

2 SEPTEMBER 2025

MEMORANDUM

To Expert Panel, Tekapo Power Scheme project

From Vanessa Hamm, Holland Beckett

Existing environment – definition and scope for the purposes of the Tekapo Power Scheme application

Introduction

1. This memorandum relates to the application by Genesis Energy Limited (**Genesis**) for replacement resource consents to continue operation of the existing Tekapo Power Scheme (the **Scheme**), within the Waitaki Catchment.
2. Genesis has made a substantive application under the Fast Track Approvals Act 2024. Comments have been invited and received from several parties, including Canterbury Regional Council and the Royal Forest and Bird Protection Society of New Zealand Incorporated (**Forest and Bird**).
3. You have asked us to review parties' submissions in relation to the existing environment the Scheme is considered in, and provide the following advice:
 - (a) Assess the definition and scope of the existing environment as presented in the application;
 - (b) Review legal submissions and supplementary material, including positions from the Applicant and Forest & Bird; and
 - (c) Provide a summary of relevant case law and its implications for the panel's assessment.

Summary of advice

4. We consider that the material from Genesis and Forest and Bird traverses the relevant authorities on the topic of the existing environment.
5. The Scheme is more factually analogous to the *Alexandra* scenario than the *Ngāti Rangi* scenario. We consider that the existing environment for the purposes of s 104(1)(a) of the RMA is the current state of the environment, including flow controls.
6. It appears from the Forest and Bird comments, that it considers that if the existing environment is not interpreted in the way it contends, the Expert Panel may not be able to find any adverse effect (because lack of flow is part of the existing environment). We do not agree with this logic. The adverse effects of requiring or not requiring flows in the Takapō River, and whether flows should be imposed, are able to be considered through Rule 15A of the Waitaki Catchment Water Allocation Regional Plan (**WAP**) (within the constraints of that rule).

Relevant background

7. The Scheme operation is described at section 1.1 of the Fast-track Application for Resource Consents and Assessment of Environmental Effects (the **Application**),¹ as shown in the diagram at Appendix 1.

¹ April 2025.

Water passes through a tunnel from Lake Takapō into Tekapo A power station, then is discharged into Tekapo Canal, where it travels approximately 26km west before passing through Tekapo B power station near Lake Pūkaki. Control gates at the head of the Takapō River store water in Lake Takapō for power generation. A dam approximately three kilometres downstream of the control gates creates Lake George Scott. Water can be released through the control gates and impounded in Lake George Scott, then discharged through control gates into the Tekapo Canal, bypassing the Tekapo A station but enabling generation at the Tekapo B power station.

8. Genesis proposes to consolidate a number of existing consents authorising the operation of the Scheme and replace these with a water permit (to dam, take, divert and use water associated with the operation of the Scheme), and a discharge permit (to discharge water and associated contaminants associated with the operation of the Scheme).
9. The relevant case law is summarised in the Forest and Bird comments,² the memorandum of counsel for Meridian Energy and Genesis³, and the Genesis Energy Limited Response to Comments.⁴ We do not seek to repeat that case law here, but instead comment on specific elements.
10. Forest and Bird submits that the physical infrastructure associated with the Scheme forms part of both the existing environment and the permitted baseline, but the water takes, uses, diversions, and discharges do not. Forest and Bird relies particularly on *Ngāti Rangī*, which concerned the run-of-the-river (i.e., no storage via a dam) Raetihi Power Scheme.⁵ Forest and Bird comment that in *Ngāti Rangī*, the High Court found that expired water permits should not be treated as part of the existing environment, as this would lock in water takes and prevent adverse effects from being avoided or mitigated. Forest and Bird also note the Court's comments in *Ngāti Rangī* that it was feasible to assess the environment without the scheme by examining upstream conditions.⁶
11. In response,⁷ Genesis submits that the existing environment is the current state of the environment, including structures and associated water takes, uses, diversions, damming and discharges. Genesis relies on *Alexandra*⁸, which concerned appeals against consent renewals for the Clutha hydro scheme, involving control structures at the Lake Hawea outlet and two major downstream dams. In *Alexandra*, the Environment Court found that the most realistic existing environment was the current state of the environment, as opposed to the 'Armageddon' scenario (gates fully opened with uncontrolled release) or the 'Eden' scenario (a pre scheme environment). The importance of the scheme to electricity generation meant the 'Eden' scenario was unrealistic, and the potential significant adverse downstream effects from an uncontrolled release, and the need to authorise these by way of consent, meant the 'Armageddon' scenario was unrealistic.⁹

Analysis

12. We consider that the material from Genesis and Forest and Bird traverses the relevant authorities on the topic of the existing environment and we would not add any further authorities to the discussion. We note that *Alexandra* cites the Court of Appeal statement in *Arrigato* that assessments of the relevant

² Comments by Forest and Bird dated 25 August 2025, from paragraph 102 onwards.

