GENESIS ENERGY LIMITED

TEKAPO POWER SCHEME

Application for Resource Consent – National Environmental Standards and National Policy Statement Assessment

May 2024

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Ko tā te Waitaki mahi he manaaki i te motu

The generosity of the Waitaki provides for the nation

1. RELEVANT NATIONAL ENVIRONMENTAL STANDARDS AND NATIONAL POLICY STATEMENTS PLANNING DOCUMENTS

The relevant national planning documents are considered to be:

1. Resource Management (National Environmental Standards for Freshwater) Regulations 2020;
2. Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007;
3. Resource Management (Measurement and Reporting of Water Takes) Regulations 2010;
4, National Policy Statement for Renewable Electricity Generation 2011;
5. National Policy Statement for Freshwater Management 2020; and
6. National Policy Statement for Indigenous Biodiversity 2023.

These regulations and policy statements are considered further below.

1.1 RESOURCE MANAGEMENT REGULATIONS

1.1.1 Resource Management (National Environmental Standards for Freshwater) Regulations 2020

The Resource Management (National Environmental Standards for Freshwater) Regulations 2020 (the "**Freshwater NES**") came into effect on 3 September 2020.

The various regulations in the Freshwater NES apply to resource consent applications that involve farming activities, the modification of natural inland wetlands, reclamation of rivers and the passage of fish affected by structures. The Freshwater NES is intended to increase regulatory consistency and certainty across New Zealand and ensure that any environmental effects of freshwater activities are appropriately managed.

Part 1 (Preliminary provisions) and Part 2 (Standards for farming activities) of the Freshwater NES do not contain any regulations that relate to the activities for which consent is sought for the Tekapo PS.

Part 3 of the Freshwater NES sets standards for "other activities" that relate to freshwater, including regulations relating to natural wetlands, reclamation of rivers and the passage of fish affected by structures.

Natural Inland Wetlands

A natural inland wetland under the Freshwater NES[1] means a wetland (as defined in the RMA) that is not:

(a) in the coastal marine area; or

(b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or

(c) a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or

(d) a geothermal wetland; or

(e) a wetland that:

  (i) is within an area of pasture used for grazing; and

  (ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless

  (iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the exclusion in (e) does not apply.

There are several wetlands located around the shores of Takapō that meet the NPSFM definition of a natural inland wetland.

Regulations 45, 46 and 47 relate to the construction, maintenance and operation of specified infrastructure.

Specified infrastructure is defined in the NPSFM as being (amongst other infrastructure) infrastructure that delivers a service operated by a lifeline utility as defined in the Civil Defence Emergency Management Act 2002 ("**CDEM Act**") or is regionally significant infrastructure identified as such in a regional policy statement or regional plan.

Schedule 1 of the CDEM Act identifies any entity that generates electricity for distribution through a network or distributes electricity through a network as

[1] The Freshwater NES definition of a natural wetland is as defined in the NPSFM.

being a lifeline utility, and the CRPS identifies the WPS as being both nationally and regionally significant.[2] The Tekapo PS is therefore specified infrastructure in terms of the Freshwater NES.

The consents sought for the Tekapo PS do not involve any new construction activities. Regulation 45 (construction of specified infrastructure) of the Freshwater NES is therefore not applicable to the applications.

Regulations 46 and 47 set out consent requirements for vegetation clearance, earthworks or land disturbance within, or within a 10 m setback from, a natural inland wetland or the taking, use, damming, diversion, or discharge of water within, or within a 100 m setback from, a natural inland wetland where that activity is for the purpose of maintaining or operating specified infrastructure.

None of the wetlands identified in the Tekapo PS area are located within 100 metres of the activities for which consent is sought. For example, while consent is sought to take water from Takapō, the location of the water take (being the Lake Tekapo Intake) is more than 100 metres from any of the wetlands identified.

