


Date	8 April 2026
To	Trinity White, Environmental Manager – South Island Renewables, Genesis Energy
From	Philip Mitchell – Partner with Mitchell Daysh Limited
Project advice provided for	Fast-track Application for Lake Pūkaki Hydro Storage and Dam Resilience Works
Documents referred to	The proposed consent conditions I have prepared in relation to this fast-track application are attached (Attachment 1).
Qualifications and experience	<p>I am a Partner with Mitchell Daysh Limited, an environmental consulting practice with offices in eight locations around New Zealand.</p> <p>I hold the degrees of Bachelor of Engineering (Hons) and Doctor of Philosophy, both from the University of Canterbury.</p> <p>I am a past president of the Resource Management Law Association and a full member of the New Zealand Planning Institute. I was a recipient of the New Zealand Planning Institute's Distinguished Service Award in 2015.</p> <p>I have practised in the resource management field for the last 40 years, and I have had a lead resource management role in many significant projects throughout New Zealand during that time. My specialist areas of practice include providing resource management advice to the private and public sectors, facilitating public consultation processes, undertaking planning analyses, managing resource consent acquisition projects, and developing resource consent conditions.</p> <p>I am an accredited Hearings Commissioner (with a Chair's endorsement) and have acted as a Hearings Commissioner on more than 100 occasions, most in the role of Hearing Chair. I chaired the Expert Panel appointed under the Fast-track Approvals Act 2024 (FTAA) to consider the applications to extend the Bledisloe and Fergusson Wharves at the Port of Auckland.</p>
Code of Conduct	As an expert witness I have read, and I am familiar with, the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. The conditions have been drafted in compliance with that Code.
Signature	

ATTACHMENT 1

Conditions proposed by Genesis Energy to be included on CRC262540

– **Section 14 Consent** to take, use, dam or divert water for hydroelectricity generation (Operation of Lake Pūkaki below 518.0 mRL)

1. This consent will expire on 1 September 2028 unless surrendered or cancelled at an earlier date.
2. Lowering Lake Pūkaki below 518.0 metres above mean sea level (“mRL”) to a minimum of 513.0 mRL under this consent is authorised:
 - a. only during the months of June, July, August 2026, 2027 or 2028, and only when the System Operator has confirmed, in writing, that maintaining the security of electricity supply necessitates the lowering (“electricity shortage”) **[DRAFTING NOTE – The Expert Panel may wish to consider alternative ways of defining what is required to trigger an “electricity shortage”]** is; or
 - b. when it is necessary to undertake the repair, remediation or maintenance works associated with the Tekapo Temporary Tailrace.

Advice note: During the period when Condition 2 a applies, the Consent Holder has signalled an intention to replace or repair rip-rap on the Pūkaki Dam face.

PRIOR TO LOWERING LAKE PŪKAKI BELOW 518.0 METERS MRL

3. Within 20 working days of commencement of this consent, the Consent Holder must, after consultation with Genesis Energy Limited (“Genesis”), identify and provide to Genesis a list of at least three independent persons experienced in the design and construction of hydraulic structures (“Suitably Qualified and Experienced Practitioners” or “SQEP”) that the Consent Holder considers are appropriate to undertake the requirements contained in Conditions 7 – 9, 11, 12, 14, 15 and 16 of this consent.
4. Provided that Genesis confirms a preferred SQEP from the list within 5 working days, the Consent Holder must appoint the SQEP selected by Genesis.
5. If Genesis does not select a SQEP within 5 working days, the Consent Holder must appoint a SQEP from the list and, within a further 5 working days, inform Genesis who the appointed SQEP is.

6. The Consent Holder may, as necessary in the circumstances, replace the appointed SQEP with another SQEP, provided that the process set out in Conditions 3, 4 and 5 is repeated.

