

BEFORE THE CANTERBURY REGIONAL COUNCIL

UNDER	the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010
IN THE MATTER	of the proposed Hurunui and Waiau River Regional Plan

**STATEMENT OF EVIDENCE OF EMILY SUZANNE GRACE
ON BEHALF OF
THE NORTH CANTERBURY FISH AND GAME COUNCIL
12 October 2012**

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1. INTRODUCTION

Qualifications and Experience

- 1.1 My name is Emily Suzanne Grace. I have nine years experience as a resource management planner. I have been employed by Tonkin & Taylor Ltd for the last seven and a half years. I am a full member of the New Zealand Planning Institute. I hold a Bachelor of Science degree with Honours in Physical Geography and a Bachelor of Laws.
- 1.2 As part of my role at Tonkin & Taylor Ltd I have reviewed, made submissions, and presented planning evidence on a number of proposed planning documents prepared under the Resource Management Act 1991 (RMA), including regional policy statements, regional plans and district plans. I also regularly prepare resource consent applications to both regional and district councils, and have filled reporting officer roles for district and regional councils. I work with private sector, local government, and central government clients.
- 1.3 Particularly, I have experience with water management planning documents in various regions around the country. Specifically, I have presented planning evidence on water matters to the Horizons Regional Council 'One Plan' Council Hearings, and the Waikato Regional Council Variation 6 (water allocation) Environment Court Hearing. I also have experience with water resource development projects, including water storage projects in Marlborough and Tasman Districts, and hydro-electric power generation in Otago.
- 1.4 I am familiar with the Proposed Hurunui and Waiau River Regional Plan (HWRRP), to which this evidence relates. I have been asked by the North Canterbury Fish and Game Council (Fish & Game) to present this planning evidence. I have previously assisted Fish & Game with planning matters relating to its prior application for a Water Conservation Order on the Hurunui River.
- 1.5 I confirm that I have read and agree to comply with the Code of Conduct for Expert Witnesses. This evidence is within my area of expertise, except where I state that I am relying on facts or information

provided by another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

Scope of Evidence

1.6 My evidence addresses the following matters:

- a. An overview of the proposed HWRRP and the changes sought by Fish & Game
- b. A summary of the requirements of the planning assessment
- c. A summary of the key planning documents
- d. An assessment of the appropriateness of the damming provisions of the HWRRP
- e. An assessment of the appropriateness of the water quality provisions of the HWRRP
- f. An assessment of the appropriateness of the minimum flow and water allocation provisions of the HWRRP

1.7 Two 'track changes' versions of the HWRRP are attached to my evidence. Appendix 1 is Fish & Game's preferred relief, which includes the deletion of the C Block allocations for the Hurunui and Waiau Rivers from the HWRRP. Appendix 2 is Fish & Game's alternative relief in the case that the C Block allocations are not deleted, which includes the C Block allocations retained but made non-complying activities. The majority of the changes tracked in these documents are referred to and explained in my evidence. If any changes have not been addressed in my evidence, they can be addressed at the hearing.

Summary and Conclusions

- 1.8 Fish & Game's main concerns **with** the proposed HWRRP relate broadly to three matters: damming, water quality, and water allocation.
- 1.9 Relating to damming, Fish & Game's primary request is that the Upper Hurunui Catchment, above the confluence with Surveyors Stream is included within Zone A High Value Area and that damming is prohibited within this area of the catchment, and on the entire mainstem. Fish & Game have a number of other submission points related to this primary request.
- 1.10 Relating to water quality, Fish & Game's primary submission points request new policies for the management of water quality and land use, to better implement the relevant objectives; changes to the land use rules so that they take effect immediately and a new non-complying rule to better deal with breaches to the water quality standards; and greater control of the effects on water quality of the taking, diverting, discharge, use, damming and transfer of water by including a new standard and term on a number of restricted discretionary activities. Fish & Game have a number of other submission points related to these primary requests.
- 1.11 Relating to water allocation, Fish & Game's main request is that the C Block allocations for the Hurunui and Waiau Rivers are removed from the proposed HWRRP, due to the significant ecological and water quality effects of the C Block allocations. If this request is not accepted, Fish & Game request, in the alternative, that applications to take from the C Block are made a non-complying framework, and the policy framework is strengthened. Fish & Game have a number of other submission points related to this primary request.
- 1.12 I have assessed Fish & Game's requests against the regional and national planning framework as it applies to water management. I have given consideration to the expert evidence on these matters provided by Mr Hawker, Mr Stewart, Mr Millichamp, Dr Young, Mr Unwin, Mr Robinson, Mr Bell, Mr Rogers, Mr Hill, Mr Montgomerie. I have also given consideration to the Section 42A reports prepared for this hearing, including those by Ms White and Mr Norton.

- 1.13 I have come to the conclusion, after considering the above and Part 2 of the RMA, that it is generally appropriate for Fish & Game's submission points to be accepted. I have recommended some amendments to the original changes proposed by Fish & Game in its submission. The changes that I consider are appropriate are included in Appendices 1 and 2 of my evidence.

2. **OVERVIEW OF PROPOSED HURUNUI WAI AU RIVER REGIONAL PLAN AND CHANGES SOUGHT BY FISH AND GAME**

- 2.1 The proposed HWRRP contains objectives, policies and rules that govern water management in the Hurunui, Waiau, and Jed river catchments. Fish & Game made a submission and further submission on the HWRRP. As I understand them, Fish & Game's submission points address three key issues, as follows:

Damming – Summary of proposed HWRRP provisions

- 2.2 The proposed HWRRP acknowledges that an increase in irrigated land is a key economic driver for North Canterbury, and that water storage is required in order to provide highly reliable irrigation water (page 9). The HWRRP divides the region into three zones (shown on Map 3 Development Zones – Map Series) to guide potential locations for water storage sites. The introductory section of the HWRRP explains (at page 9) that water storage infrastructure development is considered suitable in Zone B (Infrastructure Development Areas), should not be progressed in Zone A (High Values Areas), and may or may not be appropriate, as only limited investigations have been carried out, in Zone C (Areas not identified as High Value or Infrastructure Development). Policies and rules are used to control development within these zones. I now provide a brief explanation of the Maps, policies and rules, as I understand them.

Zone A (High Values Areas):

- 2.3 Zone A, as shown on Map 3, includes: Upper Waiau Catchment, above the confluence with the Hope River.
- 2.4 Policy 6.1 is the policy that applies to development within Zone A. This policy aims to prohibit damming within Zone A High Value Areas, as well as on the mainstem of the Hurunui and Waiau Rivers (including where the mainstems fall within Zones B and C).
- 2.5 Rule 5.1 is the corresponding prohibited activity rule to implement Policy 6.1. Under Rule 5.1 damming is prohibited on the mainstem of the Waiau below the Hope River Confluence and the mainstem of the Hurunui below the confluence of the North and South branch (I note that these prohibitions apply to only part of the mainstems, while Policy 6.1 is to prohibit damming on the length of the mainstems), and within tributaries of the Hurunui and Waiau Rivers in Zone A. There appears to be no prohibition within the rule on damming of the mainstem of the Waiau within Zone A, as required by Policy 6.1.

Rule 5.2?

Zone B (Infrastructure Development Areas):

- 2.6 Zone B, as shown on Map 3, includes: Hurunui Catchment, downstream of the confluence with the Mandamus River; Waiau Catchment, downstream of a point approximately half way between the Hanmer and Amuri Plains.
- 2.7 Policy 6.2 is to enable water storage within Zone B (Infrastructure Development Areas) provided certain requirements are met. Corresponding Rules 1.5 and 2.4 provide for damming as a potentially permitted or restricted discretionary activity, subject to conditions, within Zone B. Damming of the mainstem remains prohibited by Rule 5.1.

Zone C (Areas not identified as High Value or Infrastructure Development):

- 2.8 Zone C, as shown on Map 3, includes: Upper Hurunui Catchment, above confluence with Mandamus River; Waiau River Catchment, between Hope River confluence and a point approximately half way between the Hanmer and Amuri Plains; Jed River catchment.

- 2.9 Policies 6.3 to 6.5 provide for damming within Zone C (Areas not identified as High Value or Infrastructure Development) in certain circumstances. Policy 6.3(a) further narrows the opportunity for damming within Zone C by requiring that there be no impoundment of water on the mainstem of the Waiau within Zone C, and that part of the mainstem of the Hurunui within Zone C that is downstream of the confluence of the South Branch. The policy leaves open the potential to dam the mainstem of the Hurunui above the confluence of the South Branch, which is within Zone C.
- 2.10 Policy 6.4 requires damming within Zone C to be avoided for two years after the notification of the HWRRP, and until it can be demonstrated that Zone B options are not able to proceed.
- 2.11 To implement these policies, damming in Zone C would be a non-complying activity under either Rules 4.1, 4.2 or 4.3. Damming of the mainstem of the Waiau below the Hope confluence of the North and Sough Branch, remains prohibited by Rule 5.1.
- 2.12 Policy 6.5 applies to damming in all Zones. It requires proposals for utilisation of water to show how they meet the requirement to optimise the amount of irrigated land, assist in achieving the objectives and policies of the Plan, and maximise the economic and social benefits of water abstraction. It also provides further direction on where storage should be located. For the Waiau, storage is encouraged within the Emu or Amuri Plains. Specific to the Hurunui Catchment, the policy promotes a three-tiered approach to water storage options, giving first priority to storage in the Waitohi River (located within Zone B), second priority to storage within other tributaries of the Hurunui River located in Zone B, and third priority to storage in other tributaries of the Hurunui within Zone C (including the North Branch).
- 2.13 The three-tiered approach for water storage within the Hurunui Catchment is implemented in the rules in two ways – activity status and matters for discretion. The first and second priorities are within Zone B. Applications for damming under either of these options would therefore be a restricted discretionary activity under Rule 2.4 (restricted discretionary activity rule for damming within Zone B). Applications for damming within other tributaries of the Hurunui within

Zone C (third priority) would be a non-complying activity under Rule 4.1 or 4.2. To distinguish between the first and second priorities, Rule 2.4 has, as a matter for which discretion has been restricted, *“the extent to which the proposal addresses Policy 6.5”*.

Damming – Summary of Fish & Game’s submission points

- 2.14 Fish & Game supports the prohibition on damming within the Waiau and Hurunui Catchments as currently provided by the HWRRP, and the three-tiered approach to storage options for the Hurunui Catchment, but has requested that damming is prohibited in all areas of the Hurunui catchment above the Surveyor’s Stream confluence (referred to in my evidence as the ‘Upper Catchment’). The proposed HWRRP currently classifies the Upper Catchment as Zone C. Fish & Game proposes that the damming prohibition could be achieved by classifying the Upper Catchment as Zone A, and ensuring that the definition of the ‘mainstem’ of the Hurunui applies from the source of the North Branch. This would require changes to the Development Zone Maps, the definition of ‘mainstem’, and consequential amendments to Policies 6.3 and 6.5, and Rules 2.3, 2.4, and 3.2. These changes would also exclude the area above the Surveyor’s Stream confluence from the third priority storage option. Fish & Game also supports a submission by Eugenie Sage to include more specific prohibited activities within Rule 5.1, relating to damming and water levels of Lake Sumner.

Water quality - Summary of proposed HWRRP provisions

- 2.15 The proposed HWRRP includes a regime for managing water quality, including setting limits for nitrogen and phosphorus (specific limits for the Hurunui Catchment are contained in Schedule 1). For the Hurunui River, the policy direction requires phosphorus and nitrogen levels to be maintained at 2005-2010 levels at the Mandamus flow recorder. At the State Highway 1 flow recorder the policy also requires phosphorus to be maintained at 2005-2010 levels but allows nitrogen to increase by up to 20% of 2005-2010 levels prior to 2017, and then to return to 2005-2010 levels or better post 2017 (Policy 5.3). No specific limits are included for the Waiau Catchment or tributaries of the Hurunui, but

Policy 5.4 requires limits to be progressively set to ensure Objectives 5.1 and 5.2 are met.

- 2.16 Rules are included governing land use activities (Rules 10.1, 10.2, 11.1 and 11.2). These would come into effect on 1 January 2017, giving land uses existing at 1 October 2011 until 2017 to implement a type of nutrient management programme (otherwise the existing land use would become a discretionary activity). Changes in land uses after 2017 are required to meet the nitrogen and phosphorus limits in Schedule 1 (2005-2010 levels for the Hurunui River) as well as having in place a type of nutrient management programme in order to be permitted (otherwise the change in use would become a discretionary activity). Schedule 1 only contains limits for the Hurunui River, but the rules appear to apply to the Waiau Catchment also.

I didn't think this was the case but if it is it is problematic.

- 2.17 It is not clear how the rules apply to changes in land use between 1 October 2011 and 1 January 2017. It appears that these changes are not covered directly by the rules, as a change that happens before 1 January 2017 was not a land use that existed as at 1 October 2011 (Rule 10.1), and is also not a change in land use after 2017 (Rule 10.2). In this case, no nutrient management programme would be required for these activities.

- 2.18 In addition, restricted discretionary activity rules relating to the taking, diverting, discharge, use, damming, and transfer of surface water (Rules 2.1, 2.3, 2.4, 12.1, 12.2) and of groundwater (Rules 7.1 and 7.2), except for the purposes of community and/or stock drinking water supply, include as a matter of discretion, "any effect on water quality, including whether the activity, in combination with all other activities, will result in the nutrient limits in Schedule 1 being exceeded".

