HydroWatch

Thursday, 03 August 2023   Issue: 1372

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)	**2039**	**376**	**2415**	**308**		**2723**
Storage Change (GWh)	-138	34	-103	-33		-137

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)			**2367**	**308**		**2674**

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 136.8 GWh over the last week. South Island controlled storage decreased 6.3% to 2039 GWh; South Island uncontrolled storage increased 10% to 376 GWh; with Taupo storage decreasing 9.8% to 308 GWh.
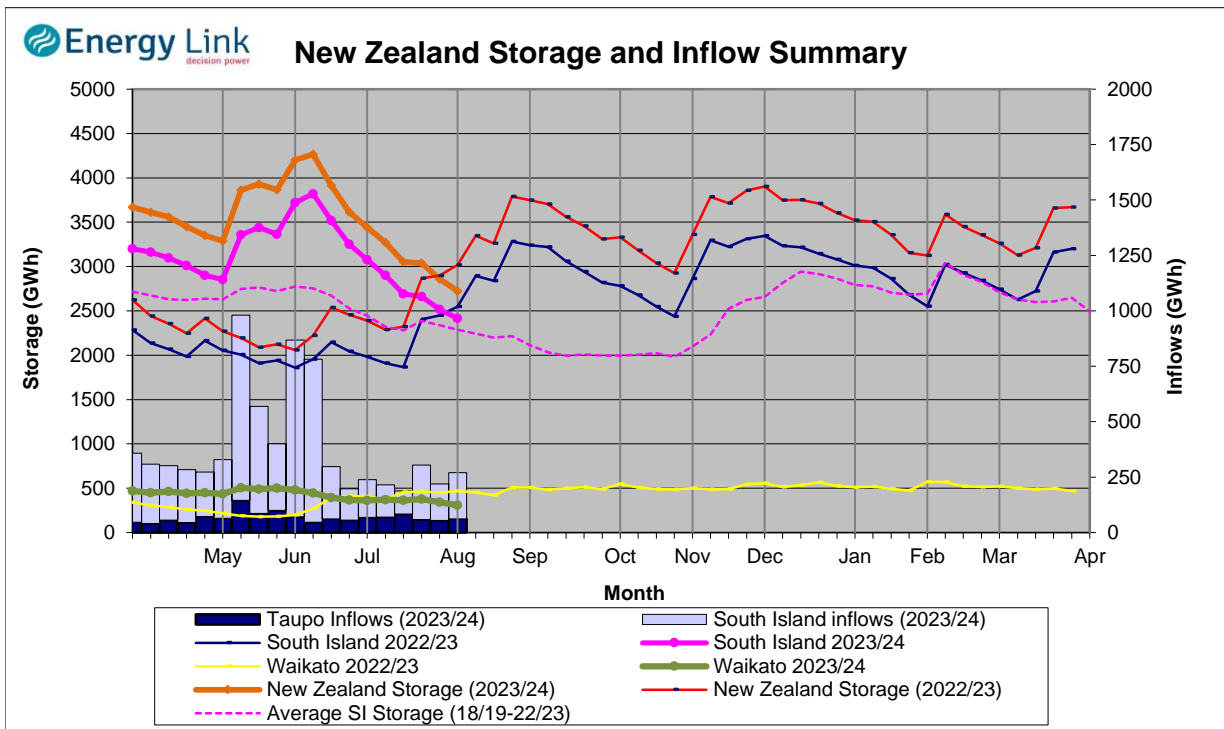
Thursday, 03 August 2023						
Storage (GWh)	Manapouri	Clutha	Waitaki	Waikato		NZ
This Week	**328**	**142**	**1945**	**308**		**2723**
Last Week	298	157	2064	341		2859
% Change	9.9%	-9.3%	-5.7%	-9.8%		-4.8%
Inflow (GWh)						
This Week	**130**	**36**	**44**	**61**		**271**
Last Week	72	28	66	54		220
% Change	79.2%	31.2%	-33.3%	12.7%		23.1%