³ Appendix F to the Application.

⁴ Dated 1 September 2025.

⁵ *Ngāti Rangī Trust v Manawatu-Wanganui Regional Council* [2016] NZHC 2948, Forest and Bird comments at paragraph 128.

⁶ Forest and Bird comments at paragraphs 113 and 115.

⁷ With reference back to Appendix F of the Application.

⁸ *Alexandra Flood Action Society Inc v Central Otago District Council* [2005] ELHNZ 328 (EnvC).

⁹ Appendix F at para 25.

environment and relevant effects are essentially factual matters not to be overlaid by refinements or rules of law.¹⁰ What constitutes the existing environment is a matter of assessment for the Expert Panel.

13. We agree with Forest and Bird that, between the two, *Ngāti Rangī* is the higher authority.¹¹ The doctrine of *stare decisis* indicates it should be followed where relevant. Whether *Ngāti Rangī* is the most relevant authority, as contended by Forest and Bird, requires an assessment of the facts however; the relevant environment is a factual matter which should not be subject to a rigid rule of law either way.¹²
14. The hydro electric scheme in *Ngāti Rangī* diverted water from several streams to a headpond which dropped the water through a penstock into the powerhouse, then discharged the water back into a stream.¹³ The water takes in question were all below 500 L/s.¹⁴ Attached at Appendix 2 is an image of an intake at the Raetihi Power Scheme. The type of infrastructure associated with this scheme meant that, as identified by the High Court, it was feasible to analyse the existing environment as excluding the scheme by assessing the river immediately upstream of the take.¹⁵
15. The Tekapo Power Scheme involves significantly larger and more permanent infrastructure than that involved in *Ngāti Rangī*. The control gates and their impact on the flow regime through the Takapō River have shaped the environment, meaning it is not a case of simply taking an upstream assessment to determine what the existing environment would be, as was the case in *Ngāti Rangī*.
16. Like the *Alexandra* ‘Armageddon’ scenario, it is difficult to consider what an environment without the control gates would be. For example:
 - (a) How would the flow regime be stopped or altered? Would the control gates be entirely opened and water allow to flow uncontrolled downstream? Would the Lake George Scott control gates be opened, allowing flow into the canal, or closed, sending all flow down the Takapō River? Would there be a controlled release through partial opening, or different releases at different times through different gates, to allow a gradual release?
 - (b) What would the adverse effects be in these scenarios, in terms of lake levels, downstream scour, flooding, ecology, cultural matters? What impact would this have on power generation? Would this still be possible in a way that was compliant with any flow requirement? Would structures be able to be maintained (considering dewatering requirements for maintenance, etc), and would structures remain safe and stable under different flow regimes?
 - (c) Would the release of lake water require an application for a discharge resource consent? How could a decision maker quantify and assess these effects, and is it likely a consent would be granted?
17. It is difficult to see how a scenario which requires an alternative environment to be postulated, and potentially resource consents, could be said to form the starting point of the existing environment. There is no authority for this proposition, and it runs contrary to established caselaw which requires a “real world” approach.

¹⁰ *Alexandra* at paragraph [58] noting that strictly the statement was obiter but it is still authoritative; *Arrigato Investments Ltd v Auckland Regional Council* CA84/01, 11 September 2001, (2001) 7 ELRNZ 193, [2002] 1 NZLR 323, [2001] NZRMA 481, [2001] ELHNZ 359 at [38].

¹¹ Forest and Bird comments at paragraph 118.

¹² Consistent with the statement in *Arrigato* at [38].

¹³ *Ngāti Rangī* at [7].

¹⁴ *Ngāti Rangī* at [10]-[17].

¹⁵ *Ngāti Rangī* at [68].

