BEFORE THE TEKAPO POWER SCHEME EXPERT PANEL

In the matter of of the Fast-Track Approvals Act 2024 (the FTAA) and

the deliberations and final decision of the Expert Panel appointed under section 50 and Schedule 3 of the FTAA

to reconsent the Tekapo Power Scheme.

Expert Panel

Daniel Sadlier

(Chair)

Bianca Sullivan (*Member*)

Anthony Cussins

(Member)

Karen Coutts (Member)

Comments received under Section 53 of the

25 August 2025

FTAA:

Details of any hearing under Section 57 of the

FTAA:

No hearing was held

Record of Decision of the Expert Consenting Panel under Section 87 of the Fast-Track Approvals Act 2024

Dated [insert date]

Decision: Approval is granted subject to conditions

Date of Decision:[insert date]Date of Issue:[insert date]

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DECISION MADE BY THE PANEL: TEKAPO POWER SCHEME - APPLICATIONS FOR REPLACEMENT RESOURCE CONSENTS

PART A: EXECUTIVE SUMMARY

- This is an application for a water permit and discharge permit (**Application**) by Genesis Energy Limited (**Applicant**) to reconsent the Tekapo Power Scheme (**TPS** or **Scheme**). This comprises:
 - (a) **Water Permit** to dam, take, divert and use water, which includes the damming of the Takapō River via the Lake Takapō Control Structure (**Gate 16**) to control and operate the levels of Takapō, the taking, diversion and use of water from Takapō via the Tekapo Intake Structure for the generation of electricity, and ancillary purposes, at the Tekapo A and B Power Stations, the damming of the Takapō River at the Lake George Scott Control Weir to control and maintain water levels in Lake George Scott and the taking, diversion and use of water from the Takapō River vias the Tekapo Canal Control Structure (**Gate 17**); and
 - (b) **Discharge Permit** to discharge water and associated contaminants, which includes the discharge of water and associated contaminants into the Takapō River from Gate 16 for the purposes of spilling water, to bypass Tekapo A, for Lake George Scott water level maintenance and for recreational release purposes, the discharge of water and associated contaminants into the Takapō River from the Lake George Scott Control Weir for the purpose of spilling water and the discharge of water and associated contaminants into Lake Pūkaki.
- The "site" of the Scheme and Application is extensive. It comprises two hydro-electric power stations, referred to as "Tekapo A" and "Tekapo B". Water is piped via the Tekapo Intake Structure to the Tekapo A power station from where it is released into the Tekapo Canal. Water then passes through the Tekapo B power station, before discharging into Lake Pūkaki. Water released from Takapō via gate 16 into the upper Takapō River is impounded in Lake George Scott and can be discharged into the Tekapo Canal via Gate 17, bypassing the Tekapo A station but passing through Tekapo B. Water from Takapō can also flow over Lake George Scott Weir and continue down the Takapō River to Lake Benmore.
- The Application was included as a listed project in Schedule 2 of the FTAA. On 4 July 2025 an expert panel was appointed to determine the Application (**Panel**).
- 4 The Panel has assessed the Application applying the relevant statutory criteria within the purpose and context of the FTAA.
- We received comments from 14 commenters on or or before 25 August 2025, and the Applicant's response to comments on 1 September 2025. We have carefully considered all of this information in evaluating the Application.
- The Application and comments received demonstrate the collaborative approach taken by the Applicant to engaging with the Canterbury Regional Council (**CRC**), Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki (**Waitaki Rūnanga**) and other stakeholders with an interest in the Application.

- The Panel invited comments from Royal Forest and Bird Protection Society of New Zealand Inc (**Forest and Bird**), who engaged constructively in the process providing submissions and evidence in relation to matters of relevance to our decision making. While the Panel has generally preferred the position of the Applicant, CRC and Waitaki Rūnanga in relation particularly to the relevant legal and planning matters, we nonetheless thank Forest and Bird for the thoughtful and comprehensive information provided to us on its behalf.
- As the Application relates to resource consent approvals only, the FTAA criteria for our assessment is set out in Clause 17 of Schedule 5 of the FTAA. We have undertake an overall assessment of those matters which focusses on the adverse effects of the Application, its consistency with the relevant planning instruments, and the purpose of the FTAA which has the greatest weight.
- 9 We have concluded that the Application will have acceptable adverse effects, is consistent with the planning framework and will achieve the purpose of the FTAA. In particular, the Application will have extensive regional and national benefits.
- The Panel therefore grants approval for the Application subject to the conditions in **Appendix A**.
- 11 This decision is made in accordance with section 87 FTAA. This decision covers all the approvals sought under the substantive application. This decision document includes:
 - 11.1 The decision throughout and summarised in Part N;
 - 11.2 The reason for the decision throughout and summarised in Part N;
 - 11.3 A statement of the principal issues in contention Part E, addressed throughout an and summarised in Part N;
 - 11.4 The main findings of the principal issues in contention throughout and summarised in Part E;

PART B: OVERVIEW OF THE APPLICATION AND PROCEDURE

Application

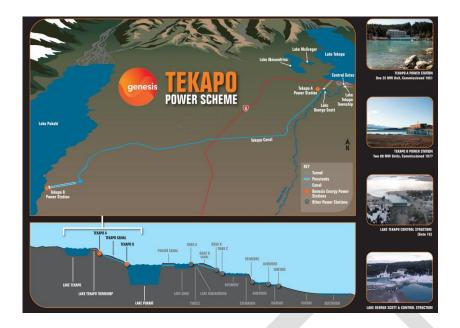
Applicant

Genesis Energy Limited is the authorised person for the Tekapo Power Scheme – Applications for Replacement Resource Consents project as set out in Section 42 of the FTAA.

Scheme and surrounding environment

- The Scheme is located in the upper Mackenzie Basin between Takapō and Lake Pūkaki. It comprises two hydro-electric power stations, referred to as "Tekapo A" and "Tekapo B". Water is piped via the Tekapo Intake Structure to the Tekapo A power station from where it is released into the Tekapo Canal. Water then passes through the Tekapo B power station, before discharging into Lake Pūkaki. Water released from Takapō via Gate 16 into the upper Takapō River is impounded in Lake George Scott and can be discharged into the Tekapo Canal via Gate 17, bypassing the Tekapo A station but passing through Tekapo B. Water from Takapō can also flow over Lake George Scott Weir and continue down the Takapō River to Lake Benmore. Typically, water is only released into the Takapō River downstream of Gate 16 in the following circumstances: 1
 - 2.1 When the maximum operating level of Takapō has been reached and the capacity of the Scheme is not sufficient to reduce the level of Takapō;
 - 2.2 To enable electricity generation at the Tekapo B Power Station if there is an outage event at the Tekapo A Power Station;
 - 2.3 For recreational release purposes;
 - 2.4 To top-up Lake George Scott with the purpose of storing water to enable uninterrupted generation from Tekapo B Power Station in case of the loss of generation at Tekapo A, or in rare circumstances to augment Tekapo B generation capacity; or
 - 2.5 When requested by the National Grid Operator (**Transpower**) to "island" Tekapo A Power Station, by restricting generation at, and diverting water around, Tekapo A Power Station during transmission network maintenance or faults, isolating Tekapo A Power Station from the grid but enabling the continued supply of electricity to the Tekapo township, Fairlie, Albury and Mt Cook areas.
- These various aspects of the Scheme are illustrated in Figures 1 and 18 of the AEE (see below):

AEE at 2.4, page 60. The Panel notes that the Applicant was very clear in the Application, and its presentation to the Panel at the Project Overview Conference that spilling of water through Gate 16 was avoided to the greatest extent possible within the Scheme's operating parameters in favour of its use for electricity generation. The same applies to the spilling of water over the Lake George Scott weir. If possible, any spilled water is diverted back into the Tekapo Canal so that it can be used to generate electricity at Tekapo B, and downstream power stations operated by Meridian Energy.



AEE, Figure 1



AEE, Figure 18

- The Scheme has been present in the Waitaki Valley for many years. As described in the AEE, Tekapo A power station commenced construction in 1938 and was commissioned in 1951. The Tekapo Canal was constructed in 1970, and Tekapo B Power station was commissioned in 1977. Accordingly, the structures and operation of the Scheme have influenced the surrounding environment for decades.
- The "environmental setting" in which the Scheme is located is described in Part 4 of the AEE in extensive detail. We do not attempt to fully summarise the AEE's description of the environmental setting of the Scheme, but note that it covers the following matters:
 - 5.1 The cultural setting of the Scheme, as described in the Treaty Impact Assessment prepared by Waitaki Rūnanga and also addressed below in parts D and F of this decision.
 - 5.2 The general setting of the Scheme within the Upper Waitaki Basin with its four main tributary basins (Takapō, Pūkaki Ōhau and Ahuriri), glacier fed lakes (Takapō, Pūkaki and Ōhau), braided riverbeds and modified elements including the canals and hydro lakes. The Scheme is located within the Mackenzie Basin Outstanding Natural Landscape, which is the country's largest intermontane basin with a homogenous landscape of glacial origins surrounded by the Southern Alps (including Aoraki/Mount Cook), Two Thumb Range and Ben Ōhau Range.
 - 5.3 Surrounding land uses and demographics of the Mackenzie District, including significant projected growth in both resident and visitor numbers anticipated to occur in the thirty years from 2020 to 2050, and the three key industries in the district being agriculture, electricity generation and tourism all relying on freshwater.
 - 5.4 The Zoning and Planning Framework, which we summarise below, and is also addressed in Part J below.
 - Climate, which is strongly influenced by Ka Tiritiri O Te Moana / Southern Alps and which itself influences hydrology. The snow and ice-fed rivers feeding Takapō have highest discharges during spring and summer, and primarily rainfed rivers having highest discharges in winter and spring. The Mackenzie Basin is in the "rain shadow" of the alps and experiences warm and dry summers, cold winters and high annual sunshine hours. Rainfall is high in the alps and head of the Godley River, and much lower in Tekapo township and the lower reaches of the Takapō River main stem. Climate change is expected to result in increased flood flows in winter and spring, and increase in low flows, due to winter rain and increase in snow melt. The number of extreme low flow events is anticipated to decrease.
 - 5.6 Lake Takapō which is assessed as having:
 - (a) "Moderate natural character", influenced by the operation of the Scheme and introduction of structures at the base of the lake;
 - (b) Hydrology influenced substantially by the operation of the Scheme resulting in much wider fluctuation in water levels than were experienced prior to the Scheme;

- (c) High water quality, but historically low water clarity that has increased (likely due to climate change) due to a reduction in glacial flour in riverbeds making its way into the lake;
- (d) Naturally low phytoplankton and aquatic plant richness, and as a result macroinvertebrate richness. Macrophyte range has increased, and is expected to continue to increase, as a result of improved water clarity. Macroinvertebrate richness is anticipated to improve as a result.
- (e) Alpine galaxiids are present in tributaries to Lake Takapō. In the lake itself common bully are common, and kōaro are also present.
- (f) Brown trout, rainbow trout and Chinook salmon present in Takapō, although the fishery is limited due to the low productivity of the lake. Improved lake productivity as a result of climate change and increasing water clarity improve conditions for salmonids and therefore angling values.
- (g) A developing geomorphology, with a shoreline considered to be at a juvenile or intermediate stage of evolution toward developing a new (stable) dynamic equilibrium state. Most of the shore has dynamic beaches that are adjusting in response to changes in the process environment. Active erosional processes are occurring intermittently at some sites during periods of high-water levels and strong winds generating erosive waves. In other locations accreting landforms are evolving including barrier beaches and infilling pocket beaches. At high lake levels, the limit of wave run-up, and in some areas the still water line, reaches the toe of the cliffs forming much of the lake margin. The eroding cliffs are indicative of the landward retreat of the shore to accommodate the widening nearshore shelf related to the extended water level range. On lower sloping topography, linear beaches form an active margin to the relatively stable backshore.

5.7 Tekapo Canal which is assessed as having:

- (a) "Very low" natural character.
- (b) Hydrology comprising varying flows depending on factors including electricity demand, lake levels and Lake Takapō inflows. Mean monthly flows are typically higher in winter, especially when electricity demand is high and lower when demand drops off and Takapō lake levels are increased following winter "drawdown".
- (c) Excellent water quality reflecting that of Lake Takapō, with salmon farming occurring in the lower reaches.
- (d) Characteristics of a highly stable deep river ecosystem including a community of macrophyte beds (both native and introduced species) supporting an abundant community of macroinvertebrates (top 15% of rivers throughout NZ with comparable data).
- (e) Presence of native fish including common bully, upland bully and longfin eel and anecdotal observations of juvenile koaro.

- (f) A nationally significant fishery for brown trout, rainbow trout and Chinook salmon supported by natural recruitment, some stocking and escapees from the salmon farm.
- 5.8 Takapō River which is the natural outlet for Lake Takapō. The construction of the Scheme has resulted in usually little or no surface flow in the upper reaches of the Takapō River (above the Fork Stream confluence). The diversion of water from Lake Takapō for the Scheme has:
 - (a) Changed the character and landscape values of the river;
 - (b) Substantially reduced the flow in the river, particularly above the Fork Stream confluence which is largely dry most of the time;
 - (c) Resulted in increased water clarity by diverting glacial flour from Lake Takapō into the Tekapo canal, meaning residual flows are primarily rainfed;
 - (d) Provided a stable flow conducive to greater annual production of periphyton and macroinvertebrates; and
 - (e) Changed the physical habitat in terms of water depths, velocities and substrate within the parts of the river which still have consistent flow.
- 5.9 The Takapō River is assessed as having:
 - (a) "Low" natural character above the Fork Stream confluence, and "Moderate" natural character below it, largely as a result of modified flow regimes.
 - (b) No or little flow in its upper reaches, with no flow over the Lake George Scott Weir recorded for approximately 90% of the time between 1991 and 2020. Some minor groundwater inflow occurs between Lake George Scott and Fork Stream.
 - (c) A permanent flow of between 3 m³/s and 10 m³/s (increasing) between Fork Stream and Mary Burn due to flow contribution from tributaries including Grays River, Mary Burn and Irishman Creek.
 - (d) Flows influenced by Pūkaki River flows in the lower 4km of the river. Pūkaki River generally has low or no flows (similar to the upper Takapō) except on the rare occasions when water is spilt to lower Lake Pūkaki water levels or for recreational (kayaking) purposes. The latter occurs two weekends a year with a flow of approximately 45 m³/s for 10 hours per day.
 - (e) Varying frequency and volumes of fresh and flood flows, depending on the part of the river concerned and the source of those flows.
 - (f) No or limited hydrological connection between the river and wetlands depending on their distance from the river.

- (g) Water quality generally reflecting that of its tributaries rather than Lake Takapō, being high close to the confluence with the Pūkaki River, and still high but reduced where recent intensification of land use has occurred in the Mary Burn, Irishman Creek and Grays River catchments leading to higher nitrate and phosphate levels. Night-time dissolved oxygen levels drop to around 80% saturation (against the Canterbury Land and Water Regional Plan (CLWRP) target of 90%)) which is attributed to high biomass of didymo.
- (h) Periphyton cover regularly exceeding Ministry for the Environment (MfE) guidelines for protection of recreational and aesthetic values. Periphyton mats include native algae and cyanobacteria, and didymo which proliferates particularly in the upper and lower reaches of the river.
- (i) Moderate to high densities of macroinvertebrates providing an abundant food resource for fish and birds, with some indications of negative effects from catchment use intensification and didymo proliferation.
- (j) Presence of six native fish including Canterbury galaxias, alpine galaxias, kōaro, common bully, upland bully and longfin eel. The majority of these populations appear healthy.
- (k) Presence of brown trout, rainbow trout and Sockeye salmon. Salmonid habitat is usually limited to below the Fork Stream confluence where there are substantial flows. A previously popular and highly regarded trout fishery has declined and is now less popular after the appearance of didymo, but is still assessed as being in the top 30% of New Zealand rivers where comparable data are available.
- 5.10 Lake Pūkaki which is assessed as having "Moderate" natural character due to lake level variability and presence of structures (similar to Lake Takapō), and as having microtrophic waters with naturally high turbidity supporting low macroinvertebrate diversity and populations of kōaro, upland bullies, common bullies and a remnant population of longfin eels. Brown trout, rainbow trout and land-locked sockeye salmon are also present.
- 5.11 Lake Benmore, which comprises two flooded river valleys, the Ahuriri Arm and the Haldon Arm. The Haldon Arm receives water from the Takapō River and Ōhau Canal. Lake Benmore has generally good water quality, classified as oligotrophic.
- 5.12 Landscape and Visual Amenity values of the Scheme as a whole are identified as being:
 - (a) Views of Lake Takapō, Mount John, the mountains and the glacier lakes;
 - (b) The Alps to Ocean walking and cycling track following the Tekapo Canal and Lake Pūkaki, forming part of the Te Araroa Trail and enabling good views to the river and lakes for recreationalists that can be enjoyed away from busy public roads and viewpoints;
 - (c) The relatively open, settled, rural landscape means that views incorporating Lake Takapō and surroundings are pleasantly scenic.

- Expansive views provide an experience of openness with an attractive mountain backdrop; and
- (d) Rich transient values associated with the seasons and changes of the lake levels and river flow. The impressive weather and cloud patterns of the Mackenzie sky are renowned together with the distinctive night sky.
- 5.13 The geology of the Mackenzie Basin is that of a tectonic depression that has been infilled as a result of the erosion of greywacke and schist associated with uplift of the alpine fault. Groundwater, both vertically and laterally in the deeper system, is likely to be highly variable and it is unknown whether the groundwater system is connected at depth. CRC's interpreted groundwater contours on "Canterbury Maps" show groundwater flow to be generally parallel to the Takapō River and Lake Benmore. Limited groundwater quality information is available around Lake Takapō, but data indicates that groundwater quality in the Takapō River basin is relatively good, with slightly elevated concentrations of E. coli and nitrate observed occasionally in some bores. There are a small number of domestic supply bores around Lake Takapō installed since 2000, and a surface water take for irrigation of crops and pasture on the lower reaches of the Takapō River.
- 5.14 Terrestrial Ecological values are identified as follows:
 - (a) A range of invertebrates with known conservation significance have been recorded from the wider Takapō and Lake Pūkaki area, with a subset of these associated with braided rivers and most likely to be affected by the Scheme. This includes spiders, stiletto and robber flies, grasshoppers, Tekapo ground weta, moths, and some true bugs.
 - (b) Three species of native lizard were recorded during herpetofauna surveys. McCann's skink and Southern Alps gecko were found across most sites, with differing abundance generally inversely related to the levels of past disturbance. Populations of these lizards along the margins of the Takapō River and its associated dry channels, floodplain areas and historic terraces would likely number in the 1,000's per kilometre of river. Canterbury grass skink was found at one site, along the riparian margins of a minimally disturbed section of the Mary Burn near a culvert section of the Tekapo Canal. No other native or exotic lizards, or frogs, were recorded and habitat quality for other native lizards (eg, jewelled gecko, scree skink, long-toed skink or Mackenzie Basin skink) was generally assessed as being poor.
 - (c) Lake Takapō, Takapō River and surrounding areas provide habitat for a diverse range of bird species, with a total of 63 avifauna species recorded by the OSNZ atlas programmes, other literature sources and in field investigations. These include four waterbird species that have evolved on braided rivers (wrybill, black stilt/kakī, black-billed gull and black-fronted tern) and a further two endemic species that use braided rivers as their major breeding habitats (banded dotterel and NZ pied oystercatcher). These six specialised river bird species are of high conservation value, and are likely to have been affected by the construction of the Scheme due to changes to foraging and/or breeding habitat.

- (d) Lake edge vegetation is limited with lake edge plots showing limited vegetative cover with 6% comprising native and 20% exotic vegetation, with otherwise mostly rock/gravel and smaller amounts of silt/sand, moss, algae and litter. 85% of wetlands in the upper Waitaki have been significantly modified, but where these remain a higher proportion of native species cover is recorded than lake edge plots. Wetlands are typically of high-very high ecological value. Dewatering the upper Takapō River has substantially altered the environment and natural processes in this area, creating a more stable riverbed and environment and over time leading to changes in species composition. In terms of plant species with conservation interested the threatened (nationally vulnerable) dwarf common broom was present in short tussock grassland near the Tekapo Canal. A further nine species of "at risk (declining)" plants were identified, the majority again within short tussock grassland or other habitats near the Tekapo Canal. One of these species, matagouri, is more widespread and detected in habitats around Lake Takapō and Lake Pūkaki as well as along the Takapō River.
- 5.15 Recreation and Tourism Values of the area are high, and growing in popularity. The AEE describes Lake Takapō as having scenic values of international significance, and as being of national significance for a range of recreational activities including boating and angling. The Takapō River is identified as having regional significance for angling, jet boating and kayaking, and the Tekapo White Water Course in the upper Takapō River (between Gate 16 and Lake George Scott) has national significance for kayaking. The Tekapo Canal has nationally significant recreational values for angling, cycling and walking.
- 5.16 Other Water Users than power generators include MDC use for domestic and stockwater supply, private bores and surface water takes providing private community schemes, and approximately 9,000 hectares of existing irrigation with a potential further 25,000 hectares provided for in the WCWARP subject to meeting water quality and landscape/ecological constraints.
- The "Zoning and Planning Framework" is addressed in section 4.5 of the AEE. It summarises the manner in which the Canterbury Regional Policy Statement (**CRPS**), Canterbury Land and Water Regional Plan (**CLWRP**) and the Waitaki Catchment Water Allocation Regional Plan (**WCWARP**) collectively identify the environmental values and characteristics of the Scheme, including:
 - 6.1 Lakes Takapō and Pūkaki are identified as statutory acknowledgement areas in the CRPS in accordance with the Ngāi Tahu Claims Settlement Act 1998. The statutory acknowledgements describe the relationship of Te Rūnanga o Ngāi Tahu with these lakes, which includes urupā (resting places of tupuna) and mahinga kai values. The CRPS also notes that mauri is a critical element of the spiritual relationship of Te Rūnanga o Ngāi Tahu with Lake Takapō and Lake Pūkaki.
 - 6.2 The Mackenzie Basin is listed in the CRPS (Appendix 4) as an outstanding natural feature and landscape at a regional scale. Both Lake Takapō and Lake Pūkaki are specifically identified as having aesthetic and tāngata whenua values which contribute to the outstanding natural feature and landscape values of the Mackenzie Basin. The CRPS acknowledges that the Combined Waitaki Power Scheme forms part of the Mackenzie Basin landscape.

- 6.3 Both Lake Takapō and Lake Pūkaki have a water quality classification of 'Large High Country Lake' in the CLWRP.
- 6.4 The rivers and streams that discharge to lakes Takapō and Pūkaki have a water quality classification of 'Hill-fed Upland'.
- 6.5 Lake George Scott is identified as being a 'Small to Medium High-Country Lake' on the CLWRP planning maps.
- The Takapō River is identified on the CLWRP planning maps as being a `Lake-fed Upland River.' The various tributaries of the Takapō River are generally identified as being `Spring-fed Upland Rivers'.
- 6.7 The Scheme is located within the upper Waitaki–Haldon Arm Nutrient Allocation Zone in the CLWRP. This zone is identified as being 'At Risk' of not meeting the water quality guidelines.
- 6.8 Lake Benmore (where the Takapō River discharges) is identified as being an 'Artificial On-River Lake' on the CLWRP Planning Maps.
- 6.9 The Scheme is identified in the CLWRP as being over a semi-confined or unconfined aquifer.
- 6.10 The Scheme infrastructure is located within three Groundwater Allocation Zones in the CLWRP: Waitaki Upstream Tekapo, Waitaki Upstream Dam and Waitaki Upstream Pūkaki.
- 6.11 The Scheme is located within the upper Waitaki Freshwater Management Unit, and in the 'Haldon Zone'.
- 6.12 Some areas surrounding the Scheme infrastructure are identified areas of 'High Runoff Risk Phosphorus Zone' in the CLWRP.
- 7 To the extent relevant, given that this Application seeks a water permit and discharge permit and no land use consents, the Mackenzie District Plan identifies the Scheme as follows:
 - 7.1 The majority of the land on which the Scheme is located is "General Rural Zone".
 - 7.2 The Combined Waitaki Power Scheme, which includes the Scheme, is a Scheduled Area in the Operative Mackenzie District Plan. The Proposed Mackenzie District Plan instead incorporates specific provisions and rules which have similar effect to the previous scheduled area provisions.
 - 7.3 Land between Lakeside Drive and Lake Takapō is zoned "Open Space" in the Proposed MDP.
 - 7.4 The Scheme, Lake Takapō and Lake Pūkaki are within the Te Manahuna/ Mackenzie Basin Outstanding Natural Landscape.
 - 7.5 Lake Takapō, Takapō River, Lake Pūkaki and three areas adjacent to the Tekapo Canal are identified in the Operative MDP as Sites of Natural Significance.

- 7.6 There is a 'Scenic Viewing Area' identified adjacent to the Tekapo Canal at the Lake Pūkaki end (11A).
- 7.7 The area adjacent to Lake Pūkaki is identified as being a 'Lakeside Protection Area'.
- 7.8 There is a height restriction area and no build area located immediately south of the Tekapo A intake, between Lakeside Drive and SH8.
- 7.9 A designation for the Tekapo A Switchyard and a designation for the Tekapo B Switchyard for Transpower are identified on the Planning Maps.
- 7.10 Appendix U of the MDP contains hydroelectricity inundation hazard area maps which shows the locations adjacent to Scheme infrastructure that are identified as being potentially subject to inundation in the event of a dam or canal breach (this Appendix will be replaced by a Planning Map Overlay by Plan Change 28).
- 7.11 Lake Takapō is located in the Aoraki Mackenzie International Dark Sky Reserve, as designated by the International Dark-Sky Association.

Overview of the application

- The application is for reconsenting of the Scheme. As noted in the AEE "Background and Overview", the operation of the Scheme was initially authorised by Orders in Council dated 24 April 1929 and 27 September 1939, and more recently by water rights (deemed resource consents under the Resource Management Act 1991 (RMA)) since 1990. The deemed resource consents expired on 30 April 2025. Replacement resource consent applications for the Scheme were lodged with the CRC in July 2023, more than six months in advance of the expiry date ensuring that the Applicant could continue to exercise its existing consents until a decision on those applications was finalised. The Scheme was then confirmed as a listed project in Schedule 2 of the FTAA, and this Application was duly lodged with the EPA in April 2025.
- The Application seeks to enable the ongoing operation of the Scheme, subject to its existing parameters and operating regime. The general operation of the Scheme is summarised above in paragraph 2. In summary, the "activities" that are encompassed in the Scheme are as follows:²
 - 9.1 The damming of the Takapō River via the Tekapo Control Structure (Gate 16) to control and operate Takapō;
 - 9.2 The taking, diversion and use of water from Lake Takapō via the Tekapo Intake Structure for the generation of electricity, and ancillary purposes, at the Tekapo A and B Power Stations;
 - 9.3 The damming of the Takapō River at the Lake George Scott Control Weir to control and maintain water levels in Lake George Scott;

² AEE, at 2.1.

- 9.4 The taking, diversion and use of water from the Takapō River via the Tekapo Canal Control Structure (Gate 17);
- 9.5 The discharge of water and all associated contaminants into Lake Pukaki;
- 9.6 The discharge of water and all associated contaminants into the Takapō River from Gate 16 for the purposes of spilling water, to bypass Tekapo A, for Lake George Scott water level maintenance and for recreational release purposes; and
- 9.7 The discharge of water and all associated contaminants into the Takapō River from the Lake George Scott Control Weir for the purpose of spilling water.
- The Application proposes that the Scheme continue to operate within its existing parameters, which are described in part 6.2 of the AEE and summarised below:
 - 10.1 Minimum operating levels for Takapō as follows:
 - (a) 1 April to 30 September Minimum Level of 701.8 metres above sea level (masl); and
 - (b) 1 October to 31 March Minimum Level of 704.1 masl.
 - 10.2 The ability to further reduce the level of Lake Takapō to 701.8 masl between 1 October and 31 March if the Electricity Authority determines that reserve generation capacity is required, or when the aggregate storage for the nation or for the region that includes the Waitaki catchment is below the Contingent Storage Alert Release Boundary established by the New Zealand electricity network System Operator.
 - 10.3 Policy 37 of the WAP also provides for the temporary lowering of Lake Takapō where necessary for the purposes of maintenance or rehabilitation of electricity generation infrastructure.
 - 10.4 Maximum operating levels for Lake Takapō as follows:
 - (a) September to February Maximum Level of 709.7 masl;
 - (b) March Maximum Level of 710.0 masl;
 - (c) April and August Maximum Level of 710.3 masl;
 - (d) May Maximum Level of 710.6 masl; and
 - (e) June and July Maximum Level of 710.9 masl.
 - 10.5 Lake levels can vary outside the maximum control levels specified in the resource consents when inflows to Lake Takapō exceed the maximum possible outflows from the lake. In that regard, Genesis is presently required to control and operate the level of Lake Takapō in accordance with the provisions contained in "Tekapo Power Scheme, Appendix A, Extracts of Waitaki operating Rules (9 November 1990), as modified by an order pursuant to Section 122 of the Electricity Industry Act 2010" (also known as the **Flood Rules**).

- 10.6 Maximum diversion, take and use of water from Lake Takapō via the Tekapo Intake Structure of 130 m³/s, and maximum quantity of 11.232 x 10⁶ m³ per day (equating to "all other inflows" as provided for in Table 5 in the WCWARP).
- 10.7 Total consented discharge capacities:
 - (a) $850 \text{ m}^3/\text{s}$ at Gate 16.
 - (b) 600 m³/s into the Takapō River over the Lake George Scott Weir, with requirements to manage the operation of Gates 16 and 17 to avoid fluctuations and reduce abrupt changes in discharges over the Lake George Scott Weir. A "High Flow Management Plan" is required, but minimum requirements for incremental increases to and reduction of flow rates are specified in the conditions of consent.
 - (c) $130 \text{m}^3/\text{s}$ at Gate 17.
- 10.8 Maximum level for Lake George Scott of 684.05 masl.
- 10.9 Maximum take and use of water at Tekapo A of 130 m³/s.
- 10.10 Maximum use and discharge of water at Tekapo B of 130 m³/s.
- 10.11 A requirement to provide, at the request of Whitewater New Zealand
 Incorporated and the Tekapo Whitewater Trust, recreational releases up to
 4,820 cumec hours between Gate 16 and Lake George Scott annually between 1
 July and 30 June, subject to exceptions set out in the conditions.

Resource consents

- The Panel has reviewed all the documentation and the further information provided by the Applicant and the participants and has included at **Appendix B** a reproduction of Tables 12 and 13 from the AEE, which concisely summarises the consents sought, and refers to the existing consents that are being replaced. The Panel agrees with the Applicant that, in terms of the Plan and its various proposed plan changes, overall the Application is a controlled activity. We note that the CRC also agrees that the Application is for a controlled activity under both the CLWRP and WCWARP.³
- We note that Forest and Bird in its comments on the Application, including the evidence of Ms Helen Marr, argues that the activity for the purposes of the WCWARP is a non-complying activity.⁴ Forest and Bird's argument is as follows:
 - 12.1 Rule 15A of the WCWARP provides that the activity is a controlled activity, provided it complies with Rules 2, 3, 6 and 7 of the WCWARP.
 - 12.2 Rule 2 of the WCWARP requires any take, use or diversion of surface or groundwater to comply with minimum flow or level requirements in Table 3B.

³ CRC s53 planning comments.

⁴ Forest and Bird Comments at paras 82-91, and evidence of Helen Marr at paras 59-72.

- 12.3 Table 3B provides a minimum flow in the Takapō River below Forks Stream, which is complied with.
- 12.4 However, Table 3B also includes a Row xxii, which relates to "All other rivers and streams (except for the Pūkaki River, lower Ōhau River and the Tekapo River upstream of Lake George Scott)", for which a minimum flow and flow sharing threshold is provided for.
- 12.5 Row xxii of Table 3B, Forest and Bird argues, excludes the Takapō River above Lake George Scott, but not below Lake George Scott.
- 12.6 Accordingly, by not providing for flows below Lake George Scott, the Application does not comply with Rule 2 and therefore falls to be considered as a non-complying activity under Rule 16 of the WCWARP.
- The Applicant responded to Forest and Bird's comments, including in relation to activity status and disagrees that the application attracts non-complying activity status under the WCWARP.⁵ The Applicant, including Mr Matthews on the Applicant's behalf, argues that Table 3B Row xxii applies to the Takapō River, on the basis that Table 3B Row ii sets out minimum flows relevant to the Takapō river, being a minimum flow of 3.4 m³/s from the Fork Stream confluence to Lake Benmore which is complied with.
- After receiving comments from Forest and Bird but before receiving the Applicant's response, the Panel had engaged Vanessa Hamm of Holland Beckett to provide legal advice in relation to the WCWARP. In that advice, Ms Hamm considers Forest and Bird's comments in relation to activity status of the Application, and concludes that it is incorrect and that the Application is a controlled activity on the following basis:
 - 14.1 Table 3B Row ii captures the Takapō River, and it is clear from the entries in the table/row that it is captured from Lake George Scott downstream.
 - 14.2 Table 3B Row ii.a provides an "allocation limit" from Lake George Scott to the confluence with the Grays River of 0 m³/s. It does not include a "minimum flow" from Lake George Scott to a downstream point. In Ms Hamm's opinion, this means a minimum flow is not prescribed, not that the Stretch would then default to Row xxii.
 - 14.3 Row xxii relates to "All *other* rivers and streams". Ms Hamm does not consider that this included the Takapō River which is already covered by Row ii.
 - 14.4 For completeness, the exception in Row xxii "(except for the Pūkaki River, lower Ōhau River and the Tekapo River upstream of Lake George Scott)" is consistent with this because Row ii only covers the Takapō River from Lake George Scott downstream.
- 15 The Panel has carefully considered:
 - 15.1 The relevant provisions of the WCWARP;

See Applicant's Response to Comments including Appendix 1 Planning Advice – Richard Matthews para 16-31.