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Lake Levels and Outflows

Catchment	Lake	Level (m. asl)	Storage (GWh)	Outflow (cumecs)	Outflow Change
Manapouri	Manapouri	178.06	130	24	11
	Te Anau	202.18	197		
Clutha	Wakatipu	309.55	23	76	-6
	Wanaka	276.60	26	97	-7
	Hawea	340.61	94	151	-7
Waitaki	Tekapo	707.33	514		
	Pukaki	529.45	1431		
Waikato	Taupo	356.60	308		

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.
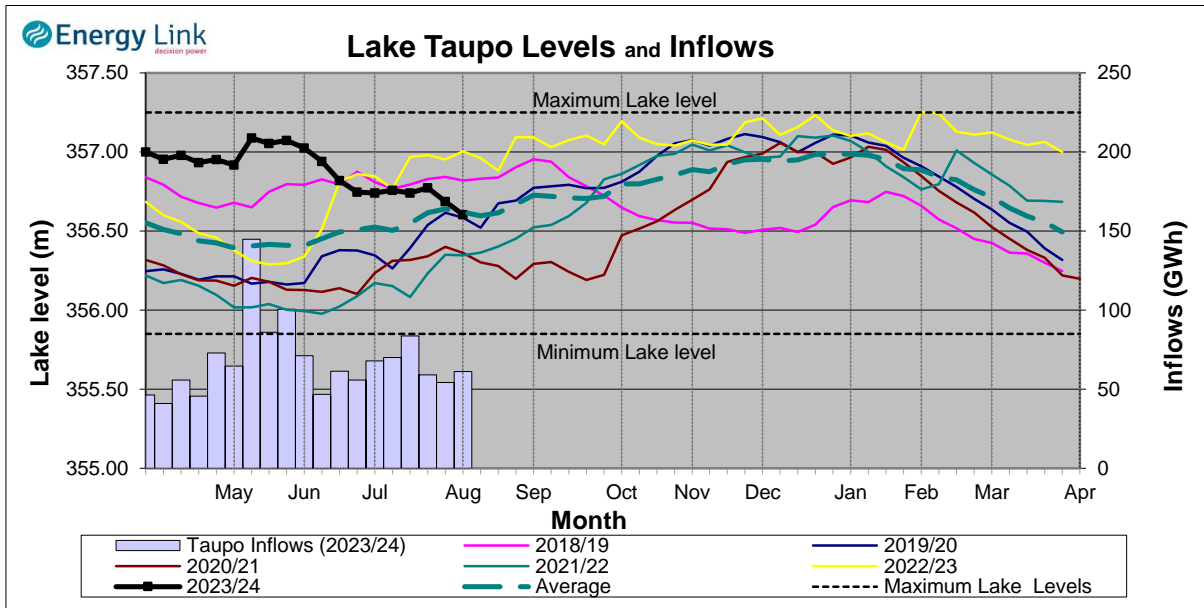
South Island Inflows -   The past four weeks of S. I. inflows rank as the 44th driest on record.
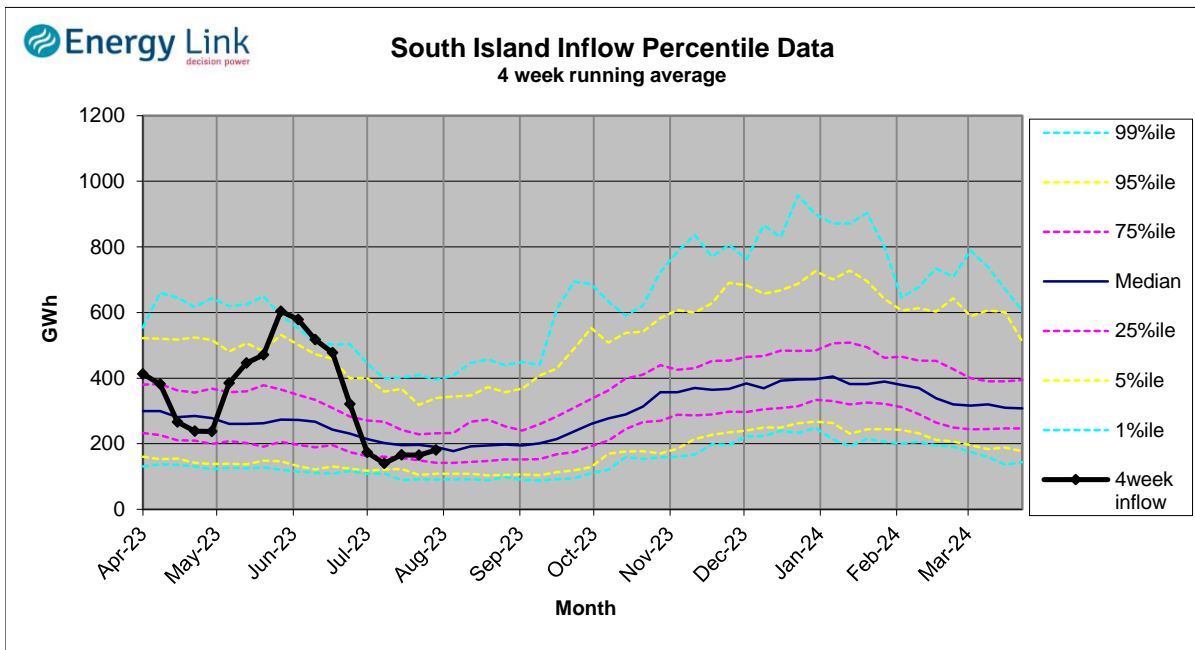
North Island Inflows -   The past four weeks of N. I. inflows rank as the 26th driest on record.
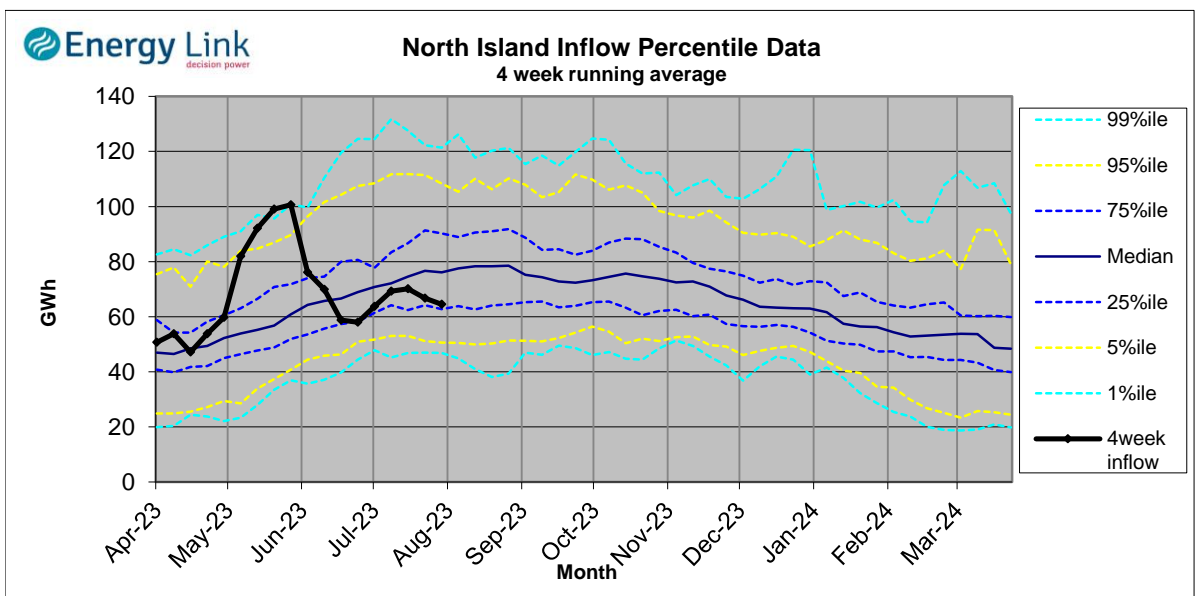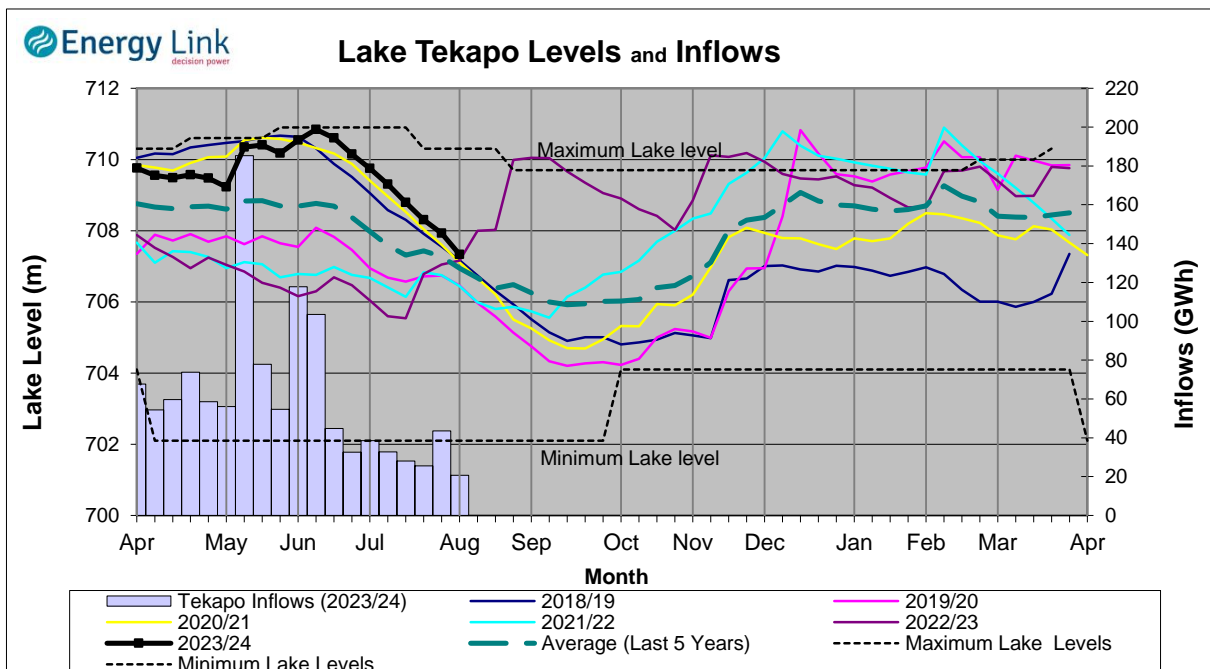
Waikato System

