Tekapo Power Scheme Planning Advice – Richard Matthews

Date	1 September 2025
To	Ellie Watson, Environmental Manager – South Island Renewables, Genesis Energy
From	Richard Matthews, Partner, Mitchell Daysh Limited
Project advice provided for	Tekapo Power Scheme – Applications for Replacement Resource Consents
Documents referred to	Genesis Energy Limited: Tekapo Power Scheme Fast-track Application for Resource Consents and Assessment of Environmental Effects" dated April 2025 and the associated Appendices A – U. CRC - s53 planning advice comments and associated memoranda and Technical Advice documents. Comments by Forest & Bird and associated memoranda, attachments, appendices and evidence statements. Comments from Te Rūnanga o Arowhenua, Te Rūnanga o Waihao, Te Rūnanga o Moeraki. Comments from Te Rūnanga o Ngai Tahu - s53 comments and associated appendices. Comments from Transpower. Comments from various Ministers.
Qualifications	I hold the qualifications of Master of Science (Hons) degree specialising in Chemistry and have been working on resource consent applications (and their former descriptions under legislation prior to the commencement of the Resource Management Act 1991) since 1979 and advising on Regional and District Plan provisions since 1991. I have more than forty years' experience as a resource management adviser, initially in the local government sector. I have been involved in many resource management projects within New Zealand, and have prepared resource consent applications for hydro, geothermal, wind, solar and thermal (including coal, gas and diesel) electricity generation activities and for electricity storage (primarily battery energy storage systems) throughout New Zealand. I have been providing planning and resource consent advice to Genesis Energy Limited ("Genesis") with respect to their electricity generation activities since 1999. I am familiar with the Tekapo Power Scheme ("**Tekapo PS**") operations, the resource consents applicable to the scheme and the Operative Regional and District Plan provisions relevant to the Tekapo PS. I presented evidence to the respective Canterbury Regional Council ("**CRC**") hearing panels for changes to the Waitaki Catchment Water Allocation Regional Plan ("**WAP**") and to the Canterbury Land and Water Regional Plan ("**CLWRP**") in support of

	controlled activity rule 15A (WAP) and controlled activity rule 5.125A (CLWRP). I have also been involved in preparing submissions and evidence for various consent applications under the Mackenzie District Plan and on changes to that Plan. I prepared the resource consent applications to enable the continued operation of the Tekapo PS, the document "Genesis Energy Limited: Tekapo Power Scheme Fast-track Application for Resource Consents and Assessment of Environmental Effects" dated April 2025 and the proposed consent conditions.
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. This memorandum has been prepared in compliance with that Code. In particular, unless I state otherwise, this response is within my area of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.
Signature	

1. I have read the Forest and Bird comments and associated material as well as the CRC comments and technical advice and confirm that nothing in my opinion as expressed in the application documents has changed. I continue to support the position expressed in the application documents. I make succinct particular points on aspects of the material I have read below and propose some minor adjustments to the proposed consent conditions in response to the changes proposed by CRC.

2. I have also read and considered (as appropriate) the other comments made on the application, including those by Te Rūnanga o Arowhenua, Te Rūnanga o Waihao, Te Rūnanga o Moeraki, Te Rūnanga o Ngai Tahu, Transpower and the Director-General of Conservation.

Existing Environment

3. In paragraph 46 of her evidence,[1] Ms Marr states:

   In summary, in my opinion, an approach to the 'existing environment' that excludes the effects of damming and diversion is more consistent with;
   (a) good planning practice in particular the requirement to consider both adverse and positive effects,
   (b) the relevant provisions of the planning documents.

4. While I agree that it is good planning practice to consider both adverse and positive effects and to consider the relevant provisions of the planning documents, that does not

[1] Statement of Planning Evidence of Helen Marie Marr, dated 25 August 2025.

in my opinion mean that the "existing environment" for the Tekapo PS "excludes the effects of damming and diverting water".

5. As stated in the applications, and not repeated in full here, the relevant planning documents (the Canterbury Regional Policy Statement ("**CRPS**"), the WAP and the CLWRP) clearly anticipate and provide for an existing environment that includes the effects of damming and diversion, both in terms of the policies in these documents and the rules applicable to the Tekapo PS applications (as controlled activities, applications for consent must be granted, so those activities must occur as part of the present as well as the future environment).

6. As Ms Marr notes (for example, paragraph 43), the policy documents indicate that resource consent applications should consider improvements to the efficiency of water use and conveyance, and reductions in any adverse effects on the environment of continuing that activity. The Tekapo PS applications set out aspects where that has occurred (for example, canal lining, intake structure upgrade and runner replacement projects) or to mitigate or compensate effects (for example, the proposed biodiversity enhancement).

7. I also note that Ms Marr acknowledges (paragraph 43) that the CLWRP recognises that existing hydro-electricity generation schemes "are to be considered as part of the existing environment" and that it seeks "reductions in any adverse effects on the environment". Both the WAP and the CLWRP were prepared with the knowledge and understanding of the environment that exists now and neither document calls for nor expects a reversion to a natural flow regime or a minimum flow consistent with what the "natural" mean annual low flow might have been, as is proposed by Ms McArthur.

8. In my opinion, an approach to the existing environment that excludes the effects of damming and diversion that are specifically provided for (and acknowledged as continuing) would be inconsistent with the relevant planning provisions.

9. Ms Black in her statement for CRC[2] (paragraph 30) confirms that she agrees that it is "*fanciful to consider an 'Eden approach' reverting to conditions that existed before the TPS* [Tekapo PS] *(and CWPS* [Combined Waitaki Power Scheme] *for that matter) existed*."