Water Quality - Summary of Fish & Game's submission points

- 2.19 There are three aspects to Fish & Game's submission points on water quality. One is related to the policy regime for managing water quality. In this respect Fish & Game requests a change to the policy regime by replacing policies based on 2005-2010 levels of phosphorus and nitrogen in waterways for the Hurunui with specific targets for periphyton biomass, nitrate toxicity levels and phosphorus concentrations.

- 2.20 Fish & Game supports the retention of Schedule 1 (2005-2010 phosphorus and nitrogen levels), but requests that the note about nitrogen limits being able to be exceeded by up to 20% prior to 2017 is removed.
- 2.21 Another aspect of Fish & Game's submission relates to the land use rules governing the effects of land use on water quality. In this regard, Fish & Game supports permitted activity Rule 10.1 that gives existing land uses until 1 January 2017 to have in place a nutrient management programme. Fish & Game also supports Rule 11.1 that makes an existing land use where such a programme is not in place by this time a discretionary activity. Fish & Game requests that the two rules that apply to changes in land use (Rules 10.2 and 11.2) have effect from 1 October 2011, rather than from 1 January 2017, so that all changes in land use where the limits in Schedule 1 are not met require a resource consent immediately. Fish & Game also requests that a new rule is added, so that significant breaches of the limits (125% or more for nitrogen and 110% or more for phosphorus) are a non-complying activity.
- 2.22 The other aspect of Fish & Game's submission relates to the effects of the taking, diverting, discharge, use, damming, and transfer of water on water quality. This concern is based on the fact that the taking of water reduces the ability of the waterway to dilute or assimilate contaminants, and therefore has the potential to adversely affect water quality. In this respect, Fish & Game requests that for those restricted discretionary rules relating to the taking, diverting, discharge, use, damming, and transfer of water, where water quality is a matter for discretion (Rules 2.3, 2.4, 3.1, 3.2, 7.2, 12.1, 12.2), compliance with the phosphorus and nitrogen limits in Schedule 1 is made a standard and term of the rule, rather than a matter for discretion.
- 2.23 Related to this issue are Fish & Game's requests to:
- a. amend the definition of 'change of land use'
 - b. significantly amend Schedule 2 'Matters to be addressed in any System, Agreement or Plan in accordance with Rules 10.1 and 10.2'

- c. replace the statement on page 2 of the HWRRP that current intensity of land and water use has not compromised environmental and recreational values
- d. request changes to a number of provisions (Objectives 3 and 6, and Policy 6.5) to make it clear that full irrigation of all economically viable land should only be a target if water quality standards are maintained
- e. strengthen Policy 6.9 about requiring applicants to apply for all water permits, discharge permits and land use consents at the same time.

Minimum flows and water allocation - Summary of proposed HWRRP provisions

2.24 The HWRRP contains an environmental flow and allocation regime for the Waiau and Hurunui catchments. This includes specified minimum flows, and A, B and C Block allocations with (respectively) reducing reliability of supply. The policy regime aims to protect a number of values associated with the waterbodies, including mauri, water quality, flow variability, recreational, and ecological. Minimum flows for the Hurunui and Waiau are to increase after commissioning of storage of more than 20 million m³ of water. Over-allocation is a prohibited activity, except for community and/or stock drinking water supplies.

Minimum flows and water allocation – Summary of Fish & Game's submission points

- 2.25 Fish & Game is concerned about the size of the C Block allocation. Evidence presented by Mr Dave Stewart, Dr Roger Young, and Mr Richard Montgomerie for Fish & Game illustrates the effects of the C Block on the flow regime in the Hurunui and Waiau Rivers, particularly flushing flows, and the effect of these changes in flow regime on periphyton and benthic invertebrate communities. In order to avoid these effects, Fish and Game requests that the C Block allocation is deleted from the HWRRP.
- 2.26 In the alternative, Fish & Game requests that takes from the C Block allocation for the Hurunui and Waiau Rivers are made a non-complying activity, to require a more robust assessment of the effects

of takes from the C Block. Standards and terms similar to those currently included for discretionary activities takes from the C Block allocations would be attached to the non-complying activity, with applications that do not meet the standards and terms becoming prohibited activities.

2.27 A number of requests by Fish and Game are associated with the request to change the activity status:

- a. To make complementary changes to the supporting policies to direct the assessment of applications for non-complying takes from the C Block allocations for the Hurunui and Waiau Rivers.
- b. That the volume of storage that would trigger an increase in minimum flows be reduced to 10 million m³ of storage for both the Hurunui and Waiau Catchments.
- c. That the gap between A and B Block allocations for the Hurunui be retained at 8 m³/s for February, March and April once storage is developed (rather than reduced to 5 m³/s from the 'pre-storage' regime as proposed in the HWRRP).

2.28 Related to this issue are Fish & Game's requests to:

- a. Strengthen the link between the policies addressing the instream values sought to be maintained, and the rules relating to water allocation. Fish & Game suggests that this could be achieved by importing the requirement to maintain instream values from the relevant policy into the standards and terms of the relevant restricted discretionary rule (i.e. requirements of Policy 1.4 into Rule 2.2; requirements of Policy 3.6 into Rule 2.1)
- b. amend introductory paragraphs of the HWRRP about the cost of water storage infrastructure in areas where environmental effects are considered to be more benign
- c. delete Rule 1.1, which permits diversions within the riverbed in Zone B or for the purposes of infrastructure maintenance in Zones A and C of up to 60% of flows

- d. amend Rule 1.2 so that maximum rates of takes for infrastructure maintenance vary according to MALF (as other takes are required to)
- e. amend Rule 1.4 so that takes from artificial watercourses (e.g. hydro-electric and irrigation canals) are required to comply with the conditions of the original consent.

3. REQUIREMENTS OF PLANNING ASSESSMENT

- 3.1 The HWRRP is a regional plan prepared under the Resource Management Act 1991 (RMA) and the Environment Canterbury (Temporary Commissioners and Improved Water Management) Act 2010 (ECan Act).
- 3.2 Section 63 of the ECan Act requires that Environment Canterbury (ECan) must have particular regard to the vision and principles of the Canterbury Water Management Strategy (CWMS), in addition to the matters relevant under the RMA. Schedule 1 of the ECan Act sets out the vision and principles.
- 3.3 Section 66 of the RMA requires regional councils to prepare regional plans in accordance with their functions under section 30 of the RMA. Under section 30, management of water resources is a function of regional councils. Section 66 goes on to specify matters to be considered by a regional council when preparing a plan, including any proposed regional policy statement, management plans and strategies prepared under other Acts (such as the North Canterbury Fish and Game Management Plan, prepared under the Conservation Act), and planning documents recognised by an iwi authority. Section 67 sets out the contents of regional plans, and states that regional plans must give effect to any national policy statement, any New Zealand Coastal Policy Statement, and any regional policy statement. Under section 32 of the RMA, ECan is required to examine the extent to which the objectives of the HWRRP are the most appropriate way to achieve the purpose of the RMA, and whether, having regard to their efficiency

and effectiveness, the policies and rules are the most appropriate for achieving the objectives.

- 3.4 The purpose of the RMA is set out in Part 2 of the Act. In particular, section 5(1) states: *“The purpose of this Act is to promote the sustainable management of natural and physical resources”*. Section 5(2) provides a definition of sustainable management, as follows:

“managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—

- (a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.”*

- 3.5 My evidence assesses Fish & Game's submission points and considers whether the relevant provisions of the proposed HWRRP are appropriate when assessed against the purpose of the RMA and the provisions of the relevant national and regional planning documents. Initially, I provide a summary of the key planning documents. The specific provisions relevant to Fish and Game's submission points are addressed in more detail in Sections 5, 6 and 7.

4. SUMMARY OF KEY PLANNING DOCUMENTS

- 4.1 I consider that the relevant planning documents are:
- a. National Policy Statement on Freshwater Management
 - b. Canterbury Water Management Strategy
 - c. Hurunui Waiau Zone Implementation Programme

- d. Operative Canterbury Regional Policy Statement 1998
 - e. Proposed Canterbury Regional Policy Statement 2011
 - f. Proposed Canterbury Land and Water Regional Plan
 - g. Te Runanga o Kaikoura Environmental Management Plan
 - h. Te Whakatau Kaupapa – Ngai Tahu Resource Management Strategy for the Canterbury Region
 - i. Ngai Tahu Freshwater Policy
 - j. North Canterbury Fish and Game Management Plan
- 4.2 I summarise these documents below. I assess provisions relevant to Fish and Game's requests on the proposed HWRRP in more detail later in my evidence.

National Policy Statement on Freshwater Management 2011

- 4.3 The National Policy Statement on Freshwater Management 2011 (Freshwater NPS) provides national guidance on the management of freshwater resources in New Zealand. It includes objectives and policies that direct local government in the management of water. It addresses issues of water quality, water quantity, integrated management, tangata whenua roles and interests, and specifies a progressive implementation programme for regional councils to implement the policies of the Freshwater RPS. The preamble identifies national values of freshwater.
- 4.4 The preamble to the Freshwater NPS also states that setting enforceable quality and quantity limits is a key purpose of the Freshwater NPS. The water quality and water quantity objectives require achievement of specific outcomes, such as maintaining or improving the overall quality of freshwater within a region (Objective A2), and avoiding any further over-allocation of freshwater and phasing out existing over-allocation (Objective B2). The associated policies then direct regional councils to change regional plans to ensure the objectives of the Freshwater NPS are achieved, such as by including objectives and setting freshwater quality limits for all water

bodies (Policy A1), and including freshwater objectives and environmental flows (Policy B1).

- 4.5 The preamble to the Freshwater NPS suggests a regional approach is key, noting that freshwater quality and quantity limits must reflect local and national values, and stating that the management of the resource needs to reflect the catchment-level variation between water bodies and different demands on the resource across the regions. The integrated management objective (Objective C1) and associated policies require catchment-based management of effects of land use on freshwater.
- 4.6 The tangata whenua roles and responsibilities objective (Objective D1) and associated policy (Policy D1) requires local authorities to provide for the involvement of iwi and hapu in decision-making on freshwater planning, and to ensure that tangata wheuna values and interests are identified and reflected in the management of fresh water.

Canterbury Water Management Strategy

- 4.7 The CWMS provides a framework for water management in the Canterbury Region. It is a high-level document that is intended to guide the development of statutory plans under the RMA, including regional plans such as the proposed HWRRP. As previously mentioned, the vision and principles of the CWMS have been given statutory weight under the ECan Act in the assessment of RMA plans. The remainder of the CWMS (which supports the vision and principles is a relevant consideration under section 66 of the RMA as a management plan prepared under another Act) discusses targets for water management, the need for integrated management, a water governance structure for the Region, the role of implementation programmes, and next steps for the implementation of the CWMS.
- 4.8 The vision of the CWMS is as follows:

“To enable present and future generations to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework.”
- 4.9 The CWMS sets out the principles that underpin it, divided into primary and supporting principles. The primary principles relate to sustainable

management, regional approach, and kaitiakitanga. The supporting principles relate to natural character, indigenous biodiversity, access, quality drinking water, recreational and amenity opportunities, and community and commercial use.

- 4.10 The Regional Approach principle sets matters for consideration in the planning of natural water use, and purposefully assigns some matters first order priority and others second order priority. The environment, customary uses, community supplies and stock water are first order considerations, with irrigation, renewable electricity generation, recreation, tourism and amenity being second order priorities.

Zone Implementation Programme

- 4.11 The Hurunui Waiau Zone Implementation Programme (the ZIP) is a non-statutory document, prepared by the Hurunui Waiau Water Management Zone Committee (the Committee). The ZIP recommends actions and approaches for water management to achieve the principles, targets and goals contained in the CWMS. The 'Purpose' of the proposed HWRRP explains the relationship between the ZIP and the HWRRP: where the recommendations of the ZIP required a statutory response through the RMA, they have been addressed in the HWRRP.
- 4.12 While non-statutory, the ZIP does provide a detailed background to some of the provisions of the proposed HWRRP. The ZIP contains recommendations on ecosystem health/biodiversity and braided river character, drinking water, kaitiakitanga, Waiau River flows, Hurunui River flows, Waipara River flows, Conway River/Tutae Putaputa flows, water allocation and water-use efficiency, water quality, economic development and provision of "more" water, and recreation.
- 4.13 Two of the appendices to the ZIP are of particular relevance. Appendix 3 contains the Committee's desired characteristics for projects to deliver more water for the Zone, based on its requirement that "more water" *"is not just for irrigation development but must also deliver environmental social, cultural and economic outcomes, not just one at the expense of others"* (page 54). Appendix 4 contains detailed

tables setting out how the ZIP intends the targets set in the CWMS will be achieved.