Lake Levels -   Lake Taupo storage fell to 53.9% of nominal full at 308 GWh.

Inflows -   Inflows increased 12.7% to 61 GWh.

Generation -   Average generation increased 6.5% to 562.8 MW.
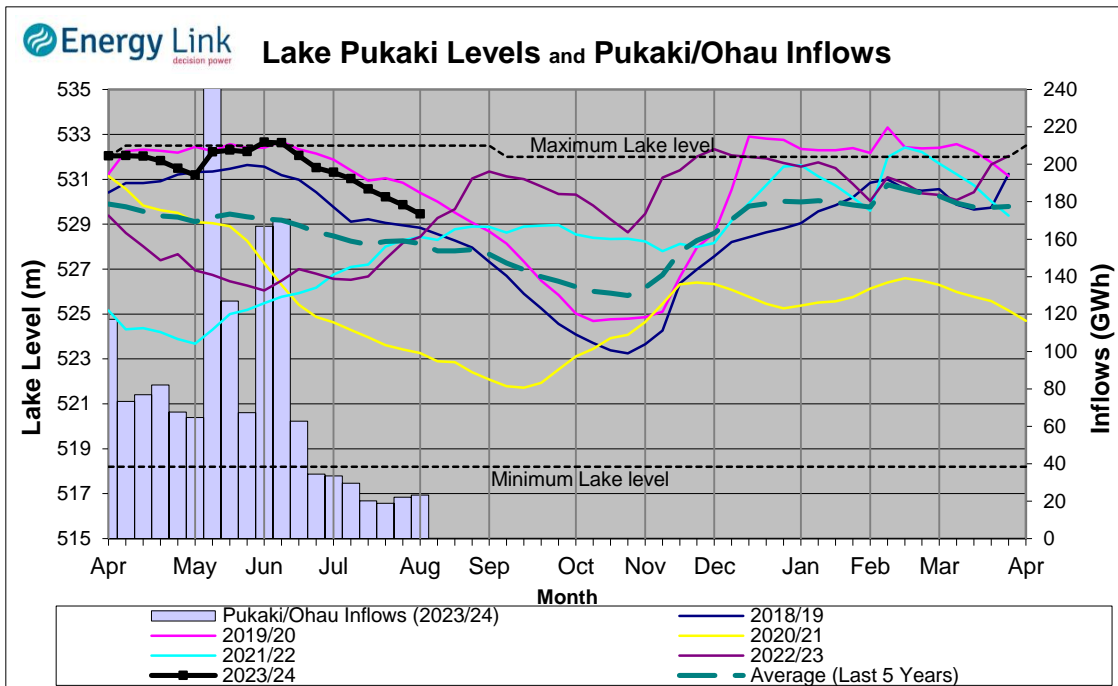
Tekapo