10. Further, as noted by the Minister for RMA Reform in his comments on the applications, clause 3.31 of the National Policy Statement for Freshwater Management 2020, October 2024 ("**NPSFM**") requires that when implementing any part of the NPSFM as it applies to a freshwater management unit or part of a freshwater management unit affected by a Scheme (which includes the Waitaki Scheme, of which the Tekapo PS is part), a regional council must have regard to the importance of the Scheme's:

    (a) contribution to meeting New Zealand's greenhouse gas emission targets; and
    (b) contribution to maintaining the security of New Zealand's electricity supply; and
    (c) generation capacity, storage, and operational flexibility.

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[2] Genesis Tekapo (Takapō) Power Scheme Replacement resource consents - comments to be provided under s53(1)(a) FTAA 2024.

11. Similarly, clause 1.3(3) of the National Policy Statement for Indigenous Biodiversity, October 2024 ("**NPSIB**"), provides that:

Nothing in this National Policy Statement applies to the development, operation, maintenance or upgrade of renewable electricity generation assets and activities and electricity transmission network assets and activities. For the avoidance of doubt, renewable electricity generation assets and activities, and electricity transmission network assets and activities, are not "specified infrastructure" for the purposes of this National Policy Statement.

12. Clearly, national policy direction also anticipates the continuing importance of renewable electricity generation activities and recognises that their effects may fall outside "standard" requirements for other activities.

13. In my opinion an existing environment that includes the existing environment associated with the damming, taking, diversion, use and discharge of that water as proposed in the Tekapo PS applications and provided for by way of the existing planning framework is appropriate.

AEE does not address all adverse effects

14. Ms Marr (paragraph 48) comments that "*There is no analysis of the effects of the flow regime in the AEE due to the approach taken to the existing environment in the analysis. The assessment of the hydrological effects on the Takapō River in the AEE is a single paragraph concluding that the effects remain unchanged from those forming part of the existing environment*."

15. The Tekapo PS applications submitted include an overall AEE and eleven separate appendices discussing the effects of the scheme. It is misleading to suggest that the "*assessment of the hydrological effects … is a single paragraph*" when there is a 381 page report providing a hydrological and hydrogeological analysis of the Tekapo groundwater and surface water environment provided with the application. The "single paragraph" Ms Marr refers to explicitly refers to the hydrology and hydrogeology analysis provided in Appendix K of the application.

Activity Status

16. Subsequent to development of the WAP, the "Tekapo River" and "Lake Tekapo" have been more correctly referred to by the correct historical name "Takapō". However, as the WAP exclusively uses the term "Tekapo River" I have used this terminology in my discussion below regarding the WAP.

17. The overall Forest and Bird comments[3] state in paragraph 15 that:

The most significant issue arising is that the damming of Lake George Scott is a non-complying activity unless a minimum flow is maintained in the Takapō River downstream.

[3] Comments by the Royal Forest and Bird Protection Society of New Zealand Incorporated, dated 25 August 2025.

Forest & Bird says that the failure to provide flows below Lake George Scott makes the activity non-complying under Rule 16, rather than controlled under Rule 15A.

18. The Forest and Bird position is stated in paragraph 77:

However, as set out below Forest & Bird says that the application is non-complying rather than controlled…

19. That position is based on the evidence from Ms Marr where she states in paragraphs 58 and 71 that because the applications do not comply with the default minimum flow set in Table 3B(xxii) of the WAP, they may be a non-complying activity.[4]

20. I disagree with that conclusion. Ms Marr considers that the default minimum flow identified in Table 3B(xxii) of the WAP applies. Table 3B(xxii) refers to "*All other rivers and streams (except for the Pūkaki River, lower Ōhau River and the Tekapo River upstream of Lake George Scott)*". However, Table 3B(ii) sets out minimum flows relevant to the Tekapo River, specifically requiring a minimum flow of 3.4 m^3/s from the Fork Stream confluence to Lake Benmore, measured immediately downstream of the Mary Burn confluence.

21. The "Waitaki Catchment Water Allocation Regional Plan: Annex 1, Decision and principal reasons for adopting the Plan provisions", prepared by the Waitaki Catchment Water Allocation Board ("the **Board**") and dated September 2005 (included in the documents provided by Forest and Bird as Attachment A – WAP Decision) sets out the reasons for the flow regimes included in the WAP.

22. Specifically, in paragraph 116 (following the heading "*Monitoring sites and point of achieving minimum flow*", the Board identifies that:

…the Plan should provide flexibility to the regional council to select the most appropriate site to give effect to the environmental flow regimes set by this Plan. Amendments were made to Rule 2, Table 3 to clarify that minimum flows are to be achieved at the ***downstream end of water bodies.*** [my emphasis]

23. In the section headed "*Environmental flow and level regimes*" (paragraphs 107 to 172), the Board discusses its reasoning for the flow regimes for 15 water bodies or groups of water bodies, including the "*Tekapo River environmental flow regime*" (page 24, paragraphs 132 to 136. In paragraph 133, the Board specifically stated that:

On balance, after considering the further information and evidence provided to it by submitters, the Board judged that the ***costs of requiring water to be released directly from Lake Tekapo into the upper Tekapo River*** *to achieve a continuity of flow from the mountains to the sea* ***outweighed the benefits****. Factors that the Board took into account in reaching this conclusion included:*

- *the costs and other implications of forgone generation*
- *costs of changes to structures to enable a permanent release*
- *ecological issues*

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[4] Even if a proposal is a non-complying activity under an RMA plan, under the FTAA (Schedule 5, clause 17(1)(b)) specific restrictions for non-complying activities under the RMA are excluded from consideration.

