

BEFORE THE SOUTHLAND REGIONAL COUNCIL

IN THE MATTER OF of the Resource Management Act 1991

AND

IN THE MATTER OF of an application by Alliance Group to divert water from
the Mataura River for the purposes of generating
electricity

STATEMENT OF EVIDENCE BY JOHN KYLE

21 NOVEMBER 2018

1. INTRODUCTION

- 1.1 My name is John Clifford Kyle. I hold an honours degree in Regional Planning from Massey University, obtained in 1987. I am the Managing Director of the firm Mitchell Daysh Limited, which practices as a planning and environmental consultancy throughout New Zealand.
- 1.2 I have been engaged in resource and environmental management for 30 years. My experience includes a mix of local authority and consultancy resource management work. Since 1994, I have been involved with providing consultancy advice with respect to Regional and District Plans, designations, resource consents, environmental management and environmental impact assessments. This work includes extensive experience with large-scale consenting projects involving inputs from a multidisciplinary team.
- 1.3 An outline of projects in which I have been called upon to provide resource management advice in recent times is included as **Appendix A**.
- 1.4 While I accept that this is not an Environment Court hearing, I have read and agree to comply with the Environment Court's Code of Conduct for Expert Witnesses contained in the Practice Note 2014. I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express here.
- 1.5 I participated in conferencing with two of the other planning witnesses involved in this hearing on 15 November 2018. A copy of our statement was circulated to the Hearings Commissioner on 16 November 2018.
- 1.6 I have visited Alliance Group Limited's Mataura Plant (the Plant) on numerous occasions and I am familiar with the processing operations and the hydro electric scheme that is located on site.
- 1.7 In this statement of evidence I will provide:
- 1.7.1 An overview of the application;

- 1.7.2 Some comment on matters raised by the section 42A report writer and submitters with a focus on the key issues raised;
- 1.7.3 An assessment of the consents being sought in a statutory context;
- 1.7.4 A discussion of the validity and appropriateness of the recommended conditions;
- 1.7.5 Identification of other key matters and considerations;
- 1.7.6 Overall conclusions.

2. THE APPLICATION

- 2.1 Mr Richardson's evidence details the location, use and operation of the hydroelectric plant (HEP) at the Mataura Plant. The HEP was first established on the Mataura River in the early 1890s. In 1905, after the generation plant had been upgraded, the HEP supplied electricity to the processing plant and the town of Gore, and this was extended to supply electricity to the township of Mataura in 1913. The hydro plant continued to supply power to Gore and Mataura until 1924 when the Southland Electric Power Board began supplying electricity to Gore and Mataura from its Monowai Power Station.
- 2.2 Just when the diversion structure was completed during this development period is unclear; however it is evident that the HEPs at Alliance's site and the Mataura Industrial Estate (MIE) site in Mataura have been operating for approximately 115 – 120 years. Diversion structures and the intake race are likely to have been in place either prior to or put in place during the plant upgrades in the 1920s or 1930s.
- 2.3 Since this time, Alliance has regularly maintained and applied for the necessary regional consents to provide for the ongoing use of the HEP. Alliance's existing consent 98031 provides for the damming, diversion and use of water from the Mataura River for hydroelectric power generation, and to discharge water from the plant back to the Mataura River. The key conditions attaching to this consent include:

- 2.3.1 That the flow at the centre of the existing weir shall be maintained such that it does not fall below 0.05m in depth;
 - 2.3.2 A requirement to maintain a monitoring system to provide immediate warning to staff in the event that overflow at the weir has ceased;
 - 2.3.3 A requirement to reduce water usage for power generation to comply with the weir depth in parallel with MIE;
 - 2.3.4 That an adequate fish ladder be maintained in conjunction with MIE.
- 2.4 This consent expired in 30 June 2017 and Alliance is seeking consent in order to continue to dam, divert, use and discharge water from the Mataura River in order to generate hydroelectricity.
- 2.5 The Mataura River is subject to a Water Conservation Order (WCO) that was applied for by Fish and Game New Zealand and was issued in 1997. The WCO lists as protected waters the Mataura River from its source to the sea, and it also applies to many of the tributary streams and the Waikaia River. The outstanding features that the WCO seeks to protect are the outstanding fisheries and angling amenity. The outstanding fisheries are not defined further in the WCO but given the reputation of the Mataura River as being highly significant for brown trout angling, this is broadly accepted as the fishery of particular interest.
- 2.6 Clause six of the WCO prohibits damming of the Mataura River, with the exception of the existing weir at Mataura, provided water permits are granted and renewed on similar terms and conditions of the former permits.
- 2.7 In accordance with the requirements of the WCO, Alliance is proposing to continue to operate the weir and diversion activity under similar parameters to the existing consent.
- 2.8 As part of the current consent conditions, Alliance was also required to undertake an investigation of the effects of the infrastructure on

upstream native fish passage within the river. Golder Associates was engaged to undertake this assessment. Golder Associates completed the assessment in late 2007, and this was provided to Environment Southland on 17 January 2008. This report is attached to the application as Appendix D. Overall, the report concluded that the weir does not present a significant barrier for five native fish species that would be able to ascend the Mataura Falls. It was however identified in the report, that there is some concern about the ability of longfin elvers to negotiate the weir due to the 90° angle at the top of the weir.

2.9 Fish passage systems to further assist upstream passage have been investigated including ladders, spat ropes and ramps. Some have not been successful and some have not been able to withstand the forces of the river and in the past, have been damaged or destroyed. In addition, fluctuating river conditions constrain the successful development of a mechanism to get elvers above the weir. Given this, a trap and transfer system is proposed as discussed in the evidence of Dr James, and is considered to be the most efficient and effective way of managing this potential effect. In addition to the proposed trap and transfer system Alliance is also committed to maintaining a fish ladder. I discuss these commitments, and others with reference to the proposed conditions later in this evidence.

2.10 As part of the application, Alliance initially proposed to mitigate potential effects on downstream migrating eels by closing the plant at night during freshes/flood events during the typical migration period (March – April). However, since the application was prepared and further consultation with submitters and the Council has occurred, Alliance acknowledged that it is difficult to monitor the effectiveness of this proposed mitigation due to the high flows. Alliance sought further advice from Pattle Delamore Partners, then Dr James to determine the most effective way of monitoring and providing suitable mitigation for any potential effects on eels. The evidence of Dr James summarises the suggested approach to monitoring that should be undertaken in the circumstances, and in turn how the information derived from this should be used to assist in guiding and determining the most appropriate response. In this regard the

suggested conditions I propose later in this evidence set out how such a regime could be implemented.

3. KEY ISSUES RAISED IN THE SECTION 42A REPORT AND BY SUBMITTERS

Submissions

- 3.1 As outlined in the section 42A report, a total of three submissions were received following a limited notification process. Te Ao Marama and the Department of Conservation raised similar issues in their submissions. Both were concerned about the potential effects of the HEP on downstream native fish migration. Fish and Game New Zealand – Southland Region was concerned about the effects of the HEP, particularly its potential effects on salmonids migrating upstream and downstream of the infrastructure. All parties sought either the decline on the application, or if it is to be granted it is for no more than 5 years. The submissions also suggested that conditions needed to be developed to better monitor and remediate effects on fish passage if consent was to be granted, albeit for a shorter term.

Consent Term

- 3.2 The section 42A report author, Mr West, recommends that the term of the consent should coincide with the expiry date of the existing resource consent held by MIE to authorise the operation of its HEP. Mr West comments that it makes sense that the resource consents for the diversions on either side of the weir be considered together in the future.
- 3.3 As set out in the applications and further explained in the evidence of Mr Richardson, Alliance is seeking a consent term for as long as can be achieved. Mr Richardson accepts that a 25 year consent term better acknowledges Te Ao Marama's preference that consent terms are not granted for longer than that period.
- 3.4 In my view limiting the consent to a maximum of eight or less years in order to align with the MIE consent term is not necessary. The proposed conditions (refer to **Appendix B** of this evidence) require the consent

holder to undertake a comprehensive and robust monitoring program on the effects of the HEP on downstream eel migration. The purpose of this monitoring will then be used to inform the consent holder (and the Council and the other stakeholders) as to the actual propensity for entrapment of native eels within the hydro race to occur, and to determine whether it is necessary to implement options to mitigate against the adverse effects of eel entrapment. The proposed conditions require the consent holder to commit to and implement the required mitigation that is identified as a result of this monitoring and reporting obligations, if an adverse effect presents.