Lake Levels -   Lake Tekapo ended the week 60% nominally full with storage falling to 514 GWh.

Inflows -   Inflows into tekapo decreased 52.8% to 21 GWh.

Generation -   Average Tekapo generation increased 0.6% to 176.4 MW.

Hydro Spill -   Lake Tekapo did not spill.

Waitaki System

Lake Pukaki Levels and Pukaki/Ohau Inflows

Lake Levels - Lake Pukaki ended the week 77% nominally full with storage falling to 1431 GWh.
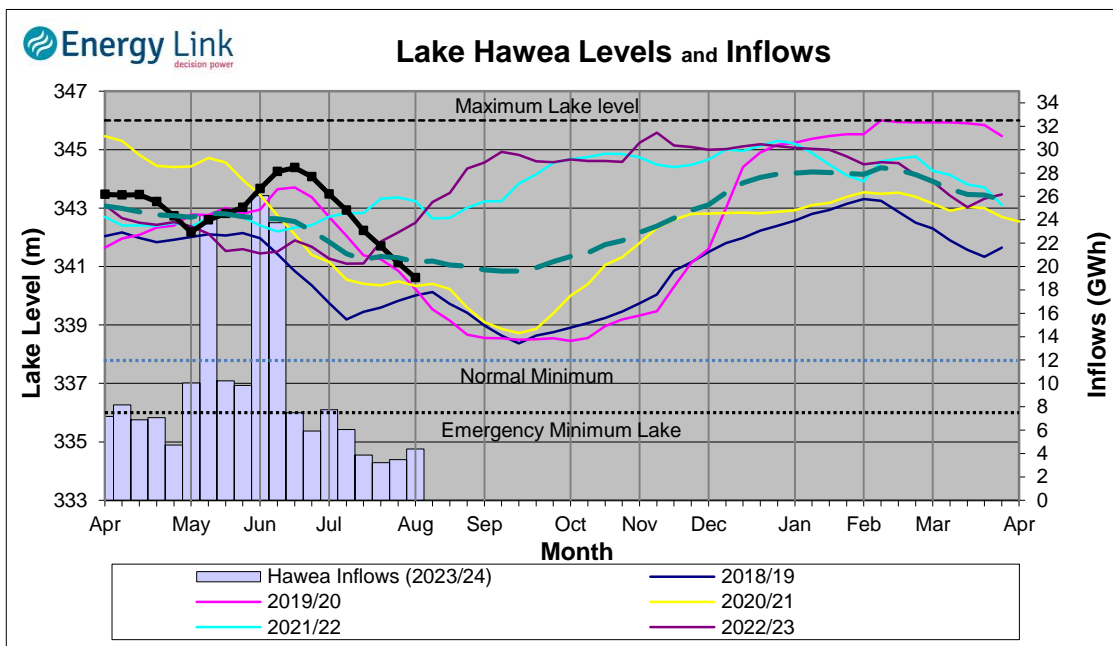
Inflows - Inflows into the Waitaki System increased 4.9% to 23 GWh.

Generation - Average Waitaki generation increased 7.5% to 884.8 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River increased to 14.6 cumecs while Waitaki River flows were higher than last week averaging 367.3 cumecs.

Clutha System

**Lake Hawea Levels and Inflows**

Lake Levels -   Total storage for the Clutha System decreased 9.3% to 142 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 31.7%, 22.5% and 21.4% nominally full respectively.

