

BEFORE THE CANTERBURY REGIONAL COUNCIL

UNDER the Environment Canterbury
(Temporary Commissioners and
Improved Water Management) Act
2010

AND

IN THE MATTER of the Proposed Waiau Hurunui
River Regional Plan

EVIDENCE OF CATHY FAY BEGLEY

**ON BEHALF OF TE RŪNANGA O KAIKŌURA, TE NGĀI TŪĀHURIRI RUNANGA AND TE
RŪNANGA O NGĀI TAHU INCLUDING NGĀI TAHU PROPERTIES LTD**

1. INTRODUCTION

- 1.1 My full name is **CATHY FAY BEGLEY** and I am a Senior Environmental Advisor for Te Rūnanga o Ngāi Tahu (Ngāi Tahu). Prior to joining Ngāi Tahu I was employed by GHD Ltd as a Senior Environmental Planner and then as Team Leader Natural Resources Planning South Island for 2 ½ years. Prior to this I was employed by Davie, Lovell-Smith Ltd as a Senior Resource Planner for four years and by Environment Canterbury (the Canterbury Regional Council) as a Consents Investigating Officer and then as a Senior Investigating Officer for 5 ½ years. I hold the degrees of Bachelor of Resource Studies and Masters in Applied Science (Environmental Management) from Lincoln University. I am an Associate Member of the New Zealand Planning Institute and a full member of New Zealand Water and Waste Association.
- 1.2 I have a rural background, which means that I am very familiar with pastoral farming activities and the unique resource management issues experienced by rural communities. I have worked throughout the South Island (Te Waipounamu) assisting both local authorities and private clients with statutory planning, environmental assessments and other resource management requirements.
- 1.3 One of my main areas of planning and resource management work has been in the preparation and auditing of assessments of environmental effects, and the processing of resource consents through various statutory steps and requirements. This required me to co-ordinate and prepare assessments of environmental effects for a wide range of projects involving inter-related technical assessments, including attending both local authority hearings and acting as an expert witness in the Environment Court. Some recent examples include providing an assessment of effects for seven of the 23 individual farming clients within a collective known as the Upper Waitaki Applicants Group (UWAG); assisting in auditing the assessment of effects of the Arnold River hydroelectric power scheme on behalf of Grey District Council; auditing the assessments of effects of the Project Aqua hydro-electric power scheme on behalf of Environment Canterbury, and providing an assessment of effects for the groundwater permit for Lynton Dairies Ltd.
- 1.4 I have read the further submissions received in response to the submissions lodged. I have also read the technical reports and evidence prepared for this hearing on behalf of Environment Canterbury's Reporting Officers.
- 1.5 I am familiar with the Proposed Hurunui and Waiau River Regional Plan (HWRRP), the Regional Policy Statement (RPS) for Canterbury, the National Policy Statement Freshwater Management 2011 (NPS Freshwater), and other relevant statutory planning documents. I have read the Code of Conduct for Expert Witnesses (Rule 330A, High Court Rules and

Environment Court Practice Note) and agree to comply with it. I confirm that I have complied with it in the preparation of this statement of evidence.

2 THE NGĀI TAHU EVIDENCE

2.1 A key objective of Ngāi Tahu is to ensure that the benefits of the Settlement grow for future generations and, as an iwi, Ngāi Tahu has always been engaged in the sustainable management of natural resources. As such Ngāi Tahu seek to ensure that there are appropriate mechanisms with which to recognise and provide for Ngāi Tahu values within the statutory planning process, such as regional plans and resource consents.

2.2 In preparing this evidence I have relied upon evidence provided by:

- Tā Tipene O'Regan;
- Mr Robert Dawson;
- Ms Raewyn Solomon; and
- Dr Brent Cowie

3 SITE AND LOCALITY

3.1 The evidence from Tā Tipene has demonstrated the significant cultural, traditional and contemporary importance of the Hurunui River to Ngāi Tahu, and the cultural, traditional, and historical association with and significance of the Hurunui River. The Hurunui and Waiau Rivers have been recognised within the Ngāi Tahu Claims Settlement Act 1998 with the Hurunui River being identified as an area of Statutory Acknowledgment. Both rivers have nohonga sites located at their mouths and another nohonga site is located on the shores of Lake Sumner. The importance of these rivers to Ngāi Tahu has been recognised in the plan and the plan acknowledges that, for iwi, maintaining and preferably improving the mauri of the waterway is of paramount importance. As such, any regime which aims to manage both water quality and quantity needs to recognise and provide for this. I discuss the degree to which the proposed Plan achieves these objectives.

4 THE FRAMEWORK OF THE PLAN

4.1 The Waiau and Hurunui River catchments are subject to a number of large infrastructure projects for both irrigation and hydroelectricity generation. The Hurunui catchment has also been subject to an application for a Water Conservation Order which sought to protect a number of values including tangata whenua, natural character and recreational values. Both catchments were also subject to a moratorium pursuant to s34 of the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (the ECan Act).

Ngāi Tahu understood the reason for this moratorium was to enable this plan to be prepared in the absence of development pressure.