Operative Regional Policy Statement

- 4.14 The Canterbury Regional Policy Statement (operative RPS) became operative in 1998. A number of its chapters are relevant to the assessment of the HWRRP.
- 4.15 Chapter 8 of the RPS addresses landscape, ecology and heritage issues and is of relevance to the HWRRP. Particularly Objective 2 (protecting or enhancing natural features and landscapes, including their ecological, cultural, recreational, and amenity values) and Objective 3 (protecting indigenous biodiversity, ecosystems and vegetation and habitats which contribute to a region's natural character). The requirement to protect is linked to significance criteria contained in section 20.4 of the RPS.
- 4.16 Chapter 9 of the RPS addresses water issues and specifically addresses the Hurunui River in the introduction to the chapter. The introduction states that the high water quality of the upper catchments, high country lakes and braided rivers is a valuable feature of Canterbury, and that a number of waterbodies have high natural character and recreational use potential. The introduction goes on to say that it may be desirable to sustain the natural characteristics of these water bodies, and lists potential waterbodies, subject to investigations, including:
 - a. Hurunui River above Mandamus
 - b. Many of the high country lakes and tarns and their catchment streams and rivers that are not presently controlled for hydro-electricity storage.
- 4.17 The Water Chapter (9) objectives and the associated policies aim to provide for protection and preservation of water bodies where appropriate, but also to allow for use and development where this would avoid, remedy or mitigate adverse effects on water bodies. Objectives 1, 2 and 3 of Chapter 9 require sufficient quantities of water to be available for present and future generations to gain cultural, social, recreational, economic and other benefits from: water bodies

(Objective 1), land use where it affects flow levels (Objective 2), and water quality (Objective 3). Each objective is qualified by the requirement to also safeguard: the water body's value as drinking water, the life-supporting capacity of water, value for providing mahinga kai, protecting waahi tapu, preserving natural character, protecting outstanding natural features and landscapes, protecting significant habitat of trout and salmon, and maintaining and enhancing amenity values.

- 4.18 Chapter 10 of the RPS addresses issues relating to the beds of rivers and lakes. Objective 1 requires protection and enhancement of a number of values associated with the beds of rivers and lakes, including natural character, mahinga kai, habitat values of braided river beds, significant amenity and recreation values, and significant habitats of trout and salmon. Objective 2 requires the protection of the flood-carrying capacity of rivers from the adverse effects of land use within the beds of rivers. The policies associated with both Objective 1 and Objective 2 require that use of river beds avoids, remedies or mitigates adverse effects on these values and processes. Objective 4 aims to achieve improved and safe public access to and along rivers and lakes and their margins, where it will not adversely affect the values identified in Objective 1, compromise flood protection structures or cause conflict with landowners and occupiers.

Proposed Canterbury Regional Policy Statement

- 4.19 Decisions on the Proposed Canterbury Regional Policy Statement (proposed RPS) were notified in July 2012. Appeals have been received on the proposed RPS, and as such the document will not become operative until the appeals are resolved. However, as the document has progressed a considerable way through the Schedule 1 process, I consider that it has weight in the assessment of the proposed HWRRP.
- 4.20 Of particular relevance to the assessment of the proposed HWRRP is Chapter 7 of the proposed RPS, which deals with freshwater. This chapter contains objectives and policies that manage the effects of taking, damming, diverting and using freshwater. Objectives and policies direct the setting of water allocation regimes and the

management of water quality. Natural character is to be preserved, maintained and enhanced, the relationship between land use and water quantity and quality is addressed, efficient allocation and use of water is required, the benefits of harvesting and storing water are to be recognised, and a precautionary approach is encouraged where effects are uncertain. The policies are directive and include methods setting out what is specifically required of the regional council and the local authorities to implement the policies. Chapter 12 addresses landscape issues. It requires the identification and protection of outstanding natural landscapes, and the identification and management of other landscapes. Of particular relevance to the proposed HWRRP, the Lake Sumner Area and Lewis Pass, including the headwaters of the Hurunui and Waiau Rivers, is identified as an outstanding natural landscape.

- 4.21 Chapter 10 is also of relevance as it addresses activities in the beds of rivers and lakes, such as dams. Objectives and policies address the protection and enhancement of areas of river and lake beds and their riparian zones, requiring the preservation of natural character in identified circumstances.

Proposed Canterbury Land and Water Regional Plan

- 4.22 The Proposed Canterbury Land and Water Regional Plan (LWRP) was notified in August 2012 (after the proposed HWRRP). It is a regional plan for the whole of the Canterbury Region and has the same status in the hierarchy of plans under the RMA as the proposed HWRRP. Section 67 of the RMA requires that a regional plan must not be inconsistent with any other regional plan for the region. This requirement extends to operative regional plans, but not proposed regional plans.
- 4.23 There is a potential for overlap between the two proposed plans. The proposed LWRP attempts to avoid this by stating, in section 2.9, that *"any objective, policy or rule on the same subject matter in the Proposed Hurunui and Waiau River Regional Plan prevails over the objectives, policies and rules contained in this Plan"*.

- 4.24 Section 7 of the proposed LWRP addresses the Hurunui-Waiau. It defers to the HWRRP for freshwater outcomes, policies, rules, flow and allocation limits and catchment nutrient load limits and allowances for the Waiau, Hurunui and Jed River catchments.

Te Runanga o Kaikoura Environmental Management Plan

- 4.25 Te Poha o Tohu Raumati is an environmental management plan (the Kaikoura EMP) prepared by Te Runanga o Kaikoura, who have the status of mana whenua with kaitiaki rights and responsibilities over the land and water that is the subject of the HWRRP. The Kaikoura EMP was first published in September 2005 and the current edition (third) was published in October 2009. The Kaikoura EMP has been given the status of an iwi management plan by Te Runanga o Ngai Tahu.
- 4.26 The Hurunui and Waiau Rivers are within the Okarahia ki te Hurunui area. Of relevance to the HWRRP, the Kaikoura EMP describes nga take (issues) and nga kaupapa (policies) relating to water abstractions, flow management, minimum flows, water quality, and specifically to the Waiau and Hurunui Rivers.
- 4.27 Some key themes, which I consider of relevance to the HWRRP, recur in the water management policies in the Kaikoura EMP:
- a. The restoration, maintenance and protection of the mauri of freshwater resources (Surface Water Abstractions Policy 2, Flow Management Policy 3, Waiau River Policy 10, Hurunui River Policy 11).
 - b. The concept of ki uta ki tai (from source to sea), which underpins support for catchment management planning (Surface Water Abstractions Policy 3, Minimum Flows Policy 1, Waiau River Policy 4, Hurunui River Policy 6), the setting of flow regimes and minimum flows (Flow Management Policy 2, Minimum Flows Policy 2), and specific management of the Waiau and Hurunui Rivers (Waiau River Policies 5, 9 and 26, Hurunui River Policies 7, 12 and 20).
 - c. The link between water quality and water quantity (Surface Water Abstraction Policy 13, Flow Management Policy 8, Minimum Flow Policy 7, Water Quality Policy 3).

- d. The effect of land uses on the values of a river (text box page 171, Flow Management Policy 12, Waiau River Policy 17, text box page 176).

4.28 In addition to those referenced in paragraph 4.27 above, I consider that the following policies, specific to the Waiau and Hurunui Rivers, are relevant:

- a. *"To ensure that the value of the Waiau/Hurunui River as a cultural and natural landscape is recognised and provided for in management decisions throughout the catchment"* (Waiau River Policy 1, Hurunui River Policy 3).
- b. *"Avoid the use of the Waiau/Hurunui River or its tributaries as a receiving environment for the direct, or point source, discharge of contaminants"* (Waiau River Policy 6, Hurunui River Policy 8).
- c. *"To avoid adverse impacts on water quality as a result of non-point source pollution, and require that any non-avoidable impacts are mitigated"* (Waiau River Policy 7, Hurunui River Policy 9).
- d. *"To support a flow regime for the Waiau/Hurunui that adopts the priorities established in the Te Runanga o Ngai Tahu Freshwater Policy"* (Waiau River Policy 10, Hurunui River Policy 11).
- e. *"To protect all existing areas of naturalness associated with the Waiau River (including areas of indigenous vegetation, bush remnants, wetlands and riparian areas) from inappropriate land use and development activities. Such areas of naturalness have important functions in maintaining ecological health"* (Waiau River Policy 12).
- f. *"To generally oppose any large scale proposal to dam, extract or otherwise reduce, change or alter the existing flows of any part of the Waiau/Hurunui River (e.g. hydro and irrigation schemes)"* (Waiau River Policy 25, Hurunui River Policy 19).

- 4.29 The priorities contained in the Ngai Tahu Freshwater Policy for values to be protected when developing water allocation regimes (referred to in Waiau River Policy 10, Hurunui River Policy 11) are listed in order of priority, one to eight. The first priority is to sustain the mauri of the waterbody, the second is to meet the basic health and safety needs of humans, and the third is to protect traditional cultural values and uses. The fourth is to protect other instream values, including indigenous flora and fauna. The seventh and eight priorities are to provide for economic activities including abstractive uses and to provide for other uses.
- 4.30 The Kaikoura EMP also notes that the Hurunui River and Hoka Kura (Lake Sumner) are Statutory Acknowledgement Areas under the Ngai Tahu Claims Settlement Act 1998. Through this statute, the Crown has acknowledged the cultural, spiritual, historic and/or traditional association of Ngai Tahu with the Hurunui River and Hoka Kura. The Kaikoura EMP states that historically, the river was treasured for its yield of customary resources and as a gateway to pounamu resources, and that the customary importance of the river remains for tangata whenua today.

Te Whakatau Kaupapa – Ngai Tahu Resource Management Strategy for the Canterbury Region

- 4.31 Te Ngai Tuahuriri Runanga shares kaitiaki rights and responsibilities associated with the Hurunui River with Te Runanga o Kaikoura. In the absence of a specific iwi management plan prepared by Te Ngai Tuahuriri Runanga, Te Whakatau Kaupapa, the Ngai Tahu Resource Management Strategy for the Canterbury Region (Ngai Tahu RMS), applies. This plan was first published in 1990 and reprinted in 1992, and applies to the whole of the Canterbury Region, including the land and water that is the subject of the HWRRP.
- 4.32 Of relevance to the HWRRP, the Ngai Tahu RMS includes general water policies and policies on mahinga kai. A key statement is that *“the maintenance of water quality and quantity are perhaps the paramount resource management issues to Ngai Tahu”* (page 4-19). The policies relate to discharges to water (particularly of effluent), improving water quality and quantity (particularly in mahinga kai

areas), the preparation of management plans for each river, more efficient use of water, encouraging the storage of excess water, the importance of wetlands, the need for the involvement of Ngai Tahu in water management, and maintaining and enhancing mahinga kai areas.

Ngai Tahu Freshwater Policy

- 4.33 The Ngai Tahu Freshwater Policy Statement (Ngai Tahu FPS), published in 1999, is an iwi management plan that sets out Te Runanga o Ngai Tahu policies with respect to freshwater. It is intended that the Ngai Tahu FPS is to be read alongside other regional iwi management plans (such as the Kaikoura EMP) (page 7). It provides guidance to Papatipu Runanga and other resource managers on priorities for freshwater management and how to give effect to these priorities.
- 4.34 Of relevance to the assessment of the HWRRP, the Ngai Tahu FPS lists six principles that it states should govern the formulation of water policies and plans within the rohe of Ngai Tahu (page 8). In summary, these are: water is a unique part of the traditional economy and culture of Ngai Tahu, water is a taonga, water is a holistic resource, water is a commodity that is subject to competition, water has many stakeholders (including future generations), and water should be managed at a local level.
- 4.35 A number of issues to be addressed are identified in the Ngai Tahu FPS, relating to integrated management, identification of Ngai Tahu values and uses associated with freshwater, instream water flows (issues of quantity and quality), fisheries habitats, and participation of Ngai Tahu in freshwater management.
- 4.36 Part 2 of the Ngai Tahu FPS includes objectives and policies related to four priority areas that need to be addressed by natural resource managers. The four priority areas are waahi tapu, mauri, mahinga kai, and kaitiakitanga. Specific strategies are also included for achieving the objectives identified. Of particular relevance to the provisions of the HWRRP, the section on restoring, maintaining and protecting the mauri of freshwater resources contains strategies on how to achieve

integrated management, provide for instream flows, damming, irrigation, water quality classifications, point source discharges, and non-point source discharges.

- 4.37 The Ngai Tahu FPS also includes specific performance indicators, to be used to monitor the implementation of the strategies included in the FPS. These indicators aim to be outcome-orientated and measureable.

North Canterbury Fish & Game Management Plan 2011 - 2021

- 4.38 The North Canterbury Fish & Game Management Plan (the Management Plan) is prepared under the Conservation Act 1987 and contains the long-term vision for the management of sports fish and game, and their habitats, in the North Canterbury Region. It provides background on the significance of the Hurunui and Waiau Rivers and Lake Sumner for sports fish and game, and contains objectives and methods of implementation relating to habitats, sports fish, game birds, and recreational activities.
- 4.39 This Management Plan is addressed in more detail in the evidence of Mr Tony Hawker. Of particular relevance to the assessment of the HWRRP, the Management Plan seeks to advocate for habitat protection through statutory and non-statutory processes, and for maintenance and enhancement of fish and game habitats to be considered in regional and territorial plans. The Management Plan identifies high priority habitats, which include the Waiau River catchment, Lake Sumner and inflowing catchment, and the Hurunui River and stream catchment. Pressures on these habitats are seen to come from commercial fishing, irrigation, electricity generation, spread of pest fish and plants, illegal fish releases, development, and farming activities. Facilitating public access for the recreational harvesting of sports fish and game is also a key objective of the Management Plan.

5. APPROPRIATENESS OF DAMMING PROVISIONS

- 5.1 This section of my evidence summarises the effects of the damming provisions included in the proposed HWRRP, summarises the regional and national planning framework relating to damming, and assesses the appropriateness of Fish & Game's requests relating to damming.