Inflows -   Total Inflows into the Clutha System 31.2% higher at 36 GWh.
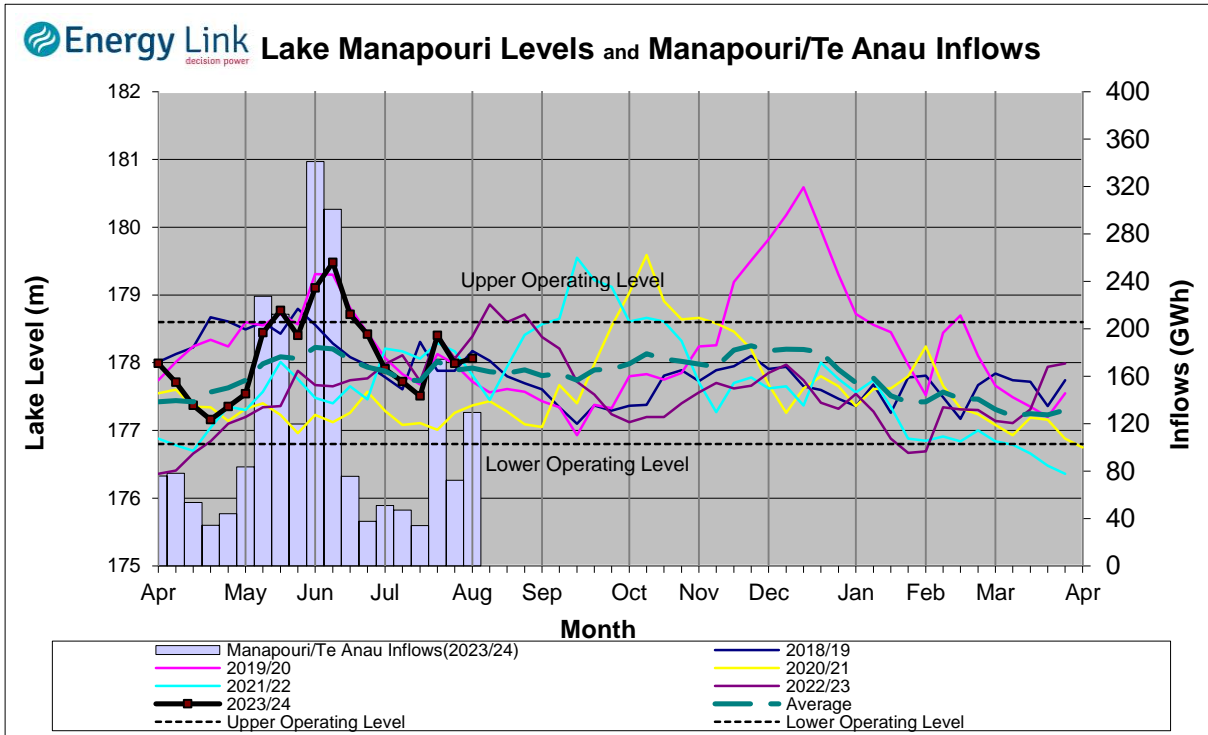
Generation -   Average generation was 5.4% lower at 350 MW.