- 15.2 Forest and Bird's comments including Ms Marr's evidence;
- 15.3 The CRC's position in relation to activity status;
- 15.4 The Applicant's response;
- 15.5 Ms Hamm's legal advice; and
- 15.6 Material associated with development of the WCWARP referred to by Forest and Bird, the Applicant and Ms Hamm.
- We have concluded that the Application was appropriately made as a controlled activity, for the reasons set out in Ms Hamm's legal advice.

Procedure

17 The following matters of procedure are relevant for this decision.

Meetings and site visits

- On 24 July 2025, the Panel held an online project overview conference with representatives from the Applicant, CRC, the Waitaki Rūnanga, Aoraki Environmental Consultancy Limited and Ministry for the Environment (observing) as recorded in Minute 2. The purpose of the conference was to familiarise the Panel with the content of the Application and provide clarification of aspects of the Application. The Panel is grateful to all attendees for assisting its understanding of the Scheme and Application.
- 19 The Panel then undertook a site visit on 30 July 2025. The site visit was conducted in the manner recorded in Minute 3.
- In Minute 4, the Panel indicated an intention to hold an "Issues Conference" to address disputed legal issues, facts and/or opinions as between the Applicant and other participants, and to identify what further directions might be appropriate to resolve or assist the Panel's understanding and determination of those issues. As recorded in Minute 5, after receipt of the Applicant's response to comments and Ms Hamm's legal opinions, the Panel determined that the Issues Conference was no longer required and it had sufficient information and understanding of the Applicant to proceed with determining the Application subject to two further pieces of technical advice (from Ms Robb and Dr Lieffering) as referred to in the minute.
- 21 Much of the Panel's correspondence, deliberations and decision-making occurred over email following review, drafting and commenting on drafts of further information

requests, this decision report and the conditions. It also held a total of eleven online meetings over the period 1 August to 6 October.⁶

Invitations to comment

- The Panel invited comments on the Application by letter dated 28 July 2025.⁷ Responses to this invitation were due on 25 August 2025. Comments were received on time from the following:
 - CRC;
 - Forest and Bird;
 - Minister for Arts, Culture and Heritage;
 - Minister for Climate Change;
 - Minister for the Environment;
 - Minister for Māori Crown Relations;
 - Minister for Regional Development;
 - Minister for RMA Reform;
 - Minister for Rural Communities;
 - Minister for the South Island;
 - Director-General of Conservation;
 - Waitaki Rūnanga;
 - Te Rūnanga o Ngāi Tahu; and
 - Transpower.
- The Panel would like to thank all parties who commented for their contributions. The following is a summary of the matters raised in the comments:
 - 23.1 Support for the Application;
 - 23.2 Significance of the Waitaki catchment, including Lakes Takapō, Pūkaki and the wider area, and taonga species to Te Rūnanga o Ngāi Tahu;
 - 23.3 The appropriateness of addressing environmental and cultural effects of the Scheme outside of the consent process and consent conditions;

^{1, 20} and 28 August; 5, 18, 19, 25 and 30 September; and 2, 3 and 6 October 2025.

⁷ See Minute 2.

- 23.4 The appropriateness of a reductionist vs holistic and/or intergenerational approach to identification and consideration of effects;
- 23.5 Applicability and interpretation of Te Mana o te Wai;
- 23.6 The "existing environment" for the purposes of assessing the effects of the Application;
- 23.7 The scope of the Panel's discretion to consider effects and impose conditions on a controlled activity under the WCWARP and the CLWRP;
- 23.8 Provision of flows in the Takapō River:
 - a) Whether an environmental flow regime can and should be imposed;
 - b) If so what regime would be appropriate in light of the positive and adverse effects of that flow regime.
- 23.9 Appropriateness of proposed "compensation" through the Indigenous Biodiversity Enhancement Programme;
- 23.10 Climate change, including:
 - a) Uncertainty about potential impacts;
 - b) Uncertainty regarding the operation of the Scheme within consented limits light of these impacts;
- 23.11 Effects on groundwater;
- 23.12 Ecological effects, including:
 - a) Macrophytes;
 - b) Native fish;
 - c) Avifauna;
 - d) Macroinvertebrates;
 - e) Herpetofauna;
 - f) Terrestrial vegetation;
- 23.13 Consistency with relevant planning instruments:
 - a) National Policy Statement Freshwater Management;
 - b) Canterbury Regional Policy Statement;
 - c) WCWARP;
 - d) CLWRP;

23.14 The conditions of consent:

- a) The proffered IBEP conditions;
- b) Management plans, in particular the Fish Salvage Management Plan and High Flow Management Plan; and
- c) Monitoring conditions.

Applicant's response to invited persons comments

- On 1 September 2025 the Applicant provided a response to the comments received on the application from those persons who were invited to comment under Section 53 of the FTAA. This included, amongst other matters, an updated set of draft consent conditions.
- The Panel has considered the Applicant's responses, and, where appropriate, refers to those responses within Section E of this report below.
- 26 Some of the matters raised in comments by CRC were resolved through direct discussions with the Applicant, and will not be addressed further in this decision. Otherwise, the matters remaining in contention between the Applicant and commenters will be addressed below in this decision.

Appointment of special advisor

27 On 27 August 2025 the Panel appointed Vanessa Hamm of Holland Beckett to provide legal advice to the Panel.⁸

Appointment of technical advisor

- On 19 September the Panel appointed two technical advisers to assist the Panel. These appointments were made under clause 10(3) of Schedule 3 of the FTAA⁹, and included:
 - 28.1 Dr Rob Lieffering, who was appointed to provide the Panel with planning assistance particularly with respect to the drafting of conditions; and
 - 28.2 Ms Christina Robb, who was appointed to undertake a review of the proposed IBEP, including draft Kahu Ora Strategic Plan and related conditions of consent, to provide an assessment of its appropriateness and the extent to which to which the Panel can rely on the programme to deliver ecological benefits as compensation for the effects of the Scheme.

⁸ See Minute 4.

⁹ See Minute 5.

Further information

<u>RFI 1</u>

- On 5 September 2025, the EPA at the Panel's direction, sought information regarding the potential implications, if any, of climate change on the operation of the Scheme, and identification and assessment of any potential environmental effects or impacts attributable to those potential changes to operation of the Scheme. This information was sought under section 67(2) of the FTAA.
- The Applicant responded to RFI 2 on 15 September 2025. The request and the Applicant's response is addressed in detail below when assessing climate change impacts.

RFI 2

On 19 September 2025, the EPA at the Panel's direction sought that the Applicant provide the most recent version of the proposed consent conditions, including any updates made following discussions with the CRC. The request was made under section 67(2) of the FTAA. The Applicant provided the requested information on 22 September 2025.

Conditions

- The Application included a set of draft conditions. An updated set of draft conditions was then provided to the Panel, after further discussions with CRC, on the day of the Project Overview Conference being 24 July 2025. CRC, in its capacity as a regulatory authority provided detailed feedback and a set of amended draft conditions with its formal comments as an invited commenter.
- Forest and Bird also commented on the draft conditions provided with the Application in its comments on the Application.
- In response to RFI 2, the Applicant provided a set of conditions to the Panel that were largely agreed with CRC and Waitaki Rūnanga on 22 September 2025.
- [Placeholder to complete when comments received In accordance with section 70 FTAA the Panel reviewed and amended these conditions and provided draft conditions to the Applicant and persons invited to comment on [6 October 2025], requiring responses by [13 October 2025]. The Panel received [insert number of responses] responses on the draft conditions from:
 - a. The Applicant;
 - b. The Council;
 - c. [insert]; and
 - d. [insert].]
- The Panel has considered all comments received on the draft conditions as is required under section 70 FTAA and amended the conditions where appropriate. The Panel has

addressed these comments as needed throughout this decision report, and in Part K: Conditions below.

<u>Comments from the Minister for Māori Crown Relations: Te Arawhiti and Minister of Māori Development</u>

- Under section 72 FTAA the Panel invited comment from the Ministers for Māori Crown Relations: Te Arawhiti and Māori Development on [6 October 2025].¹⁰
- [Placeholder to insert reference to any comments received or note that no comments were received. Ministers have 10 working days to make comment from the date they were invited].

<u>Hearing</u>

- The Panel has exercised its discretion not to require a hearing on any issue under section 56 FTAA. The Panel was able to adequately consider all issues based on the information available including the Application, comments received, responses to comments and the further information provided by the Applicant, the Council and invited persons. The material issues involved were comprehensively addressed in the documentation provided thereby resolving any technical expert differences of opinion. Residual issues were sufficiently clear for the Panel to consider.
- The Panel is mindful of the emphasis on time limited decision-making in the present process, the purpose of the FTAA in section 3, to facilitate the delivery of infrastructure and development projects with significant regional or national benefits, and the procedural principles in section 10 FTAA that require the Panel to take all practicable steps to use timely, efficient, consistent, and cost effective processes that are proportionate to the Panel's functions, duties or powers.

Timing of the Panel decision

In accordance with the panel convenor Minute 6 dated 4 July 2025 the time frame for the panel to issue its decision documents under sections 79 and 88 is 4 November 2025.

PART C: LEGAL CONTEXT

Legal context for a listed project under the FTAA

The Application relates to a Project listed in Schedule 2 of the FTAA. In accordance with section 42 an authorised person¹¹ for a listed project may lodge a substantive application with the EPA. The substantive application is required to follow the process set out in sections 43 and 44. The Applicant lodged the substantive application on 11 April 2025. If the Application has not been lodged by way of a substantive application under section 42, it would have been necessary for the Applicant to pursue resource

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¹⁰ [Minute 7]

¹¹ FTAA, sections 4 and 42

- consents under the RMA. The Applicant had lodged such applications in 2023, as identified above.
- Two types of approval that would otherwise have required consent under the RMA have been sought:
 - 43.1 Water permit (other than coastal marine area) (section 14 of the RMA); and
 - 43.2 Discharge permit (other than coastal marine area) (section 15 of the RMA).
- 44 None of the approvals sought are for a prohibited activity under the RMA.
- The EPA decided that the Application was complete and within scope¹² on 7 May 2025. The EPA made a recommendation on whether there are competing applications or existing resource consents for the same activity on 21 May 2025.¹³ The EPA then provided the Application to the panel convenor and at the same time requested a report from the Ministry responsible agency¹⁴ under section 18 FTAA. A report was received on 5 July 2025.

The statutory scheme

- The Maitahi Village Expert Panel recently released its decision dated 18 September 2025. In that decision the Expert Panel comprehensively addresses the statutory scheme which applies to the determination of approvals under the FTAA. In that application, as with this Application, the approvals sought were resource consents.
- We agree with and respectfully adopt the Maitahi Village Expert Panel's analysis set out in paragraphs 49-70 of their decision, noting as follows:
 - 47.1 That the starting point for analysis is the purpose of the FTAA in section 3, being "...to facilitate the delivery of infrastructure and development projects with significant regional or national benefits."
 - 47.2 With respect to decision-making on the approvals sought, the key provisions of the FTAA are ss81-85.
 - 47.3 The Panel is required to undertake a broad evaluative exercise, weighing a range of matters identified in section 81 and 85 of the FTAA.
 - 47.4 That the purpose of the FTAA is to be given the greatest weight in that balancing exercise, but that does not mean that it will always outweigh other considerations.

¹³ FTAA, section 47

¹² FTAA, section 43

¹⁴ MfE is the responsible agency for section 18.

Purpose of the FTAA

In its comments on the Application, Forest and Bird submits that: 15

... the purpose of the FTAA is neutral regarding the takes, diversions, and discharges because the infrastructure, including the intake structure, control gates, canals, and power stations, are long-standing. There is nothing to "deliver" through this substantive application. "Infrastructure" (defined by reference to the RMA definition) does not include the takes diversions and discharges. Neither are they a "development project". The purpose of the FTAA therefore is not furthered by granting the takes, diversions and discharges.

This submission was briefly responded to by the Applicant in its response to comments as follows:

Infrastructure: the scheme clearly relates to infrastructure which must by its nature include the use of that infrastructure. The listing of the project in Schedule 2 of the FTAA makes that clear.

- The Panel notes that neither "infrastructure" nor "development" is defined in the FTAA. However, "Project" is defined in section 4 of the FTAA, relevantly as follows: "means,(i) in relation to a listed project, the project as described in Schedule 2:...".
- The Project is described in Schedule 2 as follows:

Authorised person	Project name	Project description	Approximate geographical location
Genesis Energy Limited	Tekapo Power Scheme— Applications for Replacement Resource Consents	Continue to use, operate, and maintain the power scheme comprising Tekapo A Power Station and substation, Tekapo B Power Station and substation, and the canal system, and connect and supply electricity to the national grid	Between Lake Tekapo (higher elevation), to the northeast near Tekapo, and Lake Pukaki (lower elevation) to the southwest near Twizel

- 52 Accordingly, as defined in the FTAA the Project is a "project".
- As noted by the Applicant, the Project seeks to authorise the continued use of the existing infrastructure of the Scheme. Forest and Bird specifically refers to the various Scheme structures as "infrastructure". Accordingly, we find that the Project is clearly infrastructure-related insofar as it is a project seeking approvals for the continued use of infrastructure.
- While not directly relevant in relation to a listed project, we also note the criteria for assessing referral applications under section 22 of the FTAA, which provides as follows:

22 Criteria for assessing referral application

- (1) The criteria for accepting a referral application are that-
 - (a) the project is an infrastructure or development project that would have significant regional or national benefits; and

¹⁵ Forest and Bird memorandum of counsel dated 25 August 2025, at Para 13

...

- (2) For the purpose of subsection 1(a), the Minister may consider-
 - (a) whether the project-

(ii) will deliver new regionally or nationally significant infrastructure or enable the continued functioning of existing regionally or nationally significant infrastructure:

...

- The "criterion" in section 22(1)(a) is mandatory, ie to be successfully referred a project must be an infrastructure or development project.
- Section 22(2)(a)(ii) is one of a number of considerations for the Minister when deciding whether the project is an infrastructure or development project that would have significant regional or national benefits.
- 57 Section 22(2)(a)(ii) has two parts. The first part is whether the project will deliver new regionally or nationally significant infrastructures. Connected by the word "or", the second part is whether the project will enable the continued functioning of existing regionally or nationally significant infrastructure.
- In order for the second part of the consideration in section 22(a)(ii) to have meaning, a project that will enable the continued functioning of existing regionally or nationally significant infrastructure must also be an infrastructure or development project.
- The Scheme itself clearly, in the Panel's view, constitutes nationally significant infrastructure. The Application seeks to enable the continued functioning of that nationally significant infrastructure, as without the water permit and discharge permit sought that infrastructure would no longer function.
- The Panel accepts that it might be theoretically possible to envisage a development project that *also* enables the continued functioning of significant infrastructure. However, we do not consider that likely to be the parliamentary intent. As noted by the Applicant, the inclusion of the Project in Schedule 2 supports an interpretation whereby a project solely to enable the continued use of existing regionally or nationally significant infrastructure, rather than the delivery of *new* infrastructure, constitutes and "infrastructure project" and is captured by the purpose of the FTAA in section 3.¹⁶
- For these reasons we disagree with Forest and Bird's submission, and hold that the Project involves the "delivery" of an "infrastructure project" as those words are used in section 3 of the FTAA.

As cautioned by the Expert Panel in Maitahi Village however, we do not

As cautioned by the Expert Panel in *Maitahi Village* however, we do not rely on the inclusion of the Project in Schedule 2 as evidence of the extent of the regional and national benefits of the Project. We go on to assess the extent of those benefits at Part H of this decision.

Decisions on approvals

62 Section 81 FTAA states:

81 Decisions on approvals sought in substantive application

- (1) A panel must, for each approval sought in a substantive application, decide whether to—
 - (a) grant the approval and set any conditions to be imposed on the approval; or
 - (b) decline the approval.
- (2) For the purpose of making the decision, the panel—
 - (a) must consider the substantive application and any advice, report, comment, or other information received by the panel under section 51, 52, 53, 55, 58, 67, 68, 69, 70, 72, or 90:
 - (b) must apply the applicable clauses set out in subsection (3) (see those clauses in relation to the weight to be given to the purpose of this Act when making the decision):
 - (c) must comply with section 82, if applicable:
 - (d) must comply with section 83 in setting conditions:
 - (e) may impose conditions under section 84:
 - (f) may decline the approval only in accordance with section 85.
- (3) For the purposes of subsection (2)(b), the clauses are as follows:
 - (a) for an approval described in section 42(4)(a) (resource consent), clauses 17 to 22 of Schedule 5:
 - (b) ..
- (4) When taking the purpose of this Act into account under a clause referred to in subsection (3), the panel must consider the extent of the project's regional or national benefits.
- (5) For the purposes of subsection (4), if the substantive application was made under section 42(1)(b), the panel—
 - (a) must treat the stage of the project to which the application relates as constituting the project; but
 - (b) may consider the regional or national benefits of the whole project, having regard to the likelihood that any later stages of the project will be completed.
- (6) Despite subsection (2)(a), the panel—
 - (a) is not required to consider any advice, report, comment, or other information it receives under section 51, 53, 55, 67, 69, 70, or 72 after the applicable time frame: but
 - (b) may, in its discretion, consider the information as long as the panel has not made its decision under this section on the approval.
- (7) To avoid doubt, nothing in this section or section 82 or 85 limits section 7.
- 62.1 In relation to the Application, we note as follows:
 - (a) Section 81(1) The panel for each approval must decide whether to grant the approval and set any conditions to be imposed on the approval, or decline the approval.
 - (b) Section 81(2):
 - (i) The starting point is that the Panel must consider the substantive application.

- (ii) The Panel must also consider any advice, report, comment, or other information it receives under section 81(2)(a).
- (iii) Must apply applicable clauses set out in subsection 3. In the present case, this includes only clause 17 of Schedule 5 of the FTAA.
- (iv) In relation to the application of applicable clauses, including clause 17 of Schedule 5, section 82(2)(b) provides a "statutory reminder" to "see those clauses in relation to the weight to be given to the purpose of this Act when making the decision."
- (v) Must comply with section 82 if applicable. The Ngāi Tahu Claims Settlement Act 1998 is relevant to the Application. We address how this decision complies with section 82 in this regard below.
- (vi) Must comply with section 83 in setting conditions. Section 83 is addressed in section K of this decision.
- (vii) May impose conditions under section 84, which is not applicable to this Application.
- (viii) May decline consent the approval only in accordance with section 85. We address section 85 below.
- (c) Section 81(3) as noted above, the "applicable clause" in the present case is clause 17 of Schedule 5. The Panel addresses clause 17 below.
- (d) Section 81(4) The Panel must consider the **extent** of the Application's regional and national benefits when taking into account the matters it is required to take into account under clause 17, and when giving greatest weight to the purpose of the FTAA. While the purpose of the FTAA must always have greater weight than the relevant RMA and other relevant legislative provisions, section 81(4) requires the Panel to consider the extent of the regional or national benefits when accordingly relative weight to the purpose of the FTAA and other relevant provisions.

Ability to decline consent

- 63 Section 85 FTAA sets out the limited circumstances when approvals must or may be declined.
- Section 85(1) and (2) sets out the matters that apply to a mandatory decline decision. Section 85(3) sets out the matters that must be considered by the Panel in forming a view that the approval sought should be declined:

Approval may be declined if adverse impacts out of proportion to regional or national benefits

- (3) A panel may decline an approval if, in complying with section 81(2), the panel forms the view that—
 - (a) there are 1 or more adverse impacts in relation to the approval sought; and
 - (b) those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the panel has considered under section 81(4), even after taking into account—
 - (i) any conditions that the panel may set in relation to those adverse impacts: and
 - (ii) any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts.
- (4) To avoid doubt, a panel may not form the view that an adverse impact meets the threshold in subsection (3)(b) solely on the basis that the adverse impact is inconsistent

- with or contrary to a provision of a specified Act or any other document that a panel must take into account or otherwise consider in complying with section 81(2).
- (5) In subsections (3) and (4), **adverse impact** means any matter considered by the panel in complying with section 81(2) that weighs against granting the approval.
- The current Application is a controlled activity under both the WCWARP and the CLWRP. If the Application were made under the RMA, then sections 87A(2) and 104A would apply, meaning that the Panel would be required to grant consent to the Application. In its legal submissions for the Project Overview Conference the Applicant acknowledged that, on its face, section 81(1) of the FTAA does not require the Panel to grant the resource consents sought. However, the Applicant argued that:
 - 65.1 The Panel is required to apply clause 17(1)(b) of Schedule 5 of the FTAA, which "imports" s104A of the RMA; and
 - 65.2 It would be contrary to the purpose of the FTAA to provide the panel with scope to decline a controlled activity, when that activity would not be able to be declined under an RMA process.
- In contrast, the CRC, in its comments, included a memorandum of counsel confirming its position that "applications for controlled activity consents can be declined under the FTAA". The Council submits that section 104A is one matter addressed in clause 17 of Schedule 5 of the FTAA, and that must be "taken into account". However, it agrees that taking into account the provisions of the RMA that direct decision making and in applying section 104B of the RMA, the Panel's consideration of the RMA matters is to be constrained by the matters of control within the relevant planning provisions. It also agreed that none of the mandatory ground for declining an application under section 85 of the FTAA are applicable to this Application. ¹⁸
- 67 Forest and Bird in its comments on the Application submitted that the Panel's discretion to decline the resource consents was unfettered by the obligation to "take into account" section 104A of the RMA.¹⁹ However, in its later memorandum responding to Ms Robb's advice, Forest and Bird stated that "Forest and Bird acknowledges that, as a controlled activity under Rule 15A of the WAP, replacement water permits to enable the continued operation of the Tekapo Power Scheme do need to be granted and that conditions must not frustrate the grant of consent."²⁰
- The Panel has considered the submissions received from the Applicant and commenters in relation to this issue. It agrees that on the face of it, section 81(1) of the FTAA gives it the discretion to decline the Application. It also, however, accepts the Applicant's submission that the ability to decline consent seems strangely at odds with the purpose of the FTAA. The Panel was also assisted by, and agrees with, CRC's submissions regarding the effect of section 17(1)(b) and that the Panel's consideration

¹⁷ CRC Comments, Appendix 1 at para 21.

¹⁸ CRC comments, Appendix 1 at paras 23-26.

¹⁹ Forest and Bird memorandum of counsel dated 25 August 2025, at para 39.

²⁰ Forest and Bird memorandum of counsel dated 29 September 2025, at para 32.

of RMA matters is constrained by the matters of control within the relevant planning provisions.

In the result, whether Expert Panels have the discretion to decline controlled activity consents under section 81(1) of the FTAA or not has not influenced our decision. The Panel has formed the view that, after taking account of the conditions that the Panel has set, and those that the applicant has offered, the adverse impacts are not sufficiently significant to be out of proportion to the project's significant regional or national benefits. The Panel has therefore concluded that the Applicant should be granted the consents sought.

Approvals relating to the Resource Management Act 1991

70 The relationship of the FTAA with the RMA is outlined in Schedule 5 which provides the consent application process that applies rather than the standard RMA consent application process. Clause 17 states:

17 Criteria and other matters for assessment of consent application

- (1) For the purposes of section 81, when considering a consent application, including conditions in accordance with clauses 18 and 19, the panel must take into account, giving the greatest weight to paragraph (a),
 - (a) the purpose of this Act; and
 - (b) the provisions of Parts 2, 3, 6, and 8 to 10 of the Resource Management Act 1991 that direct decision making on an application for a resource consent (but excluding section 104D of that Act); and
 - (c) the relevant provisions of any other legislation that directs decision making under the Resource Management Act 1991.
- (2) For the purpose of applying any provisions in subclause (1),—
 - (a) a reference in the Resource Management Act 1991 to Part 2 of that Act must be read as a reference to sections 5, 6, and 7 of that Act; and
 - (b) ...
 - (c) to avoid doubt, for the purposes of subclause (1)(b), when taking into account section 104(1)(c) of the Resource Management Act 1991, any Mana Whakahono ā Rohe or joint management agreement that is relevant to the approval is a relevant matter.
- (3) Subclause (4) applies to any provision of the Resource Management Act 1991(including, for example, section 87A(6)) or any other Act referred to in subclause (1)(c) that would require a decision maker to decline an application for a resource consent.
- (4) For the purposes of subclause (1), the panel must take into account that the provision referred to in subclause (3) would normally require an application to be declined, but must not treat the provision as requiring the panel to decline the application the panel is considering.
- (6) For the purposes of subclause (1), the provisions referred to in that subclause must be read with all necessary modifications, including that a reference to a consent authority must be read as a reference to a panel.
- (7) Sections 123 and 123A of the Resource Management Act 1991 apply to a decision of the panel on the consent.
- 71 Clause 17(1) requires the Panel to take into account the provisions of Part 2, 3, 6 and 10 of the RMA "that direct decision making". We have considered which provisions of these parts of the RMA "direct decision-making", and have concluded in relation to the current Application that the provisions that we must take into account are sections 5, 6, 7, 87A, 104, 104A, 105 and 107. We address these sections below in the decision.

PART D: IWI AUTHORITIES

Section 18 Report for a listed project

- The Ministry for the Environment provided a report under s18 in accordance with section 49. Key points from the Section 18 Report are as follows:
 - 72.1 The Section 18 Report provides a list of Māori groups relevant to the project area. One Māori group identified as potentially having a relevant interest (Aukaha) was identified by Waitaki Rūnanga as not being mandated to participate in the process and was not therefore invited to comment on the Application.
 - 72.2 The Treaty settlement relevant to this Application is the Ngāi Tahu Claims Settlement Act 1998.
 - 72.3 The Ngāi Tahu Claims Settlement Act 1998 includes a statutory acknowledgement over Takapō. The Scheme uses water from Lake Takapō to generate hydroelectricity, and some physical structures associated with the Scheme were built in the bed of Lake Takapō. The statutory acknowledgement requires a consent authority to provide a summary of the application to the holder of the statutory acknowledgement (Te Rūnanga o Ngāi Tahu), and the consent authority must have regard to the statutory acknowledgement in making notification decisions under the RMA. The Panel acts as the consent authority in this instance. Te Rūnanga o Ngāi Tahu was invited to comment on the Application under section 53 of the FTAA.
 - 72.4 The applicant has engaged with Māori groups, including Te Rūnanga o Ngāi Tahu and the Waitaki Rūnanga regarding the Application.

Substantive application information

- The Applicant outlines the consultation and engagement by the Applicant with mana whenua including Waitaki Rūnanga, supported by Te Rūnanga o Ngāi Tahu. It is clear from the Application, Treaty Impact Assessment, the letters of support for the Application from Waitaki Rūnanga and Te Rūnanga o Ngāi Tahu and correspondence received through the process that the Applicant and Waitaki Rūnanga are in the process of building a strong relationship, referred to as a partnership, regarding matters of cultural importance in the Waitaki Catchment.
- We provide further detail in relation to these matters, and Waitaki Rūnanga involvement in the process, below in relation to "cultural effects".

Statutory requirements

<u>Treaty settlements and recognised customary rights</u>

Section 7 requires all persons performing functions and exercising powers under the FTCA to act in a manner that is consistent with the obligations arising under existing Treaty settlements and customary rights recognised under the Marine and Coastal Area (Takutai Moana) Act 2011 and the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019. In this case the Panel must act in a manner consistent with obligations arising under the Ngāi Tahu Claims Settlement Act 1998.

Effect of treaty settlements and other obligations

76 Section 82 provides:

82 Effect of Treaty settlements and other obligations on decision making

- (1) This section applies if a Treaty settlement, the Marine and Coastal Area (Takutai Moana) Act 2011, or the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 is relevant to an approval.
- (2) If the settlement or Act provides for the consideration of any document, the panel must give the document the same or equivalent effect through the panel's decision making as it would have under any relevant specified Act.
- (3) The panel must also consider whether granting the approval would comply with section 7.
- (4) In this section, **document**
 - (a) means any document, arrangement, or other matter; and
 - (b) includes any statutory planning document amended as a result of the settlement or Act referred to in subsection (1).

77 The AEE records that:²¹

- 77.1 The Ngāi Tahu Claims Settlement Act 1998 is relevant to the approval. Ngāi Tahu have statutory acknowledgements with respect to Lake Takapō (Schedule 57), Lake Pūkaki (Schedule 34) and Waitaki River (Schedule 72).
- 77.2 The statutory acknowledgments in the Ngāi Tahu Claims Settlement Act 1998 are relevant to consent authorities in respect of notification of a resource consent application, which is not applicable to the fast-track process. The scope of the statutory acknowledgments is illustrated in Figure 2 in the AEE and the implications of the acknowledgements are discussed in the Treaty Impact Assessment at Appendix A to the AEE.

²¹ AEE at page 37.



AEE, Figure 2

77.3 Letters of support on behalf of Te Rūnanga o Moeraki, Te Rūnanga o Waihao and Te Rūnanga o Arowhenua and Te Rūnanga o Ngāi Tahu²² are included in Appendix B to the AEE.

Conditions relating to Treaty settlements and recognised customary rights

78 Section 84 provides:

- 84 Conditions relating to Treaty settlements and recognised customary rights
- (1) For the purposes of section 7, the panel may set conditions to recognise or protect a relevant Treaty settlement and any obligations arising under the Marine and Coastal Area (Takutai Moana) Act 2011 or the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019
- (2) This section applies in addition to, and does not limit, any other powers to set conditions under this Act.
- 79 Neither the Waitaki Rūnanga nor Te Rūnanga o Ngāi Tahu have sought the imposition of any conditions to recognise or protect the Treaty settlement or any other statutory obligations. In its comments on the Application, Waitaki Rūnanga address consent conditions and in particular the key conditions relating to their involvement in the consents, that they support. The Panel concludes that further conditions are required for the purposes of section 7.

²² Confirming that Waitaki Rūnanga support for the Application is also to be regarded as the position of Te Rūnanga o Ngāi Tahu.

Procedural matters in the context of Treaty settlements and other arrangements

- 80 Schedule 3, clause 5 of the FTAA provides:
 - (1) This clause applies if any Treaty settlement Act, the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019, or any other iwi participation legislation, or any Mana Whakahono a Rohe or joint management agreement, includes procedural arrangements relating to the appointment of a decision-making body for hearings and other procedural matters, such as the following:
 - (a) a requirement for iwi or hapū to participate in the appointment of hearing commissioners to determine resource consent applications or notice of requirement lodged under the Resource Management Act 1991:
 - (b) a requirement that notice be given to any person or specified class of person of any steps in a resource management process:
 - (c) any consultation requirements with iwi or hapū:
 - (d) any other matter of procedure for determining a matter granted under a specified Act that corresponds to an approval under this Act.
- As noted above, the statutory acknowledgement in the Act requires a consent authority to provide a summary of the application to the holder of the statutory acknowledgement (Te Rūnanga o Ngāi Tahu), and the consent authority must have regard to the statutory acknowledgement in making notification decisions under the RMA. The Panel acts as the consent authority in this instance. Te Rūnanga o Ngāi Tahu was invited to comment on the Application under section 53 of the FTAA, as were the Waitaki Rūnanga who exercise mana whenua on behalf of Te Rūnanga o Ngāi Tahu.

PART E: PRINCIPAL ISSUES IN CONTENTION

- 82 The principal issues in contention are:
 - 82.1 Is the Application an "Infrastructure or Development Project"?
 - 82.2 Activity status controlled or non-complying.
 - 82.3 The "existing environment".
 - 82.4 Scope of Panel's jurisdiction to consider effects and impose conditions.
 - 82.5 Appropriateness of proposed environmental compensation.
 - 82.6 Environmental effects, including:
 - (a) Aquatic environmental effects.
 - (b) Native fish.
 - (c) Avifauna.
 - (d) Terrestrial Invertebrates.
 - (e) Herpetofauna.
 - (f) Terrestrial vegetation.
 - (g) Climate change effects.

- (h) Positive effects
- 82.7 Consistency with relevant national and regional planning instruments.
- 82.8 Conditions of consent.
- The Panel has addressed the principal issues in contention in the appropriate sections of this decision, which may not be in the order listed above. In summary the Panel has:
 - 83.1 Concluded that the Application is an "Infrastructure Project" for the purposes of the FTAA, in Part C of this decision;
 - 83.2 Concluded that the Application was properly made as a controlled activity pursuant to the WCWARP and CLWRP in Part B of this decision;
 - 83.3 Found that the "existing environment" for consideration of the effects of the Application includes:
 - (a) The Scheme's existing structures;
 - (b) Associated water takes, uses, diversions, damming and discharges as managed subject to the present conditions; and
 - (c) Existing environmental processes and conditions reflecting the above.
 - 83.4 Agreed with advice received that our consideration of the Application, including what conditions we may impose, is limited to the matters of control set out in the WCWARP and CLWRP, which among other things includes the ability to require an environmental flow in the Takapō River upstream of the Forks Stream if such a requirement is necessary to mitigate residual adverse effects and complies with the relevant legal tests;
 - 83.5 Found that the Applicant's proposed approach to environmental compensation is appropriate as a mechanism to secure positive environmental effects to offset residual adverse environmental effects of the Scheme under s104(1)(ab) of the RMA;
 - 83.6 Found that the various potential adverse effects of the Scheme are acceptable, and in relation to residual ecological effects will be appropriately addressed through the proffered environmental compensation;
 - 83.7 Found that the Application is consistent with the relevant national and regional planning instruments; and
 - 83.8 Set conditions of consent in accordance with the legal principles applicable to resource consent conditions, and that will be no more onerous the necessary to address the reason for which they are set.

PART F: EVALUATION OF EFFECTS

- Schedule 5 clause 5(4) requires a consent application to provide an assessment of an activity's effects on the environment covering the information in clauses 6 and 7.