There are also wetlands located in the Mackenzie Basin in the general vicinity of the Tekapo PS infrastructure. However, there are no natural inland wetlands (i.e., wetlands that are not constructed by artificial means, geothermal wetlands or areas of improved pasture dominated by exotic pasture species) within 100 metres of the activities for which consent is sought.

As there are no natural inland wetlands within 100 metres of the activities for which consent is sought the Freshwater NES regulations 46 and 47 (maintenance and operation of specified infrastructure and other infrastructure) are not applicable to the application.

Reclamation of Rivers

There are no activities associated with the reclamation of the bed of any rivers associated with the resource consent applications for the Tekapo PS, Regulation 57 (reclamation of the bed of any river) is therefore not applicable.

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[2] The CRPS definition for "Regionally Significant Infrastructure" includes "National, regional and local renewable electricity generation activities of any scale", the CRPS identified the "Waitaki Hydro Scheme" as being "nationally significant".

Passage of Fish Affected by Structures

The activities for which resource consents are sought for the Tekapo PS do not involve construction of any new structures such as culverts, weirs, flap gates, dams or fords. Regulation 60 states that subpart 3 of the Freshwater NES (which includes controls for the passage of fish affected by structures) does not apply to existing structures that were in a river or a connected area to the river at the close of 2 September 2020 or to any later alterations or extensions of that structure. In that regard, the continued use and maintenance of the existing structures associated with the Tekapo PS is not subject to subpart 3 of the Freshwater NES.

1.1.2 Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007

Regulations 7 and 8 of the Resource Management (National Environmental Standards for Sources of Human Drinking Water) Regulations 2007 apply to water and discharge permits issued by regional councils. However, due to the absence of any registered drinking water supplies that provide for no fewer than 25 people with drinking water for not less than 60 days each calendar year (Regulation 12), this NES is not considered relevant.

1.1.3 Resource Management (Measurement and Reporting of Water Takes) Regulations 2010

The Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 (as amended in 2020[3]) regulations apply only to a water permit that allows water to be taken at a rate of 5 litres/second or more. However, the regulations do not apply to a water permit if the taking of water under the permit is non-consumptive in that (a) the same amount of water is returned to the same water body at or near the location from which it was taken; and (b) there is no significant delay between the taking and returning of the water.

The use of water for hydro-electricity generation for the Tekapo PS is a non-consumptive use (see for example *Lower Waitaki River Management Society Inc v Canterbury Regional Council* EnvC Christchurch C80/2009, 24 September

[3] The Resource Management Measurement and Reporting of Water Takes Amendment Regulations 2020.

2009). Various guidance documents reach the same conclusion in relation to hydro-electricity generation.

Irrespective, Genesis already records, and will continue to record, appropriate flow rates and to provide the data to Canterbury Regional Council ("**CRC**") as it does under the existing resource consents.

1.2 NATIONAL POLICY STATEMENTS

1.2.1 National Policy Statement for Renewable Electricity Generation 2011

The National Policy Statement for Renewable Electricity Generation (the "**NPSREG**") came into effect on 13 May 2011. It addresses two major energy challenges as New Zealand seeks to meet its growing energy demand, including:

1. Responding to the risks of climate change by reducing GHG emissions caused by the production and use of energy; and

2. The delivery of a clean, secure and affordable energy while treating the environment responsibly.

Whilst the CRPS was promulgated after the NPSREG came into effect, it is appropriate to give consideration to the overarching directives of the NPSREG that are relevant to the resource consent application – before considering how these directives are manifest in the objectives, policies and rules that apply within the Canterbury Region.

The overarching 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.

It is therefore clear that the Tekapo PS is nationally significant, and that its operation, maintenance and upgrading are required to be provided for.

Policies within the NPSREG that are relevant, include:

> **POLICY A**

Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities. These benefits include, but are not limited to:

a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;

b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;

c) using renewable natural resources rather than finite resources;

d) the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;

e) avoiding reliance on imported fuels for the purposes of generating electricity.