- 4.2 Given these circumstances, Ngāi Tahu are of the opinion that Environment Canterbury had a unique opportunity to set a vision for the catchment within the planning regime. This vision should not only give effect to the various statutory planning documents for water under the RMA, but provide a high level of guidance on both current issues with water in the catchment, and the aspirations of the community, including Ngāi Tahu, for managing these waterbodies. Unfortunately, it is my opinion that the proposed plan 'misses the mark'. That is significant, because without a clearly articulated understanding of both the current issues and the objectives or aspirations for water management in the catchment, the proposed plan yields a regulatory regime which imposes significant costs on future development within the catchment, without delivering the appropriate benefits in terms of water management. An example is the lack of clarity around whether the flow and allocation regime set out within Table 1 is able to also ensure that the water quality limits set in Schedule 1 are achieved; and whether, in turn, the water quality limits set out in Schedule 1 are appropriate to achieve the community's aspirations for water quality outcomes in the Hurunui catchment.
- 4.3 Ngāi Tahu considers that the plan should contain a 'freshwater objective' or objectives which is/are used as the foundation for the planning regime with the catchment. These overarching objectives would set the framework for specific policies and rules to provide a robust, comprehensive and integrated management regime for the waterways within the Waiau and Hurunui catchments. In my view having a suite of overarching objectives which guides all aspects of the plan reduces the possibility of contradictions within the plan and ensures that interrelated aspects (i.e. water quality and quantity) are managed to achieve the same outcomes.
- 4.4 This sort of approach would be consistent with the management philosophy of ki uta ki tai (from the mountains to the sea), and as such give effect to Objective 7.2.3 of the proposed Regional Policy Statement for Canterbury,(PRPS). At the time of writing this evidence I understand this provision and indeed all provisions in the Freshwater Chapter of the RPS are now beyond challenge – the final appeals having been settled. Such an approach is also, in my view, anticipated by the NPS – Freshwater and the vision and principles of the Canterbury Water Management Strategy (CWMS).

Ngāi Tahu Vision for Water Management in Hurunui-Waiiau Catchments

- 4.5 For Ngāi Tahu the overall 'vision' and associated 'bottom lines' for water quality and quantity can be articulated reasonably simply: water quality and quantity within both the Waiau and

Hurunui Rivers are to be at least maintained in their current state, or where they are degraded, improved.

- 4.6 Achieving this vision from Ngāi Tahu's perspective will ensure that tangata whenua are able to exercise their role as kaitiaki in a satisfactory manner. The ability to exercise kaitiakitanga is also a matter to be considered in managing fresh water under Objective 7.2.3 of the PRPS.

Exercising Kaitiaki

- 4.7 As you have heard from Ms Solomon the kaitaki role comes with both rights and responsibilities. Where the responsibilities are deemed not to be upheld, then the associated rights can be revoked. To judge their success or otherwise as kaitaki, tangata whenua use various biophysical and amenity elements as 'yard sticks'. Such 'yard sticks' include, but are not limited to, things such as catch success, or availability of traditional resources to enable traditional harvest; i.e. were whānau able to go to x spot on the river and successfully catch sufficient tuna (eel) using traditional methods? For other kaitaki tangata whenua, the hāpua and/or river mouth and associated estuarine environment is the ultimate 'litmus test' of not only whether they are 'good' kaitaki but also the overall health and wellbeing of the river system. Where the hāpua and/or river mouth and associated estuarine environment is healthy and functioning then it can be assumed that the river system as a whole is healthy and functioning, and as such they have been successful in upholding their kaitaki role.
- 4.8 In the Waiau and Hurunui catchments, it is possible that all of the above 'yard sticks' will be employed plus more. This is because for some the mouth of the river is where they have the most interactions and the greatest relationship with the rivers. However, for others, such as Mr Dawson, it is the whole river which he uses to judge his success or otherwise. Further, for Mr Dawson, the health of the river is at the heart of his livelihood. As has been outlined by Tā Tipene the Hurunui River was an important trail for transporting pounamu from its source in the Te Tai Poutini (West Coast) to the main trading pā of Kaiapoi on the east coast. Thus, the relationship tangata whenua have with the river is one of historical and contemporary significance.
- 4.9 The exercise of kaitiakitanga does not prevent or frustrate the use of the water resources of the catchments for economic development. As Tā Tipene has described kaitiakitanga is about both the use and conservation of the resources. A large part of Ngāi Tahu's case is around discussing the impacts of the proposed plan on the ability to use and irrigate land for new development in the catchment, including on Ngāi Tahu's own Balmoral property. As Dr Cowie has illustrated in his evidence, management of these catchments does not need to be and should not be a matter of a choice between 'in-stream' values and economic benefits of

abstraction and associated land uses; but of finding the recipe that allows one without compromising the other.

4.10 The reason for going into this detail at this point in time is to start to discuss the many facets involved in ensuring that the primary vision is being achieved. By this I mean that the vision itself may be easy to articulate (i.e. water quality and quantity to be maintained or improved where it has been degraded). However, this encompasses a number of 'bottom lines' that also need to be clearly articulated to ensure the vision is being achieved. Attached in Appendix 1 are some possible objectives which set out the vision along with the elements or bottom lines which the subsequent policies and rules need to build upon.

4.11 I will now turn to the various 'aspects' of the proposed plan and discuss whether in the view of Ngāi Tahu, they are able to achieve the overarching vision set out within Appendix 1 of this evidence. However, before doing so, I wish to concur with the planning officer in relation to the level of weight that should be afforded to the Proposed Regional Policy Statement (PRPS). It is on this basis that I have assessed whether the proposed plan 'gives effect to' the various objectives and policies within this document as I understand that these appeals have been or are close to being resolved and as such the majority of the document is now beyond challenge.

5 THE PROPOSED PLAN

5.1 The Proposed Plan aims to manage water quality and quantity within the Waiau and Hurunui River catchments. To address this, the plan is broken into three broad categories which in turn reflect the various sections of the Resource Management Act (the Act) ..

- Damming, diverting, taking, use and discharge of surface and groundwater resources (s 14 & 15 of the Act);
- Use of land (s 9 of the Act);
- Transfers of permits (s 136) of the Act)

5.2 I will address each of these categories, in turn, but there are two matters which are of a more genetic nature that I will discuss first: the appropriateness of the use of s 9 of the Act to control non-point source discharges; and cross referencing to provisions in the Natural Resources Regional Plan (NRRP).