 These matters include:
 - (a) an assessment of the actual or potential effects on the environment:
 - (b) if the activity includes the use of hazardous installations, an assessment of any risks to the environment that are likely to arise from such use:
 - (c) if the activity includes the discharge of any contaminant, a description of—
 - (i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
 - (ii) any possible alternative methods of discharge, including discharge into any other receiving environment:
 - (d) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect of the activity:
 - (e) identification of persons who may be affected by the activity and any response to the views of any persons consulted, including the views of iwi or hapū that have been consulted in relation to the proposal:
 - (f) if iwi or hapū elect not to respond when consulted on the proposal, any reasons that they have specified for that decision:
 - (g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how the effects will be monitored and by whom, if the activity is approved:
 - (h) an assessment of any effects of the activity on the exercise of a protected customary right.

...

- (a) any effect on the people in the neighbourhood and, if relevant, the wider community, including any social, economic, or cultural effects:
- (b) any physical effect on the locality, including landscape and visual effects:
- (c) any effect on ecosystems, including effects on plants or animals and physical disturbance of habitats in the vicinity:
- (d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations:
- (e) any discharge of contaminants into the environment and options for the treatment and disposal of contaminants:
- (f) the unreasonable emission of noise:
- (g) any risk to the neighbourhood, the wider community, or the environment through natural hazards or hazardous installations.
- The AEE provided an assessment of these matters at parts 5 and 6. Participants who commented also raised a range of actual and potential effects.
- We note the Application and correspondence in relation to it evidences that the Applicant, Council and Waitaki Rūnanga have engaged collaboratively in the lead-up to lodgement of the Application and during the process. This has meant that as between those parties there remain a relatively small number of outstanding effects where agreements has not been reached.

- In the case of Forest and Bird, there is a higher level of disagreement with other participants regarding the relevance and extent of effects that need to be determined by the Panel.
- While there are a range of actual and potential effects that are considered in the Application and in comments received, where there is no evident disagreement between any participants in the process in relation to any effect, the Panel does not include further discussion of those effects in this decision. Rather, this decision addresses those effects where there is a dispute or difference of opinion between the Applicant and any other participant. The exception to this is in relation to cultural effects, which the Panel considers should be directly addressed in the decision despite there being no dispute in terms of these effects on the part of participants in this process.
- The Panel has addressed effects thematically throughout our discussion below, with reference to those effects where there is a dispute or difference in opinion between the Applicant and any other participant in the process. The Panel has also had regard to the relevant planning provisions in evaluating the effects of the Project, as noted in Part J: Planning Framework.

The existing environment

- A key issue in relation to this Application was what comprises the existing environment for the purposes of assessing the effects of the Application. The issue arises because the Application seeks a water permit and discharge permit, as consent for these aspects of the existing hydro-electric power generation activities are expiring, but in circumstances where all other relevant aspects of the activity are either permitted activities under the relevant plans or authorised by other resource consents not before the Panel.
- The Applicant included with the Application a memorandum prepared by legal advisors for the Applicant and Meridian Energy.²³ The memorandum reviews relevant caselaw in relation to the existing environment and summarises the Applicant's conclusions in relation to what comprises the existing environment in relation to the Combined Waitaki Power Scheme. The conclusions in the memorandum are then summarised in the AEE and inform the various technical reports supporting the AEE.
- The Applicant's position in this regard is helpfully summarised in their legal submissions for the Project Overview Conference, as follows:

There is agreement between Genesis and CRC on the existing environment. In summary the scheme, within its current operational boundaries, is part of the existing environment due to:

- (a) the existing dam structures are permitted activities under the CLWRP;
- (b) the relevant rule, Rule 15A of the WAP applies to any activity part of the Waitaki Power scheme for "which a consent is held and is the subject of an application for a new consent for the same activity ...";
- (c) it is fanciful and unrealistic to consider the environment as it existed prior to the construction of the scheme, ie an 'Eden' environment; and

Memorandum of Stephen Christensen (for Meridian Energy Ltd) and David Allen (For Genesis Energy Ltd) "The Existing Environment" dated 13 November 2019, at AEE Appendix F.

(d) the CLWRP stating that for existing hydro-electricity generation assets the infrastructure, and associated water takes, use, damming, diverting and discharge of water is considered to be part of the existing environment.

The existing environment includes:

- (a) the existing structures;
- (b) associated water takes, uses, diversions, damming and discharges as managed subject to the present conditions; and
- (c) existing environmental processes and conditions reflecting the above.

However, this position does not exclude, in light of the existing environment above:

- (a) consideration of ongoing adverse effects of the way water is presently moved through the system;
- (b) to the extent, if any, that effects can be considered adverse, the panel considering, within the matters over which the respective rules reserve control, what measures by way of mitigation, offset or compensation may be appropriate to address those effects; and
- (c) if justified under the FTAA (this is addressed below), conditions being imposed; while

any change from the present operations to manage an adverse effect must also be assessed in light of the national and regional benefits of the renewable electricity from the scheme and the Indigenous Biodiversity Enhancement Programme (IBEP).

- 93 Forest and Bird engaged at an early stage with the Application, including a number of pieces of correspondence with the Panel Convener and once appointed also with the Panel. The primary issue raised in the various pieces of correspondence was the issue of the existing environment.
- The Panel invited Forest and Bird to comment on the Application pursuant to section 53 of the FTAA. Without seeking to restrict the scope of Forest and Bird's comments, the Panel requested that Forest and Bird address the following matters in its comments:

Whether there is disagreement in terms of the way in which the legal principles relating to the "existing environment" are expressed by the Applicant and/or whether and to what extent there is disagreement in terms of the way in which the Applicant has applied those legal principles;

What if any other conceptualisation of the existing environment Forest and Bird considers is more appropriate; and

The implications of that different conceptualisation in terms of the positive and adverse effects of the application and the conditions that the panel can and should impose in the context of this application under the FTAA.

- In its comments on the Application, Forest and Bird responded to the above matters, which we summarise as follows:
 - 95.1 Legal principles There is a degree of agreement about the relevant legal principles, and agreement that the assessment of the existing environment requires an evaluation on the facts of each case. The key area of disagreement relates to whether, if it is fanciful to consider the environment without the infrastructure required for the activity that is being consented, are all the effects associated with the existing operation also part of the existing environment.
 - 95.2 Conceptualisation In relation to this matter, Forest and Bird stated their position that the existing environment includes the infrastructure associated with the Scheme, such as the intake structure, control gates, canals and power stations. However, Forest and Bird's position is that the existing environment excludes the associated takes, uses, diversions and discharges.

- 95.3 Implications Forest and Bird responds that under its "conceptualisation" of the existing environment the ongoing dewatering and lack of flow variability causes significant adverse effects on the Takapō River whereas under Genesis' conceptualisation there is no adverse effect because the lack of flow is part of the existing environment. It goes on to say that under its conceptualisation, conditions requiring environmental flows in the Takapō River are necessary to mitigate effects and address relevant objectives and policies.
- The Panel considers that the statement of Forest and Bird's position reflects an incomplete conceptualisation of the existing environment. Given Forest and Bird's acceptance that the existing infrastructure *is* included in the existing environment, we conclude that it is not suggesting that the "Eden" scenario referred to in *Alexandra District Flood Action Society Inc v Otago Regional Council* (C102/2005) should be used to determine the existing environment in the present case. The Panel therefore considered whether Forest and Bird's reference to the environment including the structures but not including the takes, uses, diversions and discharges is effectively seeking consideration of the "Armageddon" scenario referred to in *Alexandra*, which seems to be the natural consequence of their submission.²⁴ The Armageddon situation in the present case would involve ceasing taking water from the Lake Takapō intake structure, but other than that is difficult to envisage given the permitted activity status of the existing infrastructure.
- 97 The Panel sought legal advice from Vanessa Hamm in relation to the issue of the existing environment. In particular, the Panel asked Ms Hamm to review the parties' comments in relation to the existing environment and provide advice in relation to:
 - 97.1 The definition and scope of the existing environment as presented in the application;
 - 97.2 A review of legal submissions and supplementary material, including the positions of the Applicant and Forest and Bird; and
 - 97.3 A summary of relevant case law and its implications for the panel's assessment.
- 98 Ms Hamm's advice concludes that both the Applicant and Forest and Bird generally consider the relevant caselaw on the topic of the existing environment. While Ms Hamm agrees with Forest and Bird that the *Ngāti Rangi* case²⁵ is a higher authority than *Alexandra* and should therefore be followed where relevant, she advises that the Panel should consider whether *Ngāti Rangi* is the more relevant authority on its facts. In her opinion, the Scheme is more factually analogous to the *Alexandra* scenario than the *Ngāti Rangi* scenario.
- 99 Ngāti Rangi involved consideration of the much smaller scale Raetihi Power Scheme where it was feasible to analyse the existing environment as excluding the scheme by assessing the river immediately upstream of the take. The Scheme in contrast is much larger is scale and comprises more permanent infrastructure that has itself shaped the environment, making it impossible to simply assess the upstream environment as a facsimile of the existing environment. The Panel accordingly agrees that the Scheme

²⁴ At para [51].

²⁵ Ngāti Rangi Trust v Manawatu-Whanganui Regional Council [2016] NZHC 2948.

more factually analogous to the Clutha Power Scheme considered by the Environment Court in *Alexandra*, than the Raetihi Power Scheme considered in *Ngāti Rangi*.

100 Ms Hamm describes the difficulty of postulating an alternative environment as follows:²⁶

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[ed] 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 consent? How could a decision maker quantity and assess these effects, and is it likely a consent would be granted?
- The Panel agrees with Ms Hamm's analysis, and concludes that it is unrealistic in the particular circumstances of the Scheme to postulate an alternative environment as the starting point for the existing environment. Accordingly, we consider that in the case of the Scheme and this Application, that the existing environment includes the consented takes, uses, diversions, damming and discharges.
- As noted above, Forest and Bird's position in relation to the existing environment is effectively the opposite of what the Panel has concluded. Forest and Bird has not however postulated an alternative environment except to say that it does not include the takes, uses, diversions and discharges, which may reflect the difficulty in doing so as summarised above. Accordingly, the Panel must take care in its consideration of Forest and Bird's comments on the Application, including the evidence they have produced as to the effects of the Scheme which assumes a broader but undefined conceptualisation of the environment than we have assessed to be appropriate. In particular, we note (for example) as follows:
 - 102.1 Forest and Bird largely agrees with the descriptions of instream ecological and habitat values of the Takapō catchment set out in the Applicant's technical reports, with disagreements "largely aris[ing] from differences in approach to the 'existing environment' with respect to diversion and alteration of flow effects, and consideration of potential flow remediation options. ²⁷
 - 102.2 Regarding flows in the Takapō River, Forest and Bird disagree with the Applicant regarding the Scheme's effects of the basis of "calculations that the continued diversion of water from the Takapō River results in a 94% alteration of flow to

Vanessa Hamm Memorandum dated 2 September 2025 "Existing environment – definition and scope for the purposes of the Tekapo Power Scheme Application at paragraph 16.

²⁷ Statement of Evidence of Kate McArthur, on behalf of Forest and Bird, at para 32.

the confluence with Fork Stream and a 74% alteration in flow below Mary Burn."²⁸

102.3 In terms of avifauna, Forest and Bird focuses on "potential effects of reductions in flow on birds": 29

These can be summarised as:

- a. Less feeding habitat, lower diversity of feeding habitat types (e.g. backwaters and riffles, leading to greater heterogeneity of habitats), and overall reduced food availability and quality.
- b. Increased weed encroachment leading to reduced availability and quality of nesting habitat, and increased cover for mammalian predators.
- c. Increased access to islands within rivers by mammalian predators.

The consequences of these potential effects are lower productivity (less chicks are fledged) and lower survival of eggs, chicks, and adults.

- 102.4 In relation to terrestrial vegetation, Forest and Bird's starting point for adverse effects assessment is the dewatering of Takapō River. It acknowledges that the geomorphology of the river is now stable, and the river form is fixed, due to flow diversion and limited spill releases, which it identifies as an adverse effect of the Scheme relative to its previous state as a meandering river across a wider bed, alternately eroding and creating river terraces.³⁰
- 103 While some of the effects identified by Forest and Bird can be considered ongoing or residual effects of the Scheme, the starting point for its comments and technical assessment is to treat as effects matters which we have concluded should be treated as comprising part of the existing environment. This has influenced the conclusions it has reached, and its assessment of what is appropriate in terms of mitigating effects. Notwithstanding this, we go on to consider Forest and Bird's recommendations, including its recommendations regarding provision of environmental flows in the upper Takapō River.

Scope of Panel's consideration of effects

- As discussed elsewhere in this decision, the Application is a controlled activity pursuant to Rule 15A of the WCWARP and Rule 5.125A of the CLWRP. The primary rule in relation to consideration of the effects of the Application is Rule 15A, which relates to the water permit sought by the Applicant. Rule 15A provides as follows:
- 105 Rule 15A of the WAP sets out that:

Any activity that is part of the Waitaki Power Scheme, for which a consent is held and is the subject of an application for a new consent for the same activity and is:

- (a) the use of water for the generation of electricity; or
- (b) the taking, damming or diverting of water for storage; or

²⁸ Statement of Evidence of Kate McArthur, on behalf of Forest and Bird, at para 99.

²⁹ Statement of evidence of Rachel McClellan, on behalf of Forest and Bird, at para 40.

Statement of Evidence of Michael Harding, on behalf of Forest and Bird, at paras 46-47.

- (c) the taking or diverting of water into canals; or
- (d) the taking, damming, or diverting of water to protect the structural integrity of dams, power houses, canals and appurtenant structures;

is a controlled activity, provided the activity complies with Rules 2, 3, 6 and 7.

The matters over which control is reserved are:

- (a) In respect of flows into the ... Tekapo River (above the confluence with the Forks Stream), adverse effects, including effects on Ngāi Tahu culture, traditions, customary uses and relationships with land and water, unless the environmental flow and level regimes for these rivers have been reviewed after the public notification date of this rule and the outcome of the review has become operative in accordance with clause 20 of Schedule 1 to the Resource Management Act;
- (b) Any mitigation measures to address adverse effects (including effects on Ngāi Tahu culture, traditions, customary uses and relationships with land and water), except for changes or alterations to environmental flow and level regimes, minimum lake levels, annual allocation to activities, or the provision of flows into the Lower Waitaki River, set by this Plan;
- (c) Collection, recording, monitoring and provision of information concerning the exercise of this consent; and
- (d) Lapse, period, duration of consent and review requirements.
- As noted elsewhere in this decision, the activities to be authorised by the water permit are captured in Rule 15A and comply with Rules 2, 3, 6 and 7 such that they are a controlled activity under Rule 15A. Accordingly, the scope of the Panel's consideration of the Application and its ability to impose conditions is restricted to those matters of control set out in (a) to (d) above.
- 107 For completeness we note that the discharge consent sought under the CLWRP is also a controlled activity, with matters of control as follows:
 - (a) Measures that will ensure any relevant water quality outcomes (freshwater objectives, limits or targets) set out in Section 15B of this Plan, or in the absence of any water quality outcomes in Sections 15B the outcomes in Tables 1a and 1b of this Plan, are met; and
 - (b) Any mitigation measures to address adverse effects of the discharge on the environment, including effects on Ngāi Tahu culture, traditions, customary uses and relationships with land and water; and
 - (c) Collection, recording, monitoring and provision of information concerning the exercise of this consent.
- 108 As noted in the Application, the Applicant's legal submissions and in Ms Hamm's legal advice in relation to the existing environment, our assessment of the existing environment should not be conflated with the scope of matters over which control is reserved under the WCWARP [and CLWRP].³¹ The Panel remains able to consider the ongoing effects of the Scheme on the environment, consider whether mitigation is required and impose conditions if appropriate.
- 109 The Panel sought advice regarding the scope of its discretion to consider effects and impose conditions pursuant to the matters of control set out above, and in particular whether the Panel has the authority to impose minimum flow conditions for the Upper

Vanessa Hamm Memorandum dated 2 September 2025 "Existing environment – definition and scope for the purposes of the Tekapo Power Scheme Application at para 20(c).

Takapō River under Rule 15A of the WCWARP. This advice was provided by Ms Hamm, who advised:³²

- 109.1 The WCWARP does not set a minimum flow for the Takapō River upstream of the Forks Stream confluence, and therefore provision of a minimum flow in this stretch is within scope of mitigation contemplated by Rule 15A, matter of control (b). However a minimum flow has been set for the Takapō River between Lake Benmore and the Forks Stream confluence, so it is not open to the Panel to change or alter this.
- 109.2 Flow matters under Rule 15A are considered in terms of their adverse effects (matter of control (a)), and mitigation (matter of control (b)) "except for changes or alterations to environmental flow and level regimes, minimum lake levels, annual allocation to activities, or the provision of flows into the Lower Waitaki River, set by this plan." Accordingly, the Panel will only be able to set mitigation in the form of environmental flows where there are not already flows set by the WCWARP.
- Accordingly, it is open to the Panel to consider imposing an environmental flow in the Takapō River upstream of the Forks Stream confluence, if that is required to mitigate an ongoing adverse effect of the Scheme on the environment (as assessed above), and subjects to constraints on imposing conditions under the FTAA (discussed below).

Environmental compensation

- 111 The Applicant accepts that the Scheme has certain ongoing effects on the environment. In some cases the Applicant accepts that direct mitigation of those ongoing effects may be appropriate (such as in relation to managing high flows, sports fish salvage and lakeshore erosion management). In relation to the ongoing ecological effects (where any have been identified) the Application generally does not propose direct mitigation, nor does it propose offsetting or aquatic compensation as those terms are understood under the relevant planning instruments. It instead proposes environmental compensation in the form of the "Indigenous Biodiversity Enhancement Programme" (IBEP) to address any of the residual effects associated with the ongoing operation of the Scheme. The IBEP has been developed as a continuation and expansion of an existing environmental compensation programme, "Project River Recovery".
- 112 Prior to the Project Overview Conference, the Applicant provided the Panel with a memorandum addressing:³³
 - 112.1 The history and successes of the ongoing Project River Recovery programme.
 - 112.2 The background to, processes that took place, and the outcomes from the IBEP negotiation process.

Vanessa Hamm, Memorandum dated 2 September 2025 "Controlled activity rules – controlled activity status and ability to impose minimum flows"

Memorandum of Dr Ken Hughey, dated 18 July 2025.

- 112.3 How the IBEP addresses residual and unmitigated effects of the Scheme.
- 112.4 Development of Kahu Ora (first 10-year strategic plan produced as part of the IBEP), including what it covers and the expertise of the people who developed it, and how it will continue and enhance the success of Project River Recovery and deliver positive conservation outcomes for the Takapō and for the Waitaki catchment as a whole.
- The memorandum describes how Project River Recovery came about and its evolution over nearly 35 years, during which time it took an increasingly more holistic, "whole ecosystem" approach. It refers to a number of reviews of the programme which have confirmed the programme's success at delivering beneficial ecological outcomes. It goes on to consider the ongoing effects of the Scheme on the environment, relying on the technical reports prepared in support of the Application in relation to avifauna, native fish, herpetofauna, invertebrates and vegetation to assess the level of effects that the Scheme is having on native biodiversity values. It concludes that the IBEP objective and conditions will appropriately address the residual and unmitigated effects of the Scheme, that Kahu Ora is appropriately prepared by qualified and experienced experts, and that overall the programme will achieve "far greater ecological outcomes than would otherwise be possible with other more reductionist approaches".

Comments received

- 114 The Panel received comments in relation to the IBEP from the Department of Conservation, CRC, Waitaki Rūnanga and Forest and Bird.
- The Department of Conservation, refers to its agreement with the Applicant and Meridian Energy Limited in relation to the programme, and confirms that the Department has high confidence that the biodiversity objective and outcomes in the proposed conditions of consent can be achieve, based on the following factors:
 - 115.1 The history and ongoing performance of Project River Recovery work of the Department's team based in Twizel.
 - 115.2 The multiple independent reviews by Manaaki Whenua Landcare Research regarding that Project River Recovery biodiversity outcomes.
 - 115.3 The volume and quality of peer revised science generated by Project River Recovery on the manipulation of braided river ecosystems to produce positive biodiversity outcomes.
 - 115.4 The international standing of the science advisers providing advice on the agreement.
 - 115.5 The Department's proven history in delivering such a programme.
 - 115.6 That the IBEP is fully costed and funded.
- Waitaki Rūnanga expresses strong support for the IBEP and Kahu Ora, the expanded spatial extent of the programme and the enhanced role the Waitaki Rūnanga will have ensuring the cultural importance to Ngāi Tahu whanui is preserved. The Waitaki Rūnanga refer to their role in the governance group that had oversight of preparation of Kahu Ora and confirm that they intend to work alongside the Applicant and Meridian

Energy to support the Department of Conservation's implementation of the programme. The Waitaki Rūnanga also confirm support of:

- 116.1 The objectives of the programme;
- 116.2 The geographic scope of the programme as defined by the conditions;
- 116.3 The proposed processes to have 10 year strategic and annual plans; and
- 116.4 The proposed governance of the programme.
- 117 The Waitaki Rūnanga express strong opposition to the suggestion that CRC should certify Kahu Ora, seeing their own involvement in the ongoing implementation of the plan on the basis that it was developed outside of the consent process.
- 118 CRC acknowledges the holistic, catchment-wide approach of the IBEP, but raises a number of matters for the Panel to consider when weighing up the benefits of the programme. These include "lack of clarity on quantum of funding and how the money value in conditions was determined, importance of ensuring measurable ecological outcomes, certainty on reporting provisions and opportunities for feedback on the IBEP documents by CRC". The CRC acknowledges that the conditions of consent relevant to the IBEP are proffered on an Augier basis but nonetheless suggests that the conditions could be strengthened with clearer objectives, baseline monitoring and independent review. We address CRC's comments in relation to the conditions of consent elsewhere in this decision.
- Forest and Bird raise a number of issues in relation to the IBEP, which we summarise as follows:
 - 119.1 Failure to meet the requirements of the National Policy Statement on Freshwater Management 2020 (**NPSFM**).
 - 119.2 Lack of a clear link between residual ecological effects and the proposed compensation.
 - 119.3 Incorrect application of the effects management hierarchy from the NPSFM.
 - 119.4 That the compensation figure represents a negotiated outcome rather than a direct accounting for adverse effects of the Scheme.

Applicant response to comments

- 120 The Applicant responded to the comments from CRC and Forest and Bird.
- In relation to CRC, the Applicant's response was largely to rely on its technical advisors conclusions, particularly that of Dr Ken Hughey, and the support of Waitaki Rūnanga and the Department of Conservation, regarding the efficacy and appropriateness of the IBEP to compensate for the residual effects of the Scheme. Regarding suggested changes to the conditions of consent, it produced advice from its consultant planner Mr Matthews.
- 122 In relation to Forest and Bird, the Applicant's response is summarised as follows:

- 122.1 Regarding Forest and Bird's references to how the programme was established, the Applicant notes that the question is not how it was established but whether it will deliver enhanced ecological outcomes. The Applicant says the answer to that question is "yes".
- 122.2 Forest and Bird fails to recognise the way in which the IBEP was developed between the Department of Conservation, Applicant and Meridian Energy. The focus was on understanding what the affected and desired biodiversity outcomes needed to be in terms of conservation management to improve the condition, resilience, indigenous biodiversity, ecology processes and other values of the braided rivers, lake margins and deltas, wetlands and springs within the Waitaki Catchment. Once the outcomes were defined and agreed, the components were costed in terms of delivery and an agreement reached to fund a programme of work to meet the objective. The negotiations were **not** driven by funding amount as suggested by Forest and Bird.
- 122.3 Concerns regarding lack of transparency or linkage between effects and compensation fails to understand that the approach is strategic, integrated and holistic, going beyond a simple cause and effect approach which likely cannot be mitigated by flows and their management alone.
- 122.4 Overall the Applicant considers that Forest and Bird and its experts are approaching the issue from an individualistic value-based perspective, and as a result pursue narrow cause and effect relationships without seeing the opportunities that broader ecosystem, community and species diversity thinking can provide and which is articulated in the IBEP. The strength of the programme, demonstrated through Project River Recovery, is that it seeks to protect and enhance a range of values where possible thus enabling more significant outcomes more cost-effectively.

Review of Indigenous Biodiversity Enhancement Programme

- To better understand the appropriateness and efficacy of the IBEP, the Panel engaged Ms Christina Robb, an environmental consultant, to review the programme and provide advice as to:
 - 123.1 The success of Project River Recovery in delivering ecological gains to compensate for the effects of the Combined Waitaki Power Scheme;
 - 123.2 The degree of comfort that the Panel can have that the IBEP (including its first 10-year strategic plan "Kahu Ora") approach now proposed, together with the increased level of funding, will deliver ecological/biodiversity improvements for the catchment; and
 - 123.3 Whether the proposed IBEP conditions are appropriate in terms of securing the IBEP, and providing for ongoing assessment and reporting of the outcomes of the IBEP sufficient that stakeholders can assess its efficacy as compensation for the effects of the Tekapo Power Scheme over the life of the consent (assuming 35 years duration).
- The Panel did not seek advice regarding whether the outcomes of the programme would be sufficient to compensate for the effects of the Scheme. The focus of Ms Robb's advice was to be on whether the IBEP approach was appropriate to continue to

achieve beneficial ecological outcomes and whether the proffered conditions would ensure the programme proceeded as intended. The Panel considered it had sufficient evidence and information before it to make its own assessment as to whether the IBEP will provide sufficient quantum of compensation for the residual ecological effects of the Scheme.

- 125 The conclusion of the review was:
 - 125.1 Without further changes to conditions of consent, the Panel can have reasonable confidence in the programme being implemented and delivering beneficial ecological and biodiversity outcomes for the catchment.
 - 125.2 However, greater certainty could be provided as to those outcomes if certain amendments to the conditions of consent were made. We address conditions of consent later in this decision.
- 126 The Applicant and participants were invited to respond to Ms Robb's report, and the following comments were provided (comments in relation to conditions of consent are addressed later in this decision):³⁴
 - 126.1 The Applicant acknowledges that Ms Robb's findings support its position regarding the programme and Kahu Ora.
 - 126.2 CRC notes that Ms Robb's report does not constitute an assessment of gains compared with losses associated with the Scheme, and does not discuss the significance or quantum of ecological or biodiversity outcomes. The Panel confirms that was its expectation when requesting Ms Robb's report.
 - 126.3 Waitaki Rūnanga largely agree with Ms Robb's finding, including that:
 - (a) The broad objective and holistic catchment approach of the IBEP will allow the programme to adjust as necessary; and
 - (b) Kahu Ora provides tangible and measurable outcomes and clarity on what will be measured.
 - 126.4 However, Waitaki Rūnanga remain of the view that no further changes to the conditions of consent are required.
 - 126.5 Forest and Bird produced a memorandum and two supplementary statements of evidence as their response to Ms Robb's report:
 - (a) The memorandum accepts the conclusion that the IBEP will deliver ecological and biodiversity benefits, but makes legal submissions to the effect that:

The invitation to respond is not provided for in the FTAA, but was instead requested by the Panel as part of its own processes. To the extent necessary, the Panel has determined that it will receive and consider the responses requested, and the further memorandum of counsel from the Applicant to new matters raised by Forest and Bird, under section 81(6)(b) of the FTAA.

- (i) The review does not address the question as to whether the IBEP will sufficiently compensate for the effects of the Scheme.
- (ii) That the IBEP conditions do not need to be proffered by the Applicant pursuant to the Augier principle, and that the Panel is able to impose such requirements without the Applicant's agreement.
- (iii) That the IBEP conditions are in fact financial contribution conditions for the purposes of s108(10) of the RMA, which can be imposed in accordance with, and at a level determined by, the WCWARP.
- (iv) Reiterating its position that the purpose of the FTAA is not engaged because the Application does not "deliver" the Scheme.
- (b) In relation to terrestrial ecology, Forest and Bird produce a supplementary statement that the gains of the IBEP will not adequately compensate for existing and ongoing effects of the Scheme on floodplain vegetation, and that wider scale weed control and/or protection of similar vegetation elsewhere in Waitaki Basin is required.
- (c) In relation to freshwater birds, Forest and Bird produce a supplementary statement that accepts that Project River Recovery has delivered documented ecological gains, but the IBEP does not deliver specific outcomes in relation to freshwater bird values.
- 127 The Applicant provided a memorandum of counsel on 1 October 2025 responding to various matters raised by Forest and Bird. It responded as follows (in summary):
 - 127.1 The IBEP is not a matter that falls within the matters of control that apply to the Applications. Accordingly, the IBEP conditions can only be included with the Applicant's agreement, on an *Augier* basis.
 - 127.2 The provisions of the WCWARP referred to by Forest and Bird do not relate to financial contributions in any event, but generally to effects assessment.
 - 127.3 That IBEP is not offered on the basis it complies with the principles for biodiversity or aquatic compensation under the NPS-FM, although Dr Hughey and the Minister for RMA reform have commented that the IBEP meets the principles, and is consistent with, the NPS-FM respectively.
 - 127.4 The supplementary briefs of evidence on behalf of Forest and Bird go beyond a response to Ms Robb's review of the IBEP.
 - 127.5 In relation to Forest and Bird taking issue with the quantum of compensation, the Applicant refers to the fact that the IBEP involves over three times the amount contributed to Project River Recovery. It notes that a holistic approach has to be applied to biodiversity, and that benefits across the catchment of the IBEP approach should be encouraged. Having said that the Applicant refers back to Dr Hughey's technical advice at Appendix 5 to the Applicant's legal submissions for the Project Overview Conference which confirmed:

- (a) Kahu Ora allocates 67% of IBEP funding to "Zones 1 and 2", which are located upstream of and include the Scheme.
- (b) More than 34% of that funding goes to activities in the Takapō catchment.
- (c) Of the Zone 2 funding, more than 80% of the funding goes to the Takapō River catchment.

Panel Findings

- The Panel's findings in relation to the existing environment, and the extent of effects on ecological values of the ongoing operation of the Scheme in that context are set out in relation to the particular effects in issue above. The Panel has in general concluded that the ongoing or residual effects of the Scheme that have been identified do not require additional direct mitigation beyond that provided for already in the conditions of consent. The Panel has also concluded below that requiring an environmental flow regime in the Takapō River, which is the primary outcome sought by Forest and Bird, is inappropriate in the context of this Application given the consequences for renewable electricity generation and the potential adverse operational and environmental consequences.
- Regarding the IBEP and Kahu Ora, the Panel accepts the conclusions of the Applicant's technical advisors that the programme's holistic, whole of ecosystem approach will deliver significant ecological outcomes across the Waitaki Catchment. Kahu Ora's relative focus on the Takapō Catchment, and within Zone 2 on the Takapō River catchment, is also considered appropriate. If implemented as intended, the Panel is satisfied that the IBEP will deliver a net environmental benefit sufficient to compensate for any unmitigated ongoing or residual effects of the Scheme, and that the quantum of contribution to the IBEP by the Applicant is appropriate to achieve a net benefit in terms of overall ecological outcomes. The Panel also has confidence based on the comments received from the Department of Conservation and Waitaki Rūnanga that the IBEP will be implemented as currently intended.
- In terms of application of the "effects management hierarchy", the Panel notes that the Applicant has not proffered the IBEP on the basis that it constitutes aquatic offsetting or compensation for the purposes of the NPSFM. It has however produced technical advice to the effect that the IBEP meets many of the requirements of Appendix 7 of the NPSFM and overall is consistent with the NPSFM when considering the policy framework as a whole. After considering the information provided by all participants in the process, the Panel has accepted the Applicant's position in this regard.
- 131 The Panel notes that while there may be some opportunity for IBEP initiatives to double up as both environmental compensation and mitigation of ongoing or residual effects of the scheme (such as in relation to avifauna as identified by CRC), that it has considered the IBEP as an environmental compensation mechanism for the purposes of section 104(1)(ab), rather than mitigation. The compensation package will deliver positive effects that the Panel weighs in favour of the Application, rather than mitigating an environmental effect at the "point of impact".³⁵

Royal Forest and Bird Protection Society v Buller District Council [2013] NZHC 1346 at [74]-[78].

As the IBEP conditions provide for compensation rather than mitigation, they do not fall within the matters of control that constrain our ability to impose conditions.

Accordingly, we agree with the Applicant that these conditions can only be imposed with the Applicant's agreement.

Cultural effects³⁶

<u>Treaty impact assessment</u>

Ko tā te Waitaki mahi he Manaaki I te motu

The generosity of the Waitaki provides for the nation.

- The iwi with kaitiakitaka for the land and waters of most of Te Wai Pounamu and of this application is Kāi Tahu, a tribe formed from three lines of descent: Waitaha, Kāti Mamoe and Kāi Tahu.
- When the tribe settled with the Crown, the Ngāi Tahu Claims Settlement Act 1998 recognised the significance of this area through Schedule 14 which is the Statutory Acknowledgement of the relationship of the tribe with the Waitaki River. Separate statutory acknowledgements were made for Lake Ōhau, Lake Pūkaki, Mahi Tīkumu (Lake Aviemore), Takapō and Te Ao Mārama (Lake Benmore).
- Te Rūnanga o Ngāi Tahu is the representative of Kāi Tahu whanui. As expected by tikaka, tino rangatirataka is held by the hapū and rūnaka. Therefore it is the Waitaki Rūnanga (Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki) as mana whenua that hold the tino rangatirataka to lead the response to the Application. As mana whenua they refer to the "Manawhenua baseline" which refers to the Manawhenua view of the baseline condition of a catchment at the time of signing Te Tiriti in 1840. Mana whenua do not see the catchment in 1990 as the baseline for assessing effects.
- 136 Kāi Tahu have one river that unites all tribal members: *Ko Waitaki te awa.* The tribal mihi is to Aoraki and the Waitaki River. It has been so and will continue to be so for all future generations. It is one river: *Ki Uta, Ki Tai* (mountains to the sea: management of water). The upper and lower river are not separate and are considered as one.
- Historically there were more than 160 settlements throughout the catchment and waterways were accessed and used by mana whenua with whānau lifestyles centred on mahika kai (mainly tuna and weka). The Takapō River was one of the feeders of the Waitaki River. The wider Takapō area was an extensive food gathering area.
- 138 When responding to the Applicant, Kāi Tahu take an inter-generational perspective and maintain the right to continue to practise mahika kai (cultural practices) by the kai continuing to be available by protecting the integrity of the Waitaki (catchment) to be a mahika kai (site for cultural practices), ie. Kāi Tahu focus on how to enable future generations to thrive in the catchment and continue the transmission of cultural

This section uses local dialect where the 'ng' is replaced by the 'k'. The responses from the Waitaki Rūnanga were received using the local dialect hence the decision to retain the use of the dialect. Note also the "Glossary" te reo Māori terms we have included as Appendix C to this decision.