- 3.5 I acknowledge that limiting the consent term to a shorter timeframe would create significant uncertainty for Alliance, and there may be a reluctance on its part to invest in any required mitigation (which will be expensive) if a return on that investment cannot be realised over a longer period. Moreover, in drafting the proposed conditions I have endeavored to include opportunities for collaboration with key stakeholders at milestone points in the consent term. That is, the consent holder would be required to collaborate over the design of the monitoring program and then again in assessing the results and before promulgating and implementing necessary mitigation. Because the conditions incorporate these milestone actions, and these actions are to be complemented by a collaborative process with key stakeholders and the process is thus inclusive, I see no cause to limit the consent term as is suggested by the submitters and Mr West. If anything, the approach promoted might prove to be a best practice approach and it could be subsequently applied to any renewal of the MIE consent that might ultimately be sought when that consent expires and a common consent term applied then to that consent.
- 3.6 Limiting the consent term as has been suggested also has insufficient regard to the benefits arising from the ongoing operation of the hydro plant, in that it is a significant physical resource for the Matura Plant and creates energy from a renewable source, which of course finds support in various national and regional policy instruments. Nor in my opinion, does it place sufficient weight on the requirements of section 104(2A) of the

RMA which requires the consent authority to have regard to the value of the investment of the existing consent holder. The hydro plant is a significant and valuable asset to the operations of the Mataura Plant, which in turn has wider benefits to the surrounding rural sector and community.

3.7 I note that Policy 14A of the Operative Regional Water Plan¹ provides some guidance about the term of water permits. A number of the matters already addressed above and that will be addressed later in this evidence are set out as being relevant in terms of that policy. I note subclause (i) which includes “the desirability of applying a common expiry date for water permits that allocate water from the same resource”. In my experience comment consent terms are generally considered to be appropriate when consumptive takes are concerned, and the resource is either close or is over allocated. A common expiry can enable the consent authority to make allocative decisions in an integrated way having accounted for the available water resource, where such circumstances apply. This application is to divert water for non-consumptive purposes and there is no need for such an approach here in my view. I also note that the impending catchment limits may also establish new environmental flow or other limits that require a review of all consents that have been issued in the Mataura, regardless of consent term.

3.8 For these reasons it is my opinion that a consent term of 25 years is appropriate in this case.

Fish Passage

3.9 Mr West identifies that the key issue for this consent is the effect of the scheme on fish passage. Fish passage issues present for both upstream migration of elvers and the downstream movement of eel species in particular.

¹ Page 19 (note a similar Policy exists in the Proposed Plan – Policy 40).

- 3.10 As part of Alliance's existing consent, condition 6 requires that Alliance share in the maintenance of an adequate fish ladder with MIE, which is in place. The Mataura Falls in themselves present a natural barrier to upstream fish passage, and the weir's location further upstream means it only has the potential to present fish passage difficulties for fish species that have already negotiated the Falls. Condition 7 (also of the existing consent) requires an assessment into the effects of the diversion and weir on fish passage. The earlier referred to assessment undertaken by Golder Associates concludes that five native fish species (lamprey, shortfin eel, longfin eel, giant kokopu and koaro) are species that may encounter the weir during upstream migrations. Of these, longfin eel passage is likely to be most difficult, and elvers may be prevented from attaining upstream passage at the Falls. However, as Dr James reports in his evidence the population of longfin eels upstream of the waterfall and diversion weir does indicate that both the Falls and the diversion weir are being climbed at times. Notwithstanding this he agrees that the diversion weir presents a physical obstacle to the upstream movement of longfin elvers (and any shortfin elvers present).
- 3.11 To manage this effect, the MIE consent requires the construction of an adequate pass for native fish species, and maintenance of an eel pass to enable elver passage above the weir or hydro race. I understand that MIE constructed a fish pass in accordance with this consent, but it was swept away during a flood. MIE was then subsequently granted a consent in late 2015 to construct a new fish passage. This has not yet been installed, as MIE is instead now undertaking a trap and transfer program. This involves monitoring of presence and movement during the elver migration period, and if accumulations are located, trapping and transfer is undertaken.
- 3.12 Mr Richardson reports that Alliance has agreed to become a party to that trap and transfer program. The details of this system are explained in the evidence of both Mr Richardson and Dr James and it is evident that trap and transfer is the most effective means of dealing with the elver upstream migration issue.

3.13 For this reason, the conditions I have proposed would require the preparation and implementation of an Elver Trap and Transfer Plan. A draft of such a plan has been prepared by Dr Boubee (the Vaipuhi report). This plan has been provided to submitters through the pre-hearing process and I understand that there is general acceptance of its appropriateness in providing mitigation for upstream elver passage.

3.14 Dr James has summarised the issues relating to downstream fish passage in his evidence. He notes that the focus of monitoring and mitigation if this is required should necessarily be on eel species. He sets out why this should be so and I acknowledge the cultural importance of eel species to the Hokonui Runaka. Initially the application was advanced on the basis that the consent holder would shut down the HEP during optimal downstream eel migration conditions. While this remains a potentially viable mitigation option, it was considered that a more sophisticated approach involving monitoring would more accurately determine whether the scheme is having an adverse impact through eel entrapment, and if so, to provide establish an appropriate response. An adaptive approach is proposed based on:

- Implementation of comprehensive monitoring program to identify if eels are entering the hydro race and if so, how many eels and of what size and species are being forced toward the turbine during the eel migration period in order to determine what if any, significant adverse entrainment effects are occurring. If other native fish and salmonids are identified via this monitoring, details of this will also be collected; and
- Utilisation of the results of this monitoring to determine the significance of the aforementioned effects. If adverse effects are found conditions specify that suitable mitigation is to be promulgated and implemented by the consent holder. Some flexibility is required in determining suitable mitigation methodologies which will depend upon the results of the monitoring undertaken; and

- Significant opportunity for stakeholder engagement and input throughout both the monitoring and the reporting phase, and in assisting with the promulgation of a suitable mitigation plan.

3.15 I return to this matter in more detail later in this evidence where I deal with the proposed conditions.

4. CONSIDERATION OF STATUTORY REQUIREMENTS

4.1 Mr West has identified and assessed matters arising from the relevant Policy Statements and Plans. I note that at the time the application was initially prepared the Proposed Southland Water and Land Plan had been notified. There is now an amended decisions version of this Plan, which is currently subject to various appeals.

4.2 Section 4.3 of the AEE concludes that the activity status of the applications being sought is that of restricted discretionary under the operative Regional Water Plan for Southland (Operative Plan) and discretionary under the Proposed Plan. I note that this differs to the assessment of Mr West who finds that the applications are that of discretionary under both documents. This is on the basis that Mr West determines that the damming activity triggers Rule 19(b) of the Operative Plan and Rule 4 of the Proposed Plan. This matter was addressed during conferencing of the planners and I refer the Commissioner to the conferencing statement which sets out the respective opinions of the participants with respect to this matter. I also attach as **Appendix C** a summary of the activity status of the proposal which accounts for the decisions version of the Proposed Plan.

4.3 An analysis of the various Policy Statements and Plans which are relevant to the resource consents being sought is also contained in section 6 of the AEE. At a general level I concur with that analysis and, in my opinion, it remains a comprehensive assessment of the relevant provisions, acknowledging the amendments made in the decisions version of the Proposed Plan. Mr West also summarises the relevant objectives and policies. For these reasons my evidence on these matters is comparatively concise.

4.4 I note however that since the lodgement of the application, Alliance's proposal with regard to native fish downstream passage has evolved. As discussed earlier in this evidence, instead of committing to the closure of the Plant during the typical downstream migration period (March/April) as the preferred mitigation for downstream eel passage, an adaptive management approach is now proposed.

4.5 In the following section I include a summary of my key conclusions on the relevance of the various planning documents² based on my review of those documents, my understanding of the proposal and its effects, and my review of submissions.

4.5.1 The Plant is a significant user of electricity and the hydro scheme enables it to generate a significant amount of electricity for its use. It provides an additional electricity supply for the Plant and means that powering the Plant does not place total reliance on any other local, regional or national community electricity supplies³. The electricity is also produced from a renewable source and this is consistent with the intent of the NPS and the Southland RPS to promote the use renewable electricity sources^{4 5}.

² Policy 14 of the Operative Regional Water Plan is a key guiding policy in this assessment it seeks that:

While recognising the positive effects resulting from the use and development of water resources, manage the taking, use, damming or diversion of surface water so as to avoid where practicable, remedy or mitigate significant adverse effects on: (a) the quality and quantity of aquatic habitat; (b) natural character, natural features, and amenity, aesthetic and landscape values; (c) areas of significant indigenous vegetation and significant habitats of indigenous fauna; (d) recreational values; (e) the spiritual and cultural values and beliefs of the tangata whenua; (f) water quality, including temperature; (g) the rights of lawful existing users; (h) groundwater quality and quantity; (i) historic heritage.

³ Policy A(b) of the NPS for Renewable Electricity Generation 2011 seeks that decision makers recognise and provide for the benefits of renewable electricity generation including by: maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;

⁴ In particular Policy A of the NPS for Renewable Electricity Generation 2011 which requires decision makers to 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. Policy F of the NPS also requires regional policy statements and plans to include provisions to provide for the development, operation, maintenance and upgrading of small and community scale distributed renewable electricity generation from any renewable energy source to the extent that it is applicable to the region or district.

