

Thursday, 29 June 2023

A weekly summary relating to New Zealand hydro storage and inflows.

Compiled by Energy Link Ltd.

| Storage Summary | South Island | h Island South Island South Island North | | North Island |
|-----------------------|--------------|--|-------|--------------|
| | Controlled | Uncontrolled | Total | Taupo |
| Current Storage (GWh) | 2656 | 421 | 3077 | 363 |
| Storage Change (GWh) | -96 | -77 | -173 | -2 |

| Total Storage | |
|---------------|---|
| 3441 | 1 |
| -175 | 1 |

Issue: 1367

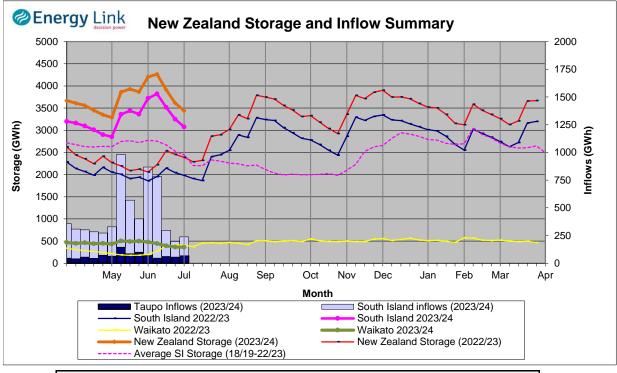
Note: SI Controlled; Tekapo, Pukaki and Hawea: SI Uncontrolled; Manapouri, Te Anau, Wanaka, Wakatipu

| Transpower Security of Supply | South Island | North Island | | New Zealand |
|---|--------------|--------------|--|-------------|
| Current Storage (GWh) | 2985 | 363 | | 3349 |
| Note: These figures are provided to align with Transpower's Security of Supply information. However due | | | | |

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 174.9 GWh over the last week. South Island controlled storage decreased 3.5% to 2656 GWh; South Island uncontrolled storage decreased 15.5% to 421 GWh; with Taupo storage decreasing 0.6% to 363 GWh.



| Thursday, 29 June 2023 | | | | | |
|------------------------|-----------|--------|---------|---------|-------|
| | Manapouri | Clutha | Waitaki | Waikato | NZ |
| Storage (GWh) | | | | | |
| This Week | 329 | 292 | 2456 | 363 | 3441 |
| Last Week | 394 | 327 | 2529 | 365 | 3615 |
| % Change | -16.5% | -10.6% | -2.9% | -0.6% | -4.8% |
| | | | | | |
| Inflow (GWh) | | | | | |
| This Week | 51 | 47 | 72 | 68 | 238 |
| Last Week | 38 | 36 | 67 | 56 | 197 |
| % Change | 35.0% | 29.9% | 7.3% | 21.9% | 20.9% |

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Lake Levels and Outflows

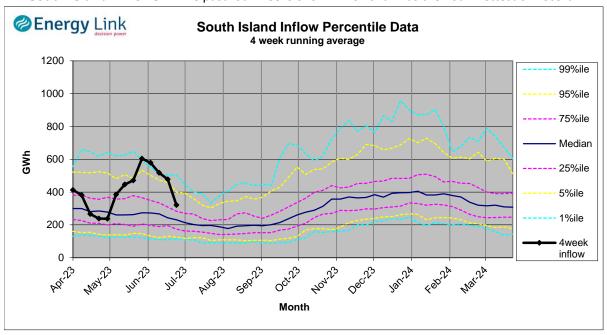
| Catchment | Lake | Level | Storage | Outflow |
|-----------|-----------|----------|---------|----------|
| | | (m. asl) | (GWh) | (cumecs) |
| Manapouri | Manapouri | 177.91 | 121 | 13 |
| | Te Anau | 202.25 | 208 | |
| Clutha | Wakatipu | 309.75 | 37 | 143 |
| | Wanaka | 277.18 | 55 | 190 |
| | Hawea | 343.48 | 200 | 193 |
| Waitaki | Tekapo | 709.75 | 773 | |
| | Pukaki | 531.30 | 1682 | |
| Waikato | Taupo | 356.74 | 363 | |