- knowledge and practices across generations through protecting the continuance of Kāi Tahu cultural food gathering practices and an ongoing relationship with the Waitaki.
- The Waitaki Rūnanga consider the effects of the developments in the Upper and Mid-Waitaki and resultant flows, allocations and management regimens have negatively affected Kāi Tahu rights and interests including adversely affecting experiences and opportunities for whānau in the catchment. They have held concerns for generations about the development of the waterways within their rohe. Whānau wellbeing impacts include disrupted whānau connections, lack of security of resources especially taoka, limited ability to maintain cultural practices and therefore potential loss of matauraka associated with species and places, rakatirataka, economic wellbeing, kaitiakitaka and mana.
- Kāi Tahu have concerns equally across the Waitaki waterways from the effects of dewatering, dry riverbeds, channel features incongruous with observed flow, permanent loss of water from the Takapō system, upstream blockage for fish passage, fish passage overall, habitat, land cover and channel alteration, changing the connectivity of flows of tributaries of the Takapō river, altered seasonality of flows, changes in flow variability and changes to wetlands in the Lower Takapō and limited access for whānau to wāhi tupuna.
- Therefore the mauri of the Takapō system has been adversely impacted as have taoka species. Sites (including rock art) have been inundated by raising lake levels. The lake environs support activities that generate impacts that become priorities for agencies while mana whenua have lost use of the Takapō River. The key issue is the changes to the Pūkaki River.
- However, Waitaki Rūnanga recognise the significance of the hydro electricity generation to the nation. Their response is to not focus on maintaining the existing environment as their kaitiakitaka perspective believes the lands and waters of the Waitaki need to be restored, enhanced and protected and this can only be done by taking a focus broader than the rivers most affected by taking a catchment wide approach to restoration, enhancement and priority setting.
- Therefore they have actively worked with the Generators in the pre-consent process to develop an approach that is of the scale needed in the Waitaki and will support taking an intergenerational approach to the implementation of *Te Mana o te Wai* which will provide the rūnanga the time, capacity and resourcing to move towards implementing their aspirations for implementing *Te Mana o te Wai* consistent with their long-term vision for the Waitaki. The agreement reached includes consent conditions to address and monitor issues of concern for Waitaki Rūnanga, allow collection of data longer-term, provide for a number of initiatives including tuna management, and an enhanced relationship agreement between the Generators and Waitaki Rūnanga and funding.

Substantive application

- Part 8 of the AEE for the Application relates to consultation and engagement by the Applicant, including with mana whenua. At part 8.2, the AEE confirms:
 - 144.1 Significant effort and resource was directed towards engagement with the Waitaki Rūnanga as holding mana whenua in the Waitaki catchment.

- 144.2 Waitaki Rūnanga were supported by Te Rūnanga o Ngāi Tahu representatives, advisors, planning experts and RMA lawyers. However, Te Rūnanga o Ngāi Tahu were clear their role was in support of the Waitaki Rūnanga as mana whenua.
- 144.3 Engagement and consultation with Waitaki Rūnanga was undertaken jointly with Meridian Energy representatives as appropriate, to ensure efficient and effective use of time and resources and to enable consideration of the Combined Waitaki Power Scheme and its ongoing effects holistically.
- 144.4 Collaboration has resulted in letters of support from the Waitaki Rūnanga, which recognise the significance of hydro electricity generation to the nation, and adopts an intergenerational approach to protecting the health and wellbeing of the Waitaki Catchment. Waitaki Rūnanga, the Applicant and Meridian Energy worked collaboratively to develop a package including:
 - (a) Conditions of consent;
 - (b) A "mitigation package" for the duration of the consents;
 - (c) An enhanced relationship agreement; and
 - (d) A suite of measures (including financial) that further provide for the management of adverse effects on Nga Rūnanga with this Ngāi Tahu taonga.
- 144.5 All matters between the Applicant and the Waitaki Rūnanga are addressed either in the conditions of consent proffered by the Applicant and/or in the relationship agreement referred to in (c) above.

Comments received

- Panel invited comments from Te Rūnanga o Ngāi Tahu, the Waitaki Rūnanga and Aoraki Environmental Consultancy under s53(2)(b)-(g).
- 146 Comments were received from Te Rūnanga o Ngāi Tahu, which we summarise as follows:
 - 146.1 Refers to the statutory acknowledgement in the Ngāi Tahu Claims Settlement Act 1998, which described Ngāi Tahu associations with the Waitaki.
 - 146.2 Identifies other elements of the Ngāi Tahu Claims Settlement Act 1998, including:
 - (a) The identification of Takapō and Pūkaki as important for mahinga kai;
 - (b) That a non-exhaustive list of bird, flora and fish species considered taonga are identified in it;
 - (c) That the lakes and wider area are also recognised as of importance to Ngāi Tahu traditions;

- (d) That it is important that the significance of these sites to Ngāi Tahu is recognised and acknowledged by the Expert Panel, and reflected in the decision on the Application.
- (e) Seeks that appropriate consideration is given to its comments, including the comments provided on behalf of Waitaki Rūnanga.
- 147 Comments were received from Waitaki Rūnanga, which we summarise as follows:
 - 147.1 Describes the immense significance of the Waitaki Catchment to Waitaki Rūnanga;
 - 147.2 Described the Ngāi Tahu relationship within the Waitaki;
 - 147.3 Records the extensive engagement that took place between the Applicant, Meridian Energy and Waitaki Rūnanga leading to the signing of the "Kawenata" (the relationship agreement referred to above), and the strong partnership that is being built.
 - 147.4 Reiterates Waitaki Rūnanga support for the Application.
 - 147.5 Summarises the Treaty Impact Assessment prepared for the Waitaki Rūnanga and provided to the Applicant, including the "Manawhenua baseline" adopted in it.
 - 147.6 Waitaki Rūnanga opposes freshwater expert conferencing and/or the Panel's consideration of what are "appropriate environment flows in the Takapō River".
 - 147.7 Raising concerns and opposition to changes being sought to the conditions of consent by other process participants. In particular, Waitaki Rūnanga support and seek that no changes are made to the IBEP conditions.

Panel findings

- The Panel recognises Waitaki Rūnanga and their role as mana whenua in the Waitaki Catchment. We also thank Waitaki Rūnanga for their considered role and clear communication in relation to matters of cultural importance through the FTAA process. We have given particular weight to the Waitaki Rūnanga role as kaitiaki and their long-term aspirations regarding implementation of te Mana o te Wai, and involvement in the development and future implementation of the IBEP and Kahu Ora which Waitaki Rūnanga strongly supports.
- We find, on the basis of Waitaki Rūnanga strong support for the Application through this process, that cultural matters have been appropriately addressed.

Aquatic environmental effects

The Application includes an assessment of aquatic environmental effects of the Scheme as part of the reconsenting process³⁷ (**Cawthron Report**) The Cawthron Report provides an assessment of the existing aquatic environment in Lake Takapō, the Tekapo Canal, Takapō River and the receiving waters (Lake Pūkaki and Lake Benmore) that are influenced by the existing operation of the Scheme.

Lake Takapō

- 151 The Cawthron Report was undertaken on the basis that no changes are being sought by Genesis to the operation of the Scheme through the reconsenting process, and therefore no further change to the existing environment is expected as part of continued operation. A summary of the Cawthron Report in relation to Lake Takapō is set out as follows:
 - 151.1 Lake Takapō is a large, natural glacial lake, fed predominantly from the Godley River, the Macaulay River and the Cass River. These rivers are glacial-fed, remote and largely unmodified. The Scheme altered Lake Takapō by increasing its natural water levels and their fluctuation range. Lake Alexandrina and Lake MacGregor also drain into Lake Takapō, however negligible effects are anticipated on the ecology of Lake McGregor.
 - 151.2 Water quality in Lake Takapō is assessed by Cawthron to be excellent, with low concentrations of nutrients, minimal phytoplankton growth and high dissolved oxygen concentrations. Water clarity in Lake Takapō has historically been low, due to inputs of glacial 'flour' (glacial silt) from the tributaries, but it has been increasing in recent years due to change in precipitation patterns.
 - 151.3 Water clarity has increased in recent years, because of reductions of glacial flour within the rivers prior to entering the lake. This is considered to be an effect of climate change. It is unlikely that the Scheme has resulted in any appreciable changes to water quality within Lake Takapō.
 - 151.4 Phytoplankton and aquatic plant (macrophyte) richness and abundance are naturally low in Lake Takapō. The existing operation of the Scheme is unlikely to have resulted in any appreciable changes to phytoplankton in Lake Takapō. The distribution of submerged aquatic plants, which is governed by the depth to which sunlight can penetrate, is typically confined to a relatively thin band around the lake edge in lakes with low water clarity.
 - 151.5 Considering the current water clarity of the lake as the baseline, the Scheme, through water level fluctuation, influences 41% of the potential productive littoral zone. By comparison, 26% of the productive littoral zone was affected prior to scheme commissioning in the 1950s and 88% was affected since the 1970s, until the onset of the recent trend of reduced glacial flour.

Assessment of aquatic environmental effects, 2023, Cawthron Report No. 3688. Prepared by Cawthron Institute. Prepared for Genesis Energy Ltd. At AEE, Appendix L.

- 151.6 Macroinvertebrate richness and abundance is relatively low in Lake Takapō, reflecting the limited aquatic plant growth in the lake (due to the historically naturally low water clarity caused by glacial flour). As for aquatic plants, the Scheme has likely reduced macroinvertebrate abundance and diversity due to it increasing the range of water level variation in Lake Takapō.
- 151.7 There are several native fish species in Lake Takapō, and salmonids such as brown trout, rainbow trout and Chinook salmon. However, due to the relatively low productivity of the lake, the fishery is naturally restricted. As noted, the lake level regime in Lake Takapō is influenced by the Scheme and contributes further to the naturally low productivity of the lake.
- The Cawthron Report concludes that the ongoing operation of the Scheme has no more than minor effects on the water quality in Lake Takapō. Water level fluctuations in Lake Takapō resulting from TPS operation impedes macrophyte growth in the variable zone. The loss of perennially wetted littoral habitat due to water level fluctuations has flow-on effects of low benthic macroinvertebrate production and restricted food to support the salmonid fishery. The annual range of water level fluctuations is not proposed to change with reconsenting, and therefore, there will be no change to the effects on Lake Takapō.

Tekapo Canal

- 153 A summary of the Cawthron Report in relation to the Tekapo Canal is provided as follows:
 - 153.1 The water quality in the Tekapo canal is excellent, reflecting that of Lake Takapō, including being relatively turbid (for a flowing waterbody) owing to naturally occurring glacial flour. Salmon farming takes place in the lower reaches. The existing operation of the TPS has no adverse effect on the water quality within the Tekapo Canal.
 - 153.2 The canal has developed the characteristics of a highly stable, deep river ecosystem. The aquatic vegetation cover in the canal consists of a community of macrophyte beds, including both native and introduced species. These macrophyte beds support an abundant community of macroinvertebrates. Native fish including common bully, upland bully and longfin eel are present in the Tekapo Canal³⁸. Juvenile koaro have been observed (anecdotally).
 - 153.3 The canal supports a nationally significant (and world-class) fishery for brown and rainbow trout and Chinook salmon, supported by natural recruitment, some stocking and escapees from the salmon farm.
- The Tekapo Canal provides a habitat for productive macrophyte, macroinvertebrate and fish communities and supports an exceptional salmonid fishery. The on-going operation of the Scheme maintains the current state of the canal ecosystem. Cawthron concludes that, as the Scheme operation regime is planned to remain unchanged, the

Native Fish Assessment, Report 61-2018, 2023. Prepared by Water Ways Consulting Ltd. At AEE, Appendix M.

current state of the canal's ecology and fishery is also expected to remain unchanged following reconsenting.

Takapō River

- Prior to construction of the Scheme, the Takapō River was the outlet for Lake Takapō. As a result of diversion for Tekapo A (1951) and the Tekapo Canal (1977), there is usually little or no surface flow in the upper reaches of the Takapō River between the Takapō Control Structure and its confluence with Fork Stream (approximately 6.6 km downstream). The diversion of water from Lake Takapō for the Scheme through the Tekapo Canal resulted in significant changes to the Takapō River, including:
 - 155.1 substantially reduced flow in the Takapō River, particularly above the Fork Stream confluence
 - 155.2 high water clarity associated with the diversion of glacial flour from Takapō
 - 155.3 reduced high-flow events conducive to greater annual production of periphyton and macroinvertebrates
 - 155.4 physical habitat (depths, velocities and substrate) downstream of the Grays River confluence that is highly suitable for trout food production and trout spawning.
- The existing operation of the Scheme has meant that water quality in the Takapō River largely reflects that of tributaries like the Fork Stream, Grays River and Mary Burn, rather than the glacial water from Lake Takapō, as summarised below:
 - 156.1 Water quality is good in the Takapō River and largely complies with the NPS-FM, the only minor concern being night-time dissolved oxygen dropping to around 80% saturation, probably due to high biomass of the invasive introduced diatom didymo. Overall, water quality has always been relatively good, however there has been an increase in concentrations of nitrate and phosphorus in the lower river in recent years, likely due to the intensification of agriculture in tributary catchments.
 - 156.2 Relatively high daily fluctuations in dissolved oxygen concentration (with associated relatively low daily minima) have been recorded and are caused by the relatively high biomass and cover of periphyton, which often exceed guidelines for the protection of trout habitat and general recreational aesthetic guidelines. The periphyton mats in the river include native algae and cyanobacteria, and didymo, which proliferates particularly in the upper and lower sections of the river.
 - 156.3 The results of Cawthron's longitudinal survey and the monthly sampling suggest that existing periphyton biomass occurs at 'nuisance' levels throughout the year. The long periods of steady flow that are experienced in the Takapō River contribute to the accumulation of high biomass of periphyton. The ongoing operation of the TPS results in a stable flow regime in the Takapō River, providing good conditions for periphyton (including didymo) proliferation.
 - 156.4 The macroinvertebrate communities in the Takapō River have moderate ecosystem health scores (MCI macroinvertebrate community index), indicative

- of a moderately nutrient/organically enriched river with abundant periphyton on the riverbed, reflecting the stable flow regime and presence of didymo.
- 156.5 The Takapō River contains brown and rainbow trout, and sockeye salmon also occur in the river periodically as they run up from Lake Benmore to spawn.

 Salmonid habitat in the Takapō River is usually limited to below the Fork Stream confluence where there are substantial permanent flows. Trout abundance in 2021 was about half of that reported prior to didymo arrival.
- In summary, the Cawthron Report indicates that the ongoing operation of the Scheme results in an existing environment within the Takapō River that provides good water quality and a stable flow regime. This supports a productive ecosystem (abundant periphyton and invertebrates); habitat for six species of native fish; and habitat for brown trout, rainbow trout and sockeye salmon, which in turn supports a relatively popular trout fishery.
- Periphyton, particularly the invasive didymo, is currently abundant in parts of the Takapō River, which is reflected in the relatively high proportion of pollution-tolerant macroinvertebrates in the river and a less popular fishery than prior to didymo. The overall effects of the existing operation of the Scheme on the Takapō River are considered by Cawthron to be somewhat difficult to assess given the invasion of didymo.
- The generally positive effects of the Scheme on the salmonid fishery in the Takapō River have been reduced, due to the negative effects associated with didymo. Cawthron maintains that Takapō River still supports important values and concludes that on-going operation of the Scheme is not expected to have a more than minor effect on these existing values.

<u>Lake Pukaki</u>

- 160 Lake Pukaki is managed by Meridian Energy. The lake receives water discharged from the Tekapo Canal. The lake is microtrophic (very low nutrient levels) and has naturally high turbidity owing to glacial flour in the water derived from the large proportion of glaciation within the catchment.
- 161 Lake Pukaki has low macroinvertebrate diversity and supports native fish populations, including koaro, upland and common bullies, and a remnant population of longfin eels. Brown and rainbow trout are also present, as are land-locked sockeye salmon, which have become more abundant in recent years. Water entering the lake via the Tekapo Canal has excellent water quality, slightly better than that of the receiving environment. Cawthron concludes that existing operation of the Scheme therefore has no adverse effect on Lake Pukaki.

Lake Benmore

162 Lake Benmore is managed by Meridian Energy. The lake consists of two essentially independent flooded river valleys, the Ahuriri Arm to the south (receiving water from the Ahuriri River) and the Haldon Arm to the north. The Haldon Arm receives water from the Tekapo River and water from the Ōhau Canal.

- 163 Water quality in Lake Benmore is generally good. The lake has a 10-year mean trophic level index (TLI) score of 2.18, classifying it as oligotrophic³⁹. The possibility that didymo and other periphyton, sloughed from the Tekapo River during large flow releases, affect water quality in the Haldon Arm was investigated. This assessment, coupled with Cawthron's assessment of monitored water quality parameters, indicates that the TPS has no adverse effects on Lake Benmore.
- As there are no changes to the operation of the Scheme being sought as part of the reconsenting process, Cawthron do not expect any changes to the existing environment. Two key broad-scale environmental factors have become evident in recent years and are influencing the interactions between the Scheme and the surrounding environment:
 - 164.1 The effects of a recent trend of increasing water clarity in the lake is related to reduced glacial flour load linked to changes in precipitation patterns (and hence further reducing the existing effects of the Scheme).
 - 164.2 Didymo, which thrives in stable, low nutrient rivers invaded the Takapō River in 2007. It will have affected the macroinvertebrate community in the Takapō River and probably has contributed to a decline in trout fishery. This has, in turn, negated the positive effects that the Scheme provided to the trout fishery in the Takapō River.
- 165 The Cawthron report concludes⁴⁰ from its assessment that overall the existing operation of the Scheme:
 - 165.1 Has no effects on the water quality and contributes to the naturally low productivity and restricted food supply for salmonids in Takapō through increasing the range of water level fluctuation;
 - 165.2 Provides a productive environment for macroinvertebrates and salmonid fish in the Tekapo Canal, supporting a popular fishery;
 - 165.3 Has minor adverse effects, as well as minor positive effects, on water quality and aquatic ecology within the Takapō River; and
 - 165.4 Has no more than minor adverse effects on receiving waters in Lake Pukaki and Lake Benmore.

Oligotrophic indicates low concentrations of phytoplankton, nitrogen and phosphorus. It is a classification on the trophic level index (TLI) which ranges from microtrophic (extremely low) through oligotrophic, mesotrophic and eutrophic through to supertropic/hypereutrophic (extremely high nutrient enrichment).

⁴⁰ Cawthron report, at page viii.

Comments Received

Specific comments on aquatic environmental effects were received from the CRC and Forest and Bird. Waitaki Rūnanga also provided comment on the changes to the consent conditions proposed by CRC and Forest and Bird.

CRC comments

- In its comments, CRC note that the Applicant has proposed no changes to the hydrological operation of the Scheme and therefore concluded that the potential effects on water quality and ecology within the Takapō River or the Tekapo Canal will remain unchanged. CRC raise concerns about aquatic environmental effects resulting from the Application, including that no consideration has been given by the Applicant to mitigating potential existing and ongoing adverse water quality or ecological effects associated with the scheme. CRC's position is that potential mitigation for the lower Takapō River could include changing how and when water is released via Lake George Scott weir to protect downstream water quality and ecological values.
- 168 CRC recommends, to address the ongoing impacts on the Takapō River's ecological functionality, if the compensation proposed is considered insufficient:
 - 168.1 Maintain a permanent baseflow over Lake George Scott weir into the Takapō River to provide a persistent buffer for both water quality and ecology; and/or
 - 168.2 The occasional flushing flow of sufficient magnitude would to sediment is periodically flushed from the river, and periphyton growths are limited; and
 - 168.3 Provide greater clarity of the 10-year outcomes for the Kahu Ora strategic plan, with better linkages between reviews of the annual plan (Condition 34) and reviews of the strategic plan (Condition 30).
- Following expert discussions with the Applicant and its experts, a number of issues were resolved. However, CRC retained concerns in relation to the lack of consideration for ongoing impacts on the Takapō River's ecological functionality.
- 170 Dr Bayer⁴³ for CRC provided Technical Advice regarding Lake Values, including:
 - 170.1 Current lake level variation in Lake Takapō associated with the Scheme reduces aquatic plant (macrophyte) habitat substantially, and there is no mitigation proposed for this large effect and ongoing adverse effect associated with the operation of the Scheme.

Note: CRC's comments in relation to aquatic environmental effects are combined with comments regarding effects on native fish. In this decision we address the two topics separately.

Technical advice of Chris Meijer, CRC comments Appendix 8, dated 11 August 2025.

⁴³ Technical advice of Tina Bayer, CRC comments Appendix 4, dated 18 August 2025.

- 170.2 There is a lack of assessment of consequences of future electricity demand scenarios and future climate change scenarios on actual lake level management and flow-on effects on aquatic environment.
- 170.3 Dr Bayer proposed monitoring of macrophyte extent and health as well as turbidity monitoring in Lake Takapō.
- 170.4 Dr Bayer sets out proposed draft conditions for Macrophyte and Turbidity/Clarity monitoring on Page 8 of her advice.

Forest and Bird

- 171 Forest and Bird contends⁴⁴ that the diversion of water for the Scheme has dewatered approximately 6.6 km of the Takapō River, resulting in a near-total loss of aquatic habitat and severely compromising ecosystem health, hydrological connectivity, and sediment transport in that reach.
- Forest and Bird presented expert evidence from Ms Kate McArthur on freshwater ecology. Ms McArthur's evidence⁴⁵ is that the Scheme has caused significant ecological harm to the Takapō River, particularly the dewatering of 6.6 km of riverbed which has degraded macroinvertebrate and fish communities. Her concerns in relation to native fish are considered below. Ms McArthur considers that Applicants' technical reports underestimate residual effects and fail to propose meaningful mitigation. The IBEP and Kahu Ora are lacking in clarity, ecological rigour, and alignment with best practice aquatic compensation under the NPSFM.
- 173 Ms McArthur provides an overview of her evidence in Paragraphs 15-26, including that:⁴⁶
 - 173.1 The existing environment that Ms McArthur has applied for her assessments has taken a broader approach than the scope of the Applicant's technical reports. While dams and structures of the Scheme are part of the existing and long-term future environment, the diversion of water between from Lake Takapō and the Takapō River into the Tekapo Canal is a regulated and manipulatable system. Didymo has had a significant adverse effect on the ecology of the Takapō River and the effects of didymo are exacerbated by diverted flows.
 - 173.2 The technical reports appended to the application have not identified all ecological effects on braided river extent, habitat and values because the scope of those reports is limited by the definition of the existing environment. Using a broader definition of the existing environment that allows for changes in flows from current operations, Ms McArthur has assessed effects against key five components which together comprise ecosystem health. She concludes from her assessment that the loss of flow has resulted in significant adverse effects on

IDIU, at paras 20-21

Again, Ms McArthur's evidence related to aquatic ecology including native fish. This decision includes consideration of native fish separately to aquatic ecological effects.

⁴⁴ Comments by Forest and Bird, dated 25 August 2025. At para 3.

⁴⁵ *Ibid*, at paras 20-21.

- braided river habitat extent and ecological values in the Takapō River. Effects include loss of connectivity with braid plains and flood plains, resulting in reduced morphological and habitat heterogeneity, habitat quality and natural ecological disturbance regimes.
- 173.3 Diversion of flow and dewatering of the Takapō River results in a total loss of habitat for 6.6 km of riverbed and a loss of biomass of invertebrates and fish from potential catchment populations. Diversion of flows from the natural channel limits the sediment bedload transport, essentially starving the river of fine sediment and resulting in an armoured bed, fewer braids, bed and channel degradation from reworking of sediment from the bed and banks, and ineffective scouring of periphyton during high flow events. Whilst some reduction in fine sediment load can be expected in lake-fed rivers there are residual effects from diverting the fine sediment in flows away from the Takapō River.
- 173.4 The absence of flushing flows in the Takapō River results in significant adverse effects on habitat, benthic ecology and indigenous fish. Inadequate flushing and flood flow frequency in the mid to lower reaches of the river causes poor macroinvertebrate health, degrades the quality of physical habitat and disrupts ecological processes.
- 173.5 Eels are largely absent from the Takapō catchment and the effects of their absence on ecological processes are largely unknown. Any remaining eels of breeding age and size are unlikely to safely complete their downstream breeding migration as flows are diverted through power station turbines rather than rivers, resulting in ~100% mortality.
- 173.6 The Scheme operations, without any environmental flows in the Takapō River, has had and will continue to result in significant and adverse effects on river extent and values, including ecosystem health, indigenous biodiversity and hydrological functioning. Changes to the manipulated flows in the upper Takapō River to improve environmental flow regimes will benefit ecosystem health and reduce significant adverse effects. No mitigations of this kind are proposed in the application.
- 173.7 Ms McArthur recommends four potential options for the restoration of residual/minimum flows and flushing flows in the Takapō River to increase the extent of physical habitat in the river and improve ecosystem health and other freshwater values. These options are discussed in more detail below.
- 173.8 From a technical perspective the effects of the current operation do not sustain the life supporting capacity of the Takapō River and its ecosystems and indicate ecological integrity, form, functioning and resilience of the braided river system are degraded. These findings may be relevant to assessing the likelihood of achieving Objective 1 and appropriately considering Policies 4 and 38 of the WCWARP.
- 173.9 Residual effects remain unaddressed by mitigation actions or consent conditions and are not directly accounted for within the IBEP. Clear conservation outcomes for 'more than minor' residual effects are required to meet the definition of aquatic compensation under the NPSFM, after sequential application of the effects management hierarchy. Considering and accounting for more than minor

- residual adverse effects is critical to implementing effective aquatic compensation.
- 174 Ms McArthur has reviewed the IBEP and Kahu Ora against the best practice principles of aquatic compensation and Appendix 7 of the NPSFM . In summary, she found the evidence did not adequately demonstrate compliance with aquatic compensation principles.
- 175 Ms McArthur noted that it was difficult to establish a clear progression from the IBEP objective to the planned and costed actions in the Kahu Ora Strategy. However, she notes that this concern could be addressed by providing greater clarity on objectives, conservation outcomes, residual effects, baseline state and measures of improvement. These currently lack the specificity and transparency necessary to provide confidence that adequate and enduring compensation will occur.
- 176 From the information reviewed and assessed by Ms McArthur, she concludes that when combined the consent conditions and mitigations proposed within them, alongside the IBEP compensation proposal, do not adequately compensate for the loss of river extent and values or the residual adverse effects of the Scheme.
- 177 Ms McArthur considered an appropriate environmental flow regime to address the impacts she has identified. Ms McArthur suggests the following options for consideration by the Panel⁴⁷:
 - 177.1 **Option 1:** Restoration of flows to the Takapō River based on natural [simulated] flows, with a residual/minimum flow of 26 m3/s below Gate 16 and Lake Geroge Scott weir, and regular flushing flows of at least ~200 m3/s or greater that can achieve periphyton cover of ≤ 30%.
 - 177.2 **Option 2:** Restoration of natural low flows with a residual/minimum flow below Gate 16 and Lake George Scott weir of 26 m3/s and the existing spill regime (i.e., no specified flushing flow).
 - 177.3 **Option 3:** Provide some physical habitat and improve ecosystem health upstream of Fork Stream by adding a residual/minimum flow of 5.8 m3/s below Lake George Scott weir and implement regular flushing flows of at least 6 times the existing median flow (at least 18.6 m3/s at the Fork Stream confluence and 60 m3/s at the Mary Burn confluence) that can achieve periphyton cover of ≤ 30%.
 - 177.4 **Option 4:** Maintain the existing flow regime with no residual/minimum flow from Gate 16 or Lake George Scott weir and implement regular flushing flows of at least 6 times the existing median flow (at least 18.6 m3/s at the Fork Stream confluence and 60 m3/s at the Mary Burn confluence) that can achieve periphyton cover of ≤ 30%.

Statement of Evidence of Kathryn Jane McArthur - Aquatic Ecology and Water Quality, dated 22 August 2025, at para 95.

178 Ms McArthur recommends⁴⁸ restoring a residual flow of 26 m³/s below Gate 16 and Lake George Scott, based on simulated natural flow records. She also recommends that the conditions provide for regular flushing flows of ~200 m³/s to reduce nuisance periphyton and improve macroinvertebrate health. She maintains that this offers the greatest ecological benefit and alignment with policy objectives. Ms McArthur contends that, without such restoration, significant residual effects will persist.

Applicant response to comments

- The Applicant responds specifically to Ms McArthur's options for imposition of a minimum flow in the Takapō River. The Applicant maintains that Ms McArthur only uses the effects of climate change against the scheme and fails to raise it as an issue against imposing a minimum flow. Further, the Applicant notes that Ms Marr's comments "mention the positive effects of climate change but then pay superficial regard (at best) to them without considering the climate change implications of what F&B are seeking".
- The implications of Ms McArthur's proposed Option One (and generally across all flow regimes) as sought by Forest and Bird are set out in the memorandum of Messrs Mooney and Gray in Appendix 15 in respect of lost generation.
- In their memorandum⁴⁹, Mr Mooney and Mr Gray note that a 26 m³/s minimum flow requirement would significantly reduce electricity generation at the Tekapo Power Scheme, with further reductions at Meridian's Ōhau A, B, and C stations due to diverted flow bypassing Lake Pukaki. They estimate (Table 1) that a 26 m³/s minimum flow requirement would result in an annual generation loss of 345 GWh for the Tekapo Power Scheme alone.
- In its response, The Applicant points to Transpower's comments, emphasising the role that the Scheme plays in our electricity system is critical, and a reduction in the Scheme's output would also likely lead to more reliance on expensive thermal generation sources to meet electricity demand, resulting in a higher dependency on fossil fuels (including New Zealand's constrained gas supply).
- The Applicant considers⁵⁰ that the implications of the minimum flow sought by Forest and Bird, Option One, is that "the effect which F&Bird state to be "biggest" nature has ever faced will be made worse by its actions. But that outcome is ignored by F&B".
- In his technical advice for the Applicant⁵¹, Dr Young notes that he has reviewed the evidence prepared by Forest and Bird and CRC, and he confirms that his assessment in

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⁴⁸ *Ibid*, at para 96.

⁴⁹ Appendix 15 High-level generation implications with enabling continuous flow down the Takapō River, Oliver Mooney and Gareth Gray Memorandum, dated 1 September 2025

⁵⁰ Genesis Energy Ltd Response to Comments, dated 1 September 2025. At para 78.

Technical advice (response to comments) of Dr Roger Young dated 28 August 2025 Freshwater Ecology.

the Application still stands. Dr Young notes the following in response to Ms McArthur's evidence:

- 184.1 Ms McArthur has based her assessment on an existing environment that considers matters beyond the current operation of the Scheme.
- 184.2 The Scheme in its current configuration has been operating for nearly 50 years. Its construction involved some substantial changes to the environment; specifically, changes to the lake level regime within Lake Takapō and construction of the Tekapo Canal, which diverted water that would have naturally flowed down the Takapō River to the Tekapo Canal and subsequently into Lake Pukaki.
- 184.3 His understanding that no changes are being sought to the Scheme operation through the reconsenting process, and so no change to the existing environment is expected as part of continued operation of the Scheme. Therefore, his assessment focused on the effects of the ongoing operation of the Scheme on values currently supported by waterways influenced by the Scheme. It does not attempt to compare current state with conditions that were likely present before the development of the scheme.
- 184.4 Ms McArthur considers that flow regulation in the Tekapo River contributes to, and exacerbates, didymo and periphyton bloom events and their persistence (e.g. Paragraph 40). She concludes that 'increased flow variability is likely to result in improvements in periphyton biomass, macroinvertebrate health, potential fish habitats and thereby ecosystem health values' (Paragraph 46). Dr Young responds that, in their natural state, lake-fed rivers such as the Takapō River are more hydraulically stable than rain-fed rivers⁵². Similarly, the settling of sediment in upstream lakes means that sediment supply to lake-fed rivers is very low, which in turn means that large amounts of mobile sediment are not continually moving downriver. The relatively high level of flow and bed stability of lake-fed rivers contributes to their unique characteristics, but unfortunately also provides perfect conditions for didymo and other periphyton.
- 184.5 Dr Young's response states that didymo is abundant in lake-outlet rivers, including ones that retain a natural unregulated outlet (e.g. Clutha River / Mata-Au, Hurunui River, Te Kauparenui / Gowan River, Buller River). This is the case regardless of river size or flow since it is flow variability and associated bed mobilisation, rather than flow itself, that seems most important for controlling didymo⁵³. If all the natural flow was allowed down the Takapō River, it is very likely that there would still be abundant didymo and periphyton blooms that would affect macroinvertebrate communities and other aquatic life.
- 184.6 Ms McArthur considers a need for flushing flows to address the accumulation of high biomass of periphyton that occurs within the Takapō River. The Takapō

Jowett IG, Duncan MJ. 1990. Flow variability in New Zealand rivers and its relationship to in-stream habitat and biota. New Zealand Journal of Marine & Freshwater Research. 24:305–317.

⁵³ Cullis J, McKnight D, Spaulding S. 2015. Hydrodynamic control of benthic mats of Didymosphenia geminata at the reach scale. Canadian Journal of Fisheries and Aquatic Sciences. 72:1–13.