POLICY B

Decision-makers shall have particular regard to the following matters:

a) 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

b) 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

c) meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable resources will require the significant development of renewable electricity generation activities.

POLICY C1

Decision-makers shall have particular regard to the following matters:

a) the need to locate the renewable electricity generation activity where the renewable energy resource is available;

b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;

c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;

d) designing measures which allow operational requirements to complement and provide for mitigation opportunities; and

e) adaptive management measures.

POLICY C2

When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.

POLICY D

Decision-makers shall, to the extent reasonably possible, manage activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities.

POLICY E2

Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region or district.

The applications are fundamentally consistent with the requirements of the NPSREG, for the following reasons:

1. The Tekapo PS is nationally and regionally significant in terms of renewable electricity generation and hydro storage. Decision makers are to recognise and provide for the benefits of the ongoing operation of the Tekapo PS;

2. Any reduction in baseload generation and storage from the Tekapo PS will diminish New Zealand's renewable electricity generation and would require significant development of alternative resources (with consequent environmental effects);

3. The Tekapo PS and the wider Waitaki Scheme are of national importance, and their operation are critical to achieving New Zealand's climate change aspirations, New Zealand's target to reduce net GHG emissions to 50 per cent below gross 2005 levels by 2030 as its Nationally Determined Contribution to international efforts to tackle climate change, the 90% renewable electricity target by 2025 that is set out in the present New Zealand Energy Efficiency and Conservation Strategy, and aspirations to achieve 100% renewable electricity by 2030;

4. The Tekapo PS forms part of the existing environment and there is potential that some of the effects of the construction of the Tekapo PS are irreversible;

5. Even minor reductions in the generation output of the Tekapo PS (i.e., through an allocation of water to other activities, or a continuous minimum flow requirement in the Takapō River) would have a significant effect on the national, regional and local renewable electricity generation; and

6. The Tekapo PS is an existing activity that was constructed where the renewable energy resource is located.

It is noted that the Genesis biodiversity enhancement funding proposed is consistent with Policy C2, which sets out the decision maker must have regard to environmental compensatory measures which benefit the local environment. Other mitigation, offsetting and compensatory measures proposed also fit within Policy C2.

Overall, the ongoing operation of the Tekapo PS is demonstrably consistent with the matters of national significance the NPSREG provides for and the objective of the NPSREG.

1.2.2 National Policy Statement for Freshwater Management 2020

The NPSFM came into force on 3 September 2020 and provides direction to local authorities and resource users regarding activities that affect the health of freshwater and sets out a national objective and various supporting policies for freshwater management under the RMA.

The NPSFM provides for the management of freshwater through the fundamental concept of Te Mana o te Wai. Te Mana o te Wai pervades the NPSFM and is relevant to all freshwater management, not just those aspects referred to in the NPSFM.

Freshwater must be managed in a way that gives effect to Te Mana o te Wai (Policy 1) and each regional council must give effect to Te Mana o te Wai (clause 3.2). Te Mana o te Wai refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai (water) and is about restoring and preserving the balance between the water, the wider environment, and the community.

Te Mana o te Wai includes a hierarchy of obligations, reflected in the sole objective of the NPSFM, that prioritises:

1. First, the health and well-being of water bodies and freshwater ecosystems;

2. Second, the health needs of people (such as drinking water); and

3. Third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

Te Mana o te Wai encompasses six principles relating to the roles of tangata whenua and others in the management of freshwater that inform the NPSFM and its implementation:

Mana whakahaere: The power, authority, and obligations of tangata whenua to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater.

Kaitiakitanga: The obligation of tangata whenua to preserve, restore, enhance, and sustainably use freshwater for the benefit of present and future generations.

Manaakitanga: The process by which tangata whenua show respect, generosity, and care for freshwater and for others.