- *effects on existing trout habitat and angling*
- *effects on amenity values*
- *representations by Te Rūnanga o Ngāi Tahu*. [my emphasis]

24. Clearly, the Board did not envisage a minimum flow to apply for the whole river from Lake Tekapo downstream.

25. Consistent with its reasoning in paragraph 116 (i.e., minimum flows should be set nearer the downstream end of the Tekapo River), in paragraph 135 the Board identified a minimum flow for the Tekapo River between the Fork Stream confluence and Lake Benmore of 3.4 cubic metres per second measured immediately downstream of the Mary Burn confluence.

26. Had the Board considered it appropriate to apply a minimum flow as proposed by Ms Marr or Ms McArthur in their evidence and as adopted in the Forest and Bird comments, then in my opinion it would have said so in this section of its Decision.

27. In paragraphs 66 – 68, Ms Marr discusses her "*understanding of Table 3B*". I note that Ms Marr does not consider the Board decision that minimum flows are to be achieved at the downstream end of water bodies (Board decision paragraph 116), which is reflected throughout Table 3B where only one minimum flow[5] is defined for each river identified in the table, as is the case for the Tekapo River in Table 3B.

28. For completeness, I note that in the section "*Other water bodies*" (paragraphs 169 – 170) on page 30 of the Decision, the Board discusses flow regimes for other water bodies and refers to "*other rivers and streams in the upper catchment*", "*tributaries of the Lower Waitaki River*", the "*Fork Stream and its tributaries; the Grays River and its tributaries; the Hen Burn and its tributaries; or the Otematata River*" and the "*Quail Burn*". Had it intended that the reference in Table 3B(xxii) to "other rivers" would include the Tekapo River, then I would have expected that part of the discussion to refer specifically to the Tekapo River.

29. I note that there are no significant inflows to the Tekapo River upstream of Lake George Scott weir meaning that if a minimum flow is required in the Tekapo River by Table 3B(xxii) as considered by Forest and Bird, all of that flow would come from Lake Tekapo via Gate 16, which would be inconsistent with the Board's reasoning and findings in paragraph 133 referred to above.

30. Similarly, if the Board anticipated that the minimum flow in the Tekapo River at Lake George Scott would be set at "*the 5-year, 7-day low flow as assessed by the Canterbury Regional Council set at the downstream end of the catchment*" then that would negate the need for a minimum flow from the Fork Stream confluence to Lake Benmore because the flow set by the Board at that location provides for the upstream Tekapo PS takes and is already less than the 5-year, 7-day low flow.

31. Contrary to the opinions stated by Ms Marr, Ms McArthur and Forest and Bird, I consider that the Tekapo River minimum flow specified in Table 3B(ii) is met and that the

[5] Except where a major tributary joins an identified river or two tributaries combine to form a larger flow.

applications for the Tekapo PS do comply with Rule 2 in the WAP, meaning that the consent applications are to be considered as controlled activities. I note that Ms Black in her memorandum attached to the CRC comments also considers the applications to be controlled activities under the relevant plans.

Minimum Flow

32. In paragraph 92 of her evidence[6], Ms McArthur states that the "default" minimum flow for the Takapō River would be 26 cumecs:

Default environmental flow regimes for waterbodies that are not specified in the WCWARP are provided for in Table 3B xxiii. The default minimum flow for these waterbodies is the 5-year 7-day mean annual low flow (MALF). For the Takapō River at the outlet from the lake, and thereby also from downstream of the Lake George Scott weir, the 5-year 7-day MALF would be 26 cumecs, based on the simulated natural flow record (Henderson et al. 2004).

33. As I have discussed above, there is no "default" minimum flow for the Takapō River under the WAP. The minimum flow for the Takapō River is 3.4 m^3/s from the Fork Stream confluence to Lake Benmore, measured immediately downstream of the Mary Burn confluence, as set out in Table 3B(ii) of the WAP. That minimum flow is maintained under the applications made for the Tekapo PS.

34. Ms McArthur then states that her preferred option is to maintain that "default" minimum flow and provides her ecological reasoning for that preference.

35. In my opinion, Ms McArthur has ignored other factors that would influence maintenance of the flow she prefers.

36. Policies 3 and 4 of the WAP set out matters relevant (under the WAP) when setting environmental flow and level regimes in the water bodies of the Waitaki catchment, including 18 specific matters identified in Policy 4 (as noted by Ms Black in her memorandum for CRC) and consideration of provision of water for hydro-electricity generation. Forest and Bird's approach is focused solely on ecological matters. Not only does that not reflect the WAP it also fails to consider the benefits of the scheme as set out in the WAP and under the RMA and the requirements of the FTAA on the regional and national benefits.

37. I briefly note some factors not taken into account in Ms McArthur's assessment below.

Practicality

38. The existing structures (Gate 16, Lake George Scott weir, Gate 17) are not designed to facilitate a continuous flow as envisaged by Ms McArthur. Providing a minimum flow through the existing structures (particularly Gate 16) would likely compromise their operability for safe management of lake levels and flood passage and the ability to safely

[6] Statement of Evidence of Kathryn Jane McArthur, Aquatic Ecology and Water Quality, dated 22 August 2025.

inspect and maintain existing structures (which may require isolating and dewatering parts of the structures).