River has relatively coarse substrates and wide channels, meaning relatively large floods will be required to mobilise the bed. Dr Young responds that based on these broad geomorphological principles, he anticipates that a flow of between 6 and 10 times the median flow would be required to cause periphyton and didymo scouring. As set out in his report, Dr Young confirms that the effectiveness of individual flushes at removing periphyton and didymo is somewhat uncertain and the effects will be temporary. To have ecological benefits, he maintains the macroinvertebrate communities would need to recover faster from the negative effects of the flushing flow than periphyton biomass. It is uncertain if this would be the case.

- 184.7 Ms McArthur states that 'aquatic life in the upper Takapō River (upstream of the confluence with Fork Stream) is almost entirely absent due to the diversion of virtually all flow into the Tekapo canal'. Dr Young agrees that this is largely correct but has been a feature of the operation of the Scheme since at least 1977.
- Dr Young's assessment focused on the effects of the ongoing operation of the Scheme on values currently supported by waterways influenced by the Scheme. It does not attempt to compare current state with conditions that were likely present before the development of the scheme.
- 186 Dr Young notes the following in response to Dr Bayer's memo:
 - 186.1 Dr Bayer states that 'no mitigation is proposed for current and ongoing impact of loss of > 30% of macrophyte habitat due to lake level variation caused by the operation of the TPS' (Paragraph 9).
 - 186.2 Considering the current water clarity of the lake as the baseline, the effect of the Tekapo Power Scheme, through water level fluctuation of Lake Tekapo, removes 41% of the potential productive littoral zone. By comparison, 26% of the productive littoral zone was affected prior to commissioning of the scheme in the 1950s, and 88% was affected from the 1970s until the onset of the recent trend of reduced glacial silts.
- Dr Young understands that the ongoing operation of the Scheme does not propose changes in the annual range of water level fluctuations. Therefore, he does not expect any change to the effects on Lake Takapō.
- 188 Dr Young notes the following in response to Dr Meijer's memo:

Dr Meijer states that 'the prevalence of reduced stable flows has had ongoing detrimental impacts on the macroinvertebrate community in the Tekapo River. The excessive periphyton growth, including didymo blooms, and poor water quality over summer, such as high temperatures and lower oxygen concentrations, are likely underlying stressors for macroinvertebrates' (Paragraph 14).

In response, Dr Young maintains that if a permanent baseflow over Lake George Scott weir was initiated, it is very likely that there would still be abundant didymo blooms that would affect macroinvertebrate communities and other aquatic life. Large flushing flows might provide short-term reductions in didymo biomass, but the effectiveness of flushing flows on improving macroinvertebrate communities is likely limited given the

- uncertainty regarding whether macroinvertebrates will recover faster from the negative effects of the flushing flow than periphyton biomass.
- 190 In its response⁵⁴, Waitaki Rūnanga provided comment on the changes to the consent conditions proposed by CRC and Forest and Bird. Waitaki Rūnanga remain of the view that the consent conditions proposed by the Applicant are appropriate and no further changes are required.
- In its response to the Panel's Further Information request⁵⁵, the Applicant set out its reasons for not including macrophyte and turbidity / clarity monitoring conditions in the revised condition suite⁵⁶.
- Mr Matthews considers⁵⁷ that the proposed macrophyte and turbidity / clarity monitoring 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. Therefore he does not consider that these conditions can, nor should be, included.

Panel Findings

- 193 The Panel has considered and accepts CRC's and Forest and Bird's contention that diversion of flows from the upper 6.6km of the Takapō River has resulted in loss of aquatic habitat and compromised ecosystem health, hydrological connectivity, and sediment transport in that reach of the river. As noted above, we consider such effects largely to form part of the existing environment.
- To mitigate those effects, Forest and Bird provided four options for reinstating flow in the upper Takapō River for the Panel's consideration. Of the four options, Forest and Bird recommended Option 1, which would restore a residual flow of 26 m³/s below Gate 16 and Lake George Scott, and regular flushing flows of ~200 m³/s to reduce nuisance periphyton and improve macroinvertebrate health. Forest and Bird maintains that without such restoration, significant residual effects will persist.
- Given our conclusion in relation to the existing environment, we accept the Applicant's contention that, to the extent there are any ongoing or residual effects, the catchment-wide IBEP compensation package proffered by the Applicant will result in better ecological outcomes in the upper Takapō River than any of the flow options suggested by Forest and Bird. We accept Dr Young's evidence that if a permanent baseflow over Lake George Scott weir was initiated, it is very likely that there would still be abundant didymo blooms that would affect macroinvertebrate communities and other aquatic life.

Waitaki Rūnanga - Response to comments – Genesis Energy Limited, dated 1 September 2025

⁵⁵ Genesis Energy Limited Response to Further Information Request 2 and Minute 5, dated 22 September 2025, At para 17.

⁵⁶ Tekapo Power Scheme Planning Advice – Richard Matthews.

⁵⁷ *Ibid*, at page 20.

- The Panel is also cognisant that a 26 m³/s minimum flow requirement in the Takapō River would significantly reduce electricity generation at the Tekapo Power Scheme, with further reductions at Meridian's Ōhau A, B, and C stations due to diverted flow bypassing Lake Pukaki. The Applicant's evidence is that a 26 m³/s minimum flow requirement in the Takapō River would result in an annual generation loss of 345 GWh for the Tekapo Power Scheme, and a further loss of 304 GWh for the Ōhau A, B, and C stations.
- 497 Accordingly, on balance, we have determined that it is not appropriate to require environmental flows in the Takapō River, and that the IBEP conditions will result in better environmental outcomes than any direct mitigation that the Panel might impose by way of condition.

Native fish

- The Scheme has fundamentally changed the hydrology of Takapō and the Takapō River, effectively removing fish habitat in locations such as the predominantly dry riverbed upstream of the Fork Stream confluence, and substantially reducing flows in other parts of river. As noted elsewhere in this decision, the Panel has concluded that operation of the Scheme within its currently consented parameters forms part of the existing environment. Accordingly, we focus on the residual or ongoing effects of the Scheme on native fish. The Application includes a report from Water Ways Consulting, authored by Dr Richard Allibone, titled "Tekapo Power Scheme: Native fish assessment of ecological effects" dated March 2025 (**Native Fish Report**). In the Native Fish Report the Applicant identifies the potential effects of the Scheme on native fish as a result of the diversion of water away from the Takapō River, and the fact the canal system crosses a number of tributaries. The identified effects include: 58
 - 198.1 Change in riverine habitat in the Takapō River with the reduced flows altering habitat availability leading to changes in the fish community and/or abundance;
 - 198.2 Impedance of fish passage from the Takapō River to Takapō.
 - 198.3 Reduction in habitat quality in the Takapō River due to lack of flushing flows; and
 - 198.4 Fish passage barriers at the culverts where streams flow under the Tekapo Canal.
- 199 Also identified are potential positive effects of the Scheme, including:
 - 199.1 Reduced flows in the Takapō River providing more suitable habitat for native fish species that prefer low water velocities and shallow water habitats. This includes the bully and galaxiid species present in the Takapō River;
 - 199.2 Reduced flows in the Takapō river upstream of the Mary Burn and Grays River confluence limiting the presence of large salmonids;
 - 199.3 Reduction in flood disturbance resulting in reduced flood-related mortality; and

Native fish assessment of ecological effects, dated March 2025. AEE, at Appendix M, page 22.

- 199.4 The provision of new habitat for native fish in the Tekapo Canal.
- The Applicant refers to native freshwater fish surveys conducted in the Takapō catchment during the summers of 2018-19 and 2019-20. The surveys identified six native fish in the Takapō River including Canterbury galaxias, alpine galaxias, kōaro, common bully, upland bully and longfin eel.
- 201 Some species, including common bully and koaro benefit from the Scheme's creation of new larval fish rearing habitat in the manmade lakes such as Lake Benmore. Others, including koaro and potentially common bully may have benefited from the reduction in longfin eel abundance given they are both prey species of longfin eels. The reduction in longfin eel abundance is assessed by the Applicant as being the result of lack of recruitment and harvesting and not affected by reduction in the Takapo River.
- Threatened native fish species in the Takapō catchment are the upland longjaw galaxias (Waitaki), the lowland longjaw galaxias (Waitaki) and bignose galaxias. These fish were not found in Takapō or the Takapō River, but in the upper reaches or tributaries of the Takapō and Takapō River, including Fork Stream where conservation programmes partially funded by Project River Recovery are creating predator free streams by removing salmonids and placing fish passage barriers to prevent reinvasion. The Applicant concludes that the restriction of these fish to small headwater streams with long reaches of unoccupied stream between the populations and the Takapō River indicates that the downstream limits for the species are set by factors, such as predatory salmonids, rather than the flow alteration in the Takapō River. Fish survey work also failed to identify suitable habitat for these species within the Takapō River channel. Accordingly, the Applicant concludes that other factors limit the distribution of these three threatened species, rather than flow changes produced by the Scheme.
- 203 In terms of native fish populations that do exist in the Takapō River, the Applicant concludes that the majority of these appear healthy. Some species including common bully and Canterbury galaxias are widespread. Others such as alpine galaxias may be restricted due to the Takapō River providing limited, poorer quality habitat meaning that low abundance is likely to be a natural state.
- 204 The Applicant concludes that: 59

Overall the Takapō River supports the expected range of native fish, given the context of effects within the Waitaki catchment that influences the distribution and abundance of the native fish. In addition, common bully and kōaro are both more abundant in the catchment than they are expected to have been in the catchment in its pre-development state. In terms of direct negative effects on native fish the flow reduction in the Takapō River created by the Tekapo Power Scheme has reduced the available habitat for some species, e.g., longfin eel, but other factors rather than habitat are limiting their populations. For the threatened native galaxiids the present-day distributions indicate that the pre-development Takapō River was unlikely to have supported populations of these fish and [the] scheme is unlikely to have had any direct effect on their abundance.

⁵⁹ *Ibid*, at Executive Summary page 2.

Comments Received

- In relation to effects on native fish, the Panel received comments from both CRC and Forest and Bird.
- 206 CRC included technical advice with its comments which raise the following issues:
 - 206.1 Limited consideration for native fish within the existing fish salvage conditions.
 - 206.2 Lack of consideration for ongoing impacts on the Takapō River's ecological functionality, including with respect to climate change; and
 - 206.3 The appropriateness of including only two freshwater fish values to be protected under the draft Kahu Ora strategic plan, and inability to assess the efficacy of proposed actions under the IBEP.
- 207 However, CRC's section 53 planning advice comments, Ms Black confirms that CRC seeks inclusion of a condition rather than an advice note to require consideration of the salvage of native fish. It suggests changes to the IBEP conditions proffered by the Applicant (acknowledging the Applicant must agree to any such changes), but does not recommend including reference to any specific freshwater fish values in the Kahu Ora strategic plan.
- 208 Forest and Bird raise a range of issues, including the following in relation to native fish:
 - 208.1 Flow diversion has resulted in total loss of habitat for 6.6 km of Takapō riverbed.
 - 208.2 Absence of flushing flows in the Takapō River.
 - 208.3 That the ecological effects of the absence of eels from the Takapō catchment are largely unknown.
 - 208.4 Forest and Bird generally agrees with the Applicant's description of instream ecological and habitat values in the Takapō catchment, but disagrees with conclusions in relation to the degree of effect of the Scheme on those values. Forest and Bird acknowledges that this disagreement largely arises from "differences in approach to the existing environment' with respect to diversion and alteration of flow effects, and consideration of potential flow remediation options." 60
 - 208.5 Forest and Bird also agrees with the Applicant's summary of the potential adverse effects of the scheme on indigenous fish and their habitats, while adding that stranding of indigenous fish following recreational or maintenance flow releases is also an adverse effect. Forest and Bird disagrees in relation to the Applicant's summary of the potential positive effect of the Scheme on native fish, with the exception of the limitation on large salmonid occurrence. Forest and Bird states that:

Statement of Evidence of Kathryn Jane McArthur – Aquatic Ecology and Water Quality, dated 22 August 2025, at para 32.

- (a) If flows were not diverted, the Takapō River would be a larger river with more diverse habitats including those suitable for bullies and galaxiids. It also refers to other factors which may influence whether fish can and will use habitat.
- (b) Reduced fish mortality is difficult to consider a positive effect when adverse effects from reductions in flow variability are significant.
- (c) "Specific accounting" of biodiversity gains and losses from "exchanging the natural heterogenous habitat of the Takapō river for the more homogenous habitat of the Tekapo Canal has not been undertaken, and therefore there is significant uncertainty in the degree to which this habitat provides any benefit to indigenous aquatic life and ecosystem health". It goes on to state that "the exchange" does not meet principles of biodiversity offsetting, so positive effects cannot be calculated.
- 208.6 Forest and Bird contends that reintroduction of flows may reinstate habitat heterogeneity and provide areas for fish to find refuge for predators. We interpolate from this that Forest and Bird is casting doubt on the Applicant's statement that the present limitation on the presence of large salmonids is a potential positive effect of the Scheme.
- 208.7 Forest and Bird's evidence is that "the diversity and abundance of aquatic life that the Takapō River could potentially hold if an environmental flow regime were restored is largely unquantifiable as available area of wetted habitat is highly flow dependent."
- 208.8 Forest and Bird states that spring upwellings inside channels and backwaters provide ideal habitat for lowland longjaw and bignose galaxiids, and that reestablishment of flow may provide for reconnection of springs with side-braid or backwater features, habitats that are used for feeding and spawning.
- 208.9 Forest and Bird's evidence also refers to the historically abundant longfin eel, low present-day numbers and the fact that the combined Waitaki Power Scheme likely results in 100% mortality of migratory breeding eels following the flow of water through power station turbines. The evidence notes the Elver Trap and Transfer programme operated in the Waitaki Catchment (by Meridian Energy), and benefits flowing from that programme in some parts of the Waitaki Catchment. The Panel interprets Forest and Bird's evidence as implying that eels should be released more widely including into the alpine lakes, and that there is a need for a migrant trap and transfer programme to ensure adult eels can make their way to the sea to breed and complete their life cycle.

Applicant response to comments

209 The Applicant has provided a comprehensive response to the comments received from CRC and Forest and Bird. The Applicant also notes that the key differences between

⁶¹ *Ibid*, at para 58.

itself and other participants relates to what is considered to be the baseline state of the system (ie, the existing environment) for the assessment of effects. In summary:

- 209.1 In relation to Forest and Bird's contention that "spring upwellings inside channels and backwaters provide ideal habitat for lowland longjaw and bignose galaxiids" and that "reestablishment of flow to the upper Takapō may provide for reconnection of springs with side braid or backwater features". The Applicant notes that:
 - (a) Dr Allibone specifically searched for small springs during Takapō River fish surveys and could not find any.
 - (b) The sort of terrace features where such spring systems tend to be found are not present alongside the Takapō River.
 - (c) That reconnection of any spring with lowland longjaw (if present) would allow for invasion by salmonids and koaro which predate on lowland longjaw.
 - (d) The likelihood of undiscovered populations of lowland longjaw galaxias is very low.
- 209.2 Regarding the CRC's evidence that the draft Kahu Ora does not have any actions for upland longjaw galaxiids, Dr Allibone notes that these fish are only found upstream of Lake Takapō in rivers such as the Cass and Godley. As there are no proposed changes to maximum lake levels in Takapō, the Application cannot impact on such upland longjaw populations.
- 209.3 Both CRC⁶² and Forest and Bird⁶³ refer to the kōaro's threat ranking as "At Risk Declining" which the Applicant confirms is correct. However, the Applicant responds to these comments with further context in terms of the qualifiers to that threat ranking as designated by the Freshwater Fish Threat Ranking Expert Panel. The Applicant notes that kōaro has the qualifier "Partial Decline", indicating that some populations are stable or increasing, and others decline. The Freshwater Fish Threat Ranking Expert Panel has determined that landlocked populations, such as those associated with the Waitaki hydro lakes are stable or increasing. Diadromous kōaro (kōaro that migrate between saltwater and freshwater environments) are declining, and it is to these diadromous kōaro that the At Risk Declining status applies. The Applicant notes kōaro are believed to be expanding their range in the upper Waitaki catchment, are now using Lake Benmore as larval rearing habitat as well as the three natural lakes, and whitebait are found to reside in the Takapō River and Takapō River tributaries.
- 209.4 The Applicant also responds to Forest and Bird's recommendation that flows in the Takapō River are raised to increase native fish populations, saying that this ignores changes in Takapō River fish communities over the last 150 years.

⁶² Technical advice of Chris Meijer, CRC comments Appendix 8, dated 11 August 2025, at para 12.

⁶³ Statement of Evidence of Kathryn Jane McArthur – Aquatic Ecology and Water Quality, dated 22 August 2025, at para 48.

Kōaro is one of the common native fish in the Takapō River, and it has a detrimental effect on the abundance of smaller non-migratory galaxiid species. The Applicant refers to a 1994 report which recognised that kōaro can eliminate smaller non-migratory galaxiids and that kōaro range expansion can lead to the loss of non-migratory galaxiid populations. The Applicant contends that kōaro in the rivers and streams between Lake Benmore and Takapō are a serious management issue that threatens rare non-migratory galaxiid populations. The Applicant's evidence is that ecosystem management should not seek to improve conditions for kōaro as kōaro can utilise a greater range of flow conditions than other species such as the smaller non-migratory galaxiids, meaning that kōaro may colonise new areas currently occupied by these rare species and predate upon them. It also reiterates that increased flows are likely to benefit salmonids, another predatory species.

- 209.5 In relation to longfin eel, the Applicant responds to Forest and Bird's suggestion that longfin eel should be restored throughout the upper Waitaki catchment area. The Applicant's evidence is that widespread reintroduction of longfin eel is not supported. The Applicant refers to the importance of restoring longin eel stocks to important customary harvest areas for Ngāi Tahu / Waitaki Rūnanga, but also considers the potential for unwanted effects of longfin eel restocking. It raises logistical issues with seeking to recapture migrant eels where a very widespread population is created as a result of widely dispersed elver releases, relative to an approach where elver releases are concentrated in smaller areas of the upper catchment. The Applicant notes that "[t]he more migrant eels that are aided in reaching the ocean as opposed to passing through the hydroelectric schemes turbines the greater the contribution of the Waitaki catchment's longfin eels will make to longfin eel spawning." It also notes that longfin eels colonising areas where threatened non-migratory galaxiids are present may have detrimental effects, as longfin eels greater than 300mm are piscivores and can impact on such populations.
- 209.6 Overall, the Applicant considers that Forest and Bird has not sufficiently considered the impacts on threatened species within the upper Waitaki. The Applicant's evidence is that present-day considerations differ from the pre salmonid, pre-dam era when small galaxiids would only have co-existed with one piscivore, the longfin eel. Introduction of salmonids in the late 19th century and the expansion of kōaro's range into areas it did not previously exist, has fundamentally changed this.
- 209.7 The Applicant also refers to woody weed management as an important component of the draft Kahu Ora for habitat management, noting that woody weeds have "a number of negative effects on naturally mobile river channels, including stabilising channel forms, promoting the creation of scour pools that provide for large salmonids and preventing braid migration during high flows." Neither CRC nor Forest and Bird directly acknowledge this.
- 209.8 In relation to the CRC's recommendation that native fish are included in the Sports Fish Salvage Management Plan, the Applicant's native fish expert supports "the inclusion of native fish in a sports fish salvage operation where practicable. It is the 'where practicable' that is critical." The Applicant notes that previous salvage efforts show that salvage of all native fish is unlikely to be achieved. The Applicant's evidence is that not many native fish are expected to be present downstream of Gate 16 and that of the most likely native fish species

to be present in Takapō, kōaro and common bully, kōaro are likely to resist downstream movement. The Applicant's native fish expert would not consider relocation of common bully to be necessary, as this species is the most abundant native fish in Takapō, and were probably introduced as trout food rather than occurring naturally in any event.

Panel Findings

- The Panel has concluded above that the existing environment includes the consented takes, uses, diversions, damming and discharges. The Panel has considered and accepts the technical advice provided by the Applicant that the ongoing operation of the Scheme can be considered to be adversely affecting native fish species in some respects, and is beneficial in other respects. We also accept the Applicant's technical advice that requiring environmental flows in the Takapō River, which is the primary mitigation measure identified by CRC and Forest and Bird, is likely also to have positive and negative consequences.
- Overall, the Panel has decided that the ongoing effects of the Scheme on native fish populations do not warrant direct mitigation, and that those effects can be adequately compensated for through the implementation of the IBEP which we discuss elsewhere in this decision. We note that Kahu Ora identifies initiatives in the Takapō River which could potentially be considered to directly mitigate effects on some native fish. The Panel has not, however, treated the IBEP as mitigation in reaching its findings on native fish.
- In terms the relocation of stranded native fish, the Panel has decided to include the existing advice offered by the Applicant rather than imposing a condition as requested by CRC. The Panel accepts the Applicant's position that relocation of native fish is likely to be rare, is likely to involve relatively common species, and may be impractical in many instances. We also note Dr Lieffering's comments in relation to the proposed conditions of consent, that separate Wildlife Act approvals may be required for the relocation of native fish, which have not been applied for as part of this Application.

Avifauna

- The substantial changes to the hydrology of Lake Takapō and Takapō River resulted in a loss of braided river habitat and adjacent swampland, and an increase in open water and lake shoreline habitat. This in turn affected avifauna populations, particularly specialist riverbird species. As noted elsewhere in this decision, the Panel has concluded that operation of the Scheme within its currently consented parameters forms part of the existing environment. Accordingly, we focus on the residual or ongoing effects of the Scheme on avifauna.
- 214 The Application includes a report from BlueGreen Ecology, authored by Dr Leigh Bull, titled "Tekapo Power Scheme Re-consenting: Assessment of Ecological Effects Avifauna" dated April 2025 (**Avifauna Report**). This report identifies the following effects:
 - 214.1 Data collected since 1991 through Project River Recovery shows a significant decline in the abundance of several *Threatened* or *At Risk* riverbird species, including banded dotterel, black-fronted tern, NZ pied oystercatcher and wrybill. However, an increase in the abundance of riverbed birds has been observed

- where Project River Recovery management is occurring upstream of the Scheme.
- 214.2 No data is available regarding riverbird populations prior to the Scheme, but the Scheme would have resulted in a decline in specialist riverbird species. The cause of the continuing decline in riverbird species is more complex, with variables linked to and independent of the Scheme contributing. Decline in species such as wrybill in catchments above the combined WPS show that there are additional pressures beyond the Scheme.
- 214.3 Through the IBEP, the Applicant is proposing to continue and increase funding for the improvement of the habitat values of braided rivers and their associated wetlands.
- 214.4 The release of water into the Takapō River during bird breeding seasons may affect breeding river birds, however these releases are part of the existing operation and form part of the existing environment.

Comments Received

- 215 Specific comments on avifauna were received from the CRC and Forest and Bird. These are discussed below. The Director General of Conservation, Te Rūnanga o Ngāi Tahu and Waitaki Rūnanga commented more generally on the efficacy of the IBEP. These are addressed above.
- The CRC provided comment from Dr Jean Jack on the actual and potential effects of the Scheme on freshwater bird species, and the management of those effects. The effects of the Scheme were assessed against the NPSFM effects management hierarchy to determine whether the proposed compensation package adequately addresses the effects on avifauna. In summary, Dr Jack noted the following:
 - 216.1 The application provides a comprehensive description of avifauna values and all types of effects on avifauna are addressed to some extent by the proposed consent conditions.
 - 216.2 The approach to effects management is questioned, including the extent to which effects should be addressed sequentially in accordance with the effects management hierarchy, and whether any compensation package should incorporate offsetting principles. While consideration of these matters may result in similar conditions to those proposed, the conditions would be reached with greater transparency.
 - 216.3 Greater effort than that currently seen under Project River Recovery will be needed to reverse the current decline in some species, such as wrybill. Pressures such as weeds and pests are expected to increase, suggesting that the greater management effort proposed through the IBEP is justified.

Appendix 6: Technical Advice – Avifauna by Dr Jean Jack, Team Leader Land Ecology, Environment Canterbury. Technical advice prepared for Susannah Black, Principal Consents Planner, Environment Canterbury, dated 21 August 2025

- 216.4 Given the complex drivers of riverbird decline, the most reliable way to show that the Scheme is not contributing to ongoing decline is to demonstrate measurable improvement in riverbird populations.
- 216.5 The proposed consent conditions, including the IBEP, are considered capable of achieving positive results for avifauna, however specific outcomes for riverbirds should be included.
- 217 Forest and Bird provided comment from Dr Rachel McClellen on the effects of operation of the Scheme on indigenous bird species of the Takapō River, and on the ability of the IBEP and Kahu Ora to address these effects. ⁶⁵ This comment did not address the bird communities of Lake Takapō or associated wetlands. Dr McClellen's comment noted:
 - 217.1 Despite the Scheme and water diversion, Lake Takapō retains a high diversity of freshwater avifauna, and the Takapō River is recognised as nationally significant riverbird habitat.
 - 217.2 Project River Recovery has achieved significant conservation gains since 1991, including through weed control in the upper catchment and also in mid-catchment areas. Kahu Ora continues existing key programmes in addition to new investment. This includes an island nesting habitat on the Takapō River, although Forest and Bird expresses concern that nesting birds on this island will be vulnerable to mammalian predators due to the absence of terrestrial predator control and lower river flows.
 - 217.3 The Applicant's assessment does not describe wetlands associated with the Takapō River, which could potentially provide habitat for the *Nationally Critical* Australasian bittern. It is assumed that proposed weed control will improve these habitats.
 - 217.4 Similar to comments by the CRC, Forest and Bird also noted that the proposed compensation package lacks specific objectives linked to improvements in wetland and riverbird species and bird habitat values. Forest and Bird also considered that the effects management hierarchy should have been applied, rather than the IBEP being offered as compensation.
 - 217.5 There will be continued risks to riverbird species due to the continued very low flows in the Takapō River, with predator control alone potentially not being sufficient to protect these populations.

Applicant response to comments

218 Dr Bull, for the Applicant, reviewed and responded to the comments on avifauna effects from Forest and Bird and the CRC, including a review of the four flow options identified by Forest and Bird (discussed below)⁶⁶. The comments from these parties did not alter her previous conclusion that the Kahu Ora Programme, through the IBEP,

⁶⁵ Statement of evidence of Rachel Katherine McClellen – Freshwater Birds – for Forest and Bird, 25 August 2025.

⁶⁶ Appendix 4 of Applicant Comment: Technical Advice – Avifauna by Dr Leigh Bull. 1 September 2025.

will provide greater benefits to avifauna than are currently achieved under Project River Recovery. Her reasons for this conclusion are:

- 218.1 The Applicant's assessment included reconnaissance site visits which informed more detailed surveys. Patterson's Ponds were the only wetlands identified that could provide habitat for Australasian bitterns, however a survey did not detect their presence. There are also no records of Australasian bitterns at this location in the eBird database.
- 218.2 In response to comments about use of the effects management hierarchy, Dr Bull quoted from Kahu Ora, stating that it "is a compensation agreement and does not seek to directly mitigate the impact of the consent-related works within the catchment". Kahu Ora uses the available funds to target management actions to sites where related values can best be protected.
- 218.3 In response to concerns raised about the success of some management actions, Dr Bull emphasised that Kahu Ora will be managed by DOC with support from mana whenua and alongside the Applicant and Meridian. All proposed actions have gone through a robust prioritisation process.
- 218.4 The Zone Plans within the Kahu Ora strategy each have specified outcome monitoring linked to the actions in each zone. Dr Bull considers that this is the appropriate place to specify outcomes, noting also that the Kahu Ora outcome plans will be linked to wider DOC activities. She does not consider that the consent conditions need to be updated.
- 218.5 She concluded that the Kahu Ora programme as proposed will result in improved outcomes for avifauna than are currently achieved through Project River Recovery.

Panel Findings

- The Panel has considered the information provided by the Applicant, the comments received, and the Applicant's response. We conclude that the ongoing avifauna effects of the Scheme are appropriate and do not require direct mitigation. We note that while CRC (Dr Jack) has reservations regarding how the approach to environmental compensation was undertaken, she acknowledges that following a sequential approach to effects management may have arrived at the same result in terms of the proposed conditions of consent. In this regard we refer to our discussion above in relation to the IBEP, and our conclusion that this is offered pursuant to section 104(1)(ab) and is not intended as aquatic or ecological compensation for the purposes of the NPS-FM.
- We note that the findings we express above in this regard rely on our conclusions in relation to the existing environment, and the appropriateness and efficacy of the IBEP and Kahu Ora to compensate for any ongoing effects.

Terrestrial invertebrates

- The Application includes an assessment of effects of the Scheme on Terrestrial Invertebrates. In its report⁶⁷, Entecol Ltd (**Entecol**) provides a literature review of terrestrial invertebrate values found in the area, assesses the impacts of continuing the Scheme on those values, and evaluates the continued efficacy of Project River Recovery in the context of mitigating the impacts identified.
- 222 A summary of Entecol's findings is set out in its report, including:
 - 222.1 A range of invertebrates with known conservation significance have been recorded from the wider Lake Tekapo/Takapō and Lake Pūkaki area, with a subset of these associated with braided rivers and most likely to be affected by the Scheme. This includes spiders, stiletto and robber flies, grasshoppers, Tekapo ground weta, moths, and some true bugs.
 - 222.2 The key impacts from the Scheme and reduced severity and frequency of flood events were increased accessibility to predators, exacerbated weed problems, fire (particularly from the added fuel load of weeds), and reduced deposition and maintenance of sandy substrates, which are key habitats for some species.
 - 222.3 However, Entecol notes that the reduced severity of flood events is also a potential positive for the species needing more stable habitat features. The major changes to terrestrial invertebrate communities from managed flow regimes to the Takapō River will have already occurred over the preceding decades, and the ongoing changes to the existing communities caused by the Scheme will, in its opinion, be relatively small.
 - 222.4 Entecol notes that Project River Recovery is predominantly focused on protecting braided river and wetland communities from weeds and predators, so is well targeted in terms of mitigating and compensating for the key impacts on terrestrial invertebrates that were identified for the Scheme. Project River Recovery also supports key research on braided river ecosystems and has an important advocacy role, both of which will benefit the management of terrestrial invertebrate communities in the area.
- 223 Entecol sets out a number of key findings in its report, including that:
 - 223.1 In the absence of mitigation, the impacts of the continuation of the Scheme on the existing terrestrial invertebrate fauna "is considered minor at worst".
 - 223.2 Ongoing support for the initiatives undertaken by Project River Recovery on weed and predator control is a highly appropriate mitigation/compensation for the impacts of continuing the Scheme on terrestrial invertebrates.
 - 223.3 Entecol concludes that even if the Scheme was not operating, "weeds and predators would still exist as major threats to terrestrial invertebrates on braided rivers, so the conservation benefits that would accrue from ongoing

⁶⁷ A Review of Terrestrial Invertebrate Information for the Tekapo Power Scheme Resource Consents, Entecol Report: ENT-063, 2023. Prepared by CP Ong & RJ Toft (Entecol Limited). At AEE, Appendix O.

support of Project River Recovery will exceed any negative impact on terrestrial invertebrates from continuing the Scheme".

The Application concludes⁶⁸ that based on the technical assessments that have been prepared, it is considered that the continued operation of the Scheme will appropriately avoid, remedy or mitigate potential adverse effects on the environment. The assessments also demonstrate the positive effect that Project River Recovery has on terrestrial invertebrates.

Comments Received

- 225 Comments for CRC in relation to Terrestrial Invertebrates refer to a review of the Application by Dr Barbara Barratt, although a separate piece of technical advice was not included with CRC's comments as with other technical areas⁶⁹. A summary of how Ms Barratt's comments are recorded in CRC's s53 Planning Comments is as follows:
 - 225.1 Dr Barratt notes the Applicant's statement that invertebrate communities have had several decades to adjust to managed flow regimes and these are not proposed to change. Also, she notes that other threats such as exotic species invasion are present, and there is the possibility of catastrophic events that can alter river flows. While Dr Barratt agrees with these statements, she does not necessarily concur with the view that monitoring, at least some of the more fragile species/communities would not provide useful information which would benefit their on-going management in this dynamic and modified environment.
 - 225.2 Dr Barratt agrees linking variable river flow events to impacts on invertebrates is an extremely challenging and complex issue, and that attributing any changes specifically caused by the Scheme is generally unlikely to be possible.
 - 225.3 Dr Barratt's other comments relate to the IBEP, for example an additional condition that monitoring and reporting on those species listed which are classified as Nationally Critical, Nationally Endangered and Nationally Vulnerable and Declining (12 species) is carried out using standardised and robust monitoring and survey methods.
 - 225.4 Dr Barratt also recommends that annual reports of such monitoring are peerreviewed by appropriate independent invertebrate ecologists.

Applicant response to comments

For terrestrial invertebrates Mr Toft notes in Appendix 5⁷⁰ that he has reviewed the evidence prepared by Forest and Bird / CRC and his assessment on terrestrial invertebrates still stands.

⁶⁹ Canterbury Regional Council Comments, dated 22 August 2025. Appendix 2: Summary of potential effects Dr Barbara Barratt.

⁶⁸ AEE, at section 5.15.

⁷⁰ Technical advice (response to comments) of Richard Toft - - Terrestrial Invertebrates.

Panel Findings

- The Panel has considered the Application, the comments received, and the response from the Applicant.
- We note that the Application includes a detailed assessment of terrestrial invertebrates undertaken by Entecol regarding the Scheme. Its conclusion that the continued operation of the Scheme will appropriately avoid, remedy or mitigate potential adverse effects on the environment, was not significantly challenged in comments received.
- 229 Entecol conclude that, in the absence of mitigation, the impacts of the continuation of the Scheme on the existing terrestrial invertebrate fauna "is considered minor at worst". It is Entecol's opinion that the assessment also demonstrates the positive effect that Project River Recovery has on terrestrial invertebrates. In the absence of comments to the contrary, we accept these conclusions.
- 230 Whilst we acknowledge some specific concerns raised by CRC in relation to terrestrial invertebrates, we find that the IBEP will appropriately compensate for the ongoing and residual adverse effects of the Scheme on terrestrial invertebrates.

