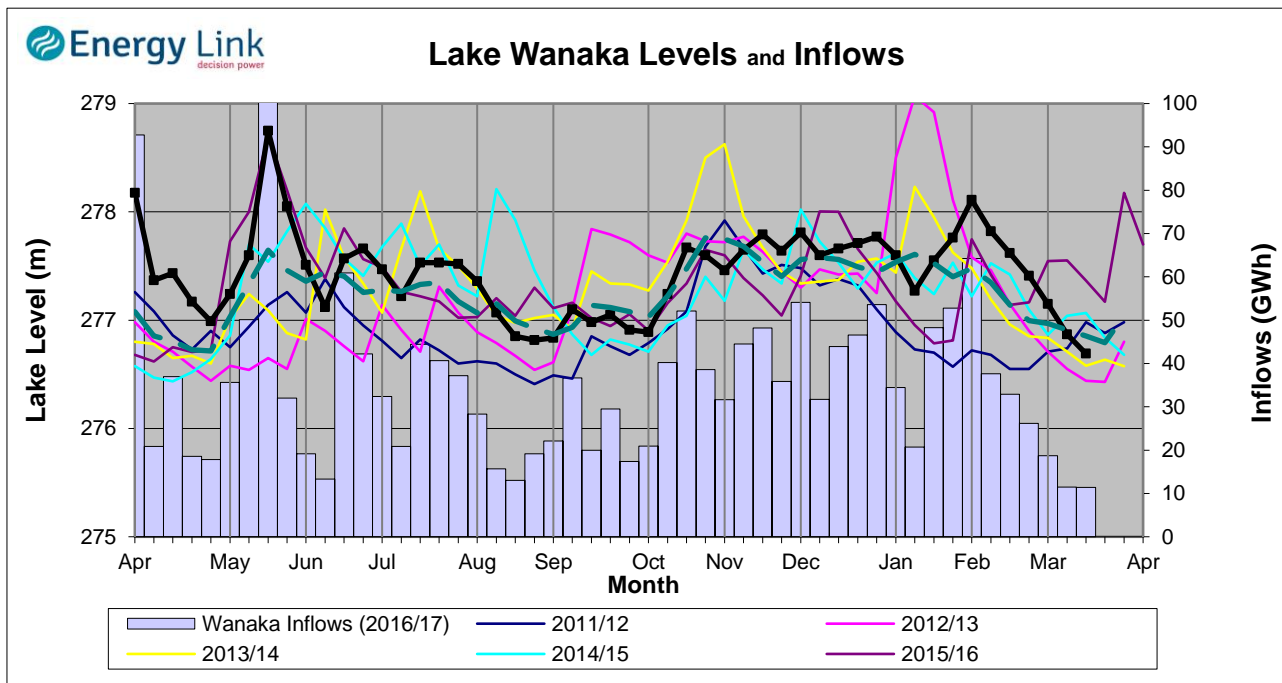
Lake Levels - Total storage for the Clutha System decreased 12.7% to 224 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 56.3%, 26.4% and 25.7% nominally full respectively.

Inflows - Total Inflows into the Clutha System 3.4% lower at 25 GWh.

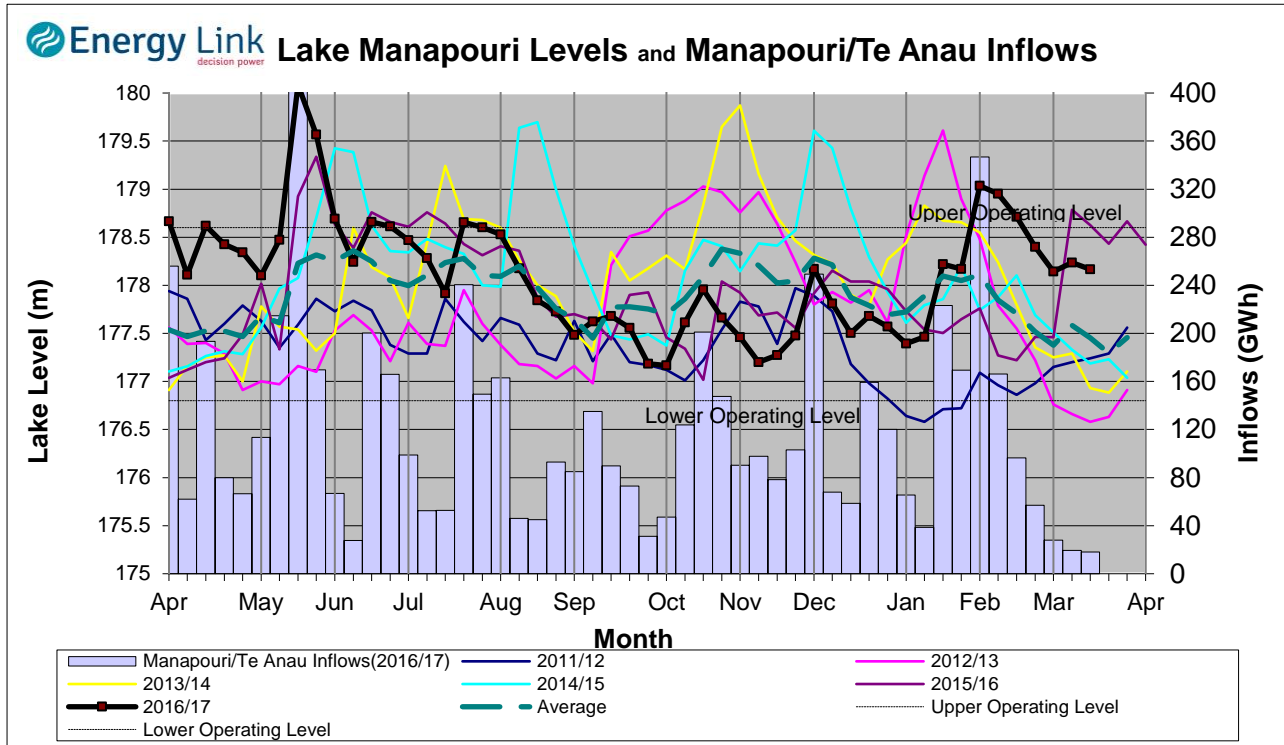
Generation - Average generation was 13% lower at 354 MW.

Hydro Spill - There was no estimated spill

River Flows - Total outflows from the lakes and Shotover River fell to 393.1 cumecs. This comprised of 120 cumecs from Lake Hawea, 131 cumecs from Lake Wanaka, 118 cumecs from Lake Wakatipu and 25 cumecs from the Shotover River.



Manapouri System



Lake Levels - Total storage for the Manapouri System decreased 14.4% to 247 GWh with Lake Manapouri ending the week 84% nominally full and Lake Te Anau ending the week 40.1% nominally full.

Inflows - Total inflows into the Manapouri System decreased 6.1% to 18 GWh.

Generation - Average generation was 6% lower at 353 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 17.7 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 'Main operating range'.