⁵ Objective ENG.3 of the Southland RPS requires that the generation and use of renewable energy resources is increased. Policy ENG.3 seeks to encourage and make provision for the development, operation, maintenance and upgrading of small and community-scale distributed renewable electricity generation.

- 4.5.2 The discharge of surface water will have no adverse effects on downstream water quality, as it is simply the conveyance of water via the weir and through the turbine. There will be no changes to the chemical or biological composition of the receiving water quality as a result of this discharge. Water quality monitoring has not identified any downstream effects that are directly attributable to the diversion and discharge activity, and overall results indicate that there is a no more than minor change with regard to water quality parameters that have been measured⁶.
- 4.5.3 The discharge of surface water will not adversely affect the Council or community's ability to achieve the water quality objectives and standards that are to be set for the Maitava River FMU⁷.
- 4.5.4 The existing diversion does not result in over allocation issues within the Maitava River. As consent is being sought on the same terms, it is also consistent with the flows and limits set out in the Maitava River WCO. The majority of the water is also returned downstream, meaning water is available for additional use downstream of the site. There is a section of river which is affected by the diversion, however the minimum flow that is proposed, will retain its existing life supporting capacity, habitats and aquatic ecology in this very short affected reach.

⁶ Water quality provisions are particularly relevant to the NPS for Freshwater Management Objectives A1 – A3, the Southland RPS Water Quality Chapter and the Southland Regional Plans.

The NPS for Freshwater Management Policy A1(a) requires regional councils to set freshwater objectives and quality limits, and (b) to establish methods to avoid over-allocation. This policy is closely linked to Policy A2, which sets out a process for setting freshwater objectives. The process involves identifying values that are relevant to a Freshwater Management Unit (FMU), identifying attributes that provide for those values, and setting freshwater objectives for those attributes. Setting limits for water quality involves determining the maximum resource use that will enable a chosen freshwater objective to be met.

Policy A3(a) requires conditions to be imposed on discharge permits to ensure the limits and targets can be met.

The FMU limits are to be established via the Regional Plans. The Proposed Plan sets out the details further in this regard. It is understood that catchment limits within Southland are still being developed and are therefore not part of the Proposed Plan yet. The Plan does however contain a number of standards that have been largely carried from the Operative Regional Water Plan relating to water quality. Discharges are required to ensure compliance with such standards, or at least not contribute to any further degradation should existing conditions not be able to achieve such parameters.

Appropriate mitigation is also proposed to ensure native fish passage is not adversely affected by the proposal⁸.

4.5.5 The natural character of the area has been significantly reduced with the existing industrial activities, weir and other modifications that have occurred to this part of the river over the past 100 years. The damming and ongoing use of the weir is subject to an active consent held by MIE. The proposal will therefore not result in additional modification of the river environs and will not contribute to any further or additional adverse effects on natural character values, landscape and visual amenity⁹.

4.5.6 Given the presence of the weir, the existing industrial activities and the Falls which create a natural obstacle, the immediate area is not popular for a variety of recreational pursuits (including boating, fishing or swimming). Upstream and downstream the Mataura River is however recognised as being a significant trout fishery and also used for white baiting. There is no evidence that the existing diversion and HEP operation is having any notable adverse effects on these resources or activities¹⁰. The evidence of Dr James points to a healthy trout fishery.

4.5.7 Fish passage both upstream and downstream of the existing weir and HEP infrastructure could be adversely affected. With

⁸ Relevant to Water Quantity:

- *Objective B1 of the Freshwater NPS seeks to safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of fresh water, in sustainably managing the taking, using, damming, or diverting of fresh water.*
- *Objective B2 of the Freshwater NPS seeks to avoid any further over-allocation of fresh water and phase out existing overallocation.*
- *Policy 15(c) of the Operative Regional Water Plan seeks to apply allocation and minimum flow and level regimes established under any Water Conservation Order.*

⁹ Relevant to natural character:

- *Objective 5 of the Operative Regional Water Plan requires sufficient water to support the reasonably foreseeable needs of current and future generations and enable people and communities to provide for their social, economic, and cultural wellbeing while protecting aquatic ecosystem health, life supporting capacity, natural character and historic heritage values of surface water bodies.*
- *Objective 9 requires that the quantity of water in surface waterbodies is managed so that aquatic ecosystem health, life-supporting capacity, outstanding natural features and landscapes and natural character are safeguarded.*

¹⁰ Refer Policy 14(d) of the Operative Regional Water Plan in particular.

regard to upstream passage, Alliance is proposing the maintenance of a fish ladder as well as a trap and transfer program to assist in native fish species upstream migration¹¹. I understand that both iwi and the Department of Conservation are generally supportive of this approach¹².

4.5.8 There is potential that native fish migrating downstream are at risk of entering the intake and turbines. DoC and iwi are concerned about this impact on adult eels in particular. Fish and Game also have similar concerns for salmonids entering the race. Alliance has sought ecological advice regarding this matter. This advice has confirmed that monitoring and assessment of any resultant impacts on migrating eel populations is prudent^{13 14}.

5. PROPOSED CONDITIONS

5.1 I agree with Mr West and submitters that one of the key issues for this consent is the potential effect of the diversion on downstream fish passage. It is accepted by Dr James that there remains a degree of uncertainty as to how many migrating eels and other fish species are affected by the proposed diversion. Conversely there is no evidence to date of any significant negative effects on eel species or salmonids in the Maitai River that can be directly attributed to the operation of Alliance's HEP. It is however acknowledged that there has not been any structured monitoring to test any cause and effect relationships as this has not been

¹¹ Objective 10 of the Operative Regional Water Plan seeks to maintain or enhance the diversity and integrity of aquatic and riverine habitats and ecosystems.

¹² Objectives 4, 5, 15 and 18, and Policies 3, 20(1), 28 and 32 of the Proposed Plan are particularly relevant to effects on the cultural values of the tangata whenua, adverse effects on taonga species and mahinga kai, and effects on indigenous fauna and fish passage. Similar objectives and policies are contained within the Iwi Management Plan.

¹³ The NPS for Renewable Electricity Generation requires decision makers (Policy C1 d) and e) to acknowledge the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities by having particular regard to; design measures which allow operational requirements to complement and provide for mitigation opportunities; and adaptive management measures.

¹⁴ Policy 14 of the Operative Regional Water Plan seeks that while recognising the positive effects resulting from the use and development of water resources, manage the taking, use, damming or diversion of surface water so as to avoid where practicable, remedy or mitigate significant adverse effects...

a requirement of any previous or existing consents relating to the operation the hydro scheme.

5.2 Having reviewed the issue in some detail and taken advice, I understand that Alliance is prepared to undertake a comprehensive downstream eel monitoring programme to determine what the effects of the diversion on fish passage might be. If adverse effects are detected, then Alliance agrees that it needs to establish and implement suitable mitigation. My task has been to set out suitable conditions, which will give vent to these obligations. Before setting out the proposed conditions framework I note that any necessary mitigation that arises from the monitoring proposed will necessarily require a long term commitment on the part of the consent holder, and I expect that it will incur a reasonable capital cost and considerable investigative and management effort. In such circumstances it is my opinion reasonable for a consent holder to expect that it will obtain a consent term long enough to extract a suitable return on the investment and effort made. In my opinion, consent according to a term suggested by Mr West and the submitters does not do that, and a 25 year term is more appropriate in these circumstances.

5.3 Insofar as downstream fish passage is concerned, the conditions (refer to **Appendix B** of this evidence) require:

5.3.1 The preparation of a Downstream Eel Migration Monitoring Program, which is to be submitted to the consent authority for certification. This program will detail the requirements of the monitoring including the modifications necessary to the existing trash screen at the entrance to the turbine, the process to check, record and clear the chute, the monitoring duration and timing, and reporting obligations. The proposed conditions require the program to be circulated for comment to key stakeholders, as well as an invitation to them to participate in a collaborative workshop prior to finalising it and submitting it to the consent authority.

5.3.2 The monitoring plan is intended to set out the framework and process for the required work and the detail such as the timing

of when monitoring will commence and when it will cease will be addressed by the required plan. The conditions also intend that the plan will be reviewed on an annual basis and if changes are required to ensure a more effective monitoring system the following season this can occur. In my experience a careful balance needs to be achieved within such conditions, such that there is sufficient guidance as to what the monitoring plan is required to achieve without it being too rigid such that approaches are locked in, which can constrain reflexivity which is often necessary within such processes for them to be effective.

5.3.3 If the monitoring identifies that a significant adverse effect on downstream eel passage is occurring, then the conditions require the consent holder to engage an appropriately qualified and experienced expert to prepare a suitable mitigation plan. This plan will similarly be prepared and submitted to the consent authority for certification, following a period of consultation and collaboration with key stakeholders. The consent holder is then required to implement the necessary responses in accordance with the plan, which is intended to detail the nature of the mitigation or action, its function and design and any ongoing monitoring and reporting obligations associated with it.