Governance: The responsibility of those with authority for making decisions about freshwater to do so in a way that prioritises the health and well-being of freshwater now and into the future.

Stewardship: The obligation of all New Zealanders to manage freshwater in a way that ensures it sustains present and future generations.

Care and respect: The responsibility of all New Zealanders to care for freshwater in providing for the health of the nation.

Te Mana o Te Wai is a concept ("*When we speak about Te Mana o te Wai we are referring to the integrated and holistic wellbeing of a freshwater body.*

Upholding Te Mana o te Wai acknowledges and protects the mauri of water"[4]); a value (*Te Mana o te Wai is also a value: "Te Mana o te Wai is inseparable from the mana of the people*"[5]); and a framework (see the hierarchy below).

Application of Te Mana o te Wai

The Treaty Impact Assessment prepared on behalf of Te Rūnanga o Moeraki, Te Rūnanga o Waihao and Te Rūnanga o Arowhenua for the Tekapo and Waitaki Power Schemes[6] sets out the approach to taken by the Waitaki Rūnaka with respect to application of Te Mana o te Wai to the applications.

As set out in the Treaty Impact Assessment, Waitaki Rūnaka have recognised and balanced the significance of the waters of the Waitaki alongside the significance of the hydro electricity generation to the nation and are also cognisant of the importance of the Waitaki system as New Zealand responds to climate change. Adopting an intergenerational approach to implementing Te Mana o te Wai recognises the scale of the challenge in the Waitaki and the need to start on a pathway.

The vision of Manawhenua in the medium to long term is to get water returned to the braided rivers of the Upper Waitaki, most notably the Takapō and Pūkaki Rivers. From a Manawhenua perspective, putting the river first will require flow regimes to mimic natural flow patterns. However, a minimum flow alone will not deliver Te Mana o te Wai and Manawhenua aspire to more than minimum flows and consider there is a risk that committing to minimum flows could undermine a return, in the future, to a river state sought by Manawhenua, hence the need for a longer-term perspective. There is also a risk perceived by Manawhenua that agencies and interests in the Waitaki could equate Te Mana o te Wai as being the reinstatement of flows to the Takapō and Pūkaki Rivers, with an assumption this is all that is necessary whereas to Manawhenua, a long term, holistic and encompassing catchment wide perspective is required.

Implementing Te Mana o te Wai is going to require an increased commitment from the Generators and therefore an enhanced relationship agreement with

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[4] Aratiatia Livestock Ltd v Southland Regional Council [2019] NZEnvC 208 at [17].

[5] Re Otago Regional Council [2021] NZEnvC 164 at [418].

[6] Treaty Impact Assessment, the Tekapo and Waitaki Power Schemes, An assessment prepared on behalf of Te Rūnanga o Moeraki, Te Rūnanga o Waihao and Te Rūnanga o Arowhenua for Meridian Energy Ltd and Genesis Energy Ltd, July 2023.

Ngā Rūnanga was an essential part of the agreements reached for these consents.

Applying Te Mana o te Wai to the applications for reconsenting of the Tekapo PS (and the combined WPS) should also consider the following:

1. Climate change will significantly affect the health and wellbeing of freshwater bodies and freshwater ecosystems within New Zealand and the region. Renewable electricity generation is critical to enabling Aotearoa New Zealand to reduce our GHG emissions and thereby supporting a reduction in climate change effects. [7]

2. Electricity, in particular renewable energy generation is essential to human health and wellbeing. It is vital in delivering basic human needs including life sustaining support and heating of our homes, in addition to enabling a wide range of other purposes, including community services (such as supply for water treatment plant and drinking water distribution systems, hospitals), manufacturing and processing, or transport (including road management systems and charging electric vehicles).

3. Renewable electricity generation is also critical to the region's and nation's economy, electricity is used in almost every part of New Zealand society and is needed for a wide range of uses including heating, lighting, entertainment and communications, and that often, there are simply no alternatives.