| Outflow Change |
|----------------|
| -38 |
| -43 |
| -58 |
| 81 |

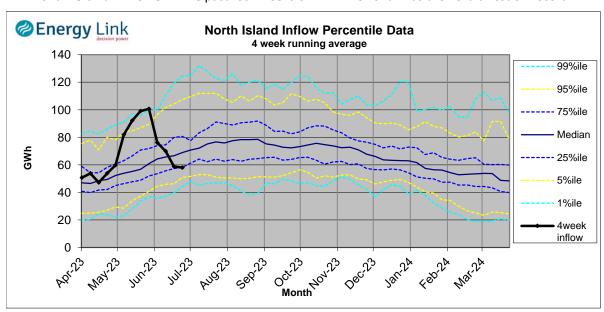
Inflow Summary

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.

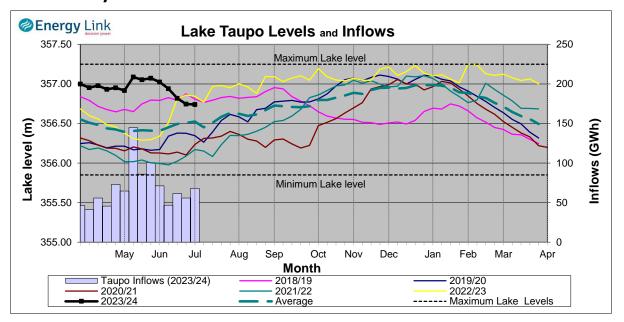
South Island Inflows - The past four weeks of S. I. inflows rank as the 16th wettest on record.



North Island Inflows - The past four weeks of N. I. inflows rank as the 23rd driest on record.



Waikato System

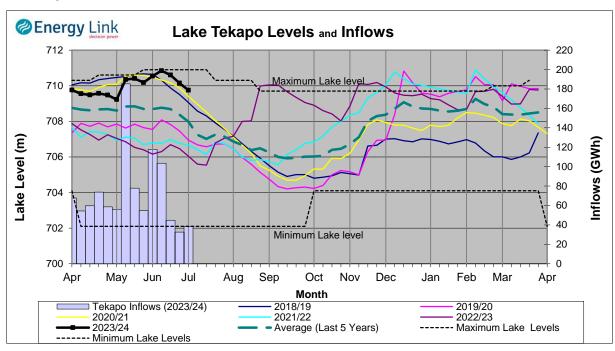


Lake Levels - Lake Taupo storage fell to 63.7% of nominal full at 363 GWh.

Inflows - Inflows increased 21.9% to 68 GWh.

Generation - Average generation decreased 8.5% to 504.7 MW.

Tekapo



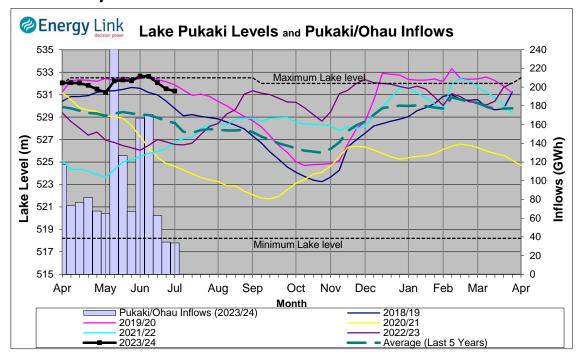
Lake Levels - Lake Tekapo ended the week 91% nominally full with storage falling to 773 GWh.

Inflows - Inflows into tekapo increased 18% to 38 GWh.

Generation - Average Tekapo generation remained steady at 177.8 MW.

Hydro Spill - Lake Tekapo did not spill.

Waitaki System



Lake Levels - Lake Pukaki ended the week 91% nominally full with storage falling to 1682 GWh.