5.3.4 In order to provide greater certainty regarding the mitigation that is proposed, and in response to submitter's concerns in this regard which were expressed during the pre-hearing process, a further condition is proposed which requires the independent review and verification of the required mitigation response.

5.3.5 Details of other species including salmonids will be recorded where these are encountered during the eel monitoring efforts.

5.4 In my view the proposed conditions (refer **Appendix B** attached) are robust and while the need for, and if required, the exact mitigation response is not yet known, I have tried to ensure that there is sufficient

detail within the conditions to ensure that the conditions are certain and enforceable.

6. OTHER KEY MATTERS

6.1 Iwi have a long association and a strong traditional relationship with the Mataura River.

6.2 A Statutory Acknowledgement exists for the Mataura River in Schedule 42 of the Ngai Tahu Claims Settlement Act 1998. This Statutory Acknowledgement outlines Ngai Tahu's association with the Mataura River. Above the Mataura Falls the river was traditionally used by the descendants of the Ngati Mamoe chief, Parapara Te Whenua, along with other famous tupuna. The Statutory Acknowledgement states that:

“The Mataura was an important mahinga kai, noted for its indigenous fishery. The Mataura Falls were particularly associated with the taking of kanakana (lamprey). The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Mataura, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngai Tahu today.

The mauri of the Mataura represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngai Tahu Whanui with the river.”

6.3 The maintenance of water quality and quantity are paramount resource management issues to Ngai Tahu. The Ngai Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 states that “water is a taonga, or treasure of the people”. It goes on to say that “It is the kaitiaki responsibility of tangata whenua to ensure this resource is available for future generations in as good as, if not better quality”.

6.4 The Mataura River is also subject to the Mātaitai Reserve. This reserve status recognises the importance of the river as providing a mahinga kai

resource for Ngāi Tahu Whānui because of its use as an access route between coastal Muruhiku (Southland) to Fiordland and the West Coast for the gathering of pounamu. The Mataura was particularly noted for the gathering of kanakana (lamprey) and tuna (eels), with annual fishing expeditions in season to favoured nohoanga (campsites) along the river. The bylaw for the reserve prohibits commercial fishing within the area. Customary fishing is permitted subject to approval.

- 6.5 The Ngai Tahu ki Muruhiku Natural Resource and Environmental Iwi Management Plan 2008 record of archaeological sites also identifies the Mataura Falls as a site of significance to Iwi, which is in the immediate vicinity of the weir and hydro-race.
- 6.6 The Southland Muruhiku Conservation Management Strategy also recognises that Ngai Tahu have a special relationship with the Mataura River.
- 6.7 As discussed above, Alliance has consulted with Te Ao Marama and Hokonui Runaka and the key issue with regard to these applications, is fish passage upstream and downstream. The mitigation that is proposed to manage these potential effects is considered appropriate in this regard. Moreover, in devising the proposed conditions I have been very mindful of the kaitiaki role of the Hokonui Runkaka. Conditions 7, 12, 14 and 22 are specifically directed at addressing this important role.

Freshwater Fisheries Regulation

- 6.8 Regulation 43 of the Freshwater Fisheries Regulation 1983 requires those seeking to construct dams to seek approval or dispensation from the Regulations by notifying the Director General, Department of Conservation, who may require that fish pass facility is constructed. This regulation however, does not apply to any dam or diversion structure which is subject to a water right issued under the provisions of the Water and Soil Conservation Act 1967 prior to 1 January 1984. Alliance holds a water right issued in accordance with the Water and Soil Conservation Act 1967, a record of which is attached as Appendix J to the application. Although Alliance is exempt from having to seek approval or

dispensation from the Director General in accordance with these regulations, fish passage issues have been considered as discussed in this application and a solution is being proposed in conditions.

Section 104(2A)

- 6.9 This section of the RMA requires a consent authority when considering an application to renew an existing activity, has regard to the value of the existing investment by the consent holder.
- 6.10 In this regard the HEP and hydro-race are key components of the overall operation of the Plant.
- 6.11 The Mataura township has a population of 1509 (2013 census) and is a small rural service centre whose residents have a high reliance on the Mataura Plant for employment opportunities. The evidence of Mr Richardson sets out details about the number of people employed at the Plant and the economic benefits it provides.
- 6.12 Mr Richardson also sets out that on average the hydro plant produces approximately 72,000 kW of energy per week, this converts to around \$35,000 worth of electricity savings for the Plant per month. The hydro generator is a significant resource for the Plant.
- 6.13 The existing weir, HEP and associated infrastructure have also been in place for over a century and help the Plant to be more self-sustaining in terms of its energy requirements. Improvements and maintenance in the infrastructure have occurred over time and the capital value of the weir, race, HEP and associated structures is approximately \$4 million.

Mataura River Water Conservation Order

- 6.14 The Mataura River WCO provides a long term management framework aimed at preserving the existing water flows and water quality in the Mataura River and its tributaries, thereby preserving its fisheries and amenity values. The objective of the WCO is to maintain the existing "*outstanding fisheries and angling amenity features*". The WCO outlines

provisions which must be accommodated within RMA documents and resource consents.

- 6.15 As noted earlier, the Mataura River WCO prohibits the damming or diversion of waters, unless on the same terms as an existing permit. There are no changes proposed to the damming or diversion activity and resulting minimum flows, therefore the proposal will achieve this requirement.
- 6.16 With regard to the discharges, the provisions of the WCO seek that minimum water quality standards are achieved, and in order to gain a discharge permit, it must be substantially free from suspended solids, grease and oil, and/or to be temporary maintenance works only. The proposed discharge of surface water will not have any material effect on water quality downstream.
- 6.17 It is considered that the proposal is consistent with the requirements of the WCO.

7. SECTION 105, SECTION 106 AND SECTION 107 OF THE RMA

- 7.1 I refer to the analysis of these matters in Sections 8 and 9 of the AEE and Mr West's assessment of these matters. I agree with the respective conclusions that there is no impediment under section 105, 106 or 107 of the RMA to granting the consents sought.

8. PART 2 OF THE RMA

- 8.1 The various elements of Part 2 relevant to these applications is identified in Section 10 of the AEE, as well as in Mr West's report. Many of these matters are directly addressed by the various planning instruments that are relevant to the consideration of this proposal. The analysis that has been undertaken in that regard is directly applicable to your ultimate evaluation of Part 2 matters, insofar as you need to do that, in light of the most recent determination on *Davidson*.
- 8.2 By way of summary I conclude that:

8.2.1 Granting consent in accordance with the conditions I have suggested in **Appendix B** will enable people and communities to provide for their social, economic and cultural wellbeing¹⁵ specifically by:

- Enabling the Plant to continue to operate efficiently and effectively by providing a direct electricity supply using existing infrastructure with a commensurate reduction on a reliance on electricity generated elsewhere;
- Utilising a renewable energy source which is non-polluting;
- Recognising the significant investment that exists with respect to the existing Plant infrastructure and activities.

8.2.2 The proposed activities will not give rise to adverse effects to a point where the life supporting capacity of the receiving water body is adversely affected¹⁶.

8.2.3 The natural character of the river reach affected by the proposal has been significantly modified over a long period of time. The minimum flow that is retained over the weir provides the affected reach with an appropriate level of water to maintain existing habitat and aquatic ecology. Upstream fish passage is proposed to be managed by an extensive trap and transfer program. The effects of the scheme on downstream fish passage are to be assessed, with a fit for purpose response promulgated and implemented if required¹⁷.

8.2.4 The proposed discharges will not have any adverse effects on downstream water quality or aquatic ecosystems that are any more than minor¹⁸.

¹⁵ Section 5.

¹⁶ Section 5(b).

¹⁷ Sections 5(c), 6(a) and 6(c).

¹⁸ Sections 5(b), 5(c), 6(a) and 6(c).

- 8.2.5 Enabling the ongoing use of existing infrastructure which will in turn enable the Plant to operate effectively is also considered to be an efficient use of existing resources¹⁹.
- 8.2.6 Customary rights of iwi and the cultural significance of the Mataura River has been recognised by Alliance. Consultation with Te Ao Marama and Hokonui Runaka occurred early and is ongoing and the conditions I propose recognise the important kaitiaki role of the Hokonui Runaka in the development and implementation of the monitoring and mitigation programs that are proposed²⁰.
- 8.2.7 The proposal will not impact upon amenity values. In this instance, the existing river environment has already been altered by the presence of the weir, and the industrial plants and associated activities adjacent to and within the river. The proposal will not result in any changes in this regard²¹.
- 8.2.8 The proposal will enable the ongoing use of a renewable energy resource to provide power direct to the Plant²².
- 8.2.9 The Mataura River is recognised for its significant trout population. The evidence of Dr James confirms that there is no evidence to suggest that the activities are having any adverse effects on this fishery²³.
- 8.3 Overall, I conclude that there is no impediment to granting the consents as applied for. I also hold the opinion that there is good reason to grant the consents sought for a term of 25 years, subject to the conditions that I propose in **Appendix B** attached.