Hydro Spill -   The was no estimated spill

River Flows -   Total outflows from the lakes and Shotover River fell to 353.1 cumecs. This comprised of 151 cumecs from Lake Hawea, 97 cumecs from Lake Wanaka, 76 cumecs from Lake Wakatipu and 28 cumecs from the Shotover River.
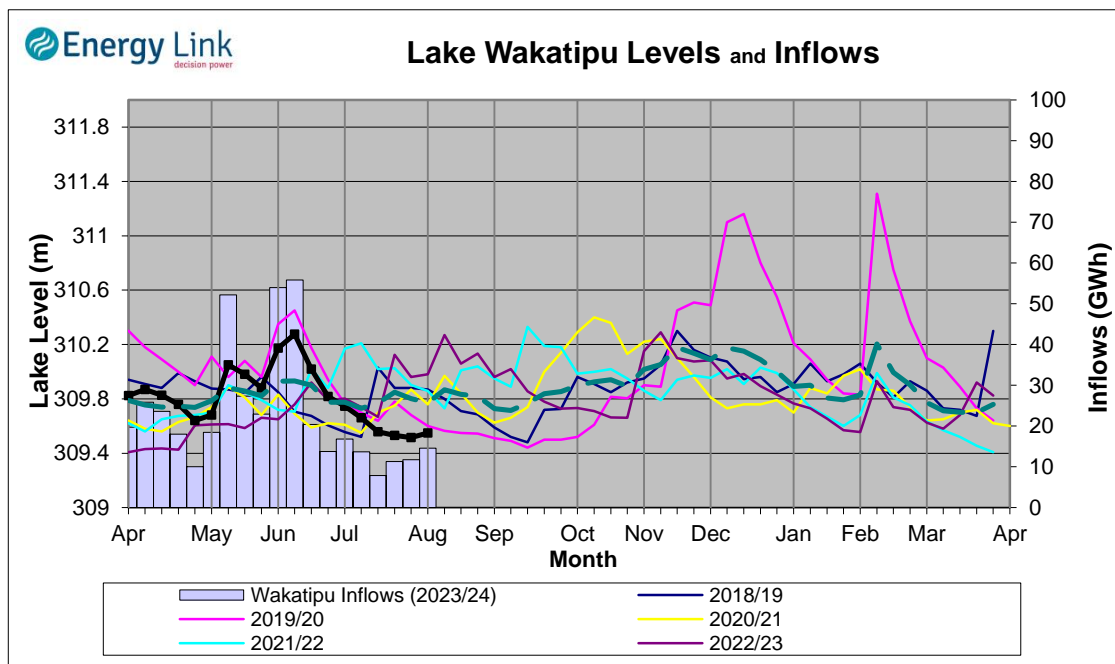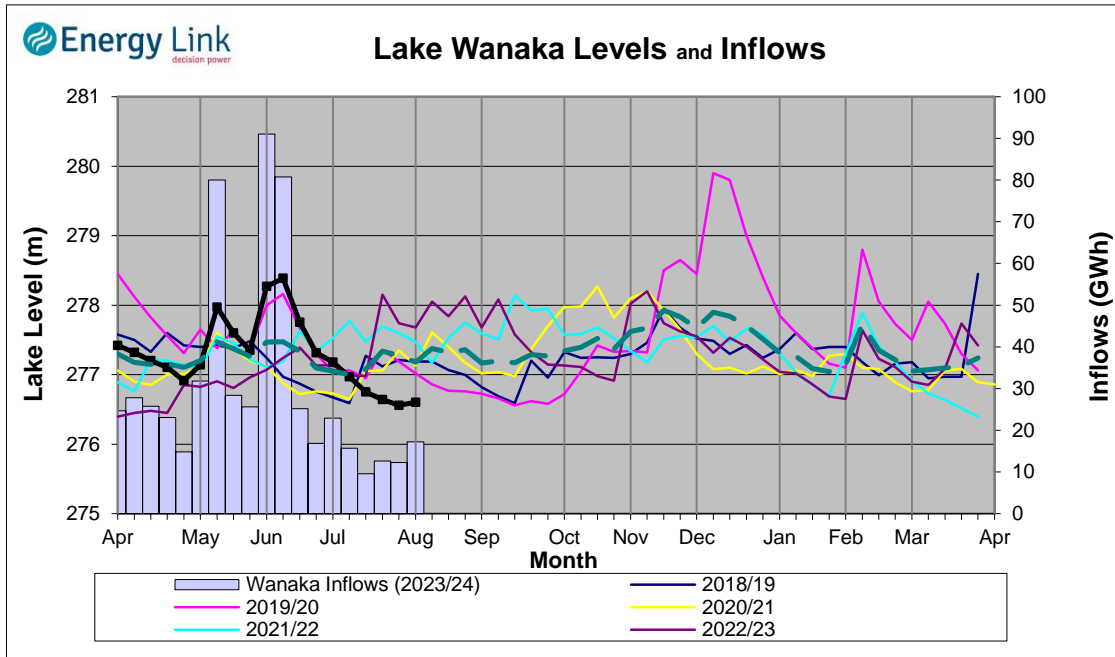
Manapouri System

Lake Levels - Total storage for the Manapouri System increased by 9.9% to 328 GWh with Lake Manapouri ending the week 80.1% nominally full and Lake Te Anau ending the week 71.7% nominally full.

Inflows - Total inflows into the Manapouri System increased 79.2% to 130 GWh.

Generation - Average generation was 5.7% lower at 577 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 23.5 cumecs.

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