39. As identified in the civil infrastructure constraints memorandum from Andrew Balme (Genesis),[7] the existing Tekapo PS infrastructure (including Gate 16 and Lake George Scott Weir) would require significant redesign and reconstruction requirements to enable a minimum flow to be provided. It is likely that new diversion structures would be required involving significant and complex civil construction works (potentially including strengthening works to State Highway 8 at the lake outlet) both at Gate 16 and at the Lake George Scott Weir, which I consider would likely require resource consent approvals.

40. I consider that such reconstruction activities would potentially affect the overall scheme (including generation) while construction occurs and that the resource consent requirements would likely involve many potentially affected parties (for example, adjacent landowners, Mackenzie District Council, the Whitewater Trust, NZTA etc.). Implementation of a minimum flow such as those identified in the Forest and Bird comments would take a considerable length of time.

Other Users, Canal Flows and Lake Storage

41. I anticipate that a minimum flow as proposed would have significant implications for operating the existing white-water course in the Upper Takapō River and would require significant redesign and potentially costly (and likely to be cost-prohibitive[8]) replacement of the existing course diversion weir and the installation of new control gates to enable operation of the kayak course to manage flows.

42. The effects of providing a minimum flow as proposed by Forest and Bird in terms of reduced flows Tekapo Canal flows have not been considered, including potential effects on other users such as Mt Cook Alpine Salmon[9] and irrigators (who may have to modify intake structures on the canal) who are able to take water from the canal, or the nationally significant sports fishery in the canal.[10] Releasing a minimum flow to the Takapō River would mean Lake Takapō would need to be operated more conservatively to manage both minimum flow compliance and lake level compliance, which would result in lower flows in Tekapo Canal. At low flow times, it would be difficult to maintain flows in the Tekapo Canal while maintaining both the lake levels required under the WAP (and in the proposed consent conditions) and a minimum flow requirement for the Takapō River.

Electricity Generation

43. As discussed in the minimum flow implications memorandum from Oliver Mooney and Gareth Gray[11] regarding generation matters, the imposition of a minimum flow in the

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7 High-level civil infrastructure constraints involved in enabling continuous flow down the Takapō River, prepared by A Balme, Genesis, dated 1 September 2025.

8 As identified in the Tekapo White Water Trust Continued Support for Fast-track application – Opposition to Inclusion of Minimum Flows letter dated 29 August 2025.

9 See letter from Mt Cook Alpine Salmon, dated 1 September 2025.

10 See letter from Fish and Game Council, dated 1 September 2025.

11 High-level generation implications with enabling continuous flow down the Takapō River, prepared by O Mooney and Gareth Gray, Genesis, dated 1 September 2025.

Takapō River would significantly reduce Tekapo PS electricity generation and generation flexibility, with further reductions downstream at Meridian's Ōhau A, B, and C stations due to diverted flow bypassing Lake Pūkaki. I note that the memorandum is conservative in that it does not consider the effect of flushing flows or other related effects such as the effect on operational flexibility.

44. Making up any reduced generation using generation elsewhere would not be straightforward because of the type of generation (wind and solar generation tends to have hourly to daily variations in availability, hydro weekly to monthly variations, thermal has longer term variation).

45. The likely replacement for any reduced generation for the Tekapo PS, at least in the short to medium term while a replacement coal use (biomass) is developed, would be coal fired generation from the Huntly power station. Gas is unlikely to be a viable replacement option for any reduced Tekapo generation given present gas supply issues. As discussed in the memorandum, the reduction in generation associated with a minimum flow of 26 m^3/s is likely to be in the order of 650 GWh per annum. If this is made up by coal fired generation that would likely result in an increase in the order of 646,000 tonnes of carbon dioxide equivalent per year (excluding any emissions associated with coal shipping or transportation to the Huntly site)[12] which would in turn have material consequences for renewable generation, system costs, and national greenhouse gas emissions.

46. In my opinion, based on my experience with consenting all forms of commercial electricity generation and storage currently in use in New Zealand, I would expect a reduction in generation by the Tekapo PS as would occur with adopting a minimum flow regime as proposed by Forest and Bird would have significant implications for electricity supply and security for New Zealand.

Ecology

47. The Takapō river bed ecology presently exhibits a range of habitats that have adapted to low or no flow scenarios, including providing potential habitat for non-aquatic (but similarly important) species such as lizards or grasshoppers that would likely be affected by flow changes (for example, see Appendix O Terrestrial Invertebrates Tekapo PS Reconsenting and Appendix P Herpetofauna Tekapo PS Reconsenting, presented as part of the Tekapo PS applications). That environment has existed for almost 50 years (and in excess of 70 years for the upper Takapō River).

48. The PDP report (Appendix K Hydrological and Hydrogeological Tekapo PS Reconsenting) identifies (section 5.3) that the Paterson's Ponds[13] have a high hydraulic connection with the Takapō River. Any change in flow in the river as proposed by Forest and Bird will likely have an unquantified effect on those wetlands, which have developed and adapted to the present flow regime.

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12 Equivalent to approximately 0.85% of New Zealand's gross greenhouse gas emissions in 2023 (Ministry for the Environment. 2025. *New Zealand's Greenhouse Gas Inventory 1990–2023*).

13 A significant and well known wetland area formed from the inundation of old gravel pits from the Tekapo PS construction.