Herpetofauna

- The Application includes an assessment of effects of the Scheme on Herpetofauna. The Herpetofauna Effects Assessment (RMA Ecology Ltd **RMA Ecology**) report⁷¹ provides an assessment of the existing reptile and amphibian values (together, 'herpetofauna') of the Scheme. The assessment focusses on the land areas within the existing Scheme footprint (for canal areas), within 200 m of the Takapō River, and 50 m of the Takapō and Lake Pūkaki margins.
- Twenty individual sites were assessed by RMA Ecology, covering lakeside, canal, and Takapō River margins. Together these sites covered an area of around 100 ha. An estimated 40 ha of that area was searched for lizards to detect presence (based on the percentage searched of each site).
- Survey methods included⁷² slow walk transects for basking skinks, binocular search, and visual search of suitable shrubland habitat for jewelled gecko, manual search of rocks, woody debris and vegetation accumulations for skinks and geckos, and where deep pebble banks were present, intensive searches for basking (binocular search), sign (scat), and individuals of large bodied skinks. All habitat searching and animal handling was undertaken in accordance with Wildlife Act Authority 91677-FAU.
- 234 A total of 200 lizards were recorded from within the sites. The assessment's findings were as follows:

Tekapo Power Scheme re-consenting, Tekapo Herpetofauna Effects Assessment, Job 2004, 2023.
Prepared by G Ussher (RMA Ecology Ltd).

⁷² *Ibid*, at Section 3.2.

- 234.1 Three species of native lizard were recorded McCann's skink, Southern Alps gecko and Canterbury grass skink;
- 234.2 Southern Alps gecko and McCann's skink were found across most sites; relative abundance differed between sites but was generally inversely related to the level of past disturbance of the site;
- 234.3 At the Takapō River margin sites, Southern Alps gecko and McCann's skink occupied all habitat areas including riverbank, terrace, riser, pebble and boulderbank areas. Populations of these species along the margins of the Takapō River and its associated dry channels, floodplain areas and historic terraces would likely number in the 1,000's per kilometre of river;
- 234.4 Canterbury grass skink was found at one site along the riparian margins of a minimally disturbed section of the Mary Burn near a culvert section of the Tekapo Canal;
- 234.5 No other lizard species were recorded; jewelled gecko, scree skink, long-toed skink or Mackenzie Basin skink were not found within the study locations; for all of those species, habitat quality within the survey areas was poor and generally lacked key habitat aspects with which these species are usually associated; and
- 234.6 No exotic lizards or frogs were recorded.
- In its report, RMA Ecology indicates that adverse effects may potentially occur due to the ongoing operation of the Scheme in relation to river flows, including:
 - 235.1 Mortality of Southern Alps gecko may result if releases of flows into the upper Takapō River result in swiftly rising waters that inundate lizards that have moved into vacant riverbed habitat. This contrasts with the lake margin areas, where periodic inundation would be a more gradual process, and would allow animals to retreat to higher ground.
 - 235.2 Southern Alps gecko and McCann's skink are listed as 'Not Threatened' in the DoC threat classification. The population of both species are locally very large. Any potential loss of Southern Alps gecko and McCann's skink through operations of the Tekapo PS, would constitute a very small portion of the overall populations in the local area.
 - 235.3 The level of potential effects in terms of loss of ecology values is assessed by the Applicant as 'Very low'. This 'Very low' level of ecological effect is equivalent to 'no more than minor' when considered in the context of potential effects on the environment under the RMA. Where the level of effects is anticipated to be 'Very low', the EIANZ guidelines recommend that normal design, construction and operational care should be exercised to minimise adverse effects.

- The Application states⁷³ that Project River Recovery is a key programme that has resulted in beneficial outcomes for native lizards, through its focus on weed control and nesting bird protection across very large areas of the upper Waitaki Basin.
- RMA Ecology considers that the likely benefits of the work undertaken by Project River Recovery for controlling lizard predators over a large scale, and the potential conservation benefits on threatened as well as less rare lizard species in those areas, is likely to provide a conservation benefit that greatly exceeds the no more than minor level of adverse effects that may be caused by the reconsenting of the Scheme on native lizards.
- 238 The Applicant proposes the continuation of, and increased funding for, the IBEP that it considers is likely to result in beneficial outcomes for native lizards, through its focus on weed control and nesting bird protection across very large areas of the upper Waitaki Basin.

Comments Received

- 239 Specific comments on effects of the Scheme on herpetofauna were received from the CRC and Forest & Bird.
- 240 Comments for CRC in relation to herpetofauna were provided by Dr Tocher⁷⁴. A summary of her review comments is provided below, including that:
 - 240.1 Not all affected habitats were surveyed, e.g., wetlands, deltas and no trapping done for cryptic species. Note: grass skinks in Mackenzie Basin genetically confirmed to be southern grass skinks not Canterbury grass skinks. She considers that effects on lizards and their habitat are understated in the application, primarily due to application of existing environment.
 - 240.2 No attempt was made to apply a mitigation hierarchy, but jumps straight to compensation with limited evidence of adherence to compensation best practice principles under NPSFM. She also disagrees that Project River Recovery has been good for lizards, with no data supporting the Applicant's conclusions. She considers that the IBEP and draft Kahu Ora seem to be 'business as usual' in terms of predators and this level of predator control will not help lizards, e.g., predators and mice need to be suppressed for lizards to respond based on current knowledge.
 - 240.3 With respect to IBEP Conditions, Dr Tocher notes the IBEP is only partially additional (needs to be fully additional to meet compensation best practice); and no information given on which parts are additional to determine sufficiency. She also concludes that there is no way of knowing if compensation is sufficient.

⁷³ AEE, at section 5.11.2.

⁷⁴ CRC Comments dated 22 August 2025. Appendix 2: Summary of potential effects Dr Mandy Tocher.

- 240.4 She recommends that Kahu Ora be written and reviewed by independent experts and reports written by independent experts (not GEL, MEL or DOC experts).
- 240.5 Dr Tocher also recommends lizard specific conditions:
 - (a) to include a specific 'Lizard Mangement' objective reviewed by a herpetologist; and
 - (b) a suite monitoring to include two levels: monitoring of lizards on-theground and monitoring of achievements to achieved SMART objectives in the Kahu Ora.

Applicant response to comments

- 241 On behalf of the Applicant, Dr Ussher responded⁷⁵ to CRC's comments. Dr Ussher:
 - 241.1 Confirms that there are no wetlands or deltas within the direct effects footprint in which to survey lizards. The available range of habitats within the affected footprint of the scheme were thoroughly assessed using an appropriate range of survey methods.
 - 241.2 Confirms that cryptic lizard species were surveyed, as is discussed in the Herpetofauna report, and arboreal jewelled geckos were assessed through standard daytime visual surveys. For larger skinks there is no appropriate habitat within the direct effects footprint.
 - 241.3 Notes that confirmation of large skink presence was confirmed by observing Mackenzie basin skink in nearby areas outside of the project footprint.
 - 241.4 Confirms that the assessment of effects on native lizards has not 'just jumped straight to compensation' as is stated in the CRC comments report. The effects assessment followed best practice by considering avoidance (none possible), the underlying existing environment (management of the river as it is currently operated), and mitigation. The level of effect on native lizards is so small as to be negligible and therefore does not trigger any requirement for offsetting or compensation.
 - 241.5 Responds to Dr Tocher's comments regarding whether Project River Recovery has been good for lizards and that no data supporting Genesis conclusions has been provided, and confirms that the benefits identified by Project River Recovery mostly relate to increased knowledge through funding surveys by the Department of Conservation of rare lizards.
 - 241.6 Responds to Dr Tocher's concerns that a 'business as usual' approach in terms of predator control will not help lizards, Dr Ussher notes that Project River Recovery has targeted rats, and he understands that predator trapping will be a focus of the enhanced IBEP.

⁷⁵ Technical Advice - herpetofauna by Dr Graham Ussher - Appendix 6.

- 241.7 Notes that the IBEP strategy would benefit from input from a herpetologist to assist with identifying research or management avenues. However, based on the anticipated level of effect from the scheme on lizards, there is no need to require IBEP resourcing to provide benefits to address adverse effects. Any resourcing and consequential benefits should be regarded as voluntary.
- With regard to Forest and Bird Comments, Dr Ussher notes that he has reviewed the four flow options identified by Ms McArthur in her evidence (paragraph 95), and in his opinion the IBEP programme as proposed will deliver better ecological outcomes for lizards than any of the flow options suggested by Ms McArthur.

Panel Findings

- The Panel has considered the Application, the comments received, and the response from the Applicant. We note that the Application includes a detailed assessment of herpetofauna undertaken by Dr Graham Ussher (RMA Ecology) regarding the Scheme.
- We have carefully considered the detailed comments received from CRC and Forest and Bird. We acknowledge the concerns raised by Dr Tocher on behalf of CRC in relation to herpetofauna, but conclude that Dr Ussher has adequately addressed those comments in his response.
- With regard to Forest and Bird's comments, we accept Dr Ussher's opinion that the IBEP programme as proposed will deliver better ecological outcomes for lizards than any of the flow options suggested by Ms McArthur.
- Accordingly, the Panel finds that to the extent that there are any ongoing or residual adverse effects of the Scheme on herpetofauna, that no direct mitigation is required and the IBEP will appropriately and sufficiently compensate for those effects.

Terrestrial vegetation

- In relation to terrestrial vegetation, the Application is supported by a report prepared by Ecological Solutions⁷⁶ (**Ecological Solutions Report**). The Ecological Solutions Report provides an assessment of the existing ecological context within which the Scheme operates. Key findings of the Ecological Solutions Report include:
 - 247.1 Lake edge vegetation is typically dominated by rocky substrate and exotic plant species. The vegetation varies in quality from low (sparse, predominantly exotic e.g., exotic herbs growing between cobble and boulders) to moderate (included more native species, representative and demonstrated ecological gradients e.g., matagouri shrubland or some turf vegetation).
 - 247.2 Some areas of lake edge vegetation are considered to be significant in terms of the CRPS, including six locations on the eastern side of the lake and four on the western side. Ecological value assessed using the EcIA framework ranges from "low" to "high".

Tekapo Power Scheme Reconsenting Assessment of Effects – Vegetation. EcoLogical Solutions Limited.
 12 May 2023. AEE, at Appendix R.

- 247.3 Wetland vegetation includes a higher proportion of native species and all wetland areas are considered significant with respect to the CRPS. Wetland condition scores are indicative of comparatively good quality wetlands with a low degree of modification and low-medium external modification pressures.
- 247.4 The lake-edge wetlands assessed as part of this study appear to pre-date the Scheme, although they may have been affected by it. The wetlands are typically of "high" "very high" ecological value according to the EcIA framework.
- 248 Riverine vegetation is typically sparse and predominantly exotic and therefore of low to moderate ecological quality. This riverine vegetation is also typically of low ecological value except where native species predominated or wetlands occurred, including:
 - 248.1 Significant vegetation in terms of the CRPS is present at some locations along the Takapō River. Wetlands and predominantly native riverine vegetation is of "moderate" or better value according to the EcIA framework
 - 248.2 More than seventy "threatened" or "at-risk" plant species have been recorded from the Upper Waitaki catchment. One species (dwarf common broom) which is regarded as "threatened (nationally vulnerable)" and nine species which are regarded as "at risk (declining)" were detected near the Scheme during the surveys.
- Since the Tekapo A Power Station was commissioned in 1951 and Tekapo B in 1977, the vegetation communities around the Scheme have developed under a regime of managed water levels in Lake Tekapo and managed flows in the Takapō River.
- In combination with other external pressures (e.g., farming, flood protection works, planting by the former Catchment Board and more recently the regional council, pest browsing pressure and colonisation by invasive species), this has resulted in generally low-quality lake edge vegetation, low-quality braided river vegetation and typically moderate or better quality wetland vegetation.
- The overall level of unmitigated local (ecological district) effects due to continued operation of the Scheme on wetlands, braided river vegetation and lake edge vegetation is considered to be 'low' (for wetlands) or 'very low' (based on ecological values ranging from 'low' to 'very high' and a 'negligible' magnitude of effects).
- 252 Hydrological investigations undertaken by PDP⁷⁷ indicate that hydraulic connection between the lake and wetlands nearby is generally low and rainfall is more important in determining wetland levels, except when lake levels are high.
- 253 Given the Application to continue to operate within the existing management parameters, adverse effects on wetland and lake edge vegetation, and therefore effects on ecological significance, due to the continued operation of the Scheme are considered by Ecological Solutions to be "low" or "very low", and these effects are not expected to worsen as a result of the continued operation of the Scheme.

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Hydrological and Hydrogeological Analyses, Pattle Delamore Partners Limited. AEE, at Appendix K.

- 254 With respect to addressing adverse effects of the Scheme on vegetation, Ecological Solutions notes that Project River Recovery has focussed on removal of weeds from headwater catchments, surveillance of weeds and creation or enhancement of wetland habitats. It is Ecological Solutions's view that Project River Recovery "has made a substantial contribution to maintaining indigenous vegetation in the Waitaki catchment, particularly with respect to weed control".
- In addition, expansion of native species in the area surrounding the Scheme is limited in part by a lack of suitable native seed sources. Undertaking an area of planting using existing remnants as a starting point and guided by local knowledge (including from mana whenua) would assist in establishing native vegetation which could then act as a source of seeds and other propagules for the wider area, including areas downstream, and could assist in reducing the current exotic species dominance in the area surrounding the scheme and improving ecological resilience to future changes.

Maintenance of wetlands

- In relation to surface water and groundwater interactions with wetlands adjacent to the Takapō River the Application provides the following information.
- 257 The Application states⁷⁸ that no changes in the groundwater level fluctuations currently experienced will occur as a result of the ongoing operation of the Scheme and the effects of the Scheme on groundwater will remain unchanged. The hydrological operation of the Scheme will remain unchanged.
- With regard to hydraulic connection with, and recharge to existing wetlands (including in relation to the Tekapo Canal), the Hydrology and Hydrogeology Assessment report (**Hydrology report**)⁷⁹ considers the effect of the Scheme on groundwater and observes that:
 - 258.1 Any seepages from the Tekapo Canal to groundwater and adjacent wetlands/water bodies are minor compared to the much larger natural water level variations (such as from rain/snow fall and seasonal fluctuations).
 - 258.2 Some of the wetlands/water bodies surrounding Lake Takapō are influenced by lake level fluctuations, predominantly at the higher water levels, as a result of the Scheme operation, but this pattern of interaction will not be altered as a result of the reconsenting.
 - 258.3 Wetlands such as the significant Patersons Ponds (adjacent to both the Tekapo Canal and the Takapō River) appear to have a high hydraulic connection with the Takapō River rather than being influenced by canal seepages, and that any canal seepage is unlikely to contribute much more than minor quantities of water to groundwater and surface water along the canal.
 - 258.4 Overall, the Application concludes that while some interaction between the canal and the surrounding groundwater system is expected to continue with the

⁷⁸ AEE, at section 5.10.

⁷⁹ Hydrological and Hydrogeological Analyses, 2023, Pattle Delamore Partners Limited.

ongoing operation of the Scheme, this is unlikely to change from the existing status quo.

Comments received

Forest and Bird comments

- 259 In its comments dated 25 August 2025⁸⁰, Forest and Bird state that "the Takapō River is a naturally uncommon, braided river system of exceptional ecological and landscape value. The river's dynamic flow regime historically sustained a mosaic of habitats, ephemeral wetlands, sparsely vegetated gravel bars, and dryland ecosystems".
- In his statement of evidence provided with Forest and Bird's comments, Mr Harding challenges⁸¹ the description in the AEE, in which the vegetation of the Takapō River floodplain as "of low ecological quality and low ecological value" and states that the only ecologically significant vegetation is "grey shrubland" which "is scattered along the Tekapo River in patches of varying size and integrity". He maintains that the AEE ecological significance assessment does not represent best ecological practice, and is inconsistent with application of the CRPS⁸².
- 261 Mr Harding states that these habitats support a mosaic of dryland vegetation, ephemeral wetlands, and sparsely vegetated gravel bars, which together provide critical breeding, foraging, and refuge areas for a range of native species. The natural disturbance regime, driven historically by variable flows and sediment movement, has maintained habitat heterogeneity and ecological resilience across the landscape.

CRC comments

- CRC's comments⁸³ emphasise that groundwater provides a connection between wetlands and lake levels in Lake Takapō, spill events down the Takapō River and leakage from the Tekapo Canal. Therefore, groundwater levels affect the functioning of hydrologically connected wetlands and ecosystems. Losses from the Scheme also provide an unknown input to the water balance and a dilution effect related to groundwater quality.
- 263 CRC maintain that potential changes to Scheme operation in response to climate change and electricity demand, albeit within operating levels, has the potential to have ongoing impacts on groundwater levels.
- 264 CRC provides a summary of solutions or conditions sought, including:
 - 264.1 A consent condition is recommended that requires the Applicant to provide CRC with groundwater level records (at a monthly or higher frequency) from their

⁸⁰ Forest and Bird Comments, 25 August 2025, at para 1.

⁸¹ Statement of Evidence of Michael Harding, on behalf of Forest and Bird, at para 36.

⁸² Canterbury Regional Policy Statement.

⁸³ Appendix 9: Technical Advice – Groundwater, of Ben Wilkins.

- existing monitoring wells that are currently measured for dam safety. The Applicant will provide these records in an appropriate format to CRC annually.
- 264.2 Providing CRC with groundwater levels is not onerous because the Applicant already measures groundwater at these wells and the only additional step is to send CRC the data. Therefore, no new infrastructure needs to be installed or increased monitoring needs to be undertaken.
- 265 CRC maintain that the benefits of providing groundwater level data are significant as the Scheme covers a large area, that modifies the groundwater resource.
- Groundwater monitoring will allow CRC to have some idea of the Scheme's impact on groundwater over the future 35-year duration. It notes that providing data to CRC from existing groundwater monitoring is proportional with the scale and significance of this consent.

Applicant response to comments

- 267 The Applicant notes in its response⁸⁴ in relation to vegetation, that Dr Gary Bramley in Appendix 8 has reviewed all of the relevant comments and has not changed his position as set out in his technical report.
- Dr Bramley notes in his Appendix 8⁸⁵ that Ms McArthur refers to four flow options in Paragraph 95 of her evidence. He has reviewed these options and in his opinion the catchment-wide IBEP compensation package proffered will result in better ecological outcomes for vegetation and wetlands in the upper Tākapō River than any of the flow options suggested by Ms McArthur.
- In relation to groundwater monitoring, the Applicant's planner, Mr Matthews confirms that the Applicant will voluntarily provide groundwater data to CRC. However, he expresses reservations regarding how such data might be used, as the information is gathered for dam safety assurance purposes rather than for RMA effects monitoring or management purposes. He therefore considers that voluntary provision of the data, which can include comments as to these reservations, is appropriate rather than imposition of a condition required it.

Panel Findings

- We find that some of the wetlands/water bodies surrounding Lake Takapō are influenced by lake level fluctuations, predominantly at the higher water levels, as a result of the Scheme operation. However we accept that this pattern of interaction will not be altered as a result of the reconsenting of the Scheme, and consider that such effects form part of the existing environment.
- We acknowledge concerns raised by CRC and Forest and Bird in relation to restoration of environmental flows in the Takapō River. As noted elsewhere in our decision, we

⁸⁴ Genesis Energy Ltd Response to Comments, dated 1 September 2025. At para 109 (g).

Technical Advice – Terrestrial Ecology and Wetlands by Dr Gary Bramley. Appendix 8, dated 28 August 2025.

consider effects including on terrestrial vegetation in the upper Tākapō River to form part of the existing environment. Accordingly, we have determined that it is not appropriate to require environmental flows in the Takapō River to mitigate effects on vegetation.

- We find that the catchment-wide IBEP compensation package proffered will result in better ecological outcomes for vegetation and wetlands in the upper Takapō River than any of the flow options suggested by Forest and Bird. We find that the IBEP will appropriately compensate for the ongoing and residual adverse effects of the Scheme on terrestrial vegetation, including wetlands.
- 273 The Panel agrees with Mr Matthews's reservations regarding the provision of data gathered for a non-RMA purpose being required to be provided to CRC as a condition of consent. We note the imposition of such a condition is unlikely to meet either the RMA or FTAA tests for imposition of conditions.

Climate change effects

- The Application provides a detailed analysis of hydrological and hydrogeological factors relevant to the Scheme. Relevant information related to climate change effects is set out in the Assessment of Environmental Effects, and summarised in the paragraphs below.
- The climate in the area is strongly influenced by Kā Tiritiri o te Moana/Southern Alps, with the climate of the region having a marked influence on hydrology. The main rivers that feed into Takapō are partially snow and ice-fed and have their highest discharges during the spring/summer snowmelt season. The streams and rivers which are predominantly rain-fed (such as Mary Burn and Irishman Creek) tend to have their highest discharges in winter and spring.
- The Mackenzie Basin is a drier region in the 'rain shadow' of the Southern Alps. Summers are warm and dry, with maximum temperatures averaging 21°C. Winters are cold, with an average maximum temperature of 8°C. On winter nights the temperature often falls below 0°C. Annual sunshine hours at Takapō average more than 2,400, making it one of the sunniest places in the country. North-westerly winds prevail and are often hot and dry in summer.
- The average annual rainfall near the main divide is approximately 8,000 mm reducing to approximately 500 mm around the mid- and lower reaches of the Takapō River main stem. The mean rainfall at the head of the Godley River in the upper catchment is appropriately 5,000 mm 6,000 mm. This decreases sharply to around 1,000 mm for Macaulay at Mount Gerald and to 500 mm near the Tekapo township.
- 278 In terms of floods and low flows, climate change is anticipated to result in⁸⁶:
 - 278.1 An overall increase in flood flows. Flood flows are anticipated to increase in winter and spring with no or limited change in summer and autumn.

⁸⁶ AEE, at Section 4.6.

- 278.2 Low flows are anticipated to increase due to the increase in rain in winter (when flows are typically low) and increased snow melt. The total number of extreme low flow events is anticipated to decrease.
- Analyses of the available lake level data⁸⁷ indicates that the lower part of the range has been entered less often since 1991. Minimum lake levels for the periods 1951-1978 and 1979-1990 are 701.7 masl and 702.1 masl respectively. This compares with a minimum of 702.9 masl for the period 1991-2020, primarily due to the setting of a minimum level in the WAP⁸⁸ and conservative operating practices to minimise the risk of levels falling below the statutory level. The lake levels that are exceeded 95 % of the time (lowest 5 percent of the lake levels) are also higher for the period 1991 2020 compared to the period 1979 1990 and 1951 1978.
- The influence of managing the water levels for hydropower generation is apparent in the data. The natural lake level fluctuation (pre-1951) is approximately 2.6 m. Post 1951 (1951-1978) lake levels are typically in the range between approximately 702.8 (water level exceeded 95 % of the time) and 710.2 masl (water level exceeded 5% of the time). After 1991, water levels are typically in the range between 704.7 and 710.2 masl. The minimum and maximum water levels are 701.7 and 712.6 masl recorded on 28 August 1976 and 23 December 1984, respectively.
- The Application notes that the design flood level of 713.05 masl has never been reached. The maximum recorded lake level since the lake was dammed in 1951 is 712.6 masl recorded during the 1984 flood. Since that time, special flood operating procedures were introduced, and lake levels have not exceeded 712.0 masl.
- In respect of the implication of climate change on Takapō, the available climate change studies⁸⁹ indicate an increase in average annual inflow to Takapō for both the midcentury as well as for end century. Flows are likely to increase in winter and autumn due to increased precipitation. The increased precipitation will primarily be as rain in winter with less snow and earlier melt than is currently experienced, while a small decrease in flow in summer is predicted.
- 283 Climate change modelling indicates⁹⁰ that the greatest changes in flow characteristics can be expected by the end of the century under the high emission (RCP8.5) scenario. For the low emission (RCP2.3) scenario, there is generally little change in inflow between the baseline period and the mid and end century scenarios.
- The application concludes⁹¹ that climate change modelling indicates that the greatest changes in flow characteristics can be expected by the end of the century, beyond the duration of the consents sought.

⁸⁷ *Ibid,* at Figure 28: Takapō Lake levels between 1925 and 2020.

⁸⁸ Waitaki Catchment Water Allocation Regional Plan.

Aotearoa New Zealand climate change projections guidance: Interpreting the latest IPCC WG1 report findings (2022). Prepared for the Ministry for the Environment, Report number CR 501

⁹⁰ Hydrological and Hydrogeological Analyses, PDP 2025.

⁹¹ *Ibid*, at Section 4.6.

Comments Received

CRC comments

- 285 The comments from CRC⁹² raised concerns about the effects of climate change resulting from the Application including that:
 - 285.1 The Applicant has proposed no changes to the hydrological operation of the Scheme, and therefore the hydrological effects will remain unchanged for Lake Takapō, the Tekapo Canal, and the Takapō River.
 - 285.2 Due to the impacts of climate change, it is expected that the Scheme operations will be required to change over time. It was noted that the Applicant had provided a good assessment of how climate change will impact rainfall, snow days and inflows.
 - 285.3 Whilst there are uncertainties in climate projections, there is more certainty of direction of change than absolute projected values. The Applicant has not assessed how these climate change impacts will impact the Scheme operations. Rather, the Applicant is relying on being able to operate the scheme within the existing operating level range, without providing evidence as to whether this is possible within the various climate change projections.
 - 285.4 Given the duration of both the current and proposed 35-year consents, it is likely that the effects of climate change will become evident within this period. No consideration had been given to mitigating existing adverse effects associated with the hydrological aspects of the Scheme. In CRC's view, potential mitigation could include changing how and when water is released into the Takapō River downstream of the Lake George Scott weir.
 - 285.5 No direct solution was proposed to mitigate the impacts of climate change of current and future scheme operations on the environment, however CRC supports ensuring sufficient ongoing monitoring of the effects of the Scheme⁹³,
- 286 CRC concludes⁹⁴ that uncertainties exist around climate change impacts, hydrological responses, groundwater effects, and lake ecology. CRC recommends additional monitoring (turbidity, macrophytes and groundwater) to better understand long-term changes. CRC maintains that the experts have agreed that such monitoring would not be onerous.

Minister of Climate Change comments

The Minister of Climate Change supports this application⁹⁵ because it may deliver significant climate change mitigation benefits.

⁹² Appendix 5: Technical Advice of Mr Hamish Graham – Hydrology to Susannah Black, Principal Consents Planner, Environment Canterbury, dated 20 August 2025.

⁹³ Ibid, at Table 1.

⁹⁴ *Ibid*, At para 5.

⁹⁵ Comments from the Minister for Climate Change dated 25 August 2025.

Applicant response to comments

- 288 The Applicant sets out its response to the Panel's RFI, including⁹⁶:
 - 288.1 In respect of the implications of climate change on Lake Takapō, the available climate change studies indicate an increase in average annual inflow to Lake Takapō for both the mid-century as well as for end century. Flows are likely to increase in winter and spring due to increased precipitation. The increased precipitation will primarily be as rain in winter with less snow and earlier melt than is currently experienced, while a small decrease in flow in summer is predicted.
 - 288.2 Climate change modelling indicates that the greatest changes in flow characteristics can be expected by the end of the century under the high emission scenario (RCP8.5). The Applicant is confident that it can manage lake levels within consent parameters, even under high emission scenarios (RCP8.5). For the low emission scenario (RCP2.3), the Applicant maintains that there is generally little change in inflow between the baseline period and the mid and end century scenarios.
 - 288.3 While hydro lakes contribute around 60% of total electricity supply, these lakes only hold enough water for a few weeks of winter energy demand if inflows (rain and snow melt) are very low. Where inflows are low for long periods of time, hydro generation reduces (referred to as 'dry years').
 - 288.4 Reconsenting the Scheme on the same basis as it is presently authorised is consistent with meeting the recommendations of the Climate Change Commission and the Emissions Reduction Plan in that it does not involve any reduction in the present level of renewable electricity generation from the Scheme.
 - 288.5 With regard to flood management, the Application states that the design flood level of 713.05 masl at Takapō has never been reached. The highest recorded lake level since the lake was dammed in 1951 was 712.6 masl during the 1984 flood event. Following that event, specific flood management procedures were implemented, and lake levels have remained below 712.0 masl since that time.
- In its response to the Panel's request for further information regarding the Tekapo Power Scheme's operation and climate change implications, the Applicant acknowledges⁹⁷ the uncertainty in predicting the future operation of the Tekapo Power Scheme due to various factors, including climate change, energy demand, and technological advancements. However, it notes that:
 - 289.1 The Scheme will operate within its consent limits, and while climate change is a factor, it is not the sole influence on operations.

Genesis Energy Limited Response to Further Information Request 1, dated 15 September 2025, including Appendices 1 and 2.

⁹⁷ Response to request for information from Genesis Energy Limited in relation to the Tekapo Power Scheme under the Fast-track Approvals Act 2024, dated 22 September 2025.

- 289.2 Current assessments suggest that climate change may lead to increased winter inflows and potentially decreased summer inflows, but these changes are not expected to significantly alter spill flows in the Tekapo River.
- 289.3 The Applicant is confident that it can manage lake levels within consent parameters, even under high emission scenarios (RCP8.5).
- In its response, the Applicant cites a recent study⁹⁸ which estimated the changes in lake inflow due to climate change over a 30-year period (current 2020 and future 2050). This study states that due to the relatively short timeframe of 30 years between current (2020) and future (2050) the impact of different emission scenarios (i.e. low (RCP 2.6), mid-range (RCP 4.5) and high emissions (RCP 8.5) scenario) on inflows was found to be small.
- 291 Concept Consulting states⁹⁹ that the operation of the Scheme depends not just on inflows, but also on a wide range of other factors, such as electricity market arrangements, technological developments, and the wider electricity system.
- Accordingly, it is impossible to predict with certainty how inflows and these wider factors will change over time (particularly over the 35-year term of the consent). However, regardless of these uncertainties, the operation of the Scheme would still be bound by the constraints of the consent conditions (e.g. minimum flows, ramping rates, and minimum and maximum lake levels).
- 293 Although impacts on inflows are significant overall, the 30-year period examined was not long enough for clear distinctions between different emissions scenarios to emerge, distinct from that which is already 'locked in' by past emissions. Therefore, only the mid-range emissions scenario (RCP4.5) outcomes are discussed in the paper. With regard to Lake Takapō inflows the results indicate:
 - 293.1 A moderate increase in annual inflows of approximately 6%.
 - 293.2 A large seasonal change in inflows with an increase in winter flow of 26% and a decrease in summer flow of 10%. The modelled increase in flow in spring and autumn is more moderate at 2% and 6% respectively.
- Analysis undertaken by PDP for the Applicant¹⁰⁰ utilises these climate change predictions as an example (while recognising the uncertainty associated with quantifying the magnitude of the changes in lake inflows under climate change) the winter inflows may increase from an average flow of 55-65 m³/s to around 70-80 m³/s.
- 295 The maximum generation capacity of the Tekapo Power Scheme is 130 m³/s, and therefore this potential increase in winter inflow can be readily accommodated within the existing scheme capacity.

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Purdie, J. (2022), Modelling climate change impacts on inflows, lake storage and spill in snow-fed hydroelectric power catchments, Southern Alps, New Zealand. Journal of Hydrology (NZ) 61(2): 151-178.

⁹⁹ Genesis Energy Limited Response to Further Information Request 1 - 15 September 2025. Appendix 1 - Effects of climate change on Tekapo Power Scheme, at Page 1.

¹⁰⁰ *Ibid*, at Appendix 2, section 2.2.1.

- An increase in winter inflows of 26% in the months of June, July and August results in an increase in lake level of up to 0.7m at the 95th percentile inflow sequence¹⁰¹. Mr Gray notes that this increase is small in comparison with the approximate 10 metre range in lake levels shown in Table 1 and Appendix B of the PDP Hydrology Report.
- In its response¹⁰², the Applicant notes that management of Lake Takapō levels is influenced by a range of factors including the lake level operating range defined in the consent conditions, and generation demand. The Applicant uses target lake levels to constantly manage the risk against breaching the minimum and maximum control levels (MinCL and MaxCL). This management process includes a weekly meeting (at least) which includes the following:
 - 297.1 Use of historical flow records and calculated percentile inflows for every day of the year
 - 297.2 The current lake level and projected levels (including the anticipated generation profile (which is commercially sensitive).
 - 297.3 A 10th and 90th percentile inflow risk is applied for droughts and floods respectively (this may include a 5th or 95th percentile for extreme forecasts).
- When the lake is very close to the MaxCL or likely to exceed MaxCL these weekly conversations turn into daily (or more frequent), and the High Flow Management Plan (HFMP) and communication with other parties apply. The Applicant notes that similar arrangements apply to low lake levels, with the exception of the HFMP conversations.
- The Applicant provided an updated draft Lake Takapō / Tekapo High Flow Management Plan (HFMP) as Appendix 2 of its response¹⁰³. It has incorporated feedback from the CRC review, however in accordance with the proposed consent conditions, the Applicant will consult with the Mackenzie District Council and Meridian Energy Limited on the draft plan.
- 300 The purpose of the HFMP is to document how the flows via Tekapo Power Scheme structures controlled by Genesis (Tekapo Intake Structure, Tekapo Control Structure (Gate 16), Tekapo A and B Power Stations, Lake George Scott Weir, the Tekapo Canal and Gate 17) will be managed to reduce Lake Takapō levels as required by Schedule One of CRC240290 and CRC240291 and to protect the integrity of the structures during periods when inflows to Lake Takapō raise the lake level above the maximum control lake level specified in Schedule One condition 1(a) of CRC240290 and CRC240291.
- The HFMP will be reviewed at intervals of not more than 10 years by a suitably qualified and experienced person(s), and any amendments to the HFMP will be provided to the CRC for certification, following consultation with CRC, and the operators of the Waitaki Power Scheme.

¹⁰¹ *Ibid*, at Appendix 2, section 2.2.2.

¹⁰² *Ibid*, at Appendix 2, section 2.2.1.