The relevance of renewable electricity generation within the second and third limbs of Te Mana o te Wai was recognised in the section 32 evaluation for the NPSFM.[8]

An additional layer of relevance to the application of Te Mana o te Wai for the applications is the implication of the large hydro 'exemption' in section 3.31 of the NPSREG. The exemption, addressed in more detail below, has the potential to influence the impact of Te Mana o te Wai in relation to the applications by:

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[7] Te Mana o Te Taiao - Aotearoa New Zealand Biodiversity Strategy 2020, Department of Conservation, August 2020; Te hau mārohi ki anamata, Towards a productive, sustainable and inclusive economy, Aotearoa New Zealand's First Emissions Reduction Plan, Ministry for the Environment, May 2022.

[8] Action for healthy waterways section 32 evaluation report (environment.govt.nz), at 7.4.2.

a. Applying several matters which when implementing the NPSFM to an FMU (or part thereof) must be had regard to; and

b. Enabling, in certain circumstances the setting of an attribute state below the national bottom line.

All of the policies in the NPSREG are, to varying degrees, applicable to the replacement consents sought. These are considered below:

> **Policy 1:** Freshwater is managed in a way that gives effect to Te Mana o te Wai.

As noted above, Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. Based on several comprehensive technical assessments commissioned by Genesis to assess the potential environmental effects associated with the continued operation of the Tekapo PS, the continued operation of the Tekapo PS will appropriately avoid, remedy or mitigate potential adverse effects on the environment. The assessments also demonstrate the positive effect that Project River Recovery has had on terrestrial invertebrates, lizards, water birds and vegetation. In addition, the activities for which consent is sought are controlled activities under the relevant plans demonstrating that the continued operation of the Tekapo PS will protect the health of freshwater in the area and will protect the health and well-being of the wider environment.

> **Policy 2:** Tāngata whenua are actively involved in freshwater management (including decision making processes), and Māori freshwater values are identified and provided for.

Policy 2 is primarily for regional councils to implement. However, Genesis has sought to engage with representatives of Ngāi Tahu and Te Rūnanga o Arowhenua, Te Rūnanga o Waihao and Te Rūnanga o Moeraki throughout preparation of the resource consent applications for the Tekapo PS.

> **Policy 3:** Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.

Genesis has sought to adopt an integrated approach to the assessment of the potential effects of the ongoing operation of the Tekapo PS and has worked as appropriate with Meridian Energy Limited to ensure that aspects relevant to the combined WPS can be managed safely but independently. This has included

an assessment of the management of the damming, diversion, take, use and discharge of water by the Tekapo PS, including management of peak flow rates. Furthermore, the various technical assessments have focussed on how the operation of the Tekapo PS affects the full extent of the Takapō River – not just the residual reach of the river. The various agreements reached or in progress (for example, Department of Conservation ("**DoC**"), Fish and Game Council, Mackenzie District, whitewater rafting and kayaking) demonstrate the integrated approach being taken to mitigating the effects of the Tekapo PS.

> **Policy 4:** Freshwater is managed as part of New Zealand's integrated response to climate change

The ability to operate New Zealand's existing hydro-power schemes are fundamental to meeting the government's renewable electricity targets and our climate change commitments. Any reduction in the baseload generation output and storage within the Tekapo PS will need to be made up for by other power schemes; in the short term this is likely to be through thermal generation until alternative renewable generation could be consented and constructed (and a variety and greater output of such renewable schemes would be required to mitigate the effects of the lost baseload generation and storage).

> **Policy 5:** Freshwater is managed through a National Objectives Framework to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.

While it is for the CRC to establish a National Objectives Framework for waterbodies in the Canterbury Region, Genesis has sought to ensure that the condition framework for the management of the effects of the Tekapo PS addresses the potential for adverse effects in waterbodies that are potentially related to the operation of the Tekapo PS. In addition, Genesis is proposing the continuation of and increased funding for an indigenous biodiversity enhancement programme to work towards improving the condition, resilience, native biodiversity, ecological processes and other values of the braided rivers and associated environment including the wetlands within the Waitaki Catchment to ensure that that the health and well-being of water bodies and freshwater ecosystems in the vicinity of the Tekapo PS is improved.