Evidence of effects

- 5.2 Mr Millichamp, Dr Young, Mr Unwin, Mr Robinson, Mr Bell, Mr Rogers, and Mr Hill have provided evidence that both the Hurunui and Waiau Rivers sustain highly valued trout and salmon fisheries of regional significance.
- 5.3 These experts have also presented evidence on the importance of unimpeded access for trout and salmon between the river mouths and the upper catchment spawning grounds. Mr Millichamp states that the construction of high dams downstream of existing spawning grounds will block salmon access and that run degradation or extinction is likely within three to four years.
- 5.4 Dr Young's evidence corroborates the evidence of these experts. His evidence characterises the Upper Hurunui instream habitat for trout, placing it first in the country for food producing and drift feeding habitat. He concludes that the large size of trout from the North Branch, South Branch, and Hurunui below Lake Sumner ranks these stretches of river equivalent to or above other rivers recognised as having outstanding trout habitat and/or fishery by existing Water Conservation Orders. Dr Young states that the Waiau River was ranked fourth nationally for both length and weight of trout.
- 5.5 Dr Young analyses the movement of trout within the Hurunui Catchment. His evidence shows that brown trout undergo substantial migrations within the freshwater part of the catchment. Dr Young concludes that *"maintaining unimpeded passage throughout the catchment appears to be critical for sustaining the trophy trout in the entire Upper Hurunui and most of the large trout in the South Branch and probably the North Branch too"*. He goes on to state that *"any barrier preventing upstream or downstream migration could have an*

adverse impact on the brown trout population in the catchment". Dr Young reaches a similar conclusion for the Waiau River.

- 5.6 Mr Hawker's evidence outlines the recognition given by various reports and publications, including the report of the Special Tribunal on an application for a Water Conservation Order for the Hurunui River, to the national significance of the ecological and recreational values of the Upper Hurunui Catchment.

National and Regional Policy Framework for Damming

- 5.7 I consider that the following provisions of the national and regional policy framework to be of relevance to the consideration of Fish & Game's requests relating to the damming provisions of the proposed HWRRP.
- 5.8 Objective B1 of the Freshwater NPS requires the safeguarding of *"the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of freshwater, in sustainably managing the taking, using, damming and diverting of freshwater"*.
- 5.9 The Regional Approach Primary Principle of the CWMS sets the environment as a first order priority for the planning of natural water use. The environment therefore has priority over the second order priorities, which include irrigation. Recreation is also a second order priority.
- 5.10 I consider that a number of the Supporting Principles in the CWMS are relevant to controlling damming activities, including the Natural Character, Indigenous Biodiversity and Recreational and Amenity Opportunities principles. In summary, these principles require the preservation, enhancement, protection, and/or recognition of a number of natural and recreational values that damming could have an adverse impact on.
- 5.11 Objective 7.2.1 of the Proposed RPS addresses the sustainable management of fresh water. In summary, the objective is to enable people and communities to provide for their economic and social well-being through abstracting and using water, provided its life-supporting capacity is safe-guarded, natural character is preserved, protected,

and restored where appropriate, and community and stockwater supplies and customary uses are provided for.

- 5.12 Of relevance to the activity of damming, particularly in the Hurunui and Waiau Catchments, Policy 7.3.1 is to identify and preserve natural character values where there is a high state of natural character, maintain natural character values where they are modified but highly valued, and improve natural character values where they have been degraded to unacceptable levels. Policy 7.3.2 is to maintain the natural character of braided rivers by prohibiting the damming of the mainstem of the Waiau and Hurunui Rivers (among others), and to limit any use of natural lakes for storage so the lake's levels do not exceed or fall below the upper or lower levels of its natural operating range.

- 5.13 Objective 10.2.1 and associated Policy 10.3.2 of the Proposed RPS are relevant to damming as they relate to activities in the beds of rivers and lakes. Policy 10.3.2 requires the protection and enhancement of the natural character of river and lake beds and their riparian zones, where, among other things, they have existing significant trout or salmon habitat.

- 5.14 The Proposed RPS contains objectives and policies on landscape in Chapter 12. These objectives and policies require the identification and protection of outstanding natural features and landscapes, and the identification and management of other landscapes. Appendix 5 sets out the values that indicate an outstanding natural feature or landscape for the Canterbury Region. The Lake Sumner and Lewis Pass area, including the headwaters of the Hurunui, Waiau and Clarence Rivers, is identified as an outstanding natural landscape. It is identified as having Natural Science Values, Legibility Values, Aesthetic Values, Transient Values, Tangata Whenua Values, Shared and Recognised Values, and Historic Values.

- 5.15 The Operative RPS contains similar objectives to the Proposed RPS. Chapter 8 of the Operative RPS addresses landscape, ecology and heritage matters. Objective 8.2.2 requires the protection or enhancement of regionally significant natural features and landscapes. Rather than identifying significant natural features or landscapes as

the Proposed RPS does, Policy 8.3.3 requires the protection from adverse effects of natural features and landscapes that meet the criteria specified in sub-chapter 20.4 of the Operative RPS. The policy also directs district plans to reflect the 'particular sensitivity' of the natural features or landscapes to regionally significant adverse effects.

- 5.16 Of relevance to the Waiau and Hurunui Catchments, the significance criteria in sub-chapter 20.4 states that a matter is of regional significance when it concerns: (i) sites or places that have important recreational or other amenity values to the Canterbury region. The evidence presented by Mr Robinson, Mr Millichamp, Mr Unwin, Mr Hill, and Dr Young illustrates that both the Hurunui and Waiau Rivers sustain highly valued trout and salmon fisheries of regional significance, therefore meeting this criteria and qualifying as regionally significant. This accords with the identification of the Upper Hurunui and Waiau Catchments as an outstanding natural landscape in the Proposed RPS.
- 5.17 Chapter 10 of the operative RPS is relevant to damming as it addresses the use of the beds of rivers and lakes. In a similar way to the Proposed RPS, Objective 10.2.1 requires the protection, and where appropriate, enhancement, of a number of values that could be threatened by damming, including natural character, significant natural landscapes, habitat values of braided rivers, significant amenity and recreation values, significant habitats of trout and salmon, and the life-supporting capacity of aquatic and riparian ecosystems. Policy 10.2.1 goes on to require areas containing these values to be identified, and for land use or development to avoid significant adverse effects on these values,
- 5.18 The iwi management plans include policies relevant to damming. Particularly pertinent are two policies within the Kaikoura EMP (Waiau River Policy 25, Hurunui River Policy 19) which are "*To generally oppose any large scale proposal to dam, extract or otherwise reduce, change or alter the existing flows of any part of the Waiau/Hurunui River (e.g. hydro and irrigation schemes)*". Damming could also be seen to be contrary to the concept of ki uta ki tai (from source to sea), and the policies within the Kaikoura EMP that promote the free flow of

water from source to sea (for example Waiau River Policies 5, 9 and 26, and Hurunui River Policies 7, 12 and 20).

- 5.19 The North Canterbury Fish and Game Management Plan identifies the Waiau River as containing “a highly valued trophy fishery” (page 11), Lake Sumner as “a popular recreational lake which also provides an important rearing and breeding habitat supplying fish to the productive Hurunui River trout fishery” (page 12), and the Hurunui River as “considered by many to be the best trout river fishery in the region, with most recreational attention focused on the reaches above the Mandamus confluence” (page 12). These habitats are identified as ‘High-Priority Habitats’ on page 17 of the Management Plan. My understanding, from the evidence of others, is that damming potentially threatens these values and habitats.

Analysis of Proposed HWRRP and Fish & Game’s requested changes

- 5.20 I have described the ‘damming regime’ under the proposed HWRRP in paragraphs 2.2 to 2.13 of my evidence. In summary, control of the effects of damming is driven by the Development Zones Map Series, which divides each of the Hurunui, Waiau and Jed catchments into Zones A, B and C, where development should not be progressed, is considered suitable, or may or may not be appropriate, respectively.
- 5.21 I consider that there is a lack of direct policy support for these Zones, either requiring them to be put in place or setting criteria for how they should be determined. In the absence of such a policy framework it is difficult to assess whether the extent of the Zones is appropriate. The only specific criteria provided is the title given to each zone.
- 5.22 Objective 6 is the only objective in the proposed HWRRP that directly addresses damming. It deals specifically with ‘infrastructure for out of stream uses of water’. It requires such infrastructure to be developed in a manner that allows for full irrigation of all economically irrigable land while meeting five specified criteria. Two of these criteria are area-related: “(a) protecting areas with high intrinsic, cultural and recreational values”, and “(b) avoiding areas with significant natural hazards”. In the absence of other specific guidance within the

proposed HWRRP, I assume that these criteria have directed the creation of the Development Zone Map Series.

5.23 The guidance provided in the Operative and Proposed RPS on significant natural landscapes, which I described earlier in my evidence, should be considered as criteria for determining the extent and location of the Development Zones. I note that the HWRRP is required to give effect to the Operative RPS.

5.24 To provide a clear planning purpose for the Development Zone Map Series and a clear link to Objective 6, and to take account of the guidance in the Operative and Proposed RPS, I recommend that a new policy is added to the policies associated with Objective 6, as follows:

Scope?

Policy 6.1(a) *To manage the effects of the development of water storage infrastructure through identifying three Development Zones, by reference to the requirements of Objective 6, which will form the basis of the policy and rule framework:*

Zone A: areas where water storage infrastructure should not be progressed in order to protect outstanding natural areas identified in accordance with the Operative and Proposed Canterbury Regional Policy Statements, to protect areas with high intrinsic, cultural and recreational values, and to avoid areas with significant natural hazards.

Zone B: areas generally considered suitable for the development of water storage infrastructure in specific circumstances.

Zone C: areas where only limited investigations have been carried out and the development of water storage infrastructure should proceed with caution.

(words in explant =

5.25 With the criteria for the Zones more clearly set out in a new policy, an assessment can be undertaken of the appropriateness of the currently proposed Zoning of the Upper Hurunui Catchment and Fish & Game's request that it be assigned Zone A. It is important to keep in mind that the intended effect of Zone A is that damming within the area is prohibited (see Policy 6.1).

Is this correct test??

5.26 The evidence of Mr Millichamp, Dr Young, Mr Unwin, Mr Robinson, Mr Bell, Mr Rogers, and Mr Hill is that the Upper Hurunui Catchment, like the Upper Waiau Catchment (which is within Zone A), sustains highly

valued trout and salmon fisheries of regional significance; ie it has high recreational values. In addition, as discussed earlier in my evidence, the Upper Hurunui Catchment has been identified as an outstanding natural landscape to be protected in the Proposed RPS, and meets the criteria for protection of significant landscapes under the Operative RPS. Mr Hawker's evidence outlines the recognition given by various reports and publications, including the report of the Special Tribunal on an application for a Water Conservation Order for the Hurunui River, to the international significance of the Upper Hurunui. Therefore, the Upper Hurunui meets the requirements of new Policy 6.1(a) and Objective 6. In this context, I consider that it is appropriate that the Upper Hurunui Catchment be included in Zone A, and that it is inappropriate for it to be included in Zone C as currently proposed.

wrong way. Policy is consistent w/ explanation, but explanation is misleading. Do not agree that it justifies change

- 5.27 In addition, I consider that protecting the Upper Hurunui Catchment by including it in Zone A and therefore prohibiting damming within it is appropriate considering the first order priority of the environment (and the second order priority of recreation) set by the Regional Approach primary principle of the CWMS, as well as the requirements of the Natural Character, Indigenous Biodiversity, and Recreational and Amenity Opportunities supporting principles of the CWMS. I consider that it would also be consistent with the values identified for the area in the North Canterbury Fish and Game Management Plan. Including the Upper Hurunui within Zone A would also be consistent with the concept of ki uta ki tai (from source to sea), and the policies within the Kaikura EMP that promote the free flow of water from source to sea.
- 5.28 Fish & Game requested a consequential amendment to Policy 6.5(a)(ii)(iii), which I consider is necessary due to the zoning of the Upper Hurunui Catchment as Zone A.
- 5.29 For the reasons explained by Mr Hawker in paragraphs 9.1 to 9.3 of his evidence, Fish & Game propose that the downstream boundary of Zone A for the Upper Hurunui Catchment be at the confluence of the Hurunui River with Surveyors Stream. This would mean the reach of the Hurunui between the Surveyors Stream confluence and the Mandamus confluence would remain within Zone C. The submission requests a number of wording changes to provisions of the proposed

HWRRP to account for this, including to Rules 2.3(e) and 3.2(a). I agree that these changes are necessary to reflect the area requested to be included in Zone A by Fish & Game.

5.30 Policy 6.1 is to prohibit the damming of water within areas identified as Zone A and on the mainstem of the Hurunui and Waiau Rivers. Fish & Game supports this policy. I agree with this support. I have just outlined my support for prohibiting damming within Zone A. I consider prohibiting damming on the entire length of the mainstems of the Hurunui and Waiau Rivers is also appropriate, particularly considering Policy 7.3.2 of the Proposed RPS, which is to maintain the natural character of braided rivers by prohibiting the damming of the mainstem of the Waiau and Hurunui Rivers.