¹⁰³ *Ibid*, at Appendix 2.

- In summary, the Applicant states¹⁰⁴ that it must operate the scheme within the parameters of its consents. On the basis of the advice of its experts, the Applicant's position continues to be that:
 - 302.1 the scheme can operate within its current operating limits even under RCP8.5;
 - 302.2 there are no material adverse effects attributable to potential changes to the operation of the scheme.
- The Applicant maintains that there are no effects attributable to potential changes to the operation of the Scheme¹⁰⁵. It states that effects of climate change on avifauna, herpetofauna, terrestrial invertebrates, vegetation, native fish, water quality, and lakeshore geomorphology were broadly considered. It notes that adverse effects of climate change are not effects of the scheme as they will happen with or without the Scheme.
- The Applicant's position is that the Scheme contributes to assisting New Zealand reach its emission targets which will ultimately help mitigate the adverse effects of climate change. Its position is that the scheme can be operated within its consented limits, and if that is not correct, there are review conditions that enable consideration of alternative actions or conditions that may be required.
- In relation to proposed consent conditions, the Applicant notes that Proposed conditions 11 (water permit), 41 (Schedule One) and 42 (Schedule One) allow the CRC to:
 - 305.1 review management of low lake level events (any time the lake level falls below the specified minimum lake level); or
 - 305.2 to review the effectiveness of the conditions in avoiding or mitigating any unanticipated more than minor adverse effects on water resources (at any time); or
 - 305.3 to review the monitoring, volumes, any other rates specified in the conditions, and any management plans with particular reference to dealing with adverse effects on the environment (every seven years).
- The provisions set out in the paragraph above would include a review due to future unanticipated effects of climate change on the environment affected by the Scheme's operation if that eventuated.
- 307 The Applicant acknowledges the comments received from the Minister for Climate Change that he "supports this application because it may provide significant climate

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¹⁰⁴ *Ibid*, at para 28.

Genesis Energy Limited Response to Further Information Request 1, dated 15 September 2025. At paras 17-19.

change mitigation benefits." It maintains that this comment supports the benefits of the Project as advanced in its application, AEE and Appendix G¹⁰⁶.

Panel Findings

- We have considered comments provided by the CRC that raise concerns regarding the effects of climate change on the operation of the Scheme in the timeframe of the proposed consents (35 years), and whether they have been appropriately assessed, and addressed, by the Applicant.
- The Applicant has acknowledged the uncertainty in predicting the future operation of the Scheme due to various factors, including climate change, energy demand, and technological advancements. However, it notes that the Scheme will operate within its consent limits, and while climate change is a factor, it is not the sole influence on operations.
- 310 Whilst current assessments suggest that climate change may lead to increased winter inflows and potentially decreased summer inflows, the Applicant confirms that these changes are not expected to significantly alter spill flows in the Takapō River. The Applicant is confident that it can manage lake levels within consent parameters, even under high emission scenarios (RCP8.5).
- The Applicant uses target lake levels to constantly manage the risk against breaching the minimum and maximum control levels, in compliance with the provisions of the High Flow Management Plan, and we consider these measures to be appropriate.
- 312 The Applicant's position is that the Scheme contributes to assisting New Zealand reach its emission targets which will ultimately help mitigate the adverse effects of climate change. From evidence presented to us, we concur with the Scheme's contribution to climate change mitigation.
- Having carefully considered all the relevant information, the Panel concludes that any adverse effects resulting from climate change can be appropriately avoided, remedied or mitigated through the proposed consent conditions. Any unforeseen adverse effects can be managed through review conditions, and alternative actions or conditions can be implemented, if required.

Positive effects

- The Applicant identifies a number of positive effects associated with the Scheme, including: 107
 - 314.1 The generation of substantial volumes of 100% renewable electricity, equating in energy terms to sufficient supply for approximately 228,000 Canterbury households equivalent to more than 90% of the occupied dwellings in Canterbury.

¹⁰⁶ Applicant's response to comments, 1 September 2025, at para 33.

¹⁰⁷ Summary taken from AEE executive summary at page iii-v.

- 314.2 Additional benefits of hydro generation relative to other forms of generation, being both renewable and controllable, both of which will be increasingly important as New Zealand decarbonises its economy.
- 314.3 In addition to its contribution to national supply, the Scheme provides power to consumers in the Tekapo Albury region valued at approximately \$17 million (present value).
- 314.4 The Scheme has also resulted in improved fishery experiences within the Tekapo Canal, which also forms part of the Alps to Ocean cycleway (one of New Zealand's Great Rides) and created the environment within which Mt Cook Salmon operates.
- 314.5 Minor positive (alongside minor adverse) effects on water quality and aquatic ecology in the Takapō River.
- We address the extent of the Project's regional and national benefits in greater detail below.
- In addition, the Applicant is proposing the continuation and increase of funding towards Project River Recovery, now referred to as the IBEP and Kahu Ora. This will have substantial and tangible positive effects on the environment and will continue to do so in future, as detailed in the various expert assessments and technical advice provided by the Applicant as part of this process. Section 104(1)(ab) requires RMA consent authorities to have regard to measures proposed or agreed to by applicants for the purpose of ensuring positive effects on the environment to offset or compensate for adverse effects of activities, and the Panel has done so. Its conclusions particularly in relation to the IBEP are set out above in this decision.

Comments Received

- Forest and Bird provided comments that, if the Applicant's (and all other participants') conception of the existing environment was accepted, then the positive effects on the environment of the Scheme should be considered to form part of the existing environment as well as the adverse effects, and therefore those positive effects should be disregarded in the Panel's assessment of effects on the environment.
- In relation to the IBEP and Kahu Ora, Forest and Bird states that this initiative either will not achieve positive effects sufficient to outweigh adverse effects, or that there is insufficient information in relation to the effects of the Scheme in order to make that assessment. The Panel records that it considers these conclusions to be heavily influenced by Forest and Bird's conception of the existing environment against which the effects of the Application are to be assessed, which differs from that put forward by the Applicant, agreed to by other participants in this process, and accepted by the Panel.
- Forest and Bird also provides planning evidence in relation to how the planning instruments guide the assessment of positive effects on the environment. We address that evidence below in relation to the national and regional planning instruments.

320 CRC commented that its ecologists had found it difficult, on the information provided, to determine whether overall the compensation proposed equated to positive effects sufficient to address adverse effects of the proposal.¹⁰⁸

Applicant response to comments

321 The Applicant in response to Forest and Bird that it is fundamentally wrong when it submits that positive effects should be included in the existing environment. The Applicant submits that the "basis of the existing environment is to address s 5(2)(c) of the RMA, being the obligation to avoid, remedy or mitigate any adverse effects of activities on the environment." The Applicant says that case law has never taken the approach advocated by Forest and Bird, and refers to the Court in Alexandra specifically considering positive effects of the project in that case. 109

Panel Findings

- The Panel has considered the Application, comments from Forest and Bird and CRC, and the Applicant's response to those comments.
- 323 In relation to the IBEP, the Panel has provided its conclusions above in relation to the efficacy of that initiative, and that it considers the IBEP will appropriately and sufficiently compensate for the ongoing or residual effects of the operation of the Scheme.
- 324 In relation to Forest and Bird's submission that positive effects should be assumed to form part of the existing environment if the Applicant's conception of that environment is accepted, the Panel notes:
 - 324.1 In the relevant caselaw, positive effects are invariably considered when assessing proposals, and were so in *Alexandra* where a similar conception of the existing environment was assessed.
 - 324.2 Noting that while s5(2)(c) refers to adverse effects, section 104 requires a consent authority to have regard to "any actual and potential effects on the environment" of allowing the activity (effects being defined as including both positive and negative), as well as "any measure proposed or agree dto by the applicant for the purpose of ensuring positive effects on the environment to ... compensate for any adverse effects...".
 - 324.3 Notably, the references to effects on the environment in section 104 are not limited to "adverse" effects in the same way section 5(2)(c) is. Accordingly, it is not clear to us that Forest and Bird's submission in relation to the existing environment is "fundamentally wrong" in the manner suggested by the Applicant.
 - 324.4 In any event however, we find that while some of the positive effects postulated by the Applicant may already have occurred, or are now part and parcel of

¹⁰⁸ CRC s53 planning comments at para 81.

¹⁰⁹ Applicant's response to comments at para 105(c).

existing environmental processes that we have concluded form part of the existing environment, the most significant benefits of the Scheme constitute ongoing effects and benefits that we can properly take into account in the same way as we assess the ongoing adverse effects on the environment. Importantly, this includes:

- (a) The regional and national benefits of the Project that we describe below; and
- (b) The positive effects of the IBEP, which will compensate for ongoing and residual effects of the continued operation of the Scheme.

Consideration of flows

- 325 The Panel has provided its assessment and conclusion in relation to the disputed effects of the Scheme above, and concluded that direct mitigation of those effects is not required, and will be sufficiently compensated for through the proffered IBEP.
- We have referred to the four options for environmental flow regimes put forward by Forest and Bird above in relation to Aquatic Ecological Effects in particular, noting the Applicant's response to Forest and Bird's comments. For completeness, we record that the Panel acknowledges that, depending on the particular flow regime selected, introducing an environmental flow regime could benefit certain ecological values including (for example) by increasing the extent and quality of feeding and breeding habitat for avifauna, benefitting certain species of native fish through provision of greater access to suitable habitat, and providing conditions more suitable to certain native terrestrial vegetation. However, the Panel also accepts the Applicant's technical advice that:
 - 326.1 The implications of providing any environmental flow in the Takapō River will be the loss of water hydro-electricity generation.111 Forest and Bird focuses on the ecological matters, but largely fails to consider the implications of a minimum flow in terms of security of flexible electricity supply and climate change (and other) implications of needing to make up for this loss of generation potential with alternative generation elsewhere.
 - 326.2 Provision of a minimum flow would require physical modification to existing infrastructure and/or the provision of new infrastructure, as the existing structures are not designed to provide minimum flows at the levels proposed. That is likely to require consents to be obtained for the modified and/or new infrastructure, which are not before this Panel as part of the Application. 112

Statements of evidence of K McArthur, M Harding and R McClellan provided with the comments of Forest and Bird.

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

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

- 326.3 Other water users would likely be adversely affected by the provision of a minimum flow.¹¹³
- 326.4 While the provision of environmental flows may result in a range of ecological benefits, aspects of the existing river bed ecology that have adapted to low or no flow scenarios could be adversely affected. These include non-aquatic species including herpetofauna and terrestrial invertebrates (see above) that have been established in the Takapō river bed environment for almost 50 years.¹¹⁴
- 326.5 Creating more beneficial conditions for some species of native fish may be detrimental to other native fish sensitive to predation by those species including small non-migratory galaxiids, and which are at greater conservation risk.

 Increased flows beneficial to such species could also benefit salmonids who predate on small native fish.¹¹⁵
- 326.6 Existing wetlands that have a high connection with the Takapō River may be adversely affected by changes in flows, which have not been considered. 116
- 326.7 Permanent baseflows over the Lake George Scott weir are unlikely to avoid didymo blooms that would affect macroinvertebrate communities and other aquatic life. Even with large flushing flows, short term reductions in didymo biomass¹¹⁷ may not result in improved macroinvertebrate communities given uncertainty regarding whether these communities would recover faster from the negative effects of the flushing flow than periphyton biomass.¹¹⁸
- Accordingly, the Panel has concluded that, even if Forest and Bird is correct in relation to the existing environment, we do not consider the imposition of a minimum flow and/or flushing flow requirement for the Takapō River is appropriate. We consider that the foregone benefits of the water for generation purposes, the likely adverse effects of providing that flow in relation to ecological values including communities that have adapted to the current flow regime, and the uncertainty regarding the nature of benefits of reestablished flows and flushing flows weigh against that outcome. That conclusion is further reinforced when viewed through the lens of the purpose of the FTAA, and the extent of national and regional benefits of the Scheme which we discuss further below.

Tekapo White Water Trust letter dated 29 August 2025; Mt Cook Alpine Salmon letter dated 1 September 2025; Fish and Game Council letter dated 1 September 2025.

¹¹⁴ Addressed in AEE, Appendix O (C Ong and R Toft); Appendix P (G Ussher).

¹¹⁵ Technical advice (response to comments) of Richard Allibone.

 $^{^{116}}$ AEE, Appendix K (PDP Report Hydrological and Hydrogeological Analysis) at section 5.3.

¹¹⁷ AEE, Appendix L (R Young) at 4.3.

¹¹⁸ Technical advice (response to comments) of Dr Roger Young dated 28 August 2025.

Summary of effects on the environment

- Overall, the Panel finds that the adverse impacts, following the application of mitigations, compensation and conditions, will be acceptable in relation to native fish, avifauna, terrestrial invertebrates, herpetofauna, aquatic environmental effects, vegetation, and in light of the likely effects of climate change.
- While we acknowledge concerns raised by CRC and Forest and Bird in relation to transparency and enforceability of the proffered IBEP conditions, we have been persuaded by the legacy of Project River Recovery, the greater funding and focus provided in the IBEP, and the commitment of DoC and the Waitaki Rūnanga to achieving significant outcomes in the Waitaki Catchment that the IBEP will appropriately compensate for the ongoing and residual adverse effects of the Scheme on the environment, as defined above.
- The Panel also finds that there will be positive effects, particularly associated with ecological effects, social and economic impacts (discussed further under Part H below).

PART G: SECTIONS 105 AND 107, CONSIDERATONS RELATING TO DISCHARGES

- 331 Sections 105 and 107 include matters relevant to, and restrictions on the grant of, certain discharge permits.
- The AEE address sections 105 and 107 at parts 7.4 and 7.5 and concludes:

332.1 In relation to section 105:

- (a) The nature of the discharges is that they are existing, controlled activity discharges as described in the expert ecology and water quality assessments.
- (b) That the Applicants reasons for not proposing any changes is that the discharges are existing, given the scale of the Scheme and its length of operation departing from the current operations would have significantly greater than the status quo.
- (c) Further changes would be very expensive, have their own potentially significant environmental effects.
- (d) There are accordingly no practicable alternatives.
- 332.2 The proposed discharges do not give rise to any of the effects listed in section 107 in receiving waters after reasonable mixing. Accordingly, section 107 does not restrict the granting of consent.
- CRC addressed section 105 and 107 in its comments on the Application. CRC confirms agreement with the Applicant's analysis regarding section 105, and that the proposed discharges will not give rise to the effects listed in section 107.

PART H: SIGNIFICANT REGIONAL OR NATIONAL BENEFITS OF THE PROJECT

334 Section 3 of the FTAA states that the purpose of the Act is to facilitate the delivery of

infrastructure and development projects with significant regional or national benefits.

- As noted above in Part C section 81(4) FTAA specifically requires the panel to consider the extent of the project's regional or national benefits. This was described by the Maitahi Village Expert Panel as "essentially a forensic exercise" that Panel's must reach their own assessment of. The Panel in *Maitahi* rejected a submission that the Panel could rely on the fact that a Project is listed in Schedule 2 for any finding that it has significant regional or national benefits. 120
- There is no specific definition of significant regional or national benefits in the context of listed projects. However section 22 FTAA, which relates to the criteria for assessing a referral application, identifies in section 22(1)(a), the first of the relevant criteria as being that "the project is an infrastructure or development project that would have significant regional or national benefits". The wording of this description is consistent with the purpose provision in section 3.
- The significance of this similarity is that section 22(2) provides that, for the purposes of subsection (1)(a), there is a range of matters which the Minister may consider. These include, inter alia:
 - (2) For the purposes of subsection (1)(a), the Minister may consider—
 - (a) whether the project—
 - (i) has been identified as a priority project in a central government local government, or sector plan or strategy (for example, in a general policy statement or spatial strategy), or a central government infrastructure priority list:
 - (ii) will deliver new regionally or nationally significant infrastructure or enable the continued functioning of existing regionally or nationally significant infrastructure:
 - (iii) will increase the supply of housing, address housing needs, or contribute to a well-functioning urban environment (within the meaning of policy 1 of the National Policy Statement on Urban Development 2020):
 - (iv) will deliver significant economic benefits:
 - (v) will support primary industries, including aquaculture:
 - (vi) will support development of natural resources, including minerals and petroleum:
 - (vii) will support climate change mitigation, including the reduction or removal of greenhouse gas emissions:
 - (viii) will support climate change adaptation, reduce risks arising from natural hazards, or support recovery from events caused by natural hazards:
 - (ix) will address significant environmental issues:
 - (x) is consistent with local or regional planning documents, including spatial strategies:
- The Panel agrees with the Maitahi Village Expert Panel that this list of factors which may be taken into account by the Minister is assessing the criteria for accepting a referral application provides a "flavour of, or guide to" what might be required to demonstrate significant regional or national benefits. That Panel went on to consider the meaning of "significant" and was content to use the "sufficiently great or important to be worthy of attention; noteworthy" as working definition.

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If the application was a referral application – the panel must treat the stage of the project to which the application relates as constituting the project; but may consider the regional or national benefits of the whole project, having regard to the likelihood that any later stages of the project will be completed (section 81(5) FTAA).

¹²⁰ *Maitahi* at para [83]-[85].

- We note that section 22(2)(a)(ii), (iv), (vii) and (viii) appear to be of potentially direct relevance to the Application.
- 340 The AEE addresses the significant regional and national benefits of the Application in section 1.2, when considering the purpose of the FTAA. It concludes that the Scheme "demonstrably achieves the purpose of the FTA by delivering significant benefits to both the Canterbury Region and New Zealand more broadly."
- In its legal submissions for the Project Overview Conference, the Applicant summarised the position as follows:

A secure, reliable, and affordable supply of electricity is critically important to the economic, social, and cultural wellbeing of New Zealanders. The scheme will maintain crucial existing electricity generation capacity and security of supply:

- (a) on average the Tekapo A and B power stations directly provide electricity to the equivalent of more than 120,000 New Zealand homes annually;
- (b) the scheme (through diverting water into Lake Pūkaki for use through the Ōhau power stations) directly and indirectly provides electricity to the equivalent of more than 228,000 New Zealand homes annually;
- (c) the Combined Waitaki Power Scheme is the largest hydroelectric generating system in New Zealand generating up to 25% of New Zealand's annual electricity requirements;
- (d) Lakes Takapō and Pūkaki provide up to 65% of the country's hydro average storage volume; and
- (e) without the Tekapo A power station, an alternative electricity source would need to be developed as a local back-up for consumers in the Tekapo Albury region.

The continuation of this substantial existing renewable electricity capacity is also essential for contributing towards:

- (a) reducing greenhouse gas emissions by 50% below 2005 levels by 2030, as required by the Paris Agreement; and
- (b) reducing New Zealand's greenhouse gas emissions (except biogenic methane) to net zero by 2050, as required by the emissions reduction target.

Increased thermal generation, which would be required without the scheme, would significantly raise New Zealand's greenhouse gas emissions, by the equivalent of 450,000 to 1.13 million cars per year while it was operating.

- Further detail is provided in section 5.2 of the AEE "Decarbonisation and economic effects", and Appendix G "Tekapo Power Scheme electricity sector benefits", Concept Consulting, February 2025. In summary:
 - 342.1 The Scheme generates substantial volumes of 100% renewable energy, sufficient to supply around 228,000 average Canterbury households over 80% of the number of homes in the Canterbury region.
 - 342.2 Replacing the Scheme's output with alternative renewable source would impose additional costs on society of around \$170m \$220m per year. Alternatives renewable sources would likely take time to consent and construct, requiring thermal generation to be increased in the meantime at an annual cost of \$250-370m per year, with associated increased greenhouse gas emissions the equivalent of 450-000 to 1.13m cars per year while operating.
 - 342.3 The cost estimates above are likely conservative as they do not account for the economic premium that applies to controllable generation sources. The Scheme is able to vary its energy output to match system conditions, helping to maintain reliable electricity supply to consumers.
 - 342.4 Significant regional benefits to the Tekapo region are provided as the Scheme

provides power supply when the area is cut off from the national grid. If that were not the case the Tekapo Region might experience between 200-250 hours per year without electricity supply. Otherwise alternative measures to ensure security of supply would be required at a likely cost of \$20 million in present value terms.

342.5 Finally, the Scheme provides a national benefit to New Zealand electricity consumers by avoiding electricity price increases that would occur if the Scheme needed to be replaced. Replacing the Scheme would require more expensive generation in the short term, leading to price increases of around \$60/MWh. In the long term, the development of more expensive renewables would be required, equating to price increases of around \$7.5/MWh. These price increases equate to a present value increase in costs to consumers of approximately \$9.2 billion.

Panel findings

- The Panel has concluded that the Application will have unquestionably significant regional and national benefits.
- 344 The benefits of the proposal in terms of its contribution to continued secure electricity supply in an increasingly electrified society, climate change benefits in terms of its contributions to emissions reduction targets, and the potential costs of replacing all or part of the power generated by the Scheme through alternative sources (renewable or non-renewable) were clearly sufficiently great or important to be worthy of attention. We note that the extent of these benefits as summarised in the Application were also not challenged by any participant in the process.

PART I: STATUTORY DOCUMENTS

The AEE addresses the relevant statutory documents and identifies relevant provisions. Rather than repeat all of that, this section addresses the documents of particular relevance to the Application (particularly relevant provisions) and the comments received. The Panel also relies on our conclusions on effects and the conditions we have decided to impose in support of the conclusions reached on relevant planning provisions (including Part J: Regional and District Planning Framework as relevant to the topic area).

National Policy Statements

- 346 The relevant National Policy Statements were addressed in section 10 of the AEE and include:
 - National Policy Statement for Renewable Energy Generation 2011 (NPSREG);
 - National Policy Statement for Freshwater Management 2020 (NPSFM); and
 - National Policy Statement for Indigenous Biodiversity 2023 (NPSIB).

National Policy Statement for Renewable Energy Generation 2011

347 The NPSREG sets a framework for the sustainable management of renewable electricity generation to meet the growing demand for energy. It responds to the risks of climate

change by reducing greenhouse gas emissions from the production and use of energy. It also responds to the challenge of delivering, clean, secure and affordable energy while treating the environment responsibly.

348 The objective of the NPSREG is:

To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.

- Its policies, especially Policies A, B, C1 and C2, are directive and we have discussed the matters therein throughout this decision. The Applicant in its AEE¹²¹ has considered the project against the objective and policies of the NPSREG, considering the application to be "fundamentally consistent with the requirements of the NPSREG". All other participants in this process recognise the Scheme's national significance and the contribution that it makes to renewable electricity generation in New Zealand.
- The Minister for RMA Reform commented that the Application is consistent with both the NPSREG and the proposed update to this national policy statement, referring to the Government's target to double renewable electricity generation by 2050. We acknowledge these comments, while noting that a proposed update to the NPSREG cannot be given any weight under this process.
- 351 Forest and Bird consider that the Applicant's proposed approach to the existing environment would mean that the positive effects of the Scheme could not be considered against the NPSREG. We have addressed the existing environment above, and refer back to that discussion here. We consider it appropriate to consider the positive effects of the Scheme, including against the NPSREG. Of note, Policy A of the NPSREG directs us to recognise and provide for the many benefits of renewable electricity generation, some of which are listed in the policy and recognised in this decision.
- Forest and Bird sought that the mitigation include an environmental flow for the Takapō River. While the effects of this are discussed above, of relevance to the NPSREG is that this would reduce the electricity generation capacity of the Scheme. Policy B requires us to have particular regard to the following matters:
 - maintenance of the generation output of existing renewable electricity generation activities can require protection of the assets, operational capacity and continued availability of the renewable energy resource; and
 - even minor reductions in the generation output of existing renewable electricity generation activities can cumulatively have significant adverse effects on national, regional and local renewable electricity generation output; and...
- We agree with the comment from the CRC which emphasises Policy C2 as being particularly relevant. It states:

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to

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¹²¹ At section 7.2.6.1 of the Applicant's AEE.

offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.

- While the substantive effects of the Scheme are accepted as part of the existing environment, we acknowledge that there are residual effects of the Scheme that cannot be avoided, remedied or mitigated. Policy C2 directs us to then have regard to the environmental compensation package proposed by the Applicant. We have done so above and consider that the compensation proposed through the IBEP is sufficient to address these residual effects.
- We agree with the Applicant that the ongoing operation of the Scheme is consistent with the matters of national significance provided for by the NPSREG, and with the object of the NPSREG.

National Policy Statement for Freshwater Management 2020

- The NPSFM sets out a framework under which local authorities are to manage freshwater (including groundwater). The WCWARP and LWRP were prepared prior to the NPSFM 2020 and therefore do not give effect to it. It is therefore appropriate to carefully consider its provisions.
- The objective of the NPSFM is to ensure that natural and physical resources are managed in a way that prioritises the:¹²³
 - 357.1 Health and well-being of water bodies and freshwater ecosystems;
 - 357.2 Health needs of people (such as drinking water); and
 - 357.3 Ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
- 358 This objective reflects the hierarchy of obligations in Te Mana o te Wai. 124 Policy 1 of the NPSFM requires that freshwater is managed in a way that gives effect to Te Mana o te Wai.
- The Applicant in the AEE has assessed the Project against the objective and policies of the NPSFM¹²⁵, with particular reference to the approach taken by the Waitaki Rūnanga, in their Treaty Impact Statement, to apply Te Mana o te Wai to the Scheme. They have balanced the significance of the waters of the Waitaki with the significance of the hydroelectricity generation scheme. An intergenerational approach is discussed, with a medium to long term vision to return water to the Takapō River. Mana whenua acknowledge that an holistic, long-term perspective is required to achieve this, and the Applicant has acknowledged this through the IBEP and Kahu Ora.
- The Applicant recognises that the construction of the Scheme had a significant effect on the first 7 km of the Takapō River. That said, the Scheme has been operating for

¹²² NPSFM clause 1.5.

¹²³ NPSFM clause 2.1.

¹²⁴ NPSFM clause 1.3.

Section 7.2.6.2 of the AEE.

over 70 years and there is no change proposed to the existing operating regime. We have agreed with the Applicant that the existing operation forms part of the existing environment. The Applicant has therefore assessed the Scheme as being consistent with Policies 6 and 7 of the NPSFM – which require no loss of river and wetland extent, respectively – as there will be no further loss of extent or values of the Takapō River or surrounding wetlands. The Panel has considered this analysis and agrees with it.

- The Minister for RMA Reform commented¹²⁶ that the application is consistent with the NPSFM and referred us to clause 3.31. This clause applies to five hydro-electricity generation schemes, including the Waitaki Scheme (of which this Scheme is a part), and provides for exemptions to achieving national bottom lines where this would have a significant adverse effect on the scheme. While this clause applies to regional plan development rather than resource consent applications, it recognises the national importance of the major hydroelectricity generation schemes and gives effect to the NPSREG.
- The CRC's comment¹²⁷ focusses on Policies 6 and 7 of the NPSFM, although acknowledges that there is unlikely to be further significant loss of river or wetland extent. Policies 6 and 7 are given effect to by national direction policies in regional plans¹²⁸. We return to these policies in our discussion of the regional plans below.
- Ms Marr commented on planning matters for Forest and Bird¹²⁹, concluding that the Application is inconsistent with the relevant provisions of the NPSFM. Her view was predicated on the assumption that the allocation and environmental flow regime in the WCWARP forms part of the existing environment, and that the default minimum flow in the WCWARP should apply to the Takapō River below Lake George Scott. For the reasons discussed earlier in this decision, we have not accepted this. We therefore do not accept her NPSFM policy assessment that follows.
- Ms Marr also considered that the IBEP should have been developed in accordance with the effects management hierarchy or the aquatic compensation principles that are set out in the NPSFM. We have considered these points above, concluding that it is appropriate that the compensation proposed through the IBEP was not developed through consideration of the effects management hierarchy and that it does not constitute aquatic compensation as per the NPSFM Appendix 7.
- The Panel has considered the Applicant's assessment and comments received. We agree with the Applicant that the Application gives effect to Te Mana o te Wai and is consistent with the objective and policies of the NPSFM.

National Policy Statement for Indigenous Biodiversity 2023

366 The objective of the NPSIB is:

¹²⁶ Hon Chris Bishop, Minister Responsible for RMA Reform, undated letter.

¹²⁷ Memorandum of Susannah Black, CRC. 22 August 2025.

Policies 5A.3 to 5A.5 of the WCWARP, and Policies 2A.1 to 2A.3 of the LPWRP, through NPSFM clause 3.22 Natural Inland Wetlands and clause 3.24 Rivers.

¹²⁹ Statement of planning evidence of Helen Marie Marr. 25 August 2025. Prepared for the Forest and Bird.

- (a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and
- (b) to achieve this:
 - (i) through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and
 - (ii) by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and
 - (iii) by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and
 - (iv) while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.
- The AEE notes that the Application is for the continued operation of the Scheme, with no changes to the operating regime other than a small change with respect to flood flow management. It also refers to the agreement reached with Meridian Energy and DoC to implement the IBEP, which it considers will give effect to the NPS-IB.
- Notwithstanding that, the AEE refers to paragraph 3 of section 1.3 "Application" of the NPS-IB which states:

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.

369 As noted in the AEE, the Scheme is a renewable electricity generation asset and activity, and therefore in terms of paragraph 3 set out above, the NPS-IB does not apply. Accordingly the Panel is satisfied that is not required to consider the NPSIB any further.

National Environmental Standards and Regulations

- 370 We agree with the Applicant¹³⁰ that the following regulations are applicable:
 - Resource Management (National Environmental Standards for Freshwater)
 Regulations 2020 (NES-F);
 - Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 (NES-SHDW); and
 - c. Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (**MRWT Regulations**).

Resource Management (National Environmental Standards for Freshwater) Regulations 2020

371 The regulations in the NES-F apply to resource consent applications that include farming activities, the modification of natural inland wetlands, reclamation of rivers and the passage of fish affected by structures. The regulations are more permissive for

¹³⁰ Table 3 of the AEE: Applicable National Environmental Standards

- specified infrastructure, which is defined in the NES-F and includes the Scheme.
- 372 The Applicant has assessed the proposed activities against the NES-F¹³¹ and found that there are no regulations that are applicable to the activities for which consent is sought. In summary, the reasons for this are:
 - 372.1 In relation to natural inland wetlands, Regulation 45 (construction of specified infrastructure) does not apply as no new construction activities are proposed. Regulations 46 and 47 (maintenance and operation of specified infrastructure and other infrastructure) do not apply as there are no natural inland wetlands within 100 m of the activities for which consent is sought.
 - 372.2 In relation to reclamation of rivers, Regulation 57 does not apply as there are no activities associated with the reclamation of the bed of any rivers.
 - 372.3 Turning to fish passage, the Application does not involve the construction of any new structures (such as culverts, weirs, flap gates, dams or fords). Regulation 60 states that subpart 3 of the NES-F does not apply to structures that existed as at 2 September 2020, or to later alternations or extensions of those structures. The continued use and maintenance of Scheme structures is therefore not subject to subpart 3 of the NES-F.
- We have not received any comments relating to the NES-F and agree with the Applicant's assessment that the proposed activities do not trigger consent requirements under the NES-F.
 - Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007
- 374 The AEE has considered the NES-SHDW¹³², referring to Regulations 7 and 8 which apply to water and discharge permits, and regulation 12 which applies to consent conditions. The AEE concludes that these regulations do not apply in this case, as there are no registered drinking water supplies of the requisite size that the proposed activity could potentially affect.
- 375 The Panel did not receive comments relating to the NES-SHDW. We agree with the Applicant's assessment and do not consider that the NES-SHDW is applicable to the proposed activities.
 - Resource Management (Measurement and Reporting of Water Takes) Regulations 2010
- 376 The MRWT Regulations apply to water permits that provide for abstractions of 5 L/s or more, however they do not apply to non-consumptive activities. The AEE¹³³ considers the MRWT Regulations and provides information to support the use of water for hydroelectricity generation for the Scheme as being a non-consumptive use. This was not challenged through any comments received from parties.

Section 7.2.5.2 of the Applicant's AEE.

¹³¹ Section 7.2.5.1 of the AEE

Section 7.2.5.3 of the Applicant's AEE.

377 We agree with the Applicant that the MRWT Regulations do not apply to this application. We also note that the Applicant records flow rates at key points in the Scheme and provides this data to the CRC. It proposes to continue this, which is reflected in the proposed consent conditions. We consider that this is critical to the continued operation of the Scheme, irrespective of the requirements of the MRWT Regulations.

PART J: REGIONAL AND DISTRICT PLANNING FRAMEWORK

- An assessment of the relevant statutory plans has been included within the AEE as is required by Schedule 5, clause 5(1)(h). The relevant statutory plans are the CRPS, the WCWARP and the CLWRP. It is worth noting here that each of these statutory documents became operative prior to the NPSFM 2020 and have not been amended to consider the NPSFM.
- 379 The Panel has reviewed and considered the assessment provided by the Applicant and the comments provided by the parties, in this case the CRC and Forest and Bird. We outline the key matters in the following sections (as well as adding further considerations and assessment).

Canterbury Regional Policy Statement

- 380 The CRPS became operative in 2013 and addresses the integrated management of natural and physical resources in the Canterbury Region. The AEE¹³⁴ assesses the Application against the issues, objectives and policies of the CRPS, summarises as follows:
 - 380.1 Provisions in Chapter 5 recognise the importance of the continued operation and maintenance of regionally significant infrastructure (which includes the Scheme). Policy 5.3.9 recognises that some activities, such as hydro-electricity generation, can only occur where the natural or physical resource exists. This policy also sets out how adverse effects on significant natural and physical resources are to be managed, first through avoidance and then remediation or mitigation where avoidance is not practical.
 - 380.2 Chapter 7 contains provisions¹³⁵ relating to freshwater and recognises that the abstraction and use of water is necessary for economic activities (including hydro-electricity generation), provided that the water resource is managed sustainably and the quality of water is maintained or improved. The special characteristics of braided river systems are recognised (Policy 7.3.2), however the provisions do not restrict the continued operation of the Scheme providing it remains at a similar scale and does not result in additional significant effects (Policy 7.3.11).
 - 380.3 Chapter 9 contains provisions relating to ecosystems and indigenous biodiversity. Objectives 9.1.1 to 9.1.3 aim to halt the biodiversity decline, promote restoration, and protect significant vegetation and significant habitats of indigenous fauna. The policies¹³⁶ for achieving these objectives seek to

¹³⁴ Section 7.2.7 and Appendix T of the Applicant's AEE.