REPAIR STRATEGY AND ASSOCIATED WORKS PROGRAMME

7. Prior to the first lowering of Lake Pūkaki below 518.0 mRL in accordance with Condition 2, and following consultation with Genesis, the Consent Holder must have engaged the SQEP to prepare a Repair Strategy and Associated Works Programme for the Tekapo Temporary Tailrace, the purpose of which is to set out the procedures to be followed and physical works implemented to ensure that any lake level lowering authorised by this consent will not adversely affect the Tekapo Temporary Tailrace or the operation of the Tekapo B Power Station.
8. The Repair Strategy and Associated Works Programme must be prepared following consultation with Genesis, and, as a minimum:
 - a. incorporate all recommendations contained within the WSP memorandum 'Tekapo B Power Station Submerged Weir – Damwatch Document Reviews' dated 26 March 2026 and the WSP report 'Tekapo Submerged Weir Structural Condition Assessment' dated 25 March 2026, including but not limited to:
 - i. reinstatement of displaced rip-rap;
 - ii. repair of concrete defects;
 - iii. treatment of exposed reinforcement;
 - iv. installation of new steel dowels to provide a positive and reliable connection between the concrete cap and base;
 - v. investigation of unusual sill beam survey results and potential cracking; and
 - vi. removal of silt and vegetation or detailed inspection and concrete testing;
 - b. incorporate any additional requirements identified by the SQEP in order to satisfy Condition 7;
 - c. provide timeframes for the works required by (i) and (ii) above to be completed;

- d. identify the approvals and resource consents (if any) required to be obtained by the Consent Holder in order to implement the Repair Strategy and Associated Works Programme;
 - e. set out the post construction monitoring and management measures required to ensure that the lowering the lake level below 518.0 mRL does not adversely affect the Tekapo Temporary Tailrace or the operation of the Tekapo B Power Station;
 - f. be certified by the SQEP as satisfying the requirements of this Condition 8; and
 - g. be provided to Genesis and the Canterbury Regional Council (Attention: Manager Compliance) immediately on completion.
9. The Repair Strategy and Associated Works Programme may be amended from time to time, provided that
- a. Genesis has been consulted regarding the details of any amendment; and
 - b. any amendment has been certified by the SQEP, and a copy provided to Genesis and the Canterbury Regional Council (Attention: Manager Compliance), prior to any amendment being implemented.
10. The Consent Holder must advise Canterbury Regional Council (Attention: Manager Compliance), Te Rūnanga o Moeraki, Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Genesis, in writing, at least 15 working days in advance of any individual planned lowering event or when reducing lake levels reach 519.0 mRL (whichever is earlier), (i.e. before Lake Pūkaki is reduced below the Normal Consented Minimum Lake Level of 518.0 mRL).

COMPLETING THE REPAIR WORKS

11. The Consent Holder must ensure that:
- a. the works identified in the Repair Strategy and Associated Works Programme are completed in accordance with the Repair Strategy and Associated Works Programme and certified by the SQEP as soon as is practicable and, in any event, no later than 12 months following the commencement of this consent and before any lowering of Lake Pūkaki below 518.0 mRL under Condition 2 occurs; and
 - b. Genesis and Canterbury Regional Council (Attention: Manager Compliance) have been provided written confirmation that the requirements of Condition 11 a above have been satisfied.