John Kyle

21 November 2018

¹⁹ Section 7(b).

²⁰ Sections 6(e), 6(g), 7(a) and 7(aa).

²¹ Section 7(c).

²² Section 7(j).

²³ Section 7(h).

Appendix A

Summary of Recent Experience of John Kyle

- Wellington International Airport Limited – Lead consultant – notice of requirement for airport site and former Miramar School site – Wellington City.
- Queenstown Airport Corporation – Lead consultant - Proposed plan change to manage the effects of aircraft noise – Queenstown Lakes District.
- Alliance Group Limited – Lead consultant – renewal of all discharge and land use consents Maitua Meat Processing Works, Maitua - Southland Region.
- Simcox Construction – Lead consultant – Quarry operation consent renewal, Marlborough District.
- Pernod Ricard NZ Limited – Planning witness – Marlborough Environment Plan submissions – Marlborough District.
- Alliance Group Limited – Lead consultant – renewal of all discharge and land use consents Lorneville Meat Processing Works, Lorneville - Southland Region.
- Alliance Group Limited – Air Discharge Consents – Pukeuri Meat Processing Works, Pukeuri - Otago Region.
- Queenstown Lakes District Council – preparation of a Plan Change to expand Queenstown town centre, including to accommodate a convention centre.
- Wellington International Airport Limited – Lead consultant - strategic and resource management advice with respect to the proposed runway extension – Wellington City.
- Ryman Healthcare – resource consent applications for new retirement villages – New Zealand wide role.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Plan Change by Tainui Group Holdings and Chedworth Properties for the Ruakura Inland Port Development, Hamilton.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between Peka Peka and North Otaki on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a Notice of Requirement and resource consent applications by the New Zealand Transport Agency with respect to the Expressway between MacKays Crossing and Peka Peka on the Kapiti Coast.
- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding resource consent applications and designations by the New Zealand Transport Agency with respect to the proposed Transmission Gully Project – Wellington Region.
- Queenstown Lakes District Council – member of the review team commissioned to undertake a review of Council consenting and resource management policy operations.

- Environmental Protection Authority – advisor to the Minister appointed Board of Inquiry regarding a plan change application to the Wellington Regional Water plan to assist with the proposed Transmission Gully Project – Wellington Region.
- Queenstown Airport Corporation – lead consultant - Notice of Requirement for land adjacent to QAC in order provide for the future expansion of airport operations, Queenstown Lakes District.
- Genesis Power Limited – due diligence Slopedown Wind Farm, Southland District and Southland Region.
- TrustPower Limited – Planning witness - proposed Kaiwera Downs Wind Farm, Gore District and Southland Region.
- TrustPower Limited – Planning witness - proposed alteration to the Rakaia Water Conservation Order – Lake Coleridge Hydro Electric Power Scheme – Canterbury Region.
- Meridian Energy Limited – Planning witness -Proposed Mokihinui Hydro Electric Power Scheme, damming, water and land use related consents, Buller District and West Coast Region.
- TrustPower Limited – Planning witness - Wairau Hydro Electric Power Scheme, water and land use related consents, Marlborough District.
- Southern Health – Plan Change Invercargill Hospital Development - Invercargill City.
- Sanford Limited, various marine farm proposals Marlborough Sounds, Marlborough District.
- Port Marlborough Limited – Lead consultant - Plan Change proposal to alter the marina zone within the Marlborough Sounds Resource Management Plan to provide for consolidation of marina development in Waikawa Bay, Marlborough District.
- Port Marlborough Limited – Resource consent application for occupation of coastal space – Shakespeare Bay port facilities – Marlborough District.
- Meridian Energy Limited – Planning witness - proposed Wind Farm, Lammermoor Range, Central Otago District and Otago Region.
- Queenstown Airport Corporation – Lead consultant - Runway End Safety Area, designation and construction related consents, Queenstown Lakes District and Otago Region.
- Riverstone Holdings Limited – Lead consultant - Proposed Monorail Link – Lake Wakatipu to Fiordland, Department of Conservation Concession Application – Southland Conservancy.
- Otago Regional Council – Planning witness - Consents required for controlling the Shotover River to mitigate flood risk – Queenstown Lakes District and Otago Region.
- Queenstown Airport Corporation – Lead consultant - aircraft noise controls and flight fan controls – Plan Change and Designations, Queenstown Lakes District.
- Todd Property Pegasus Town Limited – Pegasus Town, North Canterbury – Waimakariri District, Canterbury Region.
- Willowridge Developments – Lead consultant - 3 Parks Plan Change to create new commercial, large format retail, service, tourist and residential land use zones, Wanaka, Queenstown Lakes District.

- Gibbston Valley Station – Lead consultant - Land use and regional consents, Viticulture and Golf Resort, Gibbston – Queenstown Lakes District and Otago Region.
- Marlborough District Council – Business Park Plan Change, Blenheim - Marlborough District.
- Ravensdown Fertiliser Limited – Lead consultant - Coastal and Air Discharge Consent Renewal, Dunedin – Otago Region.
- Irmo Properties Limited – Resource consent application for retail complex, Green Island – Dunedin City.
- Infinity Investment Group and JIT Investments – Lead consultant - Hillend Station Farm Park development, Wanaka – Queenstown Lakes District.
- Infinity Investment Group – Lead consultant - Peninsula Bay Plan Change, Wanaka – Queenstown Lakes District.
- Genesis Power Limited – Planning witness - Tongariro Power Development, Water Related Consents, Central North Island – Environment Waikato and Horizons MW.
- Genesis Power Limited – Planning witness - Waikato District Plan review and provision for the Huntly Power Station, Waikato District.
- Department of Corrections – Planning witness - New Corrections Facility, Milton - Clutha District and Otago Region.
- Department of Child Youth and Family – Lead consultant - Youth Justice Facility, Rolleston – Selwyn District and Canterbury region.
- Kuku Mara Partnerships – Planning witness - Large Scale Marine Farms, Marlborough Sounds – Marlborough District.
- Marine Farming Industry – Plan Appeals, Tasman Aquaculture Inquiry, Tasman and Golden Bays – Tasman District.

Appendix B

Suggested Conditions for APP - 20171566

Suggested conditions for APP - 20171566

1	This consent shall expire on X Month 2043.
2	The water diversion authorised by this consent shall not cause the flow at the centre of the existing weir on the Mataura River to fall below a depth of 0.05 metres.
3	The consent holder shall maintain a monitoring system to provide immediate warning to its staff that flow at the centre of the existing weir on the Mataura River is approaching a depth of 0.05 metres so that the requirement of condition 2 can be met at all times.
4	No alteration to the existing weir or diversion channel shall be carried out by the consent holder without the written approval of the Consent Authority.
5	When a reduction in the rate of diversion is necessary to comply with condition 2, it shall be achieved by a parallel reduction in the rate of diversion undertaken by both the consent holder and the holder of consent 203311. This obligation shall continue to apply if consents are issued to replace consent 203311.
6	<p>The consent holder shall share in the costs of maintenance of a fish ladder with the consent holder of consent 203311 (or any subsequent consent holders). Within twelve months of commencement of this consent the fish ladder shall be certified by a suitably qualified, independent and experienced freshwater fisheries biologist to confirm that it provides for the upstream passage of salmonids that would normally migrate past this point in the river.</p> <p>A Fish Ladder Operation and Maintenance Plan shall be provided to Southland Regional Council, Attention: RMA Compliance and Enforcement Manager (or their equivalent) within three months of its certification.</p>
Elver Trap and Transfer Plan	
7	<p>Within six months of commencement of this consent the consent holder shall submit an Elver Trap and Transfer Plan ('the Plan') to the Southland Regional Council, Attention: RMA Compliance and Enforcement Manager (or their equivalent) for certification.</p> <p>The Plan shall be prepared by a suitably qualified, independent and experienced freshwater fisheries biologist in general accordance with the draft plan attached as part of the section 42A report, dated 3 November 2018 (prepared by Vaipuhi Consulting). Hokonui Rūnaka shall be invited to contribute to the preparation of this plan.</p> <p>The objective of the Plan shall be to facilitate a trap and transfer system to maintain and enhance the upstream passage of elvers over the Mataura Falls and the Weir and their transfer back into the main stem of the river.</p> <p>The Plan shall include details relating to:</p> <p>(a) The design specifications of the trap and transfer system. This shall be prepared in accordance with best practice guidelines for the passage of</p>