> **Policy 6:** There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.

The hydrological assessment undertaken has confirmed that the ongoing operation of the Tekapo PS will not result in a loss of extent of natural inland wetlands. The values of existing wetlands will be unaffected as there is no proposed change to the existing operating regime. In addition, the proposal to continue and increase funding for an indigenous biodiversity enhancement programme to work towards improving the condition, resilience, native biodiversity, ecological processes and other values of the braided rivers and associated environment including the wetlands within the Waitaki Catchment as proposed will continue to enhance the biodiversity in the vicinity of the Tekapo PS and will provide continuing opportunities for the restoration of natural inland wetlands.

Policy 7: The loss of river extent and values is avoided to the extent practicable

Construction of the Tekapo PS had a significant effect on the value of the first 7 km of the Takapō River. However, the Tekapo PS diversion has occurred for over 70 years (for Tekapo A, and over 40 years for Tekapo B) and the ongoing effects of the operation of Tekapo PS forms part of the existing environment. The ongoing operation of the Tekapo PS will not result in any further loss of extent or values of the Takapō River; rather, the granting of these consent applications as sought will maintain the current extent and values. Some of these effects, such as improved water clarity, are positive and many of the adverse effects are entwined with the arrival of didymo in 2007 (which was not associated with the Tekapo PS). Flushing flows would have only short-term benefits in didymo reduction before it quickly recolonised, while low, stable flows support didymo growth. Some of these values, such as angling, have been mitigated, or enhanced to a greater level through the ongoing operation of the Tekapo Canal.

The reduction of effects is to 'the extent practicable'. Given the effects on generation of electricity from renewable energy from minimum and flushing flows, and the national significance of that generation, especially in helping to decarbonise Aotearoa New Zealand's economy, it is not practical to alter the current operation. Such an outcome would also be an inefficient use of a national significant physical resource.

Policy 8: The significant values of outstanding water bodies are protected.

The Tekapo PS will not affect any identified outstanding waterbodies.

Policy 9: The habitats of indigenous freshwater species are protected.

Genesis is not proposing any changes to the operation of the Tekapo PS that will result in effects on existing habitats of indigenous freshwater species. The continuation of and increased funding for an indigenous biodiversity enhancement programme will work towards improving the condition, resilience, native biodiversity, ecological processes and other values of the braided rivers and associated environments including the wetlands within the Waitaki Catchment. As proposed, this programme will continue to enhance the biodiversity in the vicinity of the Tekapo PS to ensure that existing habitats of indigenous freshwater species are protected and enhanced.

Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.

Genesis will not alter the habitat available for trout as part of the resource consent application. The current operations are proposed to continue. The Tekapo Canal is a nationally significant (and internationally recognised) salmonid fishery and the Takapō River, despite a significant reduction in activity since the arrival of didymo in 2007, also remains a significant fishery in Aotearoa New Zealand.

Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided

The diversion, take and use of water for the Tekapo PS is an efficient use of water. Genesis seeks to maximise the use of water for the generation of electricity, subject to the capacity of the infrastructure in place. Genesis has recently completed works (such as upgrades to the turbines in Tekapo B) to ensure that its use of water is efficient. The same applies to lining of parts of the Tekapo canal to reduce loss to seepage.

Policy 13: The condition of water bodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.

Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.

Genesis will continue to monitor the waterbodies involved in the operation of the Tekapo PS.

> **Policy 15:** Communities are enabled to provide for their social, economic, and cultural wellbeing in a way that is consistent with this National Policy Statement.