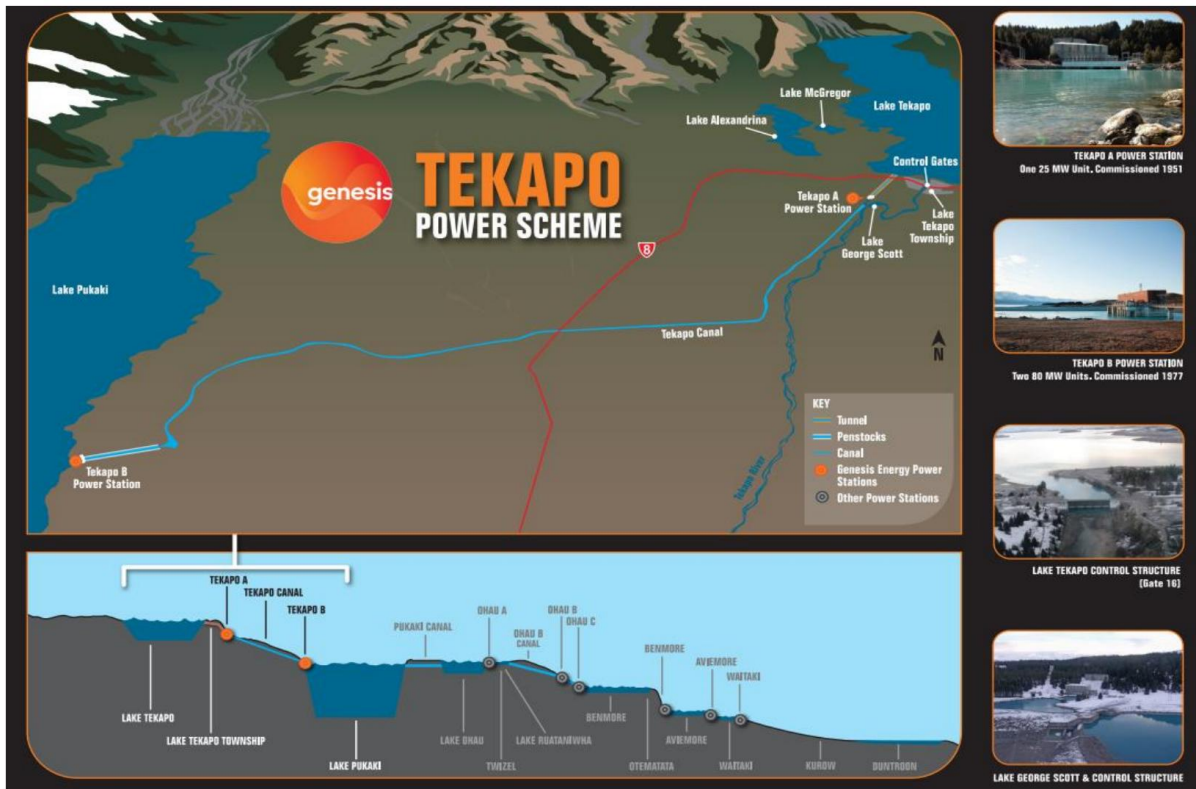
18. Forest and Bird have postulated that the existing environment does not include the flow regimes, but have not provided an indication as to what the alternative would be. As demonstrated by the above analysis, any alternative would be an environment constructed for that purpose, and is neither the existing environment or a realistic environment in which to imagine the Scheme.
19. We consider that the attributes of the Scheme infrastructure mean it is more factually analogous to the *Alexandra* scenario than the *Ngāti Rangī* scenario. The current state of the environment for the Scheme, including flows controlled by the Scheme, is the most realistic existing environment.

Implications for the Panel's assessment

20. In the context of this case, we therefore consider that in a practical sense:
 - (a) The Panel will need to form its own assessment of the existing environment. This assessment should be realistic and not artificial or fanciful. While *Ngāti Rangī* is High Court authority, the Panel should consider its relevance and application in the context of the Tekapo Power Scheme;
 - (b) When considering what a realistic existing environment is, the Panel should consider whether any *other* environment than the one that exists today is credible. If defining an alternative environmental baseline requires too many assumptions or assessments, then we suggest that points to a baseline which is contrived and unrealistic;
 - (c) The Panel's assessment of the existing environment should not be conflated with the scope of matters over which it has control under the WAP. Flows can be considered as part of the Application. As identified by Forest and Bird,¹⁶ the adverse effects of requiring or not requiring flows in the Takapō River, and whether flows should be imposed, are able to be considered through Rule 15A of the WAP (within the constraints of that rule).

¹⁶ Forest and Bird comments at paragraph 135.

Appendix 1 – Scheme diagram



Appendix 2 – Raetihi Power Scheme intake¹⁷



¹⁷ Source: [Raetihi Power Station](#) | Raetihi Promotions Inc.