5.31 In my opinion, the policies and rules of the proposed HWRRP do not always achieve the 'no damming' outcome sought by Policy 6.1. I consider that Policy 6.2 needs to be amended by adding a requirement that there is no impoundment of water on the mainstem of the Waiau or Hurunui Rivers. Otherwise, Policy 6.2 as currently written is not consistent with Policy 6.1 as it does not restrict damming on the mainstems. ???

5.32 Fish & Game's request to amend Policy 6.3(a) would make that policy consistent with Policy 6.1. I agree that currently these policies are inconsistent with each other, as Policy 6.1 prohibits damming on the mainstem of the Hurunui and Waiau Rivers, whereas Policy 6.3(a) prohibits damming only on the mainstem, downstream of the confluence of the South Branch of the Hurunui and downstream of the confluence with the Hope River for the Waiau.

5.33 A consequential amendment is required to the note attached to Policy 6.3(a), which provides an explanation for the workings of Rule 5.1, to explain the rule as requested to be amended by Fish & Game.

5.34 As identified in Fish & Game's submission, Rule 2.4(a) needs to exclude damming on the mainstem of the Hurunui and Waiau Rivers. As currently written, the rule would allow damming on the mainstems within Zone B, contrary to Policy 6.1.

But it is specifically stated in S.2??

covered in
5.2???

5.35 In addition, as currently written, I consider that Rule 5.1 does not give effect to the prohibition on damming required by Policy 6.1 of the HWRRP. The rule as written only prohibits damming on tributaries of the Hurunui and Waiau Rivers that are within Zone A. The rule provides no prohibition on damming of the mainstems of either river, contrary to Policy 6.1.

5.36 Rule 5.1 can be written to give effect to Policy 6.1 without direct reference to the Zones. An advantage of this is that the area to which the rule applies is immediately clear upon reading the rule, without the need to cross-reference to the Zone Maps. In addition, should Zone A not be applied to the Upper Hurunui Catchment (contrary to Fish & Game's request), Rule 5.1 would still prohibit damming within the Upper Hurunui Catchment.

5.37 I recommend that Rule 5.1 is amended so that it reads as follows:

Rule 5.1 The damming or impoundment of water in:

- (a) the mainstem of the Waiau River;
- (b) the mainstem of the Hurunui River; or,
- (c) tributaries and lakes, including Lake Sumner, in the Hurunui River Catchment above the confluence with Surveyors Stream and in the Waiau River Catchment above the confluence with the Hope River,

is a prohibited activity.

5.38 'Mainstem' is included in the definition table in the proposed HWRRP. However, rather than having an actual definition, the proposed HWRRP includes a cross-reference to the meaning of 'mainstem' in the Proposed Canterbury Regional Policy Statement 2011. Fish & Game supports the wording of the definition, being "in relation to braided river refers to that stem of the river which flows to the sea, and applies from the source of that stem to the sea, but excludes any tributary", and has requested that it be defined directly in the proposed HWRRP.

5.39 I agree that it is more appropriate to include the actual definition in the proposed HWRRP, rather than a cross-reference. A definition is included in a plan to make the meaning of a word clear and to aid interpretation of the plan. Including a cross-reference defeats this

*only in relat- to a
hand/ of area*

purpose, as it requires the user to refer to another document before the meaning can become clear. The other document in this case is the Proposed RPS. This document is still subject to change, and in the future it may become difficult for a user of the proposed HWRRP to find the version of the RPS that has been cross-referenced, further hampering interpretation of the plan. If the provisions of the proposed HWRRP have been written based on a specific meaning of 'mainstem', then I consider that this meaning should be included directly within the proposed HWRRP definitions. ✓

5.40 A consequential amendment is required to paragraph four on page 10 of the proposed HWRRP as notified, to remove the note about the definition of mainstem.

5.41 Fish & Game supported, through further submission, a request that Policy 6.4(a) be amended so that damming within Zone C Areas is avoided until two years after the proposed HWRRP becomes operative, rather than after it is notified, as currently included in the proposed HWRRP. I agree that the date the plan becomes operative is more appropriate. This is because the plan is subject to change until it becomes operative. As is evidenced by Fish & Game's submission, the areas to which Zones A, B and C apply may change prior to the plan becoming operative. The moratorium on damming should therefore apply for two years once the Zones are certain, which is after the plan becomes operative. I note that Policy 6.4 requires damming to be avoided until the plan becomes operative, and it can be demonstrated that opportunities for water storage in Zone B are not able to proceed. Fish & Game supports the second arm of this test (sub-paragraph (b)).

Conclusion

5.42 Part 2 of the RMA is also relevant to considering the appropriateness of the damming provision of the proposed HWRRP. The preservation of the natural character of lakes and rivers and the protection of outstanding natural features and landscapes are matters of national importance that I consider relevant. I also consider the following 'other matters' to be of relevance: the maintenance and enhancement of

amenity values, intrinsic values of ecosystems, maintenance and enhancement of the quality of the environment, and the protection of the habitat of trout and salmon.

- 5.43 The purpose and principles of the RMA are reflected in the requirements of the regional and national planning framework, particularly the Freshwater NPS and the Operative and Proposed RPS. In light of the requirements of this framework, discussed above, and the significant effects on ecological and recreational values that damming of the Upper Hurunui Catchment would have, I consider that Fish & Game's requests are a more appropriate way to provide for sustainable management than the current provisions of the HWRRP.

- 5.44 Overall, considering Part 2 of the RMA, the regional and national policy framework and the objectives of the proposed HWRRP, I consider that Fish & Game's requests relating to damming are appropriate and should be accepted.

6. APPROPRIATENESS OF WATER QUALITY PROVISIONS

- 6.1 This section of my evidence summarises the effects of the proposed water quality regime for the Hurunui and Waiau Rivers, summarises the regional and national planning framework relating to water quality, and assesses the appropriateness of Fish & Game's requests relating to water quality.

Evidence of effects

- 6.2 Dr Young characterises the existing water quality in the Hurunui Catchment in section 5 of his evidence. He concludes that water quality in the Upper Hurunui Catchment above the Mandamus confluence is in a healthy state and will support a range of aesthetic and recreational values and not restrict the types of organisms that live there. He also states that the high water clarity in the reach between Lake Sumner and the confluence of the South Branch will be one factor contributing to the outstanding abundance of trout in that reach.

If policies adequately identify values though then why is prohibit more appropriate?

- 6.3 Dr Young comments that the water quality in the Lower Hurunui River is degraded and has deteriorated over the last 20 years. He states that during low flow periods, nuisance periphyton growths can occur in the lower reaches of the river. Dr Young considers that efforts should be made to maintain or improve the health of the lower Hurunui River.
- 6.4 Dr Young characterises water quality in the Waiau Catchment in section 14 of his evidence. He notes that the best water quality has been recorded at the most upstream monitoring site, with evidence for a decline in water quality downstream. Dr Young considers that efforts should be made to maintain or improve existing water quality in the lower Waiau River.
- 6.5 Dr Young explains that suitable water quality is required throughout the catchment so fish passage is not restricted. He states that lower water clarity is expected to have an adverse effect on trout because it reduces their ability to detect and intercept drifting prey.
- 6.6 Mr Montgomerie's evidence assesses the effect of the proposed allocation regime (full utilisation of A, B and C Block allocations) on water quality in the Hurunui and Waiau Rivers. He considers that full utilisation of the proposed allocation regime is likely to significantly increase the risk of nuisance algal growths occurring on both rivers, and that this is likely to adversely affect the food producing capacity of the rivers, increasing the risk of a decline in trout and salmon condition and numbers.
- 6.7 Mr Norton, author of the Section 42A Report for the proposed HWRRP on Implications for Water Quality, concludes, in paragraph 47 of his report, that full allocation of the A, B and C Blocks will almost certainly result in water quality deterioration, and water quality failing to achieve Objectives 5.1 and 5.2 of the proposed HWRRP. He also states that full allocation of the A and B Block allocations will push the water quality limits. He states that this is because of significantly reduced dilution and flushing flows combined with increased nutrient loads.

National and Regional Policy Framework for Water Quality

- 6.8 I consider the following provisions of the national and regional policy framework to be of relevance to the consideration of Fish & Game's

requests relating to the water quality provisions of the proposed HWRRP.

- 6.9 The Freshwater NPS provides specific direction for the management of water quality. Objective A1 is *"to safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of freshwater, in sustainably managing the use and development of land, and of discharges of contaminants"*. Objective A2 requires water quality to be maintained or improved.
- 6.10 Three policies are included to implement the two objectives. The policies require regional plans to establish freshwater objectives and set freshwater quality limits to give effect to the objectives of the Freshwater NPS; to include targets and methods to improve water quality within specified timeframes where freshwater objectives are not being met; and that conditions on discharge permits are used to ensure limits and targets can be met and rules in plans require the best practicable option to prevent or minimise adverse effects on the environment.
- 6.11 The Regional Approach Primary Principle of the CWMS sets the environment as a first order priority for the planning of natural water use. The environment therefore has priority over the second order priorities, which include irrigation. This principle also requires a *'strong emphasis on integration of water and land management including enhancement of water quality'*, and recognition that *'current and potential effects of land use intensification is an integral part of decision-making on water takes'*.
- 6.12 I consider that a number of the Secondary Principles are relevant to the consideration of water quality, including the Natural Character, Quality Drinking Water, Recreational and Amenity Opportunities, and Community and Commercial Use principles. In summary, these principles require the preservation, enhancement, protection, and/or recognition of a number of natural and recreational values and set requirements for water quality for different uses.
- 6.13 Water quality is addressed in the Proposed RPS in Chapter 7. Objective 7.2.1 addresses the sustainable management of fresh water.

In summary, the objective is to enable people and communities to provide for their economic and social well-being through abstracting and using water, provided its life-supporting capacity is safe-guarded, natural character is preserved, protected, and restored where appropriate, and community and stockwater supplies and customary uses are provided for.

- 6.14 Policy 7.3.6 of the Proposed RPS requires minimum water quality standards to be set, and sets out four matters that must be considered when setting standards. These reference the requirements of Objective A1 of the Freshwater NPS, water use requirements of individual, marae or community drinking water or stockwater, and customary uses and contact recreation (reflecting the first order priorities in the CWMS), the cultural significance of freshwater, and any other values or uses.
- 6.15 Policy 7.3.6 also requires activities that may affect water quality, including land uses, to be managed to maintain water quality at or above those standards. Where water quality is below the minimum standards, the policy requires additional allocation of water for abstraction and any additional discharge to contaminants to generally be avoided.
- 6.16 Policy 7.3.7 of the Proposed RPS is also relevant. It addresses water quality and land uses, and requires changes in land uses to be controlled to ensure water quality standards are maintained, or improved where water quality is already below the standards.
- 6.17 The Operative RPS addresses water quality in Chapter 9, particularly Objective 3 and associated policies. Objective 3 requires benefits from water quality to be gained, while maintainnig a number of environmental bottom lines. Generally, the focus of the policies is on controlling the effects of land use on water quality and maintaining and improving water quality.
- 6.18 The relevant iwi management plans contain guidance on water quality management. The Ngai Tahu RMS (page 4-20) and Kaikoura EMP (Water Quality Policy 11) require the improvement of water quality to the point where it supports mahinga kai fit for human consumption.

The Kaikoura EMP recognises the link between water quantity and quality, requiring water abstraction to avoid compromising water quality (Water Abstraction Policy 13, Flow Management Policy 8, Minimum Flows Policy 7, Water Quality Policy 4). This plan contains a number of other policies guiding the management of water quality in its section on water quality.

- 6.19 Of relevance to water quality, the North Canterbury Fish and Game Management Plan seeks the maintenance and enhancement of fish and game habitat. As set out previously in my evidence, water quality can have an adverse effect on habitat for trout and salmon.

Analysis of Proposed HWRRP and Fish & Game's requested changes

Policy framework for water quality

- 6.20 Fish & Game supports Objectives 5.1 and 5.2 of the proposed HWRRP, which manage the concentrations of nutrients entering the mainstem and tributaries of the Hurunui, Waiau and Jed catchments. Fish & Game's submission requests changes to the policies associated with these objectives.
- 6.21 Fish & Game support the retention of the Catchment Nutrient Load Limits in Schedule 1 of the proposed HWRRP. I agree with this support. These limits underpin the policies associated with Objectives 5.1 and 5.2. Dr Young's evidence is that setting appropriate nutrient load limits will help to control nuisance periphyton accumulations, protect aquatic organisms from nitrate toxicity and ensure that concentrations of nitrogen do not result in water becoming unsuitable for human consumption, which are the outcomes sought by Objectives 5.1 and 5.2. I consider that this approach to managing water quality is appropriate, particularly in light of the requirements in the Freshwater NPS and the Proposed RPS to set limits for water quality.
- 6.22 New Policies 5.1 and 5.2, as proposed by Fish & Game, would provide specific targets within the policy framework for periphyton biomass levels and nitrate nitrogen concentrations for the mainstem and tributaries of the Hurunui River, and average annual dissolved reactive phosphorus concentrations for the mainstem of the Hurunui. Dr

Scope?

Young has recommended an amendment to these policies, to use a numeric objective for periphyton growth, as this will remove a potential ambiguity in the outcome sought for periphyton growth.