¹³⁵ Notably Policies 7.3.1, 7.3.2, 7.3.3, 7.3.4, 7.3.6, and 7.3.11.

¹³⁶ Policies 9.3.1, 9.3.2, 9.3.4 and 9.3.6.

- protect significant natural areas, prioritise other areas for protection, promote restoration and enhancement, and limit the use of biodiversity offsets. The Applicant considers that the proposed IBEP will result in outcomes consistent with these provisions.
- 380.4 Chapter 10 contains provisions relating to the beds of rivers, lakes and their riparian zones. These provisions are considered, but not in any detail given that the operation of the Scheme will not alter and the Applicant has not assessed there to be any additional effects on the beds of rivers, lakes and their riparian zones.
- 380.5 Chapter 11 addresses natural hazards and contains provisions that are relevant to new developments and uses of resources. These provisions are not particularly relevant to the Scheme, however the Applicant notes that they have considered climate change effects and provided assessment in relation to flood and seismic events.
- 380.6 Chapter 12 addresses landscape matters, with the Mackenzie Basin recognised as an outstanding natural landscape. This is implemented through the Mackenzie District Plan which recognises the Scheme as part of this landscape. The ongoing operation of the Scheme will not change and, as such, the Application is consistent with these provisions.
- 380.7 Chapter 13 contains provisions relating to the identification and protection of historic heritage and cultural heritage. The Applicant considers that it has given effect to these provisions through engaging with Waitaki Rūnanga to understand and manage these values.
- 380.8 Chapter 16 (Energy) provide a framework¹³⁷ to reduce the dependence on non-sustainable energy sources, promote the use of energy from renewable sources and to enable existing hydro-electricity generation infrastructure to be maintained, upgraded and enhanced. The Applicant has assessed the continued operation of the Scheme as consistent with these provisions.
- The Panel considers that the Applicant has identified and assessed the appropriate provisions in the CRPS. The Applicant concludes that the ongoing operation of the Scheme is consistent with the relevant provisions, primarily because no material changes are proposed to the operation of the Scheme, and additional compensation is provided through the IBEP.

Comments received

Forest and Bird¹³⁸ consider that the Application is inconsistent with the provisions of the CRPS, particularly those provisions that relate to the management of biodiversity. Ms Marr specifically refers to Objectives 9.2.1, 9.2.2 and 9.2.3, and Policies 9.3.2 and 9.3.4. Collectively, these provisions seek to halt the decline of biodiversity values, prioritise protection in some situations, and improve the long term sustainability of

¹³⁷ Notably, Objective 16.2.1 and Policies 16.3.1, 16.3.2, 16.3.5

¹³⁸ Statement of planning evidence of Helen Marie Marr. 25 August 2025. Prepared for the Royal Forest and Bird Protection Society.

ecosystems. Ms Marr's evaluation relies on Forest and Bird's technical evidence, which concluded that the Applications will result in a loss of biodiversity.

The CRC comments¹³⁹ acknowledge the Scheme as regionally significant infrastructure under the CRPS, recognising that Policies 5.3.9 and 7.3.11 in particular provide for the Scheme's continued operation. Policies 7.3.13 is also discussed, which encourages the involvement of people and communities in the management of freshwater. The CRC claim that, while the Applicant has engaged with a number of key parties, the use of the FTAA has excluded the wider community.

The CRC also raise Policy 9.3.1, highlighting the nationally significant biodiversity values of the Mackenzie Basin but acknowledging the proposed IBEP.

Response to comments

The Applicant responded ¹⁴⁰ to the comments from Forest and Bird, reiterating the planning assessment in the AEE and stating that the CRPS anticipates and provides for an existing environment that includes the existing effects of the Scheme. Mr Matthews emphasised that the policy framework must be considered as a whole.

Panel Findings

Forest and Bird's assessment against the CRPS is based on a different view of the existing environment to that reached by the Panel, and therefore different conclusions as to effects. This has resulted in Ms Marr coming to a different conclusion to the Applicant with regard to consistency or otherwise with the provisions of the CRPS. We have not accepted Forest and Bird's position on the existing environment, nor their conclusions that the proposal will result in a loss of biodiversity. We therefore do not accept Ms Marr's conclusion that the Application is not consistent with the CRPS.

We place considerable weight on Policies 5.3.9 and 7.3.11, which provide for the Scheme's continued operation and its significant role in renewable electricity generation. We have concluded that the effects of the Application are acceptable and that the IBEP is an appropriate mechanism to manage residual effects of the Scheme. We therefore find that the Application is consistent with the provisions of the CRPS.

Waitaki Catchment Water Allocation Regional Plan

The WCWARP was developed by an independent Waitaki Catchment Water Allocation Board under the Resource Management (Waitaki Catchment) Amendment Act 2004. It was made operative by the Board in 2005, at which time it became a CRC regional plan. The WCWARP applies to the taking, use, damming or diverting of water from water bodies within the Waitaki catchment, with no consideration of water quality issues.

389 The Applicant assesses the provisions of the WCWARP¹⁴¹, noting that the Scheme activities of taking, using and diverting water are primarily controlled through this

¹³⁹ Memorandum of Susannah Black, CRC. 22 August 2025. Paragraphs 67-70.

Appendix 1 of Applicant's response: Tekapo Power Scheme Planning Advice – Richard Matthews. 1 September 2025.

¹⁴¹ Section 7.2.8 and Appendix T of the Applicant's AEE.

plan. The WCWARP sets flow and level regimes for waterbodies in the Waitaki catchment, along with allocation limits and allocations to activities. It also recognises High Natural Character Waterbodies, which do not include any impacted by this Application. The Applicant's assessment of the Application against the WCWARP can be summarised as follows:

- 389.1 Of the five objectives, Objective 1 prioritises the health of the water and is considered to be generally consistent with Te Mana o te Wai.
- 389.2 The consents sought are in accordance with the environmental flow and level regimes set through the WCWARP policies¹⁴².
- 389.3 The rule framework does not require a continuous minimum flow downstream of Gate 16 or the Lake George Scott Weir, and the flow from Lake Takapō does stay within the Waitaki catchment and flow to the sea.
- 389.4 The measurement, recording and supply of water use will continue, as required by Policy 21.

Comments received

- Forest and Bird's comments provided an assessment against the WCWARP, with a focus on the flow regime and compensation. Ms Marr concludes that the Application is inconsistent with the relevant policies of the WCWARP. She acknowledges that the controlled activity status for the Scheme operation indicates that the regional plans have provided for the continuation of the Scheme, assuming the application can meet the matters of control. Interpreting these matters of control, she concludes that default minimum flow in Table 3B(xxii) should apply to the Takapō River below Lake George Scott. We have addressed this matter above, with reference to the legal advice sought from Ms Hamm, and concluded that this default minimum flow does not apply to the Takapō River in the manner Ms Marr contends.
- 391 Ms Marr also considers Policies 5A.4 and 5A.5, which are incorporated into the WCWARP in accordance with directions in the NPSFM. These policies relate to the loss of extent and values of rivers, and require effects to be managed in accordance with the NPSFM effects management hierarchy and principles of aquatic offsetting and compensation. Forest and Bird consider that these policies have not been assessed by the Applicant. Based on Forest and Bird's position on the existing environment and subsequent conclusions in technical evidence that the IBEP is insufficient to compensate for the loss of indigenous biodiversity, Ms Marr considers that the application is not consistent with these policies.
- 392 The CRC's comment¹⁴⁴ discusses Policies 5A.1 and 38. Policy 5A.1 is a national directive from the NPSFM and provides for the maintenance or improvement of fish passage. Policy 38 acknowledges that the Takapō River is associated with the mana of the Lake Takapō and that flow in this river would provide continuity from the mountains to the sea. Ms Black acknowledges that this policy does not require flows in

¹⁴² Notably, Policies 3, 4, 35-37

¹⁴³ Statement of planning evidence of Helen Marie Marr. 25 August 2025. Prepared for the Forest and Bird.

¹⁴⁴ Memorandum of Susannah Black, CRC. 22 August 2025. Paragraphs 75-79.

the Takapō River, and notes the support of the Waitaki Rūnanga for the continued operation.

Response to comments

393 Similar to that for the CRPS, the Applicant's response¹⁴⁵ largely reiterates the AEE assessment. Mr Matthews acknowledges that the WCWARP does not give effect to the NPSFM, but considers that the two documents are largely consistent. He emphasised that the policy framework must be considered as a whole. He considers that Ms Black's assessment for the CRC is largely consistent with his for the Applicant.

Panel Finding

- Forest and Bird's assessment against the WCWARP is based on a different view of the existing environment to that reached by the Panel, and therefore different conclusions as to effects. This has resulted in Ms Marr coming to a different conclusion from the Applicant with regard to consistency or otherwise with the provisions of the WCWARP. We have not accepted Forest and Bird's position on the existing environment, nor their conclusions that the proposal will result in a loss of biodiversity. We therefore do not accept Ms Marr's conclusion that the Application is not consistent with the WCWARP.
- 395 The Panel finds that the Application is consistent with the flow and level regime in the WCWARP and, when considered alongside the compensation proposed through the IBEP, is consistent with the objectives and policies of the WCWARP.

Canterbury Land and Water Regional Plan

- The CLWRP, incorporating Plan Changes 1-6, became operative in 2019, prior to the NPSFM 2020. The CLWRP applies to the management of water other than the taking, using, damming and diverting in this case, the discharges of water and associated contaminants associated with the operation of the Scheme. The AEE assesses the proposal as being consistent with the objectives and policies of the LWRP¹⁴⁶, noting the following:
 - 396.1 Objectives seek the integrated management of land and water, and recognition of Ngāi Tahu values including ki uta ki tai. They also enable nationally and regionally significant infrastructure, and acknowledge the values of water and waterbodies. The Applicant has consulted with Meridian in relation to these Applications to ensure that an integrated approach is taken to managing water in the Waitaki Catchment. The Applicant has also worked with the Waitaki Rūnanga to develop Kahu Ora and address cultural effects to the extent practicable.
 - 396.2 The rate of abstraction, seasonal duration and annual volume sought are those necessary for the operation of the Scheme and are therefore consistent with

Appendix 1 of Applicant's response: Tekapo Power Scheme Planning Advice – Richard Matthews. 1 September 2025.

¹⁴⁶ Section 7.2.9 and Appendix T of the Applicant's AEE.

¹⁴⁷ Notably, Objectives 3.1, 3.2, 3.3, 3.6, 3.8, 3.10 and 3.11.

LWRP policies.148

- 396.3 The ongoing operation of the Scheme will not affect wetlands in the catchment, and the additional funding through the IPEB will result in positive effects for waterbodies and biodiversity.¹⁴⁹
- 396.4 As part of the existing environment, the ongoing operation of the Scheme will not affect the achievement of freshwater outcomes set through Policies 4.1-4.7.
- 396.5 Policy 4.51 states that existing hydro-electricity generation schemes are to be considered as part of the existing environment.

Comments received

- 397 Forest and Bird's comment on the policy framework focusses on the NPSFM and WCWARP and only peripherally on the provisions of the CLWRP. Their main concerns are with water allocation and environmental flows, which are matters addressed by the WCWARP.
- 398 The CRC's comment noted that the Applicant's assessment of the LWRP objectives and policies includes activities covered by s.14 of the RMA and the WCWARP. Only objectives and policies relating to discharges are to be considered under the LWRP. The CRC draw our attention to Policies 4.1, 4.2 and 4.51, which are discussed above.

Applicant response to comments

399 Given the limited discussion of LWRP provisions in the comments, the Applicant's comment does not specifically address matters relating the LWRP objectives and policies.

Panel Findings

- As noted by Ms Black, the AEE discusses some LWRP policies that relate to the divert, take and use of water. These are activities covered by the WCWARP. We consider that it is appropriate in some cases to consider integrated management provisions in the LWRP given the operation of the Scheme necessitates that the divert, take, use and discharge of water be considered as an integrated package. That said, we do not consider that policies directly relating to water abstraction (Policies 4.61, 4.62 and 4.65) the efficient use of water (Policy 4.69) are relevant considerations under the LWRP.
- The Panel finds that the Application is consistent with the objectives and policies of the LWRP, noting that these provisions apply only to the discharge of water.

Conclusion regarding consistency with the planning framework

402 For the reasons discussed above, the Panel finds that the Application is consistent with the relevant planning framework.

¹⁴⁸ Policies 4.61, 4.62, 4.65 and 4.69)

¹⁴⁹ Policies 4.81, 4.84, 4.85, 4.85A and 4.86.

Planning documents recognised by a relevant iwi authority and lodged with the Council

- 403 An application for a resource consent must include an assessment of the activity against any relevant provisions of a planning document recognised by a relevant iwi authority and lodged with a local authority. 150
- It is the Panel's understanding that the following planning documents recognised by relevant iwi authorities have been lodged with the Council:
 - a. Te Rūnanga o Ngāi Tahu Freshwater Policy Statement (1999);
 - b. Ngāi Tahu Resource Management Strategy for the Canterbury Region;
 - c. Waitaki Iwi Management Plan (2019)
- The Applicant's AEE considers these documents, drawing from the Treaty Impact Assessment (TIA) prepared by Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki¹⁵¹. While we do not go into detail on this here, we note that the TIA focuses on the Scheme and the wider Waitaki Scheme, the proposed measures to manage impacts, and the resulting extent to which the applications are consistent with Manawhenua expectations.
- The TIA is intended to contribute to a Treaty compliant resource management regime. The letters of support from the Waitaki Rūnanga¹⁵² suggest to us that this is being achieved, and that the above iwi planning documents are being honoured.

Treaty settlements

- 407 As noted in Part D sections 7 and 8 FTAA state:
 - 7 Obligation relating to Treaty settlements and recognised customary rights
 - (1) All persons performing and exercising functions, powers, and duties under this Act must act in a manner that is consistent with—
 - (a) the obligations arising under existing Treaty settlements; and
 - (b) customary rights recognised under-
 - (i) the Marine and Coastal Area (Takutai Moana) Act 2011:
 - (ii) the Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019.
 - (2) To avoid doubt, subsection (1) does not apply to a court or a person exercising a judicial power or performing a judicial function or duty.
 - (3) In this section, **existing Treaty settlements** means Treaty settlements that exist at the time the relevant function, power, or duty is performed or exercised (rather than only those that exist at the commencement of this Act).
- 408 The Panel understands¹⁵³ that the Ngāi Tahu Claims Settlement Act 1998 is of relevance to the Application area.
- 409 As noted in Part B the Panel directed the EPA to seek comment from the Minister for

Schedule 5, clause 5(1)(h) and clause 5(2)(g).

¹⁵¹ Appendix A of the AEE.

¹⁵² Appendix B of the AEE.

- Māori Crown Relations: Te Arawhiti and the Minister for Māori Development under section 72 FTAA. [to insert reference to any comments received].
- 410 The effect of the Ngāi Tahu Claims Settlement Act 1998 is discussed earlier in this decision.
- 411 Neither Waitaki Rūnanga nor Te Rūnanga o Ngāi Tahu have requested the imposition of conditions to recognise or protect the relevant Treaty settlement.¹⁵⁴ Waitaki Rūnanga have been consistent in their support of the conditions of consent proposed by the Applicant as providing for their interests.

PART K: CONDITIONS

FTAA general requirements for conditions

- 412 Section 81 provides that the Panel must set any conditions to be imposed on the approval. The statutory requirements on what conditions are set is determined by what approvals are being sought.
- When exercising its discretionary power to set a condition, a panel must comply with section 83 of the FTAA which provides:

83 Conditions must be no more onerous than necessary

When exercising a discretion to set a condition under this Act, the panel must not set a condition that is more onerous than necessary to address the reason for which it is set in accordance with the provision of this Act that confers the discretion.

Conditions for Resource Consents

414 As the Application seeks approval for resource consents, clause 18 of Schedule 5 applies:

18 Conditions on resource consent

When setting conditions on a consent, the provisions of Parts 6, 9, and 10 of the Resource Management Act 1991 that are relevant to setting conditions on a resource consent apply to the panel, subject to all necessary modifications, including the following:

- (a) a reference to a consent authority must be read as a reference to a panel; and
- (b) a reference to services or works must be read as a reference to any activities that are the subject of the consent application.
- 415 Generally speaking, a resource consent condition must: 155
 - a. be for a resource management purpose, not an ulterior one;
 - b. fairly and reasonably relate to the development authorised by the resource consent or designation; and

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¹⁵⁴ Section 84 FTAA

Newbury District Council v Secretary of State for the Environment [1980] 1 All ER 731 (HL), at 739.

- c. not be so unreasonable that a reasonable planning authority, duly appreciating its statutory duties could not have approved it.
- 416 The underlying purpose of the conditions of a resource consent is to manage environmental effects by setting outcomes, requirements or limits to that activity, and how they are to be achieved. Conditions must also be certain and enforceable. 157
- 417 A condition must also not delegate the making of any consenting or other arbitrary decision to any person, but may authorise a person to certify that a condition of consent has been met or complied with or otherwise settle a detail of that condition.

 Such authorisation is subject to the following:
 - 417.1 The basis for any exercise of a power of certification must be clearly set out with the parameters for certification expressly stated in the relevant conditions.
 - 417.2 This power of certification does not authorise the making of any waiver or sufferance or departure from a policy statement or plan except as expressly authorised under the Act (s 84 of the RMA).
 - 417.3 This power of certification does not authorise any change or cancellation of a condition except as expressly authorised under the Act (s 127 of the RMA).

Project conditions

- In response to RFI 2, the Applicant provided a set of conditions to the Panel that were agreed with the Waitaki Rūnanga, and largely agreed with CRC, on 22 September 2025. The conditions were accompanied by a memorandum of counsel for the Applicant explaining the changes that had been made to the conditions through the process, including the areas where the Applicant and Council continued to differ with reasons.
- On 23 September 2025, the Panel (through the EPA) sought a review of the proposed conditions by Dr Rob Lieffering, seeking that Dr Lieffering focus on ensuring good drafting as well as workability and enforceability of the conditions. On 1 October 2025, Dr Lieffering provided his review in the form of a memorandum and tracked changes to the proposed conditions that had been supplied by the Applicant on 22 September 2025. The Panel has used Dr Lieffering's version of the proposed conditions as a base to develop the draft conditions circulated on [6 October 2025].
- **[To be revised and completed upon receipt of comments -** The Panel has taken the following approach to producing the conditions in Appendix 1:
 - 420.1 It has incorporated changes recommended by Dr Lieffering where these:
 - (a) Relate to a typographical or other error;
 - (b) Are proposed to amend a condition for good drafting or workability, without obviously affecting the substantive effect of a condition; and

¹⁵⁶ Summerset Village (Lower Hutt) Ltd v Hutt City Council [2020] MZEnvC 31 at [156].

¹⁵⁷ Bitumix Ltd v Mt Wellington Borough Council [1979] 2 NZLR 57.

¹⁵⁸ Turner v Allison (1970) 4 NZTPA 104.

(c) Where we agree that a substantive change is appropriate, lawful and meets the relevant legal tests in the RMA and FTAA set out above.

420.2 It has not incorporated changes recommended by Dr Lieffering where:

- (a) The condition proposed to be amended was proffered by the Applicant on an *Augier* basis, although it welcomes comments from the Applicant in relation to those recommendations where these would result in improvements to the proffered conditions;
- (b) Where we disagree with Dr Lieffering that the proposed change is necessary or appropriate; and
- (c) Where we consider a proposed change not otherwise lawful or does not meet the relevant legal tests in the RMA or FTAA set out above in relation to the imposition of conditions.

420.3 In relation to changes to conditions sought by CRC and Forest and Bird:

- (a) Regarding comments received from CRC in relation to conditions:
 - (i) The Panel has been mindful of the settled legal principles in relation to the setting of conditions of resource consent, and the constraints on imposing conditions under the FTAA. We have therefore incorporated changes we consider improvements to clarity and effectiveness of the conditions, but have only incorporated substantive requests where we are satisfied of their necessity and lawfulness.
 - (ii) The Panel has otherwise addressed CRC's requests to amend conditions in the body of its decision.
- (b) The Panel has not proposed any changes to conditions in relation to comments received from Forest and Bird, or any other commenter.
- 420.4 [The Panel has identified one condition, also identified by Dr Lieffering, which it has left shaded grey in the conditions. The Panel has concerns regarding the workability and enforceability of this condition, and welcomes comments from the Applicant and CRC in this regard.]

421 [to complete]

Conclusion regarding conditions

422 [to complete]]

- The Panel is satisfied that the conditions attached in Appendix A comply with the requirements of section 83 and 84 of the FTAA, and are consistent with the principles applying to conditions of resource consents described above.
- To the extent the final set contains minor errors, the Panel notes it has powers under section 89 of the FTAA to make minor corrections.

PART L: RMA 1991

- 425 As noted in Part C, Schedule 5, clause 17 sets out how the application is to be assessed under various provisions of the RMA. In this regard:
 - 425.1 Our assessment under Part 2 of the RMA (excluding section 8) of the RMA is set out in Part M below.
 - 425.2 Our consideration of the effects of the Application, and its consistency with the relevant planning instruments, as well as other relevant matters for the purposes of section 104 of the RMA is set out in the preceding sections of this decision.
 - 425.3 We have had regard to sections 87A and 104A of the RMA, noting that the FTAA appears to provide us with the ability to decline consent. However, we have applied sections 87A and 104A in terms of the scope of the considerations we are able to take into account in deciding the application, and what appropriate conditions to apply.
 - 425.4 Regarding sections 105 and 107, we accept the advice of the Applicant and CRC that there are no practicable alternatives to the proposed methods of discharge, and that none of the effects identified in section 107 will arise as a result of the Project.
 - 425.5 We have applied section 108, along with the settled legal principles, as well as the particular constraints in the FTAA when deciding to impose conditions on the consents.
- It is important to note that the purpose of the FTAA must be given the greatest weight. In undertaking its overall balancing of the matters set out in clause 17 of Schedule 5 of the FTAA we have first carefully considered each of the above matters on their own merits. Our conclusions in this respect are set out in this decision. The Panel then returned to the purpose of the FTAA. We have assessed the extent of the regional and national benefits of the Project to be significant, and have therefore accorded the purpose of the FTAA substantial weight in our overall consideration. This has reinforced our decision that the Application should be granted the approvals sought.

PART M: OVERALL ASSESSMENT

- As noted in Part C the Panel may decline an approval if, in complying with section 81(2), the panel forms the view that:—
 - (a) there are 1 or more adverse impacts in relation to the approval sought; and
 - (b) those adverse impacts are sufficiently significant to be out of proportion to the project's regional or national benefits that the panel has considered under section 81(4), even after taking into account—
 - (i) any conditions that the panel may set in relation to those adverse impacts; and
 - (ii) any conditions or modifications that the applicant may agree to or propose to avoid, remedy, mitigate, offset, or compensate for those adverse impacts. 159

- (4) To avoid doubt, a panel may not form the view that an adverse impact meets the threshold in subsection (3)(b) solely on the basis that the adverse impact is inconsistent with or contrary to a provision of a specified Act or any other document that a panel must take into account or otherwise consider in complying with section 81(2).
- As discussed in Part B of this decision, the Application is for a water permit and discharge permit, both of which are controlled activities under the regional planning documents. Under section 104A of the RMA, a consent authority would be required to grant consent. Strictly, section 81(1) of the FTAA appears to give the Panel a discretion to decline consent, provided it has regard to the relevant RMA provisions including section 104A. We have therefore considered section 81(2), and have concluded that while the approvals sought will have certain adverse impacts, these are not sufficiently significant to be out of proportion to the regional or national benefits of the Project that we have considered under section 81(4), particularly after we take account of the conditions we have set in relation to those impacts and the conditions offered by the Applicant to compensate for those adverse impacts.
- We have considered the substantive application and the advice, reports, comments and other information received by the Panel under section 81(2)(a) of the FTAA. We have applied the provisions of clause 17 of Schedule 5 in the manner required by section 81(2)(b) of the FTAA.
- We find that the Project will promote the purpose of the FTAA, and will have significant national and regional benefits as reflects in Part F above.
- We have taken into account the relevant elements of Part 2 of the RMA (excluding section 8). We find that the Project will promote the purpose of the RMA, and in particular that:
 - 431.1 The Project is an appropriate use in the environment concerned that will not adversely affect the existing natural character of wetlands, lakes, rivers and their margins associated with the Scheme, or the Outstanding Natural Landscape in which the Scheme is located.
 - 431.2 Areas of significant indigenous vegetation and significant habitats of indigenous fauna will be protected.
 - 431.3 Public access to and along lakes and rivers will be maintained.
 - 431.4 Waitaki Rūnanga, who hold mana whenua in the Waitaki Catchment, confirm that the Project provides for:
 - (c) Their relationship with their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga; and
 - (d) Their role as kaitiaki.
 - 431.5 The Project represents an efficient use of natural and physical resources and will recognise the finite characteristics of those natural and physical resources, as it enables the continued use of the Scheme Infrastructure as a flexible source of wholly renewable electricity, and is partnered with an ambitious indigenous biodiversity enhancement programme that will compensate for the ongoing effects of operating that Scheme.

- 431.6 The Project supports the government's climate change aspirations and electricity generation targets.
- 432 We have taken into account the relevant matters in Part 3, in particular sections 14 and 15 relating to the taking, use, damming, diversion of water and discharge of contaminants, and section 17 in relation to the general duty to avoid, remedy or mitigate adverse effects, and conclude that the Project and conditions are consistent with those provisions. The procedural principles in section 18A and duty in section 21 are consistent with similar requirements of the FTAA process which the Panel has endeavoured to follow in processing the Application.
- We have taken into account the relevant matters in Part 6 of the RMA, which are primarily sections 104, 104A and 108. We find that:
 - 433.1 In the context of the existing environment, after considering the proposed conditions including those proffered by the Applicant, will not give rise to unacceptable effects on the environment.
 - 433.2 The Project is consistent with the national, regional and district planning framework for the reasons outline in Parts I and J above.
- Pursuant to section 81(2) of the FTAA, we have undertaken an overall evaluation against each of the relevant criteria individually, before taking into account and giving the greatest weight to the purpose of the FTAA. We have given significant weight to the FTAA relative to the other relevant considerations due our conclusions as to the extent of the regional and national benefits of the Project.
- We have referred to the involvement of Waitaki Rūnanga and Te Rūnanga o Ngāi Tahu in the consent process, and in particular their support for the Application and proposed conditions. The Panel concludes that granting the approval is consistent with section 7 of the FTAA.
- In imposing the conditions set out in Appendix 1, we have complied with section 83 of the FTAA. With respect to section 84 of the FTAA, we have concluded that no further conditions are necessary to recognise or protect a relevant Treaty settlement.

PART N: FINAL DECISION

- The Panel has considered the Application and supporting information, the comments received on it and on the draft conditions, the further information provided as a result of comments received from other participants. We thank all those who commented for their contributions.
- We have determined to grant the approvals sought subject to the conditions attached as Appendix 1 to this decision.

Daniel Sadlier	Anthony Cussins
(Chair)	(Member)

Bianca Sullivan	Karen Coutts
(Member)	(Member)



APPENDIX A: CONDITIONS OF CONSENT



APPENDIX B: CONSENTS REQUIRED

The following are Tables 12 and 13 from the Applicant's AEE:

Table 12: WAP Rules and Existing Consents

Activity	Purpose / Location	Rul	e	Consent Being Replaced
To Dam, Take, Divert and Use Water	To Dam the Takapō River at the Lake Tekapo Control Structure to Control and Operate Takapō Levels. To Dam the Takapō River at the Lake George Scott Control Weir to Control and Maintain Lake George Scott Levels. To Take, Divert and Use Water from the Takapō River via the Tekapo Canal Control Structure (Gate 17). To Take, Divert and Use Water from Takapō via the Tekapo Intake for the generation of electricity, and ancillary purposes, at the Tekapo A and B Power Stations	(a)	the use of water for the generation of electricity; or the taking, damming or diverting of water for storage; or the taking or diverting of water into canals; or the taking, damming, or diverting of water to protect the structural integrity of dams, power houses, canals and appurtenant structures.	CRC183551 CRC905302.3 CRC905305.2 CRC905319.2 CRC905306.3 CRC905307.2 CRC905308.2

Table 13: CLWRP Rules and Existing Consents

Activity	Purpose / Location	Rul	e	Consent Being Replaced
To Discharge Water and Associated Contaminants	To Discharge Water and all associated Contaminants into Lake Pūkaki via the Tekapo B Tailrace. To Discharge Water and all Associated Contaminants into the Takapō River from the Lake Tekapo Control Structure for the Purpose of Spilling Water, to Bypass Tekapo A, for Lake George Scott Water Level	(a) (b) (c)	generation and spill water from dams and power houses; or from water storage; or into or from canals; or	CRC905320.2 CRC905304.3 CRC905309.4

APPENDIX C: GLOSSARY OF TE REO MĀORI TERMS

This document provides definitions of some te reo Māori terms used in this Decision.

NB: the dialect of te reo Māori traditionally and still used in the South Island by the dominant tribe, Ngāi Tahu, is characterised by 'ng' being replaced by 'k'

 $\mathbf{hap\bar{u}}$ - kinship group or subtribe. It is a large kinship group and the unit in traditional Māori society and usually consists of a number of $wh\bar{a}nau$ sharing descent from a common ancestor.

iwi - extended kinship group; also referred to as tribe or nation. It often refers to a large group of people descended from a common ancestor which is also associated with a distinct territory. See below re $hap\bar{u}$: a number of related hap \bar{u} usually shared adjacent territories that formed the iwi into a tribal federation.

kaitiakitaka- dialect term (from Ngāi Tahu) of *kaitiakitanga*: to exercise guardianship or stewardship towards a resource and is usually applied to Māori responsibilities for long-term health of the physical environment.

Kāi Tahu – dialect term (from Ngāi Tahu) of *Ngāi Tahu* (iwi-see above).

mahika kai – dialect term (from Ngāi Tahu) of *mahinga kai*: garden, cultivation, foodgathering place.

mana - prestige, authority, control, power, influence, status. *mana* is a supernatural force in a person, place or object.

mana whenua – the group of people (hapū or iwi) that have occupied a territory for generations where the land has provided sustenance for the group. This inter-generational relationship of people and the land has led to the group having territorial rights, authority and jurisdiction over that land or territory. The group have history and legends based in these lands.

mātauraka – dialect term (from Ngāi Tahu) of *mātauranga*: education, knowledge, wisdom, understanding, skills.

mauri - life force, vital essence, a material symbol of a life principle, source of emotions - the essential quality and vitality of a being or entity.

Ngāi Tahu – refers to the tribal group (iwi) of most of the South Island

rakatirataka – dialect term (from Ngāi Tahu) of *rangatiratanga*: chieftainship, right to exercise authority and autonomy. Can refer to leadership of a social group or to a kingdom or realm or self-determination.

rohe – refers to a boundary, territory, area (of land).

rock art – refers to Māori rock art introduced to Aotearoa by the first Polynesians. were gradually modified into regional variations. The artwork on rocks was mostly painted, or sometimes drawn and some were carved, scraped or chipped from rock. Some designs are unique to Aotearoa. About 90% of currently recorded rock art is in the South Island.

rūnaka – dialect term (from Ngāi Tahu) of *rūnanga:* a tribal council that can operate at the hapū, iwi or community level.

rūnanga – as above: a tribal council that can operate at the hapū, iwi or community level.

taoka – dialect term (from Ngāi Tahu) of *taonga*: treasure, anything prized - applied to anything considered to be of value including socially or culturally valuable objects, resources, phenomenon, ideas and techniques.

Te Mana o te Wai - refers to the vital importance of water. When managing freshwater, it ensures the health and well-being of the water is protected and human health needs are provided for before enabling other uses of water. It expresses the special connection all New Zealanders have with freshwater. By protecting the health and well-being of our freshwater we protect the health and well-being of our people and environments.

Te Rūnanga o Arowhenua – the Ngāi Tahu hapū with mana whenua interests that centre on Arowhenua (near Temuka) that extend from Rakaia to Waitaki, and inland to Aoraki and the Main Divide.

Te Rūnanga o Moeraki – the Ngāi Tahu hapū with mana whenua interests that centre on Moeraki and extend from Waitaki to Waihemo and inland to the Main Divide.

Te Rūnanga o Ngāi Tahu - the tribal council that protects and advances the collective interests of the people of the tribe of Ngāi Tahu, made up of the hapū of whānau linked by common ancestors.

Te Rūnanga o Waihao – the Ngāi Tahu hapū with mana whenua interests that centre on Wainono Lagooon and shares mana whenua interests with Te Rūnanga o Arowhenua to Waitaki, and have interest that extend inland to Omarama and the Main Divide.

tikaka – dialect term (from Ngāi Tahu) of *tikanga*: a customary system of values and practices that provide guidance on correct procedure, custom, habit, lore, method, manner, rule, way, code, meaning, plan, practice, convention or protocol.

tino rangatirataka- dialect term (from Ngāi Tahu) of *tino rangatiratanga*: self-determination, sovereignty, autonomy, self-government, rule, control or power.

tribal mihi – a greeting or acknowledgement given where all members of a tribe will use the same acknowledgement to their ancestral heritage of common lands.

tuna - eel of various species. This term can be applied to longfin and shortfin eel.

wahi tupuna – location or place of ancestors. Usually refers to a burial site.

Waitaki Rūnanga – refers to the three hapū that have a traditional and ongoing cultural relationship with the Waitaki River, ie. Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki.

whānau – an extended family or family group. A number of whānau groups from a common ancestor will form a hapū.

whanui - reference to a broad or extensive group of people who are related.