The ongoing operation of the Tekapo PS provides for the social and economic wellbeing of communities both in terms of providing recreational benefits as well as through providing a significant contribution to New Zealand's renewable electricity generation portfolio.

Part 3 of the NPSFM sets out a "non-exhaustive" list of things that **local authorities** must do to give effect to the objective and policies of the NPSFM. These include:

a. Engaging with communities and tāngata whenua to determine how Te Mana o te Wai applies to waterbodies and freshwater ecosystems in the region;

b. Develop long term visions for freshwater in the region and including these visions as objectives in the applicable regional policy statement;

c. Involving tāngata whenua;

d. Adopting an integrated approach, recognising the interconnectedness of the whole environment;

e. Follow the national objectives framework process to identify freshwater management units ("**FMU**"), identify values for each FMU, set environmental outcomes for each identified value, target attribute states, environmental flows and levels, and other criteria to support the achievement of environmental outcomes and set limits and rules; and

f. Undertake monitoring and assess trends.

Of relevance to the applications, clause 3.31 applies to the Tekapo PS (which forms part of the WPS, which is a listed scheme). This clause requires that, when implementing any part of the NPSFM (and where affected by a listed hydro-scheme), a regional council must have regard to the importance of the hydro-schemes:

1. Contribution to meeting New Zealand's GHG emission targets;

2. Contribution to maintaining the security of New Zealand's electricity supply; and

3. Generation capacity, storage, and operational flexibility.

Clause 3.31 enables the regional council to set an attribute state below the national bottom line (where it is impacted by a listed hydro-scheme), but the regional council must still, set the target attribute state to achieve an improved attribute state to the extent practicable without having a significant adverse effect on the scheme.

It is noted that both the CLWRP and WAP cannot be said to give effect to the NPSFM, simply because of the timing of the NPSFM and when the WAP and CLWRP were made operative. However, the NPSFM sets out a process and timing for giving effect to the NPSFM "as soon as reasonably practicable" (section 4.1 of the NPSFM) through regional policy statements and regional plans. The NPSFM does not anticipate that plans will be changed immediately to give effect to the policy statement, nor does it require decision making on resource consent applications to cease while plans are amended to give effect to the policy statement.

The NPSFM is not intended to prevent applications such as that made by Genesis being granted (and lawfully, as a controlled activity it could not); indeed, with respect to the first priority in the NPSFM objective, the generation of electricity from a renewable resource that avoids contributing to GHG emissions and helps avoid climate change effects prioritises the health and well-being of water bodies and freshwater ecosystems that would otherwise be adversely affected by GHG emissions. The second priority in the NPSFM objective following the health and well-being of water bodies and freshwater ecosystems, is the health needs of people. Renewable electricity is fundamental to the health needs of people in many ways, such as providing electricity to run hospitals or to run water treatment plants and pumping systems to provide drinking water. The continued operation of the Tekapo PS will protect the health of freshwater in the area and will protect the health and well-being of the wider environment. The third priority is the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future. Renewable electricity is also fundamental to community wellbeing and enabling Aotearoa New Zealand to decarbonise its economy. The Tekapo PS generates substantial volumes of 100% renewable electricity, with an average annual output (from both direct and indirect generation) sufficient to supply approximately 222,000 Canterbury households.

In addition to its contribution to national electricity supply, the Tekapo PS provides power to consumers in the Tekapo Albury region when that area is periodically cut-off from the rest of the grid. Without the Tekapo A station, an alternative electricity source would need to be developed as a local back-up.

While it is acknowledged that the operation of the Tekapo PS may not be consistent with each and every provision of the NPSFM, particularly in respect of the lack of minimum flows in the Takapō River, the NPSFM recognises that there are ongoing impacts of hydro schemes on freshwater bodies where a balancing exercise is required to reconcile the need for renewable electricity and to maintain the values of waterbodies (through the inclusion of clause 3.31 in the NPSFM). The diversion of water from the Takapō River by the Tekapo PS (where that water is utilised by five power stations, as well as being stored in Lake Pūkaki) has occurred for many decades and forms part of the existing environment. Any requirement to implement an alternative flow regime, or lake level operating regime, could have a significant effect on the electricity system and in achieving New Zealand's climate change aspirations.

The proposed continuation of and increased funding for biodiversity enhancement ensures that waterbodies can continue to provide important habitat for indigenous biodiversity. As the technical assessments demonstrate, the ecology of the Takapō River is compromised by didymo so it may not be able to provide high quality habitat even with a minimum flow. The continuation of, and increased funding for, an indigenous biodiversity enhancement programme to work towards improving the condition, resilience, native biodiversity, ecological processes and other values of the braided rivers and associated environment including the wetlands within the Waitaki Catchment as proposed will continue to enhance the biodiversity in the vicinity of the Tekapo PS. This will appropriately mitigate, offset and compensate for the ongoing effects of the historical, and current, diversion of water from the Takapō River.

Overall, with the proposed conditions of consent and the proposed continuation of, and increased funding for, an indigenous biodiversity enhancement programme within the Waitaki Catchment to continue to enhance the biodiversity in the vicinity of the Tekapo PS, the ongoing operation of the Tekapo PS is consistent with the objective and policies of the NPSFM. It provides an example of how the NPSFM can be implemented in practice to provide for a significant and nationally important water use activity while ensuring that the

health and wellbeing of the Waitaki catchment freshwater ecosystems are prioritised and protected (particularly upstream of the Tekapo PS), the health needs of people are provided for and people and communities are able to provide for their social, economic, and cultural wellbeing.

1.2.3 National Policy Statement for Indigenous Biodiversity 2023

The National Policy Statement for Indigenous Biodiversity 2023 ("**NPSIB**") was approved by the Governor General on 31 May 2023 and notified in the New Zealand Gazette on 7 July 2023 (Notice Number 2023-go2999). The NPSIB came into force on 4 August 2023.

The objective of the NPSIB is:

> (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 resource consents sought for the Tekapo PS are for the continued operation of the scheme. No changes to the operating regime (other than a small change with respect to flood flow management) are proposed. As part of the application, an agreement with has been reached with Meridian and DoC to implement an indigenous biodiversity enhancement programme focussing on improving the condition, resilience, native biodiversity, ecological processes and other values of the braided rivers and associated environment including the wetlands within the Waitaki Catchment. This indigenous biodiversity enhancement programme will give effect to the objective of the NPSIB.

Notwithstanding the above, paragraph 3 of section 1.3 "Application" of Part 1 of the NPSIB states as follows:

> 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.

The Tekapo PS is a renewable electricity generation asset and activity and in terms of paragraph 3, the NPSIB does not apply.

2. CONCLUSION

Genesis owns and operates the Tekapo PS, which has an installed generation capacity of 190 MW and as part of the Combined WPS, provides up to 65% of New Zealand's hydro-electricity storage. The Tekapo PS is an important contributor to electricity generation from a renewable energy source and to the local and national economy. It is proposed that the operation of the scheme will align with the existing operational parameters and environmental conditions.

The Tekapo PS operates in accordance with a suite of resource consents granted by the CRC under the RMA, some of which expire in April 2025. Genesis therefore needs to apply for new resource consents to allow the continued lawful operation of the Tekapo PS. The applications for new resource consents were lodged with the CRC more than 6 months prior to the expiry of the existing resource consents and therefore Genesis is able to continue to operate the Tekapo PS in accordance with the expired consents pursuant to section 124 of the RMA until the new applications to replace those consents have been determined.

The activities for which consent has been sought have been assessed to be generally consistent with the relevant National Environmental Regulations and the objectives and policies of the NPSREG, NPSFM and NPSIB.

Overall, it is considered that the continued operation of the Tekapo PS with the conditions proposed, is consistent with the purpose of the RMA.