Use of s9 or s15

5.3 In the view of Ngāi Tahu, the control of the discharge of contaminants to land and water occurs under s15 of the RMA, and, in relation to discharges of contaminants to water or land

where it may enter water; a discharge permit is required under s15 of the RMA unless that activity is expressly permitted in a regional plan.

5.4 Section 9 of the RMA controls the use of land. I agree that controlling the land uses which give rise to discharges is a possible plan approach, particularly where a local authority is wanting to avoid situations where people establish land uses and then find they cannot comply with the appropriate discharge provisions. But using only s 9 of the Act as the mechanism for managing non-point sources of pollution, gives rise to two problems in my view:

- (i) Firstly it gives the impression that 'farming' or types of farming per se, are the cause of the problem, when actually it is the nature and quality of the discharge of nutrients which is the issue and this can vary considerably depending on the nature of the land use and how it is operated.
- (ii) Secondly, it could lead to a situation where the 'discharge' is a permitted activity under s15 of the RMA, particularly if it is a discharge to land where it may enter water but the land use (i.e. farming) is not. Yet it is the discharge which is the activity having the effect which needs to be managed. In my view this is not what is intended by the plan..

References to Natural Resources Regional Plan (NRRP)

5.5 Throughout the plan there are references to provisions, including methods and rules contained within the NRRP. For example Schedule WQN12A of the NRRP is referred to within Rule 1.3 (c) of the plan. However, the public notice for the proposed Land and Water Plan for Canterbury (LWRP) states that all but chapters 2 and 3 of the NRRP will be withdrawn when the proposed LWRP is made operative. Therefore, retaining the reference to specific provisions with the NRRP has the potential to cause confusion. In my view anything which is 'vital' to interpreting and applying this plan should be contained within it. I acknowledge this point is not within the scope of Ngāi Tahu's submission, but I have drawn the Commissioners attention to it as you may want to incorporate these provision into the plan either via another submission or a variation to the proposed plan.

Damming, Diversion, Taking, Use and Discharge of Ground and Surface Water

5.6 The proposed plan contains a number of objectives and policies and rules which aim to manage the damming, diversion, taking, use and discharge of ground and surface water within the Waiau and Hurunui River Catchments. For ease the plan has separated this into two sections, the management of ground water and surface water, which I will address in turn.

Surface Water

- 5.7 With regard to the management of surface water I hold a number of concerns. Firstly, Part 4 Table 1 Environmental Flow and Allocation Regimes. Putting to one side whether these flow and allocation regimes are achieve the objectives and policies either contained within the plan or as proposed by Ngāi Tahu, from a purely mathematical perspective they do not appear to add up. For the Waiau River, Table 1 requires a $2\text{m}^3/\text{s}$ gap to be maintained between the 'A' and 'B' allocation blocks. However this gap will not be achieved during the months of May to Dec inclusive, (until the flow regime alters when 20 million m^3 of storage is provided) because the 'A' block minimum flow of $25\text{m}^3/\text{s}$, plus the allocation block of $18\text{m}^3/\text{s}$ and the gap of $2\text{m}^3/\text{s}$ equates to $45\text{m}^3/\text{s}$. However, the 'B' allocation block is able to start abstracting once a flow of $40\text{m}^3/\text{s}$ is reached. In my view this situation can be easily remedied by raising the 'B' allocation block minimum flow during the months of May to Dec from $40\text{m}^3/\text{s}$ to $45\text{m}^3/\text{s}$.
- 5.8 It is my understanding that Objective 2 and Policies 2.1 to 2.11 in combination with Objective 3 and Policies 3.1 to 3.6 are used to set the flow and allocation regime for the catchment. I note that the officer has recommended a number of changes to Objective 2, one of which is of specific concern to Ngāi Tahu. In the view of Ngāi Tahu, Objective 2 contained a number of 'bottom lines' which are not dissimilar to those being proposed in my evidence as part of the overall water objectives for the catchment. Objective 2 as proposed states:

“Management of water levels and flows in the Hurunui, Waiau and Jed rivers and their tributaries does not result in adverse impacts on:

- (i) the mauri of the waterbodies;*
- (ii) instream aquatic life;*
- (iii) upstream and downstream passage of native fish, salmon and trout;*
- (iv) the existing landscape and amenity values present;*
- (v) breeding and feeding of riverbed nesting birds;*
- (vi) river mouth opening of the Hurunui River, and maintaining an open river mouth in the Waiau River, to provide for the migration of native fish and salmonid species and the collection of mahinga kai by tangata whenua;*
- (vii) the extent of periphyton and cyanobacterial growth and the impact on recreational activities; and,*
- (viii) recreationally important flows in the mainstem of the Hurunui and Waiau rivers for kayaking, jet boating, swimming and salmon and trout fishing.”*

The officer has recommended removing the words “...does not result in adverse impacts on...” and replacing it with the words “...are managed to avoid, remedy or mitigate adverse effects

on...¹”.