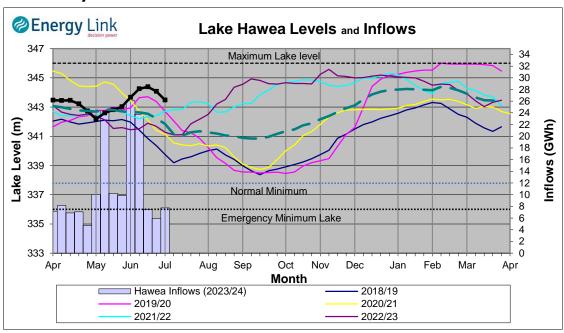
Inflows - Inflows into the Waitaki System remained steady at 34 GWh.

Generation - Average Waitaki generation decreased 27.1% to 794.7 MW.

Hydro Spill - Lake Pukaki did not spill.

River Flows - Flows from the Ahuriri River fell to 21 cumecs while Waitaki River flows were lower than last week averaging 339.5 cumecs.

Clutha System



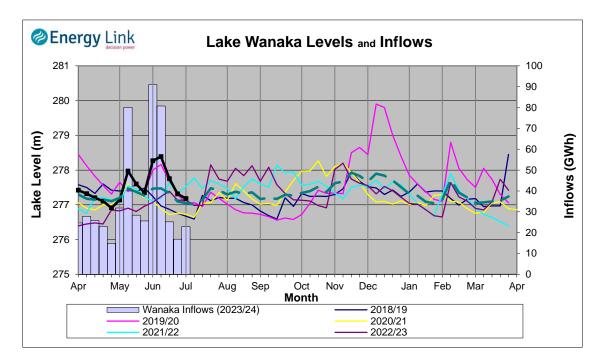
Lake Levels - Total storage for the Clutha System decreased 10.6% to 292 GWh. Lakes Hawea, Wanaka and Wakatipu ended the week 67.8%, 47.7% and 35.4% nominally full respectively.

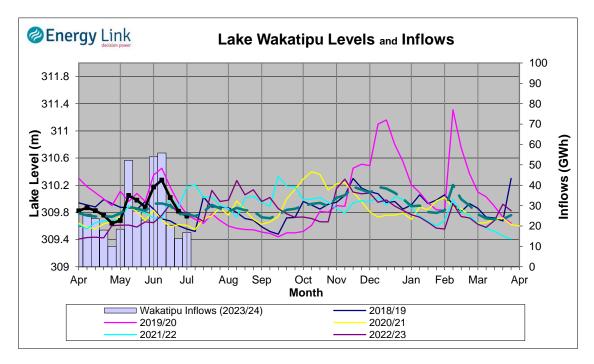
Inflows - Total Inflows into the Clutha System 29.9% higher at 47 GWh.

Generation - Average generation was 1.9% lower at 530 MW.

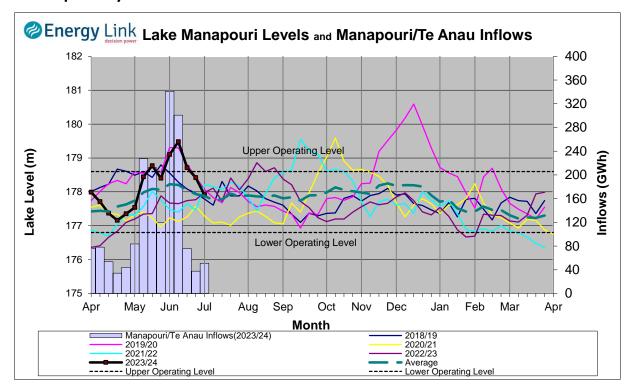
Hydro Spill - The was no estimated spill

River Flows - Total outflows from the lakes and Shotover River fell to 562.5 cumecs. This comprised of 193 cumecs from Lake Hawea, 190 cumecs from Lake Wanaka, 143 cumecs from Lake Wakatipu and 37 cumecs from the Shotover River.





Manapouri System



Lake Levels - Total storage for the Manapouri System decreased 16.5% to 329 GWh with Lake Manapouri ending the week 74.6% nominally full and Lake Te Anau ending the week 75.5% nominally full.

Inflows - Total inflows into the Manapouri System increased 35% to 51 GWh.

Generation - Average generation was 5.9% lower at 689 MW.

Hydro Spill - Estimated spill at the Mararoa Weir was 12.7 cumecs.

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