Resource Consents

49. As noted above, any change to the flow regime in the Takapō River will likely have resource consent requirements and implications, both for existing Tekapo PS structures but also for other aspects downstream, such as river crossings or the white-water course as indicated above. Any water takes in the lower Takapō River (both permitted activities or resource consents) may also be affected by changes in flow with intake structures needing to be modified and potential new consent requirements.

Conclusion

50. In my opinion, the Tekapo PS applications represent the appropriate approach taking all the relevant factors into account. Adopting a minimum flow regime for the Takapō River is not as simple as proposing a number and including it in the consent conditions.

Policy Assessment

51. In paragraph 19, Ms Marr states that

> *In my opinion, the applications are inconsistent with the relevant policies from the Canterbury Regional Policy Statement (CRPS), Waitaki Allocation Plan (WAP), and the National Policy Statement for Freshwater Management (NPS-FM), particularly policies that relate to protection biodiversity, protection of significant habitats, and maintaining or improving the health and wellbeing of waterbodies.*

52. I consider it essential that the policy frameworks must be considered as a whole and in context[14] without relying on specific aspects or directions to formulate a position on whether the Tekapo PS applications are consistent or inconsistent with a relevant policy. In doing so a careful and structured analysis[15] of all the provisions must be undertaken and the relevant provisions cannot "*simply be put into a blender with the possible effect that the stronger policies are weakened and the weaker policies strengthened*."[16] In my opinion, that also involves consideration of wider imperatives such as climate change commitments and emission reduction plans to arrive at an appropriate and relevant position.

53. Ms Marr states in paragraph 38 of her evidence that "*The Waitaki Allocation Plan (WAP) does not give effect to the National Policy Statement for Freshwater Management (NPS-FM)…*". While I accept that is the case, given the relevant timings of the NPSFM and the WAP, I observe above that implementation of the NPSFM must have regard to the importance of the Scheme's contribution to meeting New Zealand's greenhouse gas emission targets; and contribution to maintaining the security of New Zealand's electricity supply; and generation capacity, storage, and operational flexibility. The WAP does that already.

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14 See *Royal Forest and Bird Protection Society Inc v NZTA* [2024] NZSC 26.
15 See *Port Otago Limited v Environmental Defence Society Inc* [2023] NZSC 112.
16 See *Royal Forest and Bird Protection Society Inc v NZTA* [2024] NZSC 26.

54. Similarly, Ms McArthur makes extensive reference to the NPSFM. However, I note that she does not refer at all to taking account of the matters in clause 3.31(2) that must be considered when implementing the NPSFM.

55. Mr Harding[17] refers to the NPSIB; however, he does not acknowledge that the NPSIB does not apply to renewable electricity generation activities, as I describe above.

56. Having reviewed the evidence statement from Ms Marr as well as having prepared the Tekapo PS applications, assessment of effects and the Canterbury Policy Assessment presented in Appendix T to the FTAA application for the Tekapo PS, I am confident with and stand by the policy assessment provided with the application. I have also considered the relevant National Policy Statements (including the Nation al Policy Statement for Renewable Electricity Generation, the NPSFM and the NPSIB) and am satisfied that when considering the policy framework as a whole, the Tekapo PS applications are consistent with the Canterbury policy framework and national policy direction and commitments.

57. Other than aspects relating to compensation aspects, Ms Black's policy assessment is consistent with mine.

Climate Change

58. Several comments express reservations about how responses to climate change effects have been addressed.

59. I note that weather patterns can change on a daily, weekly, monthly, seasonal and yearly basis, and have done as long as the Tekapo PS has been operating. Genesis must respond to those changes within the limits prescribed in its present resource consent conditions (which are also required by the proposed consent conditions) such as the maximum volumes it can take or discharge or the relevant lake levels that must be met.

60. I understand that Genesis operates a risk-based approach to managing water takes and lake levels for the Tekapo PS (e.g., assessing the risk that future operations will have in respect of meeting the required lake levels), which will involve (amongst other matters) considering electricity demand as well as current and forecast weather conditions and lake inflows. That enables responses to be made on a daily to weekly and sometimes monthly basis, but rarely over a longer period because of the uncertainties in predicting what will happen in future. In any event, the response will always be within the required consent limits, particularly when considering that climate change effects are likely to manifest significantly beyond year-to-year weather pattern variations over a longer duration than the consents sought.

61. As I explained during the Overview Conference on 24 July, any responses Genesis makes to climate change effects will still need to fall within the required consent limits including meeting relevant lake level requirements and water take volumes. As with longer term (seasonal to yearly) weather pattern changes, the uncertainties associated with

[17] Statement of Evidence of Michael Harding: Terrestrial Ecology, dated 18 August 2025.

predicting what those changes will be or what response is needed means that the only response available is to operate within the specified consent limits.

62. If there are changes arising from climate change that have not been identified as yet (and cannot be anticipated) and that may affect the way in which the Tekapo PS needs to be operated and which is not consistent with the proposed consent conditions, then either:

    a. Genesis can apply for a change to the consent conditions to enable an alternative operating regime, which would then be considered through the relevant consent process; or

    b. CRC can seek to review the consent conditions as provided for in the proposed consent conditions.

63. Either way, in my opinion the proposed consent conditions cannot account for changes in response to climate change effects any more than they do now. The consent holder would be bound to comply with the proposed consent conditions irrespective of what climate changes occur.

Loss of River Extent

64. Ms Black comments that Genesis has not "*provided assessment against the national direction policies that have been included in the WAP and CLWRP*". I observe that continuation of the consents sought does not result in any change in river extent from that which has been in existence for almost 50 years (and as much as 70 years in some locations) or since the NPSFM came into force.