	<p>Fish at Hydro-electric dams (Paterson and Boubee 2010) or any revisions of these guidelines;</p> <p>(b) When inspections of the base of the Mataura Falls (both sides) will commence and the frequency of such inspections necessary to identify elver accumulation;</p> <p>(c) The triggers that determine when the trap will be installed. This will be determined based on the quantum of elvers identified at the base of the Mataura Falls;</p> <p>(d) The frequency of necessary inspections of the trap system during its operation and transfer requirements;</p> <p>(e) The triggers that will allow for the trap to be removed at the end of the migration season;</p> <p>(f) Annual reporting requirements;</p> <p>(g) Details of maintenance requirements;</p> <p>(h) Review requirements; and</p> <p>(i) Predator management.</p>
8	<p>A draft of the Elver Trap and Transfer Plan ('Draft Plan') shall be provided to the Department of Conservation Attn: Operation Manager Murihiku (or equivalent), Hokonui Rūnaka Attn: The Chair, Te Ao Marama Inc Attn: Kaupapa Kaiao Manager (or equivalent), and the Southland Fish and Game Council Attn: Manager Southland Fish and Game (or equivalent) for comment prior to submitting the Final Trap and Transfer Plan to the Council for certification. The Draft Plan shall be provided to these organisations at least 40 working days prior to its submission for certification to the Consent Authority.</p>
9	<p>The organisations listed in condition 8 shall be provided with the opportunity to participate in a collaborative workshop with the consent holder to discuss and review the Draft Plan. The Consent Holder shall circulate to the organisations a record of the discussion within 5 working days of the completion of the workshop. These organisations shall have the opportunity to provide oral feedback at the workshop or written feedback to the Consent Holder on the Draft Plan within 15 working days of the completion of the collaborative workshop. If no feedback is received by that deadline the Consent Holder can consider that the party concerned has no comments on the Draft Plan.</p>
10	<p>The Consent Holder shall provide any feedback received from the parties in condition 8 on the Draft Plan to the Southland Regional Council at the time it is submitted for certification, along with a clear explanation of where any comment has or has not been incorporated into the Plan and the reasons why.</p>
11	<p>The consent holder shall be required to implement the Elver Trap and Transfer Plan prepared in accordance with condition 7 on an annual basis by a suitably qualified and licensed person with a special permit from the Ministry of Primary Industries (MPI) to take, transfer and release fish under the Fisheries Act 1996, and a transfer and release permit from MPI under the Conservation Act 1987.</p>

	<p>If river flow conditions require the trap to be removed, the trap shall be reinstated as soon as it is practical to do so, but no longer than 24 hours after river conditions improve and it is considered safe to reinstall the trap.</p> <p>The Plan shall be reviewed annually and if amendments are required a revised Plan shall be submitted to the organisations listed in condition 8 and the Consent Authority at least 40 working days prior to the intended start of the following trap and transfer programme. If a revised Plan is prepared the collaborative process available under condition 9 shall be offered to the organisations listed in condition 8 afresh.</p>
12	The consent holder shall invite Hokonui Rūnaka to observe and participate in the trap and transfer programme.
13	<p>Following implementation of the Trap and Transfer Plan the consent holder shall ensure that a report is prepared and provided to the organisations listed in condition 8 and the Compliance Manager - Southland Regional Council by the 30th April each year. This report shall contain the following details:</p> <ul style="list-style-type: none"> (a) The date inspections started; (b) Date the trap was installed and removed, including during the season; (c) Relevant environmental variables including daily river flow, water temperature, and rainfall during trapping; (d) Weight of elvers relocated; (e) Details of any by-catch caught, including species, size, condition, injuries/death and release locations of live by-catch; (f) Transfer location(s) of elvers and other fish species; and (h) Any amendments identified as being necessary to the Trap and Transfer Plan for the following season.
Downstream Eel Migration Monitoring Programme	
14	<p>Within six months of this consent commencing the consent holder shall engage a suitably qualified, independent and experienced freshwater fisheries biologist to prepare a Downstream Eel Monitoring Programme ('Monitoring Programme'). Hokonui Rūnaka shall be invited to contribute to the preparation of this plan. This shall be submitted to the Consent Authority for certification.</p> <p>The primary objective of this Monitoring Programme shall be to set out how monitoring of the effects of the hydro scheme on the downstream passage of adult migrating eels should be undertaken.</p> <p>The primary purpose of this Monitoring Programme shall be to identify if eels are entering the turbine and if so, how many eels and of what size and species are entering the turbine during the eel migration period in order to determine what if any significant adverse entrapment effects the hydro scheme is having. The timing of eel movement to the turbine within the migration period shall also be investigated.</p> <p>The Monitoring Programme shall include details relating to:</p>

	<ul style="list-style-type: none"> (a) Modifications required to the trash screen bar size so as to not be greater than 30mm; (b) Modifications required to the trash screen, screen cleaner and trash sluice to assist the inspection process; (c) Monitoring dates which are targeted at ensuring that the eel migration season is properly covered by the investigations; (d) Screen inspection frequencies, including the need to increase frequencies during elevated flow events; (e) Methods for determining the condition of eels, other native fish species and salmonids captured in the race and protocols for handling, transportation and release of these fish back to the main stem of the river; (f) Monitoring using a Passive Integrated Transporter to ensure any modifications are fit for purpose (subject to obtaining appropriate permits); (g) Protocols for inspecting the screen and the sluice for entrapped fish and methods to be employed to maximise the prospect of their survival as far as is practicable; (h) The recording and reporting obligations associated with monitoring undertaken, for eels, other native fish species and salmonids; (i) Review of the programme and procedure for modifications particularly if mortality and injuries rates to fish increase; (j) Any predator management if required. (k) Provision for Hokonui Rūnaka participation in the monitoring, including observation of the monitoring of the trash screen and holding chute and the eel collection and monitoring process; (l) Protocols for the storage and provision of eel carcasses to Hokonui Rūnaka. (m) Protocols for removing eel otoliths and their issuance to NIWA or a suitable alternative entity for analysis. <p>The Monitoring Programme shall be prepared in accordance with the conditions of this consent and in general accordance with the draft plan attached to the section 42A report, dated 3 December 2018.</p>
15	<p>A Draft Downstream Eel Monitoring Programme ('Draft Monitoring Programme') shall be provided to the Department of Conservation Attn: Operation Manager Murihiku (or equivalent), Hokonui Rūnaka Attn: The Chair, Te Ao Marama Inc Attn: Kaupapa Kaiao Manager (or equivalent), and the Southland Fish and Game Council Attn: Manager Southland Fish and Game (or equivalent) for comment prior to submitting the Final Monitoring Programme to the Consent Authority for certification. The Draft Monitoring Programme shall be provided to these organisations at least 40 working days prior to its submission for certification to the Consent Authority.</p>
16	<p>The organisations in condition 15 shall be provided with the opportunity to participate in a collaborative workshop with the consent holder to discuss and review the Draft Monitoring Programme. The Consent Holder shall circulate to the organisations a record of the discussion within 5 working days of the completion of the workshop. These organisations shall have the opportunity to provide oral feedback at the workshop or written feedback to the Consent</p>

	Holder on the Draft Plan within 15 working days of the completion of the collaborative workshop. If no feedback is received by that deadline the Consent Holder can consider that the party concerned has no comments on the Draft Monitoring Programme.
17	The Consent Holder shall provide any feedback received on the Draft Monitoring Programme to the Consent Authority at the time it is submitted for certification, along with a clear explanation of where any comment has or has not been incorporated into the draft Monitoring Programme and the reasons why.
18	<p>The consent holder shall be required to implement the Monitoring Programme certified by Council under condition 14 on an annual basis for the first five years following the exercise of this consent, unless the reporting required by condition 19 recommends otherwise. The person undertaking the monitoring shall be either a suitability qualified and experienced person or a person who has been trained in the handling and measuring of fish for scientific studies by a suitably qualified and experienced person.</p> <p>The Monitoring Programme shall be reviewed annually and if amendments are required a revised Monitoring Programme shall be submitted to the organisations listed in condition 15 and the Consent Authority at least 40 working days prior to the intended start of the following monitoring period. If a revised Plan is prepared the collaborative process available under condition 16 shall be offered to the organisations listed in condition 15 afresh.</p>
19	<p>Following each annual monitoring campaign carried out to meet the requirements of the Monitoring Programme, the consent holder shall engage a suitably qualified, independent and experienced freshwater fisheries biologist to prepare a report summarising the findings of the monitoring relating to eels, assessing the actual propensity for entrapment of eels within the intake channel and turbine to occur and providing a recommendation as to whether the monitoring should continue, or whether it is necessary to design and implement different option(s) for monitoring ('the Monitoring Report'). This report shall also summarise the findings of the monitoring as it relates to other native fish species and salmonids.</p> <p>As a minimum the Monitoring Report shall:</p> <ul style="list-style-type: none"> (a) Include a summary of all data collected as required under the conditions of this consent and the Downstream Eel Monitoring Programme with regard to impacts on downstream adult eel migration; (b) Critically analyse the information collected in accordance with the conditions of this consent, in terms of identifying any potential or actual significant effects on downstream adult eel migration arising as a result of the consented diversion; (c) Critically evaluate the data in order to recommend whether further monitoring is required, or alterations/additions to the monitoring programme is required; (d) Critically evaluate the data in order to determine whether mitigation is necessary and when that mitigation should be implemented noting the timeframes for implementation set out within condition 26.