- 5.9 In my view both the NPS – Freshwater and PRPS provide very clear policy guidance that situations which perpetuate gradual but on going decline in water quality and quantity are no longer acceptable. Objective B1 of the NPS – Freshwater anticipates any flow and allocation regime will, amongst other things, safeguard the life supporting capacity of fresh water. This objective is implemented by policies including Policy B1 which requires regional councils to set ‘freshwater objectives;’ and then set flow and allocation regimes which ‘give effect’ to the objectives of the NPS – Freshwater. I note that Policy 7.3.4 of the PRPS ‘also sets out what flow and allocation regimes will do. In my view this includes “...*protect the flows and flow variability required to safe-guard the life-supporting capacity, mauri, ecosystems processes and indigenous species including their associated ecosystems, and protected the natural character vales of freshwater bodies in the catchment including any flows required to transport sediment, to open the river mouth or to flush coastal lagoons...*” (Policy 7.3.4 (c)). I have attached Policy 7.3.4 of the PRSP in Appendix 2. I am unable to reconcile how the proposed amendment Objective 2 of the plan to remove the words “...*does not result in adverse impacts on...*” and replace them with “...*are managed to avoid, remedy or mitigate adverse effects on..*” is “*giving effect to*” either Policy 7.3.4 of the PRPS or the NPS for Freshwater, as required by S 67 (3) (a) or (c) of the RMA.,
- 5.10 It would appear the planning officer prefers an approach of making an assessment on a case by case basis in the resource consent process as to whether a proposed activity achieves the purpose of the RMA, rather than having clear direction in the plan as to which effects are and are not appropriate. This to my mind overlooks the key purpose of a plan, which is to apply the purpose of the RMA to the management of specific resources in specific areas. This is particularly important for managing the cumulative effects of many activities which, on their own, may have effects which are minor or even less than minor, but which, in combination will result in the gradual decline of the water bodies in a catchment – the commonly dubbed ‘death by 1000 cuts.’ If plan provisions are not offering any more explicit direction or application of the purpose of the Act, than the words in Part 2 itself, what is the point in having them?
- 5.11 With respect to Table 1, Ngāi Tahu supports ECan’s approach of simplifying the minimum flow regime within the catchments. Ngāi Tahu understands that takes from the same waterway are subject to a variety of minimum flow regimes which causes undue complexities. However, Ngāi Tahu remains concerned with a number of aspects of the proposed flow regime. Firstly,

¹ *Planning s42A Report - Paragraph 134, Pg 35*

around how and when the 'new' flow regime will be imposed once a specified volume of storage is reached. It would appear that the reason for setting these two flow regimes is to provide existing users with the a similar level of reliability that they enjoy now. This approach appears to be placing more weight upon providing for out of stream uses at the expense of in stream values. This is supported by the officer who states "*...The current minimum flows in summer months are considered too low to maintain good ecological health if all current abstractions were to take their consented rate, or if more water were to be taken from the rivers...*"².

- 5.12 I am unable to reconcile how a flow regime which even the officer acknowledges is too low to maintain the life supporting capacity of the rivers, 'gives effect to' either the NPS – Freshwater or the PRPS, both of which require flows and flow variability to safeguard the life supporting capacity of the rivers ecosystems. If an increase in minimum flow is necessary to give effect to the NPS for Freshwater and the PRPS, it should not be conditional upon providing a certain amount of storage in the catchment. Provide a lead in time for the new flow regime by all means, which gives abstractors time to make adjustments, but making the increase conditional upon having storage, to my mind, is clearly elevating the 'economic well-being' provisions of the RMA above all else.
- 5.13 A similar concern with the focus on economic well-being above all other matters is reflected in the provisions for partial restrictions on water takes. Partial restrictions are essential for minimum flows and other protection mechanisms in environmental flow and allocation regimes are to have any effect. This has long been recognised by Environment Canterbury and the proposed LWRP (policies 4.60 and 4.61) have very explicit policies about requiring partial restrictions as part of surface and stream depleting groundwater abstractions. In this plan, the need for partial restriction is set out in Policies 2.3 and 2.4, but this requirement is not carried through into Table 1. Rather the officer states³ that partial restrictions are to be implemented as a matter for discretion under Rules 2.2 and 2.3.
- 5.14 In my view, not having partial restrictions as a mandatory part of the flow and allocation regime in Table 1 allows for arguments on a case by case basis as to whether such restrictions are necessary. This could lead to ad-hoc decision making and in my view is inappropriate for something as fundamentally basic to water management as partial restrictions. Not having partial restrictions should be the absolute exception for cases such as community and stock

² *Planning s42A Report* - Paragraph 197, Pg 51

³ *Planning S 42A report* – Paragraph 168, Pg 43

drinking water takes. They should not be something which is discretionary on each case; and I understand that a key component of this plan is to address inconsistency in resource consent regimes in the past..

- 5.15 Now turning to the various allocation blocks; Ngāi Tahu fully supports the setting of allocation blocks. Ngāi Tahu remains concerned that surface water and ground water allocations have been kept separate in this plan. To truly implement ki uta ki tai (mountains to sea) there should be a catchment wide allocation which includes both surface and shallow groundwater allocations – they are the same resource. This plan sets one catchment wide allocation block for the surface water resources and another catchment wide allocation block for groundwater. It appears that the determination of each of these allocation blocks was undertaken in isolation from each other.
- 5.16 Further, the various allocation regimes within Table 1 are confusing. For both the Waiau and Hurunui Rivers Table 1 sets both a ‘catchment wide’ allocation block and then more specific ‘main stem’ and tributary allocation blocks. I note for both the Waiau and Hurunui Rivers what has been allocated as the ‘catchment wide’ allocation is the same rate that has been allocated as the main stem allocation block, without any allowance for tributary allocations. This would indicate to me that it is appropriate for all of the water available for allocation to be taken from the main stem of these rivers. However this may not be the intention because the officer is recommending a change to Rule 5.2 and Table 1 for tributary streams to allow water to be taken above the ‘A’ allocation block as a non-complying activity.
- 5.17 I have concerns that this approach could result in the over allocation of the ‘B’ and ‘C’ allocation blocks. In my view this is contrary to both the NPS for Freshwater and Policy 7.3.4 (2) of the PRPS. Policy B5 of the NPS for Freshwater states “...no decision will likely result in future over-allocation” and Policy 7.3.4 (2) (a) (as amended in the settlement of appeals) states “...avoid any additional allocation of water for abstraction or any other action which would result in further over-allocation...”.
- 5.18 Both of these policies give a very clear direction that where an allocation limit has been set, one does not set a planning regime which contemplates allocation of water over the limit. I note that the ‘catchment wide’ ‘B’ and ‘C’ allocation blocks for both the Waiau and Hurunui Rivers have been allocated to the ‘main stem’ specific ‘B’ and ‘C’ allocation blocks. Thus providing for water to be taken from the tributary streams over the ‘A’ allocation block, even as a non-complying activity, has the potential for more water to be allocated than provided for by the plan - the exact scenario the NPS –Freshwater and Policy 7.4.3 (2) seek to avoid.
- 5.19 Ngāi Tahu also notes that the allocation block for surface water resources are based upon