6.23 The evidence of Mr Hawker (paragraph 11.2) is that these new policies would better achieve the outcomes sought by Objectives 5.1 and 5.2 than Policy 5.3 as notified in the proposed HWRRP. While the notified Policy 5.3 provides a direct link to the Nutrient Load Limits in Schedule 1, it does not adequately set out the outcomes sought to be achieved by the policy framework. The alternative policies proposed by Fish & Game would provide these outcomes. I agree that it is necessary for the policies to set out the outcomes sought to be achieved, and the rule to then implement achievement of these outcomes. I therefore support the deletion of Policy 5.3 and the inclusion of new Policies 5.1 and 5.2 proposed by Fish & Game.

6.24 I note Dr Young's comments and the comments of Mr Norton in his Section 42A report, that the limits set in Schedule 1 will not necessarily ensure achievement of Objectives 5.1 and 5.2 as proposed by Fish & Game. Lower limits would need to be set to ensure Objectives 5.1 and 5.2 could be met. However, Fish & Game has not requested that the limits be amended.

6.25 Deleting Policy 5.3 results in the deletion of the policy support for allowing dissolved inorganic nitrogen to increase by 20% prior to 2017. Dr Young's evidence is that this 20% increase should be deleted, as experience has shown that rehabilitation of river ecosystems can be difficult and take a long time, and ecosystem recovery may not follow the expected trajectory. In my view, the Freshwater NPS is clear in requiring that water quality is maintained or improved, and that a resource is considered over-allocated when freshwater objectives, including for water quality, are not being met. In my opinion, the Freshwater NPS, which the proposed HWRRP must give effect to, leaves no room for increases in nutrient loads. I therefore support the deletion of the ability to increase nitrogen by 20%.

Defends where
the resource is
'allocated'

6.26 A consequential amendment is required to Schedule 1 as a result of deleting the policy provision for a 20% increase in nitrogen. There is a note attached to the table in Schedule 1 that cross-references to the

20% increase allowed by Policy 5.3. This note should be removed, along with the deletion of the policy.

- 6.27 Deletion of Policy 5.3 and replacement with new Policies 5.1 and 5.2 proposed by Fish and Game, in my opinion, removes the connection between the policies and Schedule 1. Given that the Catchment Nutrient Load Limits are the basis for the policy framework for managing water quality, I consider that there should be a direct link within the policies to Schedule 1. I therefore recommend that new Policy 5.3, as proposed by Fish & Game, is amended to include a requirement to set Catchment Nutrient Load Limits. I also recommend that this policy retains the requirement to progressively set limits for the Waiau Catchment and the tributaries of the Hurunui.

"Policy 5.3 To progressively set Catchment Nutrient Load Limits for the Hurunui and Waiau Catchments, including the mainstems and tributaries, to ensure that Objectives 5.1 and 5.2 are met and the outcomes sought by Policies 5.1 and 5.2 are achieved. Catchment Nutrient Load Limits should include specific limits for the nutrients identified and state where the limits are to be measured."

- 6.28 I note that Dr Young recommends that Nutrient Load Limits are set as soon as possible for the Waiau River. As for the Hurunui limits, he also recommends that a numeric objective for periphyton growth is used, to remove potential ambiguity in the outcome sought for periphyton growth. Proposed Policy 5.3, set out in the paragraph above, requires limits to be set for the Waiau Catchment. I note that there is currently a gap for Nutrient Load Limits for the Waiau, as none are provided by the proposed HWRRP, and none are provided in the proposed LWRP as this defers to the proposed HWRRP.

- 6.29 I recommend that additional policies are added to the policies associated with Objectives 5.1 and 5.2 for water quality targets for the Waiau and tributaries, to implement Dr Young's recommendation and better implement the objectives and the HWRRP, as follows:

Policy 5.1(a) To manage water quality in the mainstem of the Waiau River to ensure that:

*See updates
on separate
sheet.*

(a) The 95th percentile of monthly periphyton biomass measurements in the mainstem of the Waiau River does not exceed 120 mg/m² or 20% cover of filamentous algae.

Policy 5.2(a) To manage water quality in the tributaries of the Hurunui River to ensure:

(a) Annual average nitrate nitrogen concentrations do not exceed the chronic nitrate toxicity threshold for 95% level of protection (1.7 mg N/L) and does not exceed the chronic 90% level of protection threshold (2.4 mg N/L) at any time

- 6.30 Fish & Game request that Policy 5.2 as notified is replaced with a policy that is more outcome focused. I agree that this is an appropriate requirement for the policy. I recommend that the link to Schedule 1 is also strengthened in the policy. I consider that these amendments will result in the policy more directly supporting the land use rules.

"Policy 5.4 To ensure that all properties in the Hurunui and Waiau Catchments are being managed in a way that meets the Catchment Nutrient Load Limits and reduces, as far as practicable, nutrient loss from the land"

- 6.31 Fish & Game requests the deletion of Policy 5.1. I agree that the policy is not helpful in achieving the outcomes of Objectives 5.1 and 5.2, and that nothing would be lost from the policy framework by deleting it.

Land use rules

- 6.32 There are two requirements within the rules addressing the cumulative effects of land use on water quality (Rules 10.1, 10.2, 11.2, 11.2), one relating to nutrient management practices, and one relating to nitrogen and phosphorus loads in the Hurunui River. With regard to nutrient management practices, Fish & Game supports the aspects of the rules that require existing land uses to have some sort of nutrient management programme in place by 2017, otherwise a discretionary activity resource consent would be required.

- 6.33 In my opinion, the aspects of the rules relating to nitrogen and phosphorus loads do a poor job of implementing the corresponding objectives and policies, as proposed to be amended by Fish & Game.
- 6.34 Fish & Game has asked that the 'grace period' until 2017 for new land uses to comply with the limits is removed from the rules as notified. I consider that this request is appropriate to make the rules consistent with the new policies (which include no allowance for a delay or an exceedance of the limits). As discussed above, I consider that it is appropriate for the limits to apply immediately to changes in land uses, due to the requirements in the Freshwater NPS and Proposed RPS to maintain or improve water quality, and to avoid deterioration of water quality. In addition, as stated by Mr Hawker in his evidence, delaying the application of the rules promotes a 'gold rush' situation to change land use, as no consents are required before 2017.
- 6.35 I note that a consequential amendment is required to Rule 10.2, that the reference to 1 January 2017 in subsection (b) is also replaced with ~~1 October 2011~~. *operative date.*
- 6.36 Fish & Game also request that a non-complying rule is introduced, to distinguish between more and less significant breaches of the limits in Schedule 1. In my opinion a non-complying rule for more significant breaches of the limits will provide the Council with a greater ability to enforce the policies and achieve the outcomes sought by Objectives 5.1 and 5.2. I consider a non-complying rule to be an appropriate and necessary tool for achieving the water quality objectives and policies.
- 6.37 I consider that an additional policy is necessary to support the new non-complying activity rule proposed by Fish & Game. Given the 'threshold test' under Section 104D of the RMA for non-complying activities, I consider that a strong policy framework should be associated with a non-complying activity. I therefore recommend that the following policy is added to the policies associated with Objectives 5.1 and 5.2:

Slope

"Policy 5.5 To only allow changes in land use where the Catchment Nutrient Load Limits are exceeded if Objectives 5.1 and 5.2 would be met."

The good thing about this is it focuses the allocation/ limits on outcome,

without saying the limit is the be-all & end-all.

Effect of other activities on water quality

- 6.38 As well as Objectives 5.1 and 5.2 managing water quality through controlling nutrients entering the mainstems and tributaries of the Hurunui, Waiau and Jed River Catchments, other objectives also control water quality. Objective 2 on minimum flows requires that the management of water levels and flows does not result in adverse effects on instream aquatic life and the extent of periphyton and cyanobacterial growth (among other things), which are indicators of water quality. Objective 3 requires water allocation to ensure that water quality is not decreased.
- 6.39 Objective 6 relates to infrastructure for out of stream uses of water. In its original submission, Fish & Game requested that the requirement that damming 'does not result in a flow regime that will cause periphyton limits (Policy 5.1 & 5.2) and eco-toxicity limits to be breached' be added to Objective 6. Fish & Game's intention here is to ensure that damming does not result in a reduction in water quality, as a result of changing the flow regime of the river or stream. Fish & Game also supported, through further submission, an amendment to Objective 6, to add the requirement for 'safeguarding the ecological health of the river system'.
- 6.40 I consider that maintaining water quality and safeguarding ecological health are valid aims for infrastructure for water storage, consistent with the wider regional and national planning framework on water quality. Infrastructure for water storage does have the potential to impact on these values. As identified above, these values are protected by other objectives in the proposed HWRRP. In light of the requirements of the Proposed RPS and Freshwater NPS in particular, I consider that it is appropriate that these values are included in Objective 6. I therefore recommend that the following two sub-paragraphs are added to Objective 6:
- (b) safeguarding the ecological health of the river systems
- (g) ensuring water quality is not decreased
- 6.41 Fish & Game requests that the Schedule 1 limits be made a standard and term of restricted discretionary activity rules addressing the taking,

diverting, discharge, use, damming and transfer of water (Rules 2.3, 2.4, 3.1, 3.2, 7.2, 12.1, 12.2). Fish & Game's intention is that water quality concentration targets included in Policy 5.1 are required to be met by takes and uses of water. As notified, these rules have the Schedule 1 limits as a matter for discretion. I consider that it is necessary to include the concentrations from the policy, rather than the Schedule 1 limits, as standards and terms of these rules, in order to give the policy concentrations more weight and the Council more control over achieving the outcomes sought by Objectives 2, 3, 5.1, 5.2, and Objective 6 as recommended to be amended by Fish & Game. I recommend the standard and term is as follows:

"The activity in combination with all other activities shall not result in the concentrations in Policy 5.1(b) and (c) being breached"

- 6.42 To provide further support within the policy framework for the requirement that the taking, diverting, discharge, use, damming and transfer of water meet the Schedule 1 limits, I recommend that a new policy is added to the policies associate with Objectives 5.1 and 5.2, as follows:

"Policy 5.6 To manage the taking, use, damming, diversion, discharge, and transfer of water so that the Catchment Nutrient Load Limits are met."

- 6.43 A consequence of including the policy concentrations as a standard and term of the rules is that non-compliance with them will result in the activity becoming a discretionary or non-complying activity. I consider that this is an appropriate outcome, given the requirements of the objectives in the proposed HWRRP to ensure water quality is not decreased, and the requirements of the Proposed RPS and Freshwater NPS in particular.

- 6.44 I note that in the Section 42A report prepared by Ms White, she considers that including Schedule 1 as a standard and term of the rules is not appropriate. One reason she gives for this is because the limits apply to land use, and not to other activities (paragraph 304). I consider that this is not a valid argument against including the limits on other water take and use activities. I note that Policy 7.3.6 of the Proposed RPS (discussed above) anticipates water quality standards

But you're
applying a standard to an
activity that the application
is not for??

being set for a water body, and those standards being used to control the effects on water quality of water allocation, as well as discharges from land uses.

Conclusion

- 6.45 Part 2 of the RMA is also relevant to considering the appropriateness of the water quality provisions of the proposed HWRRP. I consider that the preservation of the natural character of lakes and rivers is a relevant matter of national importance. I also consider the following 'other matters' to be of relevance: the maintenance and enhancement of amenity values, intrinsic values of ecosystems, maintenance and enhancement of the quality of the environment, and the protection of the habitat of trout and salmon.
- 6.46 The purpose and principles of the RMA are reflected in the requirements of the regional and national planning framework, particularly the Freshwater NPS and the Operative and Proposed RPS. In light of the requirements of this framework, discussed above, I consider that Fish & Game's requests relating to water quality would better provide for the sustainable management purpose of the RMA and are therefore more appropriate than the current provisions of the HWRRP.
- 6.47 Overall, considering Part 2 of the RMA, the regional and national policy framework and the objectives of the proposed HWRRP, I consider that Fish & Game's requests relating to water quality are appropriate and should be accepted.

7. APPROPRIATENESS OF MINIMUM FLOW AND WATER ALLOCATION PROVISIONS

- 7.1 This section of my evidence summarises the effects of the proposed flow regime for the Hurunui and Waiau Rivers, summarises the regional and national planning framework relating to water allocation, and assesses the appropriateness of Fish & Game's requests relating to the allocation regime, particularly the C Block allocations.

Evidence of effects

- 7.2 As stated in the evidence of Mr Hawker, at the time of notification of the HWRRP, Environment Canterbury had not undertaken any analysis to determine what the effects of allocation of the C Blocks may be. Mr Hawker's evidence outlines Fish & Games concerns regarding the effects of the proposed C Block allocations for the Hurunui and Waiau River Catchments (paragraphs 10.7 to 10.10).
- 7.3 The evidence presented by Mr Dave Stewart, Dr Roger Young, and Mr Richard Montgomerie for Fish & Game illustrates the effects of the C Block allocation on the flow regime and water quality in the Hurunui and Waiau Rivers, and the effect of these changes on the food producing capacity of the rivers and fish passage. Their evidence shows that full utilisation of the C Block allocation would result in extended periods of 'flat lining' of flows at the minimum flow and a reduction in the frequency of flushing flows. Further, their evidence states that these changes would result in significant increases in the risk of periphyton growths reaching nuisance levels for fishermen, would adversely affect the diversity of the benthic invertebrate community, and adversely affect fish through reduced food quality and reduced passage particularly for salmon.
- 7.4 I note that the overall conclusions drawn by Mr Dave Stewart, Dr Young, and Mr Richard Montgomerie are generally supported by the evidence in the Section 42A reports prepared for this hearing, which demonstrate that full or even part allocation of C Block will not enable the environmental objectives of the HWRRP to be met. I note particularly that Mr Norton, in his Section 42A report, concludes that it is not possible at this time to take the full A, B and C Block allocations under the PHWRRP for intensified agricultural land use and stay within the water quality limits designed to achieve Objectives 5.1 and 5.2.