20	The Monitoring Report required by condition 19 shall be submitted to the Consent Authority within 30 working days of the annual monitoring required by condition 18 being completed and a copy of the report shall also be provided to the Department of Conservation Attn: Operation Manager Murihiku (or equivalent), Hokonui Rūnaka Attn: The Chair, Te Ao Marama Inc Attn: Kaupapa Kaiao Manager (or equivalent), and the Southland Fish and Game Council Attn: Manager Southland Fish and Game (or equivalent).
21	In the event a Monitoring Report required by condition 19 identifies that significant adverse effects on downstream eel passage are arising as a result of the diversion the consent holder shall take the necessary steps to avoid, mitigate or offset these effects by following the process set out in conditions 22 – 26 below.
22	<p>In the event that the analysis of the monitoring indicates that avoidance, mitigation or offsetting action is required to comply with condition 21, the consent holder shall be required to prepare and submit a Downstream Eel Mitigation Plan to the Consent Authority for certification ('the Mitigation Plan'). Hokonui Rūnaka shall be invited to contribute to the preparation of this plan. The Mitigation Plan shall be prepared and received by the Consent Authority within six months of receiving the Monitoring Report prepared in accordance with condition 19. The Mitigation Plan shall provide the detail relating to the construction requirements, operation and ongoing monitoring and reporting obligations relating to the measures that will need to be implemented by the Consent Holder to demonstrate compliance with condition 21. The Mitigation Plan may include but is not necessarily limited to including one or more of the following:</p> <ul style="list-style-type: none"> (a) Permanent alterations to the fish screening system or hydro race (including the area around intake) to avoid as far as can practicably be achieved, the entrapment of eels in the hydro race; (b) The closure of the hydro plant during flood flows between 1st February and 15th May (or similar timeframe determined as a result of monitoring); (c) Eel habitat enhancement in other parts of the Mataura River to offset the effect of eel entrapment in the hydro race. <p>The Mitigation Plan shall include the monitoring methodology necessary to determine that the methods employed have been successful in achieving avoidance, remediation or offsetting of significant adverse effects on downstream eel passage created by the diversion.</p>
23	A Draft Mitigation Plan shall be provided to the Department of Conservation Attn: Operation Manager Murihiku (or equivalent), Hokonui Rūnaka Attn: The Chair, Te Ao Marama Inc Attn: Kaupapa Kaiao Manager (or equivalent), and the Southland Fish and Game Council Attn: Manager Southland Fish and Game (or equivalent) for comment prior to submitting the Plan to the Consent Authority for certification. The Draft Mitigation Plan shall be provided to these organisations at least 40 working days prior to its submission for certification to the Consent Authority.
24	The organisations in condition 23 shall be provided with the opportunity to participate in a collaborative workshop with the consent holder to discuss and review the Draft Mitigation Plan. The Consent Holder shall circulate to the

	<p>organisations a record of the discussion within 5 working days of the completion of the workshop. These organisations shall have the opportunity to provide oral feedback at the workshop or written feedback to the Consent Holder on the Draft Mitigation Plan within 15 working days of receipt of the completion of the collaborative workshop. If no feedback is received by that deadline the Consent Holder can consider that the party concerned has no comments on the Draft Mitigation Plan.</p>
25	<p>The Consent Holder shall provide any feedback received on the Draft Mitigation Plan to the Consent Authority at the time it is submitted for certification, along with a clear explanation of where any comment has or has not been incorporated into the Mitigation Plan and the reasons why.</p>
26	<p>The Consent Holder shall be required to implement the recommended actions contained within the Mitigation Plan as soon as practicable and no later than two years following certification of the Plan by the Consent Authority. The Consent Holder shall also be required to implement and adhere to the monitoring and reporting obligations set out in the Mitigation Plan.</p>
27	<p>Once the Mitigation Plan has been implemented, and the mitigation or offset measures set out within that Plan have been fully operational for two years, the Consent Holder shall engage a suitably qualified, independent and experienced freshwater fisheries biologist to undertake monitoring sufficient to review the effectiveness of the Mitigation Plan ('the Independent Review'). The purpose of the Independent Review shall be to determine whether all significant adverse effects on downstream eel passage are being avoided, mitigated or offset in accordance with condition 21.</p> <p>A copy of the Independent Review shall be provided to the Consent Authority for certification that condition 21 is achieved.</p> <p>The Consent Holder's obligations to undertake the Independent Review and the associated reporting process shall be completed within six months after being initiated. If this review recommends that further actions are necessary to comply with condition 21, then the Consent Holder shall be required to revisit the requirements of conditions 22 to 26 to ensure that the Mitigation Plan is appropriately adapted to successfully avoid, remedy or offset significant adverse effects on downstream eel passage.</p>
28	<p>The Independent Review shall be provided to the Department of Conservation Attn: Operation Manager Murihiku (or equivalent), Hokonui Rūnaka Attn: The Chair, Te Ao Marama Inc Attn: Kaupapa Kaiao Manager (or equivalent), and the Southland Fish and Game Council Attn: Manager Southland Fish and Game (or equivalent) for comment prior to being submitted to the Consent Authority for certification under condition 27. The Independent Review shall be provided to these organisations at least 30 working days prior to its submission for certification to the Consent Authority.</p> <p>These organisations shall be provided with the opportunity to provide feedback to the Consent Holder within 15 working days of receipt of the Independent Review. If no feedback is received by that deadline the Consent Holder can consider that the party concerned has no comments on the Independent Review.</p>

29	The Consent Holder shall provide any feedback received on the Independent Review to the Consent Authority at the time it is submitted for certification under condition 27, along with any comments the consent holder may have on any matters raised by the consulted parties.
30	<p>(a) In carrying out its functions in relation to the certification process associated with:</p> <ul style="list-style-type: none"> i) Elver Trap and Transfer Plan; ii) Downstream Eel Monitoring Programme; or the iii) Downstream Eel Mitigation Plan; <p>prepared in accordance with the conditions of this consent, the Consent Authority shall be satisfied that the respective Plans meet the purpose stated within the relevant condition. The Consent Authority shall complete its certification within 20 working days of receipt of the management or monitoring plan. In the event of any dispute, disagreement or inaction arising as to any certification of any plan required by the conditions, or as to the implementation of, or monitoring required by the conditions, matters shall be referred in the first instance to the Consents Manager determine a process for resolution of the dispute, disagreement or inaction.</p> <p>(b) If a resolution cannot be agreed within 10 working days of any dispute, disagreement or inaction arising, the matter may be referred to a suitably qualified, independent and experienced freshwater fisheries biologist, acceptable to both parties, setting out the details of the matter to be referred for determination and the reasons the parties do not agree.</p> <p>(c) This expert shall be appointed within 5 working days of the Consent Holder or the Consent Authority giving notice of their intention to seek expert determination. The expert shall issue a decision on the matter within 15 working days.</p> <p>(d) The decision of the appointed expert shall be binding on the Consent Holder and shall be implemented.</p> <p>(e) The dispute resolution process above shall be applied before any formal enforcement action is taken by the Consent Authority in relation to the certification to the plans listed in the conditions above.</p>
31	<p>The Consent Authority may, after allowing 20 working days for consultation with the Consent Holder to identify whether the purposes in subclauses (a) and (b) of this condition would be more appropriately addressed through alternative means, serve notice of its intention to review the conditions of this consent in terms of section 128 of the Act as follows:</p> <ul style="list-style-type: none"> (a) Within three months of receiving the annual Monitoring Report compiled under condition 19 of this consent, should the monitoring identify that significant adverse effects on downstream eel passage, or salmonids are arising that cannot otherwise be mitigated or offset; (b) Within three months of the Independent Review required by condition 27 of this consent, should that review identify that the recommended mitigation is not performing as expected.

Appendix C

Summary of the Rules of the Operative and Proposed Plans

1. OPERATIVE REGIONAL WATER PLAN FOR SOUTHLAND

1.1 DAMMING OF WATER - SECTION 13 LAND USE CONSENT

Rule 29(a) – (c) relates to activities involving the placement, erection or reconstruction of any dam or weir, in, on or over the bed of any lake or river. Given that the weir is already in place, it is considered that these rules are not relevant.

Rule 29(d) provides for the use of any dam or weir in, on or over the bed of any river, modified watercourse, stream or lake as a **permitted activity**, provided the following conditions are met:

- i. The structure was lawfully established (either before or after this [Water Plan] plan came into force.*
- ii. The use of the structure shall not cause a hazard to navigation.*
- iii. The structure shall not be used to store hazardous substances.*
- iv. The standard conditions in Rule 48(b) and (c).*
- v. Fish passage shall not be impeded as result of the activity.*

The application considered that compliance with these conditions can be achieved on the basis of the following:

- The weir was lawfully established prior to the Plan becoming operative;
- The weir is existing, well known and documented and therefore does not present a hazard to navigation;
- The weir will not be used to store hazardous substances.