Duration of consent

65. Ms Black discusses consent duration in paragraphs 121 – 126. I agree with her assessment that the consents must be granted for a duration of 35 years.

Conditions

Forest and Bird

66. I have reviewed the consent conditions proposed in the Forest and Bird comments and associated evidence statements. I support and stand by the consent conditions proposed by Genesis (version dated 25 July 2025) and see no reason to depart from those conditions, other than as discussed below in relation to the CRC comments.

67. I have specifically considered the changes to the consent conditions proposed in Table 2 of Ms Marr's evidence. I have repeated table 2 below, with my response added in column 3.

Table 1: Response to Marr Conditions

Condition	F&B Comments	Response
Additional conditions required	Conditions to address fish mortality through the TPS turbines – fish screening or investigation of upgrades to fish screens at regular intervals should be required Conditions to address the loss of tuna from the area affected by the TPS, including addressing inward and outward migration.	Fish screening measures were specifically discussed at the Lake Water Quality, Aquatic Ecology and Native Fish Technical Discussion on 30 June 2025. As recorded in the notes[18] for that discussion, fish screening would be challenging for Tekapo because of high flow rates and achieving the required through screen water velocity, large costs and logistics, would be ineffective and would not be a practicable consideration for Tekapo, is not necessary and would come with a large cost and little return. Dr Meijer notes[19] that those discussions had addressed his concerns regarding screening. As noted in Appendix A Waitaki Treaty Impact Assessment Tekapo PS Reconsenting, an enhanced tuna management program (including tuna trap and transfer for elvers and migrant tuna) has been agree between Meridian, Genesis and Waitaki Rūnaka. I consider that no changes to the conditions are necessary.
Diversion and take condition 5	Restriction of take. This condition refers to a separate Table in Appendix 1, which is a copy of the Table 5 from the WAP. To be clear and concise on its face the condition should set out the maximum take for the consents, which for most take locations is the natural inflow less the volume needed to comply with minimum flows, flushing flows, and allocations to other users set out in other conditions.	The maximum take for the Tekapo PS is set out in condition 4. I consider that no changes to the conditions are necessary.

[18] Appendix-Four_-Freshwater-and-Native-Fish-Discussion-30-June-2025-Record71009594.1.pdf, Tekapo Power Scheme project overview briefing 24 July 2025.

[19] CRC Appendix 08 - Technical Advice – River Values (Dr Meijer).

Condition	F&B Comments	Response
Diversion and take conditions	4-11 Include conditions that require an appropriate environmental flow regime, including adaptive management conditions for flushing flows to mitigate periphyton proliferation.	The conditions are based on an appropriate flow regime. As noted by Dr Young[20], the effects of flushing flows are likely to be uncertain and temporary and therefore ineffective at mitigating periphyton proliferation. I consider that no changes to the conditions are necessary.
Schedule 1 Condition 14 – 20 Sports fish salvage measures	The fish salvage management plan conditions should be amended or duplicated so that they apply to native fish, and the protocols for appropriate salvage and relocated are agreed with the Department of Conservation.	A specific native fish salvage condition is unnecessary, given that there are practical difficulties with capturing native fish in this situation, and that any native fish found are likely to be abundant elsewhere and that the most likely native fish to be located would not naturally occur in this location anyway.[21] I consider that no changes to the conditions and the "as practicable" advice note, are necessary.
Schedule 1 Condition 23 Environmental compensation	The condition does not clearly define a specific, measurable, enforceable conservation outcome from the package, against which the efficacy of management plans can be measured, or outcomes can be monitored. Consent conditions of this type usually set specific conservation outcomes that will be achieved, for each type of compensation. For example a conservation outcome to compensate for the loss of bare gravel as a result of weed incursion and loss of vegetative succession processes would read:(a) [X]ha of dry braided river banks in the Waitaki catchment, that is currently covered in woody vegetation when it would not naturally be, or is at risk of invasion by woody species in the absence of management	Schedule 1 conditions 23 to 31 relate to a catchment-wide indigenous biodiversity plan and have been agreed between Genesis, Meridian, the Department of Conservation and Waitaki Rūnaka. The conditions proffered clearly provide for implementation of an extensive biodiversity enhancement programme across the Waitaki catchment that builds on experiences and successes from previous works. I consider that no changes to the conditions are necessary.

[20] Technical Advice – Freshwater Ecology by Dr Roger Young, dated 28 August 2025.

[21] See Technical Advice – Native Fish by Richard Mark Allibone, dated 29 August 2025.

Condition	F&B Comments	Response
	intervention, will be cleared and maintained clear of woody vegetation for the duration of this consent. (b) The following species must be targeted: [list of species]. (c) The method of clearance must ensure non-target indigenous plants are not damaged or killed [or set a threshold for accidental loss]. This type of condition should be in place for every habitat or intervention that is required in order to achieve a measurable conservation outcome that compensates for the loss of river extent or values as a result of the activity.	
Condition 23 Advice note	The advice note attached to condition 23 about not requiring changes to the operation of the TPS is unenforceable and redundant and should be deleted.	Advice notes are provided for information only and are not intended to be "enforceable". The note simply clarifies that the programme is separate from implementation of the resource consent conditions for the Tekapo PS.
Condition 24	This condition should state who the IBEP contribution will be paid to, and how and when proof of payment is supplied to the Regional Council to ensure compliance. The amount of money contributed should be adjusted to reflect the amount necessary to compensate for loss of river extent and values.	See comment on condition 23 above.
Condition 25	This condition is too vague and uncertain to be a good enforceable consent condition. As set out for condition 23 above, it should set out exactly what is to be achieved and where it is to be achieved. Research and development to foster increased understanding of areas affected is not a measurable conservation outcome and should be undertaken separately and not form part of the compensation package.	See comment on condition 23 above.