National and Regional Policy Framework for Water Allocation

- 7.5 I consider the following provisions of the national and regional policy framework to be of relevance to the consideration of Fish & Game's requests relating to the flow regime in the proposed HWRRP, which

are focused on the C Block allocations for the Hurunui and Waiau Rivers.

- 7.6 The Freshwater NPS requires regional councils to set freshwater objectives and environmental flows to give effect to the objectives of the Freshwater NPS (Policy B1). Objective B1 is *"to safeguard the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems of freshwater, in sustainably managing the taking, using, damming, or diverting of freshwater"*.
- 7.7 The Regional Approach Primary Principle of the CWMS sets the environment as a first order priority for the planning of natural water use. The environment therefore has priority over the second order priorities, which include irrigation. The C Block allocation has been included in the proposed HWRRP, primarily to provide additional water for the purposes of irrigation.
- 7.8 The Regional Approach Primary Principle also promotes taking a cautious approach when information is uncertain, unreliable, or inadequate. The ZIP acknowledges, at page 31, that *"there are no technical investigations available to assess the in-river impacts of large (C Block) water takes from Hurunui River"*.
- 7.9 In addition, the Regional Approach Primary Principle requires the actual or potential cumulative effects that the taking of water can have on a waterway are recognised and managed within defined standards.
- 7.10 The Natural Character Supporting Principle of the CWMS requires the natural character of rivers and lakes be preserved and enhanced, by (among other things) maintaining the natural flow regimes of rivers, and setting environmental flow regimes for waterways where abstraction occurs.
- 7.11 Objective 7.2.1 of the Proposed RPS addresses the sustainable management of fresh water. In summary, the objective is to enable people and communities to provide for their economic and social well-being through abstracting and using water, provided its life-supporting capacity is safe-guarded, natural character is preserved, protected, and restored where appropriate, and community and stockwater supplies and customary uses are provided for.

It means it
has first consideration;
not that you don't
consider irrigation at all!

7.12 Policy 7.3.4 of the Proposed RPS directs the management of water quantity in the Canterbury Region. It reflects the requirements of the NPS as well as the priorities set in the CWMS for planning for water use. Of particular relevance to Fish & Game's concerns about the C Block allocations, (1)(c) of the policy requires allocation regimes to "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 ..." Once that requirement has been satisfied, along with the others specified, the allocation regime is to provide for recreational values and any actual or reasonably foreseeable demand for abstraction (for uses other than for individual, marae, community or stock drinking water supplies, which are provided for as part of the first set of priorities).

if these are protected thru policies etc you are still implementing policy

7.13 The methods associated with Policy 7.3.4 direct the regional council to set objectives, policies and methods in regional plans to establish and implement environmental flow and allocation regimes in accordance with the Policy. The regional council is then directed to control the take, use, damming or diversion of water in accordance with those environmental flow and allocation regimes.

7.14 Policy 7.3.10 of the Proposed RPS addresses the harvesting and storage of freshwater. It requires two things: the recognition of the potential benefits of harvesting and storing surface water for the specified purposes; and to facilitate conversion of run-of-river takes to takes for storage, where this can be done under conditions which maintain or enhance the surface water body.

7.15 The methods associated with the Policy require the regional council to set objectives, policies and methods in regional plans to provide for the harvesting and storage of water in allocation regimes, to allow consideration of take consents as either run-of-river or to storage, and to provide for irrigation schemes that harvest and store water where such proposals achieve the purpose of the RMA and give effect to the Canterbury RPS.

7.16 I consider Policy 7.3.12 of the Proposed RPS to also be of relevance. It requires a precautionary approach be taken to the allocation of water

Precautionary ≠ prohibited!

for abstraction in circumstances where the effects of the abstraction, singularly or cumulatively, are unknown or uncertain.

- 7.17 The Operative RPS addresses water allocation regimes in section 9.4, Objective 1 and associated policies, particularly Policies 1 and 2. This policy framework is simpler and less specific than the Proposed RPS. Generally, it requires allocation regimes to be set so as to provide for a range of environmental and cultural values, and then to provide for other uses as appropriate.
- 7.18 The iwi management plans also provide direction for the setting of allocation regimes in the Canterbury Region. The Kaikoura EMP includes policies on flow management in section 3.5.9. Of relevance to Fish & Game's concerns regarding the C Block allocations are policies 3, 6, and 9. Policy 9 is to support flow regimes that adopt the priorities established in the Ngai Tahu Freshwater Policy, which puts economic activities including abstractive uses below the mauri of the water and protection of instream values. Policy 6 requires flow regimes to have meaningful and appropriate limits of allocations. Policy 9 requires flow regimes to protect the natural seasonal variability of flow, including flushing flows.
- 7.19 The Ngai Tahu Freshwater Policy discusses water quantity in section 4.3.1. Of relevance to discussion on the C Block allocations, it is stated, on page 19, that seasonal flow variability needs to be given consideration in determining flow regimes.
- 7.20 Of relevance to the setting of allocation regimes, the North Canterbury Fish and Game Management Plan aims to promote water management regimes that protect, maintain and/or enhance fish and game habitat.

Analysis of Proposed HWRRP and Fish & Game's requested changes

- 7.21 Fish & Game is primarily concerned about the C Block allocations for the Hurunui and Waiau Catchments. This section of my evidence therefore focuses on the C Block allocations, and whether they are appropriate in light of the proposed HWRRP and the regional and national planning context.

- 7.22 The ZIP makes it clear that investigations into the effect of the C Block allocation regime have not been carried out, and commentary in the proposed HWRRP (at page 8) states that full utilisation of the C Block risks compromise of the environmental, cultural and recreational values of the rivers. In response to this situation, the approach of the proposed HWRRP is to deal with the effects of the C Block allocation on a case by case basis, as applications to take from the C Block are made as a discretionary activity.
- 7.23 An alternative approach to dealing with the uncertain effects of the proposed C Block allocations is to remove the C Block allocations from the proposed HWRRP. This approach may also be appropriate where investigations into the adverse effects of the proposed C Block allocations have been undertaken and these effects are found to be significant. Removal of the C Block allocations is Fish & Game's preferred approach.
- 7.24 The case by case approach for C Block allocations in the proposed HWRRP is as follows. The C Block allocations for the two rivers can be taken once storage with a capacity greater than 20 million m³ is developed, and while the rivers are above the C Block minimum flows specified in Table 1. Applications to take from the C Block allocations are discretionary activities under either Rule 3.1 (Waiau River Catchment) or Rule 3.2 (Hurunui River Catchment), provided the standards and terms of those rules are met. Once an application is made, Policies 2.5 (flushing flows), 2.7 (recreational flows), and 3.5 (specific to C Block) apply to the assessment of the application.
- 7.25 The evidence of Mr Stewart, Dr Young, and Mr Montgomerie helps to remove some of the uncertainty around the effects of the C Block allocation. This evidence, as well as the evidence presented in the Section 42A reports prepared for this hearing on the proposed HWRRP, can now be used to inform the assessment of the appropriateness of the C Block allocation regimes proposed in the proposed HWRRP.
- 7.26 Turning to the provisions of the proposed HWRRP, proposed Objectives 2 and 3 relate to the management of water levels and flows in the Hurunui, Waiau and Jed catchments, and the allocation of

water. Each objective specifies values on which there should be no adverse impacts, or that are to be protected, maintained, and/or provided for, in the management of water levels and flows and when allocating water. In my opinion, the objectives set high-level outcomes for the management of water quantity, as is appropriate for objectives. However, they do not provide any specific guidance on how an allocation regime might achieve the high-level outcomes.

7.27 In my experience, policies are often used to set out how the objectives are to be met, including setting out how an allocation regime should be set. When such policies are included in a regional plan, they can provide specific guidance on what is intended to be achieved by the A, B and C allocation blocks. With such policies in place, the appropriateness of the allocation blocks can then be openly assessed against the outcomes sought by the policies. In theory, this results in certainty in the plan as the debate over the effects of the allocation blocks occurs primarily at plan development/change stage, rather than for each individual resource consent application.

7.28 The focus of the policies in the proposed HWRRP associated with Objectives 2 and 3 is on the assessment of resource consent applications to take, dam, divert and/or use water. There is only one policy, Policy 3.1, that relates directly to the setting of an allocation regime – it specifies the size of the catchment wide A Block allocations for the Waiau and Hurunui catchments, although it provides no explanation for the numbers set. There are no policies setting out the purpose of each of the allocation blocks, or how the blocks should operate. Nevertheless, an allocation regime is included in Table 1 of the proposed HWRRP, and this is referred to in policies and rules. Limited explanation of how the table works is included in notes in the table. The proposed HWRRP provides explanation for the allocation regime in its introductory sections, particularly on pages 6 to 8.

7.29 In the absence of specific policies within the proposed HWRRP setting out how an allocation regime should be determined and the outcomes it should achieve, an assessment of the appropriateness of the proposed allocation regime, including the C Block allocations, has to look to the high-level and general outcomes sought by the two

objectives, and the wider regional and national planning framework. In my opinion, Policies 2.5, 2.7, and 3.5 are not relevant to the assessment of the appropriateness of the allocation regime, as they direct the consideration of resource consent applications and set outcomes for individual takes and uses of water. They do not provide outcomes for the allocation regime or direct the setting of the allocation regime.

- 7.30 The evidence of Dr Young, and Mr Montgomerie, Mr Millichamp is that full utilisation of the C Block allocation would have an adverse impact on instream aquatic life, upstream and downstream passage of fish, and the extent of periphyton growth. Mr Norton, in his Section 42A report, concludes that it is not possible at this time to take the full A, B and C Block allocations under the HWRRP for intensified agricultural land use and stay within the water quality limits designed to achieve Objectives 5.1 and 5.2. Mr Norton's evidence also assesses the effects on water quality of just the A Block allocation, and the A + B Block allocations (i.e. less allocation than full utilisation of the C Block). He concludes that allocating A and B Block will push close to the water quality limits.

- 7.31 These results are contrary to the requirements of Objective 3 of the proposed HWRRP, which specifically seeks to avoid the identified effects developing as a result of management of water levels and flows. The evidence also shows that allocation beyond the B Block would not ensure flow variability, protect the ability of fish to traverse the river between upstream habitats and the sea, or ensure that water quality is not reduced, as required by Objective 3 of the proposed HWRRP. Inclusion of the C Block allocations, therefore, is contrary to Objectives 2 and 3 of the proposed HWRRP.

- 7.32 Looking beyond the proposed HWRRP, the documents that make up the regional and national policy framework are consistent in requiring the protection/maintenance/consideration of flushing flows when setting allocation regimes, including the CWMS (Natural Character Supporting Principle) proposed RPS (Policy 7.3.4), operative RPS (Policy 9.4.1), Kaikoura EMP (Policy 9), and Ngai Tahu Freshwater Policy (section 4.3.1). In my opinion, protection of flushing flows is

If all allocated & without conditions for fresher & flows etc

also consistent with the intent of those documents relevant to setting allocation regimes that do not mention flushing flows directly, including the Freshwater NPS. Mr Stewart's evidence is that full utilisation of the C Block allocation would significantly reduce flushing flows in the Hurunui and Wairau Rivers. Therefore, as well as being inconsistent with the Objectives of the proposed HWRRP, I consider that including the C Block allocations is also inconsistent with the wider national and regional policy framework.

7.33 The regional policy framework is also consistent in putting the environment before abstractive uses of water. Direction from the NPS, CWMS, proposed RPS, operative RPS, Ngai Tahu Freshwater Policy and the Fish & Game Management Plan, is that instream and cultural values should be satisfied before consumptive uses are provided for. In the case of the proposed HWRRP, and based on the evidence of Mr Stewart, Mr Montgomerie and Mr Norton, including the C Block allocations does not achieve this order of priority.

This is all addressed thru policy

7.34 The CWMS and Policy 7.3.12 of the Proposed RPS require a cautious approach when information is uncertain. The framework set out in the proposed HWRRP allows assessment of takes from the C Block allocations on a case by case basis. In my opinion, a case by case approach is not sufficiently cautious or appropriate, in light of the requirements of the regional and national planning framework and the evidence of Mr Stewart, Dr Young, Mr Montgomerie and that contained in the Section 42A reports prepared for this hearing.

7.35 A case by case framework makes it difficult to adequately assess the cumulative effects of successive applications to take from the C Block allocations. It becomes difficult to draw a line between applications and identify the 'point' when over-allocation and/or significant adverse effects are about to occur. I note that Ms White, in her Section 42A Report, illustrates this point by referring to the previous non-complying activity status for takes beyond allocation limits, which has "resulted in an incremental undermining of these limits" (paragraph 278). I consider that the case by case framework does not appropriately recognise or manage the cumulative effects of the C Block allocation,

which is a requirement of the Regional Approach Primary Principle of the CWMS.