With regard to condition (iv) and the conditions attaching to Rule 48(b) and (c):

Rule 48(b):

- i. The structure shall not cause significant erosion of, or deposition on, the surrounding bed or banks;*
- ii. Any build-up of debris against the structure, which may adversely affect flood risk, drainage capacity or bed or bank stability, shall be removed as soon as practicable;*
- iii. The structure shall be maintained in a state of good repair.*

Rule 48(c):

- i. No contaminants shall be discharged to water as a result of the use of the structure unless allowed by a relevant permitted activity rule or resource consent.*

The application also considered that these conditions could be achieved:

- The weir is maintained in a good state of repair and regularly checked and cleared for any debris or other material.
- Water that passes over the weir and diverted to the turbine is then discharged back into the main stem of the Mataura River, a consent is being sought to provide for this.
- The assessments undertaken with regard to fish passage indicate that fish migration is not being significantly impeded by the presence of the weir due to the presence of

native fish species and trout at different life stages both above and below the weir, however there may be some individuals which may be unable to complete their upstream migration due to the presence of the weir. Upstream fish passage systems such as ladders have not been able to withstand the forces of the river and in the past, have been damaged or destroyed. Given this, a trap and transfer system is being operated and is proposed as a more effective way of managing this potential effect.

- With regard to downstream fish passage, the application initially proposed to shut down the scheme during the eel migration period, however a monitoring programme and adaptive management approach are now being proposed to address this potential effect.

1.2 DAMMING AND DIVERSION OF WATER – SECTION 14 WATER PERMIT

Rule 18 provides for the abstraction, diversion and use of surface water. The diversion is not listed as a permitted activity. Rule 18(d) provides that the abstraction, diversion or use of water from the following sources is a **restricted discretionary activity**:

- (iii) Any surface water body or artificial watercourse where the water abstracted or diverted is returned in the vicinity of the abstraction or diversion point; or...*

Water for the HEP is diverted via the weir and then returned back to the main stem of the Mataura River approximately 300m downstream.

The Council will restrict its discretion to the following matters:

- i. The volume of water to be taken (including any water to be returned to the surface water body);*
- ii. any effects on river and stream flows (including effects on minimum flows, flow variability and duration), wetland and lake water levels, aquatic ecosystems, aquifer storage volumes, the availability and reliability of supply for existing users and water quality;*
- iii. the location of the abstraction or diversion;*
- iv. The efficiency of water use;*
- v. the need for the installation of a water meter;*
- vi. monitoring requirements;*
- vii. methods to prevent fish from entering the reticulation system;*
- viii. minimum flow and level requirements;*
- ix. consistency with any water conservation order;*
- x. the degree of hydraulic connection to groundwater.*

1.3 DISCHARGES OF WATER – SECTION 15 DISCHARGE PERMIT

Rule 3A provides that the discharge of surface water into a surface water body, or artificial watercourse is a **controlled activity** provided the following conditions are met:

- a. The discharge was lawfully established prior to this [Water] Plan coming into force and is associated with a lawfully established activity that existed prior to this [Water] Plan coming into force;*

- b. *The discharge is in the same location as the discharge that existed before the [Water] Plan came into force;*
- c. *After reasonable mixing, the discharge shall not reduce the water quality of the receiving waters or give rise to any or all of the effects listed in section 107(1)(c) to (g) of the Resource Management Act 1991.*

This rule can be achieved on the basis of the following:

- The weir and hydroelectric power generation infrastructure has been in place for a significant period of time.
- The diversion and associated discharge activity have not altered in terms of the general activity and location and therefore can comply with conditions (a) and (b) of Rule 3A.
- The proposed discharge will not in any material way alter the quality of the water within the river, as it simply transfers the water via a discharge from a turbine. The discharge will therefore not give rise to any of the adverse effects set out in section 107.

2. PROPOSED SOUTHLAND WATER AND LAND PLAN – DECISIONS VERSION

2.1 DAMMING OF WATER SECTION 13 – LAND USE

Rule 60(ab) (subject to appeal) provides that the use of any dam or weir is a permitted activity provided that the following conditions are met:

- (i) General conditions (f), (i), (j) and (k) set out in Rule 55A; and
- (ii) The structure is lawfully established.

Rule 55A conditions are as follows:

- (f) *No contaminants, other than sediment released from the bed are discharged to water as a result of the use of the structure unless allowed by a relevant permitted activity rule in this Plan or a resource consent; and*
- (i) *The structure or bed disturbance activity does not cause significant erosion of, or deposition on, the surrounding bed or banks; or*
- (j) *any build up of debris against the structure which may adversely affected flood risk, drainage capacity or bed or bank stability is removed as soon as practicable; and*
- (k) *The structure is maintained in a state of good repair.*

The ongoing use of the weir will be able to comply with these conditions.

2.2 DAMMING AND DIVERSION OF WATER – SECTION 14 WATER PERMIT

Rule 49(b) provides for the taking, diversion and use of water from any of the following sources as a restricted discretionary activity:

- i. *For a lake, river, artificial watercourse, modified watercourse or natural wetland the total surface water allocation is within the secondary allocation specified in Policy 21(3); or*
- ii. *For non consumptive takes, the total volume of water taken or diverted is returned within 100 metres of the take or diversion point; or*

- iii. *For any lakes, rivers, artificial watercourses, modified watercourses or natural wetlands the total volume of water taken is greater than 40 cubic metres per landholding per day but is less than 70 cubic metres per landholding per day.*

The point of return for the water is located approximately 300m from the diversion point and therefore cannot comply with condition (ii).

An inability to comply with Rule 49(b) defaults to either a discretionary activity or non-complying activity status. A discretionary activity status is retained if the diversion of water is within the primary allocation specified in Appendix K. Appendix K sets out that *for surface waterbodies subject to a WCO that species an environmental flow and level regime, the primary allocation will be that specified in the Order*. The proposed diversion will comply with the flow regimes set out in the WCO and therefore it is considered that the ongoing diversion activity is a **discretionary activity** pursuant to Rule 49(c).

2.3 DISCHARGES OF WATER – SECTION 15 DISCHARGE PERMIT

Rule 8 provides for the discharge of surface water into a surface waterbody or artificial watercourse as a **controlled activity** provided certain conditions are met. These conditions can be achieved and retains a controlled activity status.

3. THE MAINTENANCE OF THE HYDRO RACE

Section 42A report notes that this activity is a permitted activity under Rule 35 of the Regional Water Plan and Rule 66 of the Proposed Plan. A Certificate of Compliance has been sought for this activity by Alliance and was issued by the Southland Regional Council (CC-20171501).

4. DIFFERENCES BETWEEN THE APPLICATION AND THE S42A REPORT

The section 42A report identifies that the damming of water is a discretionary activity under Rule 19(b) of the Operative Plan.

Rule 19 is as follows:

- (a) (i) *The damming of water associated with the placement or erection of a dam or weir permitted under Rule 29(a); and*
- (ii) *The damming of water associated with the placement, erection, or use of a dam or weir in an artificial water course, are permitted activities provided they do not result in adverse effects on existing users.*
- (b) *Except as provided for in Rules 19(a), 19(c), 21(a), 21(b), the damming of water is a discretionary activity.*

Although it is not set out specifically in the section 42A report, it is presumed that the writer has assessed the “use” of the weir as not being a permitted activity under Rule 29(a). As set out above Rule 29(a) of the Operative Plan refers to the placement, erection or reconstruction and any associated bed disturbance of any dam or weir. The application determined that this rule was not relevant as the weir is an existing structure and a specific rule (29(d)) applies in the circumstances. It is not proposed to “place, erect or re-construct” the weir. Rule 19 is not relevant to this application.

The section 42A report also considers that a consent to use the weir is required pursuant to Rule 29(e) of the Operative Plan. There is no specific analysis provided as to why this is considered, however it is assumed that the writer is of the view that the use of the structure will cause a hazard to navigation or that fish passage is impeded. As noted above this is not what the analysis within the application found with regard to the Operative Plan, however when the application was prepared such a consent was identified as being required under the Proposed Plan (the relevant rule has been amended via decisions) and was applied for accordingly (see reference to updated rule directly below).

The section 42A writer also refers to Rule 4 of the Proposed Plan which states:

Any activity that:

- (i) Would otherwise contravene sections 13(1), 14(2), 14(3) or 15(1) of the RMA; and*
- (ii) Is not classified by this Plan as any other class of activity listed in section 87A of the RMA;*

Is a discretionary activity.

Rule 60(ab) is specific to the use of the existing weir and provides that the use of any dam or weir is a permitted activity, subject to meeting the cited provisions from general Rule 55A. Note 2 attached to Rule 60 says that “This rule manages dam and weir structures. Any associated take, diversion, use or discharge of water is covered by other rules”. Alliance has applied to divert water under these other rules. I do not see it as being necessary to rely on Rule 4 insofar as the weir structure is concerned and it appears to me that the ongoing use of the weir is a permitted activity.