maximum rates of take with no seasonal or annual volume. . Ngāi Tahu considers that it is necessary to have a maximum annual or seasonal volume. because takes which are 'run of river' have very different impacts compared with takes which are to storage. Environment Canterbury has also recognised this issue in the proposed LWRP (Policy 4.50) and the reporting officer acknowledges that the minimum flows in the proposed plan are too low if all the water allocated to consents is taken. This reflects an outdated method of calculating allocation blocks which allows for greater allocation limits based on a presumption that only a portion of the water is ever taken as a 'run of river' take. As the Hearing Commissioners will be aware from other hearings, there is a strong move to storage both large-scale and on-farm in Canterbury; as well as increasing applications from parties to take 'run of river' water when current consent holders are not using it. I.e. – the presumption is increasingly that the fully consented amount of water is abstracted all the time. In this situation, it is folly in my view, for the Council to be promulgating allocation regimes based on any presumption other than that the full amount of the allocated water shall be abstracted at all times.

5.20 My point is further illustrated with the 'C' allocation block. the proposed plan sets an allocation block and then acknowledges that if it is fully allocated and exercised, it will have a negative impact upon "...*environmental, cultural and recreational values...*"⁴ within this river. Such a situation is unacceptable and it is contrary to the NPS – Freshwater which requires amongst other things flow and allocation regimes to safeguard the life supporting capacity of freshwater, and ensure that decisions made by the Council do not result in further over allocation. It is also failing to learn lessons of the past. I can recall a similar situation in the Waimakariri River Regional Plan when the 'B' allocation limit was not capped on the presumption that "the water is so unreliable no one will ever want it." Within eight years, the Council was scrambling to try Council was scrambling together a plan change to cap that allocation block because of the sheer volume of applications being made, and the potential effect on the all-important freshes in the river. In the view of Ngāi Tahu any allocation block should be set at a rate/volume which is sustainable if it is fully abstracted. If the issue is the need for freshes to cleanse the river, as with a C block I suspect it is, then cessation of ake rules can be included to ensure the first 12 or 24 hours of the fresh pass down the river before abstraction can occur.

5.21 I note that the officer states that within the Waiau Catchment it is 'over allocated' (i.e. consents for more than the catchment wide (and main stem) 'A' allocation of 18m³/s have been granted). The officer then goes on to note that the plan provides a mechanisms for addressing

⁴ Proposed Hurunui and Waiau River Regional Plan - Page 8, 3rd Paragraph

and reducing this over allocation as required by NPS – Freshwater⁵. Unfortunately the officer doesn't elaborate on the provisions they are relying upon to make these statements and I am unable find any provisions within the plan that would address the over allocated status of the Waiau River Catchment.

- 5.22 For the renewal of existing water permits, I am unclear as to which rules apply. I note within the s.32 analysis, it is stated that within 'over allocated' catchments that existing permit holders will have the ability to renew their permits. However, the rules are unclear as to whether Rule 2.3 (restricted discretionary activity), Rule 4.2 (non-complying activity) or Rule 5.2 (prohibited activity) apply.
- 5.23 In my opinion, over allocation needs to be addressed in a two-step process: Firstly, by reviewing existing permits to determine whether or not these holders actually use the rate or volume of water they have been allocated, and cancelling that water which is additional to a reasonable quantum for their land use. Secondly, if this mechanism does not bring the rate or volume of water allocated to within the 'A' allocation block, then, upon the renewal of permits, further reductions in the rate or volume of water allocated to each permit holder may need to occur.

Groundwater

- 5.24 As with surface water, Ngāi Tahu supports the plan containing an allocation regime for the volume of water available for abstraction within the various catchments. However, I hold a number of concerns with the objectives and policies associated with the taking and use of this resource. Firstly, Policy 4.1 does not seem to tie into any water management outcomes or objectives. Thus Policy 4.1 should be redrafted to set out the outcomes to be achieved when managing all facets of the groundwater resource. I would be expecting outcomes such as:
- Maintaining the upward pressure in confined aquifers and an overall upward gradient pressure in unconfined aquifers, both between aquifers and between the first aquifer and any confining layer;
 - Maintaining the long-term average water levels and hydraulic gradient pressures of aquifers and avoiding long-term decline in groundwater levels;
 - Avoiding any downward or lateral movement of contaminants that could adversely affect water quality in abstraction bores;
 - Avoiding saltwater intrusion into fresh water aquifers adjoining the coast or any landward movement of the salt-water - fresh-water interface; and where fresh water is

⁵ *Planning s42A Report – Paragraph 271, Pg 70*

already subject to contamination by salt water or other contaminants, there is no change in saltwater intrusion; and

- Protecting the relationship between groundwater levels and water levels in lakes natural wetlands and base flows in rivers

5.25 I would then suggest that the annual allocation regime would be contained in both a new Policy 4.X and a schedule or table. referenced within Rule 7.2, rather than just the policy.