- 7.36 Using a case by case framework is a reactive way to manage the effects of water allocation. In my opinion, this is unnecessary and inappropriate when there is evidence now to show that full utilisation of the C Block allocations would result in significant adverse effects on the flow regime and water quality of the two rivers. In my opinion, good practice requires that the effects of an allocation regime are known prior to including the regime in a regional plan. Otherwise, it is impossible to assess whether the flow regime proposed is appropriate and achieves the objectives of the regional plan and gives effect to the RPS and Freshwater NPS. Where effects are uncertain, or are shown to be significant, I consider that the appropriate approach is to be cautious, as required by the CWMS. Excluding the C Block allocations from the proposed HWRRP would be an appropriate cautious approach.

*which justifies
prohibit beyond*

- 7.37 As discussed above, the case by case approach in the proposed HWRRP consists of discretionary activity status and supporting policies. Policies 2.5 (flushing flows), 2.7 (flow variability), and 3.5 (specific values to be maintained by takes from the C Block allocation) are particularly relevant to the assessment of applications to take from the C Block allocations. I consider that this combination does not provide strong protection of the values sought to be protected in the objectives of the proposed HWRRP. This is because the objectives and policies are only one factor to be considered in the section 104 assessment of a resource consent application to take from the C Block allocations. The policies do not attract any more weight in the decision-making assessment for a discretionary activity than other factors to be considered, such as environmental effects. Including an activity as a discretionary activity within a plan does not signal that caution is required, as non-complying activity status would, for example. A case by case approach is therefore not cautious, as required by the CWMS, and does not achieve the protection of the values sought by Objectives 2 and 3 of the proposed HWRRP.

*wouldn't that depend on
wording of policy!*

7.38 In terms of assessing whether provisions for C Block allocations are even necessary within the proposed HWRRP, I note that Policy 7.3.10 of the proposed RPS requires the recognition of the potential benefits of harvesting and storing water. The methods associated with this policy require objectives and policies to be included in regional plans to provide for the harvesting and storage of water in environmental flow and allocation regimes.

7.39 The over-arching objective to Policy 7.3.10 requires sustainable management of freshwater, including safeguarding the life-supporting capacity, ecosystem processes, and indigenous species, and the mauri of the water. Policy 7.3.4 directs water allocation regimes to provide for a number of environmental factors, including flow variability, before providing for recreational values and demand for abstraction. The A and B Block allocations can be used to harvest and store water, and these allocations do not have the same degree of effect on the flow regime of the rivers as the C Block allocations do. Considering all the freshwater objectives and policies of the proposed RPS together, I consider that inclusion of C Block allocations within the proposed HWRRP is not necessary to achieve consistency with the proposed RPS.

*Based on the
evidence of...??*

7.40 Part 2 of the RMA is also relevant to considering the appropriateness of the C Block allocations. I consider that the preservation of the natural character of lakes and rivers is a relevant matter of national importance. I also consider the following 'other matters' to be of relevance: the maintenance and enhancement of amenity values, intrinsic values of ecosystems, maintenance and enhancement of the quality of the environment, the finite characteristics of natural and physical resources, and the protection of the habitat of trout and salmon.

7.41 The purpose and principles of the RMA are reflected in the requirements of the regional and national planning framework, particularly the Freshwater NPS and the Operative and Proposed RPS. In light of the requirements of this framework, discussed above, and the significant effects that would result from the full utilisation of the C Blocks, I consider that including the C Block within the proposed

HWRRP would not be consistent with the sustainable management purpose of the RMA.

- 7.42 Overall, considering Part 2 of the RMA, the regional and national policy framework, and the objectives of the proposed HWRRP, I consider that removal of the C Block allocations is more appropriate than including them as proposed in the HWRRP.
- 7.43 The deletion of the C Block allocation regimes from the proposed HWRRP requires amendments to Table 1 Environmental Flow and Allocation Regime, the deletion of Policies 2.8, 2.9, 3.5, Rules 3.1 and 3.2, and amendments to the introductory sections of the plan, particularly under the heading 'Allocation of Water' on page 8 of the notified plan. All these changes are included in the track changes version of the proposed HWRRP attached to my evidence.

Alternative relief sought

- 7.44 In the alternative, Fish & Game requests that if the C Block allocations are not removed from the proposed HWRRP, takes from the C Block allocations for the Hurunui and Waiau Rivers are made a non-complying activity, subject to standards and terms similar to those currently included for discretionary activity takes from the C Block allocations. Applications that do not meet the standards and terms would be prohibited activities.
- 7.45 In addition, Fish & Game requests:
- a. Complementary changes to the supporting policies to direct the assessment of applications for non-complying takes from the C Block allocations for the Hurunui and Waiau Rivers.
 - b. The volume of storage that would trigger an increase in minimum flows is reduced to 10 million m³ of storage for both the Hurunui and Waiau Catchments.
 - c. The gap between A and B Block allocations for the Hurunui is set at 8 m³/s for February, March and April once storage is developed (rather than reduced to 5 m³/s from the 'pre-storage' regime as proposed in the HWRRP).

7.46 Having undertaken an assessment of the C Block allocations against the objectives of the proposed HWRRP and the regional and national policy framework, I consider that a non-complying activity framework for takes from the C Block allocation, while not as appropriate as the removal of the C Block allocations, would be more appropriate than the discretionary activity framework currently included in the proposed HWRRP.

7.47 In my experience, identification of activities as non-complying within a plan generally signals that the activity is not expected to be appropriate within the context of the plan. In the case of the C Block allocations, based on the evidence of Mr Stewart, Dr Young, Mr Montgomerie, and the evidence presented in the Section 42A reports prepared for this hearing, I consider that full utilisation of the C Block allocations would be inconsistent with Objectives 2 and 3 of the proposed HWRRP. Therefore, I consider it appropriate that applications have non-complying activity status.

7.48 If a case by case approach is to be taken to the assessment of the effects of the C Block allocations, I consider that non-complying activity status is more appropriate than discretionary activity status. This is because section 104D of the RMA applies to the assessment of non-complying activities. Section 104D requires a more stringent assessment of the objectives and policies of the proposed HWRRP, and of the effects of the proposal, than occurs for a discretionary activity. Policies 2.5, 2.7 and 3.5, which are intended to control the effects of takes from the C Block allocations on a case by case basis, will have greater impact and effect under a non-complying activity status regime. These policies will be given more weight and force when they support a non-complying activity, than if they support a discretionary activity. I consider that achievement of Objectives 2 and 3 of the proposed HWRRP is more likely via non-complying activity status for takes from the C Block allocations than via discretionary activity status.

? Don't think so.
However they are part
of threshold test

7.49 To achieve non-complying activity status for takes from the C Block allocations, I recommend that Rules 3.1 and 3.2 are deleted from the

proposed HWRRP and replaced with two new non-complying activity rules, inserted following Rule 4.3.

- 7.50 For the non-complying activity rule for takes from the Waiau C Block allocation, I consider that the standards and terms should be the same as those included in the current Rule 3.1, with the exception of (f), as I consider that these standards and terms are generally appropriate in light of Objectives 2 and 3 of the proposed HWRRP. I will discuss standard and term (f) in more detail below, as it also applies to the rule for the Hurunui C Block allocation.
- 7.51 For the non-complying activity rule for takes from the Hurunui C Block allocation, I consider that the standards and terms (c) – (f) and (h) and (i) are generally appropriate in light of Objectives 2 and 3 of the proposed HWRRP and should be retained in the new non-complying rule.
- 7.52 Fish and Game's original submission requested that standards and terms (a) and (b) of Rule 3.2 are somewhat combined, so that takes can only occur downstream of the confluence of Surveyor's Stream and the Hurunui River. This would result in protection of recreational flows in the reach above Surveyors Stream. I consider that this would be appropriate in light of the requirements of Objective 2(h), which is for there to be no adverse impact on recreationally important flows in the mainstem of the Hurunui.
- 7.53 Fish & Game's original submission also requested that standard and term (f) of Rule 3.1 and (g) of Rule 3.2, that 'a study' be undertaken on the effect of the take on ecological and recreational values within the catchment, be deleted as it is not strong enough to protect ecological or recreational values. The submission requested that specific standards and terms to protect ecological and recreational values, formulated on the values specified in Policy 3.5, are included instead.
- 7.54 I agree that requiring 'a study' into effects as a standard and term of a rule does not guarantee any protection of ecological or recreational values. Standards and terms relating to ecological and recreational values on the non-complying rules are appropriate, given the requirements of Objectives 2 and 3. Including the standards and

shows that policies are met.

terms suggested by Fish & Game would strengthen the non-complying rules and would better achieve Objectives 2 and 3 than the requirement for 'a study'.

7.55 Standards and terms to protect recreational and ecological values need to be as objective as possible. It needs to be reasonably straight forward for an applicant to determine whether an application to take from the C Block allocations is a non-complying or prohibited activity. Using the values identified in Policy 3.5 as standards and terms has the disadvantage of potentially introducing subjectiveness to the determination of activity status.

7.56 I have been advised by Dr Young that it would generally be possible for an expert to state whether an application would comply with the standards and terms proposed by Fish & Game, and that the standards and terms are generally not likely to be subject to judgment calls. Dr Young advises me that the standard requiring that "invertebrate food production is maintained" could be made more objective by replacing it with a requirement that "a diverse invertebrate community dominated by sensitive species is maintained".

For a standard & term??? Against a policy assessment.

7.57 I consider that the recommended standard and term addressing recreation values is not objective, as proposed in Fish & Game's submission. After discussion with Mr Hawker and consideration of Mr Millichamp's evidence, I consider that the following standard and term would be more appropriate. This is based on recreational flows required for salmon angling, although I note that this may not appropriately provide for other recreational values:

"the activity results in no more than a 10% reduction in the time flows in the Hurunui River are between 25 to 40 m³/s, or the time flows in the Waiau River are between 50 to 75 m³/s."

how do these implement a policy.

7.58 Based on this advice, I consider that the standards and terms, as recommended to be amended, are appropriate, and necessary to achieve Objectives 2 and 3. I include these changes in the track changes version of the proposed HWRRP attached to my evidence.

7.59 I note that a study of some sort would be required in order for an applicant for resource consent to take C Block water to show that the standards and terms proposed by Fish & Game are met, and therefore that the application is for a non-complying activity, rather than a prohibited activity. This is because the standards and terms are of a technical nature.

7.60 Fish & Game's submission also requests that a standard and term is included on water quality, requiring that the nutrient limits in Schedule 1 not be exceeded. This is discussed earlier in my evidence under the hearing of water quality, where my reasons for supporting this are included.

7.61 To support non-complying activity status for takes from the C Block allocations, I recommend that an amendment is made to Policy 3.5. The policy should be worded as follows (additions in underline, deletions in ~~striketrough~~):

Think this better expresses actual policy position.
 ✓ "To only allow ~~enable~~ water to be taken and used from the C Allocation Block set for the mainstem of the Hurunui and Waiau rivers, as specified in the Environmental Flow and Allocation Regime in Table 1, if all provided the following are is-maintained: ..."

7.62 This amendment makes it clear that takes from the C Block allocations will not be appropriate unless all the values identified in the policy are maintained. It also provides a clear link to Objective 3.

7.63 Given the potential effects of full utilisation of the C Block allocations, and the requirements of Objectives 2 and 3, I consider that it is appropriate for takes that do not meet the standards specified for non-complying activities, to be prohibited activities. I recommend that the prohibited activity rule is inserted after Rule 5.2 and is worded as follows:

"The taking, diverting, discharge or use of water from the C Allocation Blocks in the Environmental Flow and Allocation Regime in Table 1, that cannot meet the standards and terms of Rule (cross-reference to new non-complying rule) is a prohibited activity."

- 7.64 To support prohibited activity status for takes from the C Block allocations that do not comply with the standards and terms of the non-complying rule, I recommend that the following new policy is added to the policies associated with Objective 3:

"In addition to the requirements of Policies 2.1 and 3.2, no resource consent to take, divert, discharge or use water from the C Allocation Blocks in the Environmental Flow and Allocation Regime in Table 1 will be granted if the standards and terms for non-complying activity takes cannot be met."

- 7.65 If the C Block allocations are not removed from the proposed HWRRP, Fish & Game requests an increase in the minimum flows for the Hurunui and Waiau Rivers and that the size of water storage that triggers this increase is reduced from 20 million m³ to 10 million m³. The intention is that this will allow minimum flows to be raised at a lower threshold, and hopefully sooner. For the Hurunui, when the storage trigger is reached the minimum flow would increase for the months of February, March and April, with a decrease in minimum flows during August. For the Waiau, when the storage trigger is reached the minimum flows would increase for February and March, and would decrease during May to December. This requested change also has the effect of allowing the C Block allocations for the two rivers to be taken on the commissioning of a smaller amount of storage.
- 7.66 Mr Mongomerie's evidence (paragraph 3.12) is that the proposed minimum flow of 12 m³/s for Janaury to May, when salmon migrate upstream, is very likely to restrict upstream salmon passage. He recommends that the minimum flow be set at 15 m³/s. Based on this, I consider that raising the minimum flows at a lower storage threshold better provides for the values identified in Objective 2 of the HWRRP and is therefore more appropriate than leaving the trigger at 20 million m³ of storage. It is also more appropriate when considered against the requirements of the national and regional policy framework.
- 7.67 This requires changes to Table 1 Environmental Flow and Allocation Regime, Policies 2.8 and 2.9, and a consequential amendment is required on page 7 of the notified HWRRP to change the reference from 20 million m³ to 10 million m³ of storage. These changes are

included in the