POST LAKE PŪKAKI BEING LOWERED TO BELOW 518.0 MRL

12. During any period in which the level of Lake Pūkaki is below 518.0 mRL in accordance with Condition 2 a, the Consent Holder must ensure that a minimum Tail Water Level (“TWL”) of 518.0 mRL is maintained between the Tekapo B Power Station and the Tekapo Temporary Tailrace at all times, as measured at the Tekapo B Power Station or an alternative suitable location certified by the SQEP and confirmed in writing to Genesis and Canterbury Regional Council (Attention: Manager Compliance).
13. Whenever Lake Pūkaki is lowered below 518.0 mRL in accordance with Condition 2, the Consent Holder must:
 - a. ensure that levels below 518.0 mRL occur only for the minimum duration reasonably necessary to:
 - i. undertake repair, remediation or maintenance works associated with the Tekapo Temporary Tailrace, as required by Conditions 7, 8, 11, 15 and 16; or
 - ii. respond to the electricity shortage giving rise to the lowering; and
 - b. once the works referred to in Condition 13 a i are completed, or the electricity shortage giving rise to the lowering no longer applies, the Consent Holder must use its best endeavours to promptly restore the level of Lake Pūkaki to or above 518.0 mRL.
14. Monitoring results collected in accordance with Condition 8 e must be provided to the SQEP, who must be instructed by the Consent Holder to assess if ongoing operation of the Tekapo Temporary Tailrace will ensure Condition 7 of this consent is able to be satisfied. A copy of that assessment must be provided to Genesis and Canterbury Regional Council (Attention: Manager Compliance) immediately on completion.
15. Should the SQEP advise that ongoing operation of the Tekapo Temporary Tailrace will not satisfy the requirements of Condition 7, the SQEP must be instructed by the Consent Holder to determine what intervention is necessary, including timeframes for such intervention to ensure that Condition 7 of this consent will be satisfied. A copy of that assessment must be provided to Genesis and Canterbury Regional Council (Attention: Manager Compliance) immediately on completion.

For the purposes of this condition, intervention includes, but is not limited to, modifications or repairs to the Tekapo Temporary Tailrace and environs, and/or

additional monitoring, and/or changes in operation of the Waitaki Power Scheme, and/or promptly restoring the level of Lake Pūkaki to 518.0 mRL.

16. The Consent Holder must promptly implement the intervention measures identified by the SQEP in accordance with Condition 15 and Genesis and Canterbury Regional Council (Attention: Manager Compliance) advised, in writing, immediately on completion.
17. Genesis must be notified immediately, and no later than 24 hours afterwards, of any monitoring or assessment indicating that the required TWL in Condition 12 is not, or may not be, maintained.
18. During any period within which the level of Lake Pūkaki is below 518.0 mRL, the Consent Holder must advise Canterbury Regional Council (Attention: Manager Compliance), Te Rūnanga o Moeraki, Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Genesis, weekly of:
 - a. the strategies adopted to restore Lake Pūkaki to the Normal Consented Minimum Lake Level of 518.0 mRL; and
 - b. the level of Lake Pūkaki at the end of each reporting week;
 - c. the estimated timeframe for returning Lake Pūkaki to the Normal Consented Minimum Lake Level; and
 - d. the measures adopted to mitigate adverse effects of operating Lake Pūkaki below the Normal Consented Minimum Lake Level, including effects on cultural values and mahinga kai.
19. During periods when Lake Pūkaki is operated below 518.0 mRL, the Consent Holder must measure and record the lake water levels, relative to mean sea level (Lyttelton datum), at a frequency not less than every 60 minutes, to the satisfaction of the Canterbury Regional Council, and must supply the records to Canterbury Regional Council (Attention: Manager Compliance), Te Rūnanga o Moeraki, Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Genesis, weekly.
20. On each occasion that the Consent Holder implements this consent to manage Lake Pūkaki below 518.0 mRL, the Consent Holder must, no later than eight weeks following the completion of each lowering event, provide Canterbury Regional Council (Attention: Manager Compliance), Te Rūnanga o Moeraki, Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Genesis with the following information:
 - a. the date and time at which the lake was lowered below 518.0 mRL;

- b. the levels at which the Lake Pūkaki was managed over the duration of the lowering event;
 - c. the duration of the lowering event;
 - d. the TWL and any actions taken to ensure that this level was maintained;
 - e. a written description of the circumstances leading to and applying during the lowering event; and
 - f. a written description of the measures adopted to mitigate adverse effects of operating the lake below the Normal Consented Minimum Lake Level, including effects on cultural values and mahinga kai.
21. The Canterbury Regional Council may, once per year, on any of the last five working days of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:
- a. dealing with an adverse effect on the environment occurring as a result of the exercise of this resource consent; or
 - b. requiring best practicable options to be adopted by the Consent Holder to remove or reduce any adverse effect on the environment as a result of the exercise of this resource consent; or
 - c. requiring the Consent Holder to carry out monitoring and reporting instead of, or in addition to, that required by the resource consent; or
 - d. requiring the Consent Holder to comply with a relevant rule in an operative regional plan.