5.26 With regard to the groundwater annual allocation limits expressed within the plan, Ngāi Tahu understands these were determined under the preceding planning regime, namely the NRRP. This plan contains a different policy framework than that contained within the NRRP. I am unable to determine the relationship between the surface water and groundwater allocation regimes and whether these regimes will enable the water management outcomes to be achieved. In addition, the statutory framework for water management has changed since the NRRP was drafted or indeed made operative, including the notification of the NPS for Freshwater and the PRPS.

5.27 Ngāi Tahu is also concerned with the approach in Policy 4.2 and Rule 7.2 of using an arbitrary depth to determine whether a groundwater take is hydraulically connected to a surface waterbody. The policy and rule indicate that where the 'take', which is within a 'river zone', is less than 30m deep, it is fully connected to the surface waterway (Rule 7.2 (c) (i)). Then Rule 7.2 (c) (ii) states that were such a 'take' is deeper than 30m one should determine the level of hydraulic connection using the methodology set out within Policy WQN7 of the NRRP.

5.28 I understand that one of the reasons for adopting the proposed policy and rule construct is to simplify the determination of whether a groundwater take is or is not hydraulically connected to a surface waterbody. In my view, it could have the exact opposite effect and in fact make it more complex. This is because there are a number of uncertainties with the proposed policy and rule construct. For example it is unclear how one determines the depth of the groundwater take. For example, does one measure from the ground surface or the top of the bores casing? Secondly, does one measure down to the bottom of the bore or the top of the screen where water enters the bore?

5.29 I understand that within the Canterbury Region there are some 'accepted' methods such as Jenkins and Hunt which can be used to determine whether a groundwater take is hydraulically connected to a surface waterbody and with the 'degree' of connection. If this is the situation, then in my view these methodologies should be used to determine if the groundwater take is hydraulically connected to a surface waterbody along with the 'degree' of connection. regardless of where the groundwater take is located.

Use of Land

- 5.30 From a Ngāi Tahu perspective it is not the land use per say that is an issue (i.e. farming) nor specific farming activities (i.e. dairying). The concern is around diffuse pollution which has a negative impact upon water quality As such, Ngāi Tahu believes the plan should focus on discharges and on managing discharges so that singularly and cumulatively the water quality of the Hurunui and Waiau catchments is at least maintained in its existing state.
- 5.31 As has been outlined by Dr Cowie, the plan is sending 'mixed messages'. On one hand encouraging developments such as that proposed by Ngāi Tahu Properties Ltd, and on the other stifling such developments due to the method for managing water quality. I understand that the plan uses periphyton as an indicator of water quality . The method being used to achieve this outcome is to use a mass balance model to set a nutrient cap or limit, with a strong focus upon controlling Nitrogen (N) and Phosphorus (P). However, this approach raises a number of questions:
- (i) Firstly, if one wants both development and to maintain or improve water quality, is the use of periphyton the 'right' indicator.
 - (ii) Secondly, will controlling N and P as per Schedule 1 of the plan achieve the outcomes?
 - (iii) Thirdly, is the plan's focus upon 'new' irrigation or changes in land use rather than existing activities appropriate to achieve the outcome?
- 5.32 As I understand Dr Cowie, periphyton is an appropriate indicator. However the methodology proposed, the nutrient cap, is not. To achieve the desired outcome in this catchment, Dr Cowie suggests a methodology which ensures that all intensive agriculture is operating at 'Best Management' or better, coupled with maintaining freshes and floods within the river system.
- 5.33 This type of methodology would enable emphasis to be placed upon addressing the cause of the 'problem' which to a large extent is the water quality not within the main stem of the rivers but the smaller tributary streams such as the Pahua and St Leonards Drain. I understand from Dr Cowie that it is the degraded state of these waterways which is having the most negative impact upon the water quality of the main stem of the Hurunui River. Further this approach should also ensure that there is a flow regime which ensures that medium sized freshes/floods (i.e. flows which are 1.5 – 3 times median) continue to flow down the river system. This strengthens the view of Ngāi Tahu that the setting of a flow and allocation regime shouldn't be done in isolation from the nutrient regime.
- 5.34 In my view the plan is also sending mixed messages about the standards expected for existing and 'new' intensive agricultural uses within the catchment. My understanding of Rule 10.1 for existing users is that they are to have one 'standard' / for diffuse discharges applied to them.

However, 'new' land uses or changes in land use will be required to perform at the highest or a better standard. In my view this approach has a perverse outcome, in that it is not in existing users interests to change their behaviour.

- 5.35 On top of this fundamentally different standard for existing and new activities are further disincentives through the plan provisions for increasing minimum flows when additional storage is created in the catchment. Ie – if existing activities of improve and create 'head room' within the nutrient cap, that will allow for additional irrigation to occur within the catchment. To undertake this additional irrigation will require storage which will, in turn, 'trigger' the rules for the new flow regimes resulting in these existing users being subject to higher minimum flows.
- 5.36 Given this outcome, Ngāi Tahu questions whether a better approach to nutrient management would be to ensure that flushing flows are maintained in the rivers, ensure that all intensive agriculture is operating at best management practice, (with lead in times for existing activities), and implementing a monitoring regime with a wider range of contaminants and biophysical elements, to determine if the desired water quality outcomes are being achieved.
- 5.37 If I am wrong and the commissioners wish to retain a mass balance model approach, Ngāi Tahu considers there needs to be a clear and transparent link between 'the number' which is the limit for the mass balance model and the water quality outcomes being sought. At this point in time Ngāi Tahu are unable to determine this link, as it would appear that to control periphyton in this river system, the flow regime is far more critical than potentially punitive controls around the amount of N and P lost from farming systems.
- 5.38 I would also like to comment on the officer's recommendation to remove the policy supporting a 20% increase over the N and P limits. The officer also proposes an amendment to Rule 11.2 and a new Rule 12.1 which allows for a 25% increase in N and a 10% increase in P⁶ in perpetuity. In my view these two recommendations are irreconcilable., I cannot agree with the officer that on one hand it is inappropriate at the policy level to allow nutrients to increase over the limits set out within Schedule 1 of the plan, yet on the other hand, it is entirely appropriate at a rule level to allow for a greater increase in nutrients than originally contemplated. Under s67(1)(c) of the RMA the rules in a plan must implement the policies. If a 20% increase in N over the limit is unacceptable, then in my view a 25% increase over the limit is also unacceptable. New Rule 12.1 should be removed and Rule 11.2 amended to remove the words "*...provided that the Nitrogen Load is less than 125%, and the Phosphorous Load is less than 110%, of that specified in Schedule 1...*".