Condition	F&B Comments	Response
Condition 26	This condition should include a requirement for the Regional Council to certify (not just provide comments on) the Strategic plan to ensure consistent with and will achieve the revised conservation outcomes of the programme, as set out in a revised condition 23 and 25. An additional condition should set out what happens if the plan is not certified, with timeframes for certification and re-submission of the plan.	See comment on condition 23 above. I do not consider it appropriate for the Council to be expected to certify a plan that applies across multiple agencies and areas, particularly when the plan is only being provided to confirm that extensive work is being undertaken on biodiversity enhancements across the Waitaki catchment. Certification is also opposed by Rūnaka.
New condition	There should also be a condition requiring the consent holder to ensure the IBEP is undertaken in accordance with the certified strategic plan.	See comment on condition 23 above. Condition 23 requires that the Indigenous Biodiversity Enhancement Programme is undertaken, provision of a Strategic Plan (as required by the conditions) is simply part of implementing the programme.
Condition 31	This condition should be made more specific (eg list locations and areas that will be managed) and be incorporated into or align with the conservation outcome statements in condition 23.	See comment on condition 23 above.
Condition 43	This condition only allows the regional council to review the IBEP conditions after receipt of a strategic plan review report, which is every 10 years. This should be amended to annually following receipt of the relevant annual reports. If annual reporting and monitoring shows the IBEP and strategic plan are not achieving their objectives, the regional council should be able to review the consent conditions more frequently.	See comment on condition 23 above. Annual reviews are not appropriate for implementation of long term plans.

68. I have also considered the comments made by Ms McArthur on specific conditions in paragraphs 109 to 120 of her evidence, as summarised in the table below:

Table 2: Response to McArthur Condition Comments

Condition	McArthur Comments	Response
New conditions	Environmental flow regime	As discussed in this statement, I do not consider that such conditions are necessary or appropriate.
Condition 14 – Sports Fish Salvage Measures	Indigenous fish should be specifically included in the fish salvage management plan, rather than included only as an 'as practicable' advice note	As discussed above, I consider that the "as practicable" advice note is appropriate given the likelihood and nature of native fish stranding.
Condition 23 – 31 Environmental Compensation	Various comments are made on the proposed conditions and possible changes.	I have reviewed the comments made and do not consider that any changes are necessary. Contrary to the comment that the conditions allow "*each generator to essentially 'double-dip' on any proposed compensation benefits*" (paragraph 114), the conditions recognise that it is an integrated programme agreed between multiple parties enabling access to resources, abilities and expertise across all those parties. The conditions recognise a collaborative approach among the parties to improve the condition, resilience, indigenous biodiversity, ecological processes and other values of the braided rivers (including their braid plains and margins), lake margins and deltas and wetlands and springs associated with lakes and braided rivers within the Waitaki Catchment. I note that any requirement (rather than use of "may be") for the programme to be undertaken in conjunction with any other generator within the Combined Waitaki Power Scheme would be unenforceable.

Waitaki Rūnaka

69. In their comments Rūnaka supported the conditions as presently proposed and drafted by Genesis. Rūnaka oppose the changes sought by CRC and Forest and Bird. To the degree I have accepted minor changes below they have been discussed with and accepted by Rūnaka.

CRC

70. CRC have made several comments on the proposed consent conditions as captured within their "CRC Appendix 10 - Suggested changes to proposed conditions". I comment on these in the table below.

Table 3: Response to CRC Proposed Changes to Conditions

Condition	CRC Comments	Response
Global change (referred to under condition 7)	Update to the 'job title' of to whom information should be addressed to at CRC as this has recently changed. Changes through the remained of conditions will be tracked, however I will not replicate this comment for each update.	I consider that there is a risk with identifying a specific role in the consent conditions as such roles can change throughout the duration of a consent (and in this case, have already changed before this iteration of the conditions). I consider that notification to the Chief Executive or delegated authority is appropriate as this is a defined statutory role and is the person who has the responsibility to identify who in the organisation should deal with any notification.
Condition "0"	Maintain preference for the description of the scope of the consent to be included as conditions of consent. However, should the Panel consider this information is appropriate as a description of the consent, CRC has suggested that for administrative purposes, these scope provisions are set as 'condition 0' into CRC's system.	Condition "0" in both the water take and discharge permits was included in the proposed conditions as a practical means to address CRC database requirements, rather than as a specific "consent condition". The matters in O a – e cannot be changed by way of an application under s127 of the Resource Management Act and represent the scope of what the consent is for, rather than a condition of consent. Notwithstanding this, I accept that "O" can be included as a means to describe the scope of the consent.
Condition 2 (water and discharge permits)	While the application notes that inclusion of this condition and reference to the application was intended to make it clear that the specific conditions proposed prevail over any general aspect covered in the application document, CRC consider that conditions should be written such that reliance on the	CRC have proposed that Condition 2 in both the water take and discharge permits be deleted. Condition 2 was included as a means to define the scope of the consents being sought and is consistent with standard practice adopted by Councils throughout New Zealand. That said, I accept that as a legal principle, the scope of the consents is confined to