⁶ *Planning S 42A Report – Paragraphy 566 pg 104 – 141*

- 5.39 Ngāi Tahu is also concerned that this approach to managing effects of nutrient discharges on water quality, does not address a fundamental first principle – matching the activity or the propensity to discharge nutrients to the sensitivity of the receiving environment. Ngāi Tahu are of the view that when assessing whether a high nutrient discharging activity should occur on a specific site, the capability of the soil to assimilate the contaminants and the sensitivity of receiving environment should be included within the decision-making framework. Otherwise the activity could be operating at best practice but still result in high nutrient leaching into sensitive environments.
- 5.40 Rules 10.1 – 11, do not, in my view, discourage ‘dumb’ decisions such as placing high risk leaching activities on light soils without implementing a high level of intervention and mitigation to reduce the risk of nutrients being lost from the farming system. To do this, Ngāi Tahu considers that the policy and rule framework should be amended so that the proposed land use is assessed against the capability of the soils of the site to assimilate contaminants along with the sensitivity of the receiving environment.
- 5.41 It is also important to marry the type of contaminant to the sensitivity of the receiving environment. For example if a catchment has low P loadings, then high levels of N discharges will not have the same effects on water quality as in a system with a high P loading..
- 5.42 Further, if a specific activity (E.g. Dairying) is able to show that it will not lose more than a deemed acceptable level of nutrients (or whatever other contaminant), then why should the plan be overly restrictive towards such activities. This brings me back to my initial point about the importance of having a vision or objectives for managing water in the catchments, upon which are built the appropriate policies and rules to achieve the objectives.
- 5.43 Ngāi Tahu suggests the following policy and rule framework as an alternative approach:
- (i) Any water quality management regime does not need to regulate every farming activity. In our view small scale, low discharging activities should be ‘cut out’ of the consenting regime. Thus it would be appropriate to have a Permitted Activity rule for an activity which has less than 10 stock units per ha and only applied fertilizer twice a year.
 - (ii) For more intensive but still low discharging activities, e.g. less than say 20kg/n/ha/year, the activity requires consent but as a controlled activity. to ensure that appropriate, common sense land husbandry is occurring on-site.
 - (iii) For activities which are over the 20Kg/N/ha, a closer examination of them is required. Further, in some situations, the consenting authority may need to have the ability to decline these activities in sensitive receiving environments.

This type of regime removes the ‘rats and mice’ and allows resources and efforts to be

focused upon the intensive agriculture.

- 5.44 When focusing upon intensive agriculture, Ngāi Tahu considers there are two limbs which need to be addressed: existing land uses and changes in land use.
- 5.45 With respect to the existing land uses, Ngāi Tahu agrees some 'lead in time' to undertake any necessary changes is appropriate, and could be done through rules requiring these activities to have a Farm Management Plan (FMP) implemented within six months of the plan becoming operative. This FMP could identify aspects of the farming operation that need to be changed to reduce nutrient leaching from the property along with setting a timeframe for implementing the changes,.
- 5.46 Where there is either 'new' or additional irrigation water applied to the property, or the land use on the property changes, Ngāi Tahu believes that nutrient management needs to move to best practice straight away and be regulated relative to the amount of nutrient being discharged; thus providing an incentive to match the land use with the soil capability and the sensitivity of the receiving environment. For example if a land holder wants to change their land use from sheep and beef to dairy, but choose to install a 'closed system' or a system which captures and then releases a very small amount of nutrient from the property (the same or less than what was occurring previously) such decisions should be in the view of Ngāi Tahu be dealt with in the same manner as any low risk activity.

6 CONCLUSIONS

- 6.1 In conclusion it is Ngāi Tahu's position that the plan should have a suite of overarching objectives which clearly articulate the vision for water management within the Waiau and Hurunui River catchment. Such objectives would then be used to provide clear and robust guidance as to what the plan is trying to achieve, along with providing meaningful and useful measures against which a consent application can be judged.
- 6.2 In our view, such a regime would avoid the mixed messages the plan is currently sending. It would also provide the framework which achieves the purpose of the RMA and enable Ngāi Tahu to exercise both their customary rights and responsibilities, including both commercial and non-commercial aspirations, within this catchment. As Tā Tipene outlined within his evidence these are neither separate or conflicting aspirations for Ngāi Tahu – but rather two sides of the coin of customary rights and of responsible resource management.

C Begley

October 2012

APPENDIX 1

Objective X.1

Land and water are managed as integrated natural resources:

- *Enabling Ngāi Tahu customary uses and traditional relationships with land and water;*
- *Focusing on managing whole catchments and applying the ethic of ki uta ki tai – from the mountains to the sea; and*
- *Managing the connectivity between surface water and groundwater, and between fresh water, land and the coast.*

Objective X.2(a):

Kaitiakitanga is exercised - freshwater bodies and their catchments are maintained in a healthy state or, where they have been degraded, they are improved.