Condition	CRC Comments	Response
	application as suggested in this condition is required.	what was applied for so in that respect condition 2 is redundant and can be deleted.
Condition 3	CRC have proposed that the final sentence in Condition 3 in both the water take and discharge permits be deleted as the “conditions should be written so that there is not conflict between conditions”.	I agree that the conditions should be (and are in this case) written so that there is no conflict between them. However, the intent of the proposed wording is not that there may be conflicts between conditions themselves but that there may be differences in how they may be interpreted in future, with the last sentence simply making it clear that the permit conditions (rather than the schedule one conditions) take precedence in that interpretation. The condition can be amended to include "...*difference or apparent conflict between* ***interpreting*** *the conditions below and the conditions*...".
Condition 7 (Water Permit)	Compliance staff consider that CRC should be notified of likelihood of reduction of lake levels below specified limit "prior to" the event. Further notification should be provided when the specified limit has been passed (within 24hrs). Reducing the lake below these levels has implications on other users so prior notice to CRC is important to ensure appropriate actions may be undertaken with other users.	I do not consider that this change is necessary as the likelihood of a reduction of lake levels below the specified limits is not something that occurs unexpectedly, it is a matter that will develop over time. In any event, a notification such as this should be expressed in terms of working days to avoid situations that might arise over weekends or on public holidays creating difficulties for confirming notification. In my opinion, other users and the public generally will already be aware of lake levels lowering and will not be affected by a change from just above the specified limit to just below. Rather, of more concern will be how low the lake level will go, how long it is likely to stay low and how it will be restored to the appropriate level. These matters are already provided for in proposed condition 10.

Condition	CRC Comments	Response
Condition 12 (Water Permit) and Condition 7 (Discharge Permit)	Further, minor refinements to be made following a discussion with Genesis (in relation to where measurements should be in rates or volumes).	I understand that further discussion with CRC regarding these conditions and a minor change in wording will be proposed.
Macrophyte and Turbidity / Clarity Monitoring (CRC conditions	As recommended by Dr Bayer, with associated review condition included as condition 41 (b).	I consider that the proposed conditions are related to CRC's required state of the environment monitoring and are not related to monitoring the effect of the exercise of the consents sought. I do not consider that these conditions can, nor should be, included.
High Flow Management Plan (Schedule 1 conditions 2 – 13)	Refer to discussion in Appendix 2 – changes have not been suggest given the importance of these conditions for maintain the integrity of the Tekapo Dam. I suggest discussions between Genesis, myself and Mr Palmer continue to make any updates to terms used in these conditions.	As the changes to these conditions and the associated Plan have not yet been defined in detail by CRC, I cannot comment further, other than to note that there is merit in ensuring consistency in wording between the conditions and the HFMP. I note that the changes identified in Appendix may lead to a situation where a high flow management plan has not been certified by CRC, leading to potential uncertainties as to how flows will be managed if high flows occur during that time. As a fundamental principle for these conditions, I consider that there must be a planned approach to managing high flows such that everyone is clear as to what will occur during high flow events irrespective of the status of CRC certification.
Schedule 1 Condition 14	As discussed in Dr Meijer's memorandum. Have included additional provision requiring the FSMP to be submitted to CRC as noted in planning memorandum.	CRC propose that this condition include a requirement that the salvage management plan must be submitted to CRC "within 6 months of commencement of consent". The Fish Salvage Management Plan has already been provided as part of this application. In addition, condition 19 requires that any updated Plan is provided to CRC within 20 working days of it being revised. There is no

Condition	CRC Comments	Response
		need for the change proposed to condition 14.
Schedule 1 Condition 15	As discussed in Dr Meijer's memorandum.	CRC propose the addition of provision for native fish salvage if any are identified when undertaking fish salvage activity, including wherever relocation as appropriate. I consider that this change is unnecessary, given that there are practical difficulties with capturing native fish in this situation, and that any native fish found are likely to be abundant elsewhere and that the most likely native fish to be located would not naturally occur in this location anyway. I have proposed an advice note in the July 2025 proposed consent conditions the where native fish are identified and it is practicable to do so, native fish should be relocated to an appropriate area, rather than as a compliance condition which would be difficult to determine compliance with.
IBEP Conditions 23 – 35	CRC has proposed various changes to these condition.	I have reviewed the proposed changes to these conditions and do not consider that any changes should be made. I note that CRC proposes that various aspects should be reviewed by "independent" reviewers. I do not consider this necessary as preparation of the various documents lies with people outside the generators and with people who have the relevant experience and expertise (such as the Department of Conservation and Waitaki Rūnaka) independent of the generators. These conditions are agreed to with Waitaki Rūnaka and the Department of Conservation.
Schedule 1 CRC Condition 39(k)	Inclusion of (k) as per recommendation of Mr Wilkins.	CRC propose a change to condition 39 to include provide "all groundwater level data collected as part of the consent holders dam

Condition	CRC Comments	Response
		safety assurance (or equivalent) programme" to CRC. I note that the data collected is (as CRC notes) part of dam safety assurance requirements and is not directed at monitoring groundwater levels or providing data relevant to groundwater use or availability. While the data can be provided, I am concerned that it could be used for purposes other than what it was collected for. I understand that Genesis has voluntarily undertaken to provide the data to CRC, and in that way can include comments on or matters relevant to reservations as to how the data may be used by the Council. I consider that to be the most appropriate approach to use. Just because data , collected for another (non RMA) purpose is provided by agreement does not mean it needs to, nor should it be, conditioned.

Richard Matthews

1 September 2025