Objective X.2(b):

The quality and quantity of water in fresh water bodies and their catchments is managed to:

- (i) *Safeguard the life-supporting capacity of ecosystems and ecosystem processes, including ensuring sufficient flow and quality of water to support the habitat and feeding, breeding, migratory and other behavioural requirements of indigenous species, nesting birds and, where appropriate trout and salmon;*
- (ii) *Provide for actual and any reasonably foreseeable needs for drinking water or stockwater;*
- (iii) *Support customary uses and contact recreation in water bodies which are valued for these purposes;*
- (iv) *Maintain natural hydrological and geomorphic processes including flushing and opening hāpua and river mouths, flushing algal and weed growth, and transporting sediment;*
- (v) *Maintain or enhance water quality in all lakes, rivers, wetlands, springs, hāpua and coastal lagoons;*
- (vi) *Maintain water levels in aquifers, and avoid salt-water intrusion of coastal groundwater sources; and*
- (vii) *Maintain water levels in wetlands, hāpua, coastal lagoons, lowland springs and springfed water bodies or improves levels where the values of these water bodies have been degraded through diversions, abstractions or land drainage*
- (viii) *Maintain or enhance the natural character of freshwater bodies including braided rivers, and their margins, wetlands and hāpua and coastal lagoons.*

Explanation

Objective X.2(a) and X.(b) are parallel objectives for managing water using the concepts of kaitiakitanga and a western science equivalent of all the functions and values of fresh water bodies and their ecosystems which need to be maintained or enhanced to enable the exercise of kaitiakitanga. Section 1.3 explains kaitiakitanga. Kaitiakitanga is an active, inherited duty to maintain water bodies, their catchment and ecosystems in a healthy state and to ensure those which have been degraded are being managed towards a healthy state. The major factor illustrated by the two objectives is that for Ngāi Tahu management of fresh water is holistic – it is not separated into component parts such as quality, flow, sediment transport or the habitat of one particular species.

The concept of mauri was once used to gauge the healthy functions of catchments using a combination of physical and metaphysical elements. However, there is no Ngāi Tahu tribal policy position on mauri, so when dealing with resource management plans that span the rohe of more than one Rūnanga, Ngāi Tahu prefers to use the ethic of kaitiakitanga.

Objective X.3

Ngāi Tahu's past present and future relationship with the land and water is recognised and provided for

Objective X.4

Wetlands and hāpua are recognised and valued for their rich ecological and cultural values and their water cleansing and flood retention properties and:

- (a) The biodiversity, cultural, recreational and amenity values of natural wetlands and hāpua are protected and where those values have been degraded, they are improved; and*
- (b) The overall stock of wetland areas in the region is increased.*

Objective X.5

The outstanding characteristics and values of fresh water bodies and their catchments are protected, and lakes and the main stems of rivers, which have not already been modified, are retained in their natural state.

Objective X.6

Groundwater resources remain a sustainable source of high quality water which supports base flows or levels in surface water bodies, springs and wetlands and which is available for

abstraction.

Objective X.7

Fresh water is available for abstraction to provide for the economic well-being of people and communities, within the allocation limits or management regimes which are set to give effect to Objectives X.2(a) and X.(b).

Objective X.8

Changes and intensification of land uses occur within water quality allocation limits or management regimes which are set considering the sensitivity of the receiving environment and to give effect to Objectives X.2(a) and X.(b).

Objective X.9

Water harvest and storage schemes are developed which provide for all of the following:

- (a) The exercise of kaitiakitanga;*
- (b) Reliable water for irrigation or hydro-electricity generation;*
- (c) The maintenance or enhancement of the flows or levels and the quality of water in water bodies within the catchment; and*
- (d) Integrated management of the supply of irrigation water with land uses and resulting contaminant discharges.*

Objective X.10

Fresh water is managed prudently as a shared resource with many values, and:

- (a) Community-based water harvest and storage schemes are developed which maximise the number of potential users and combined uses of water where practicable;*
- (b) People's use of water is as efficient as practicable; and*
- (c) Land uses and the discharge of contaminants are managed in accordance with good practice and taking into account the capability of the land and the sensitivity of the receiving environment.*

APPENDIX 2

Policy 7.3.4 - Water quantity

In relation to the management of water quantity:

- (1) to manage the abstraction of surface water and groundwater by establishing environmental flow regimes and water allocation regimes which:
 - (a) manage the interconnectivity hydrological connections of surface water, groundwater and the coastal environment;
 - (b) avoid long-term decline in groundwater levels and saltwater intrusion of coastal groundwater resources;
 - (c) protect the flows, freshes and flow variability required to safe-guard the life-supporting capacity, mauri, ecosystem processes and indigenous species including their associated ecosystems and preserve protect the natural character values of fresh water bodies in the catchment, including any flows required to transport sediment, to open the river mouth, or to flush coastal lagoons;
 - (d) provide for any existing or reasonably foreseeable needs of surface water or groundwater for individual, marae or community drinking water or stockwater supplies;
 - (e) support the exercise of customary uses, including any flows required to maintain wetlands or water quality for customary uses; and
 - (f) support any flow requirements needed to maintain water quality in the catchment;and, having satisfied the requirements in (a) to (e), provide for:
 - (g) recreational values (including the patterns and timing of flow variability desired by recreational users) and amenity values; and
 - (h) any actual or reasonably foreseeable demand for abstraction (for uses other than those listed in (d) above), unless Policy 7.3.4(2) applies.

and

- (2) Where the quantum of water allocated for abstraction from a water body is at or exceeds the maximum amount provided for in an environmental flow and water allocation regime:
 - (a) avoid any additional allocation of water for abstraction or any other action which would result in further over-allocation;and
 - (b) set a timeframe for identifying and undertaking actions to effectively phase out over-allocation; and
 - (c) effectively addresses any adverse effects of over-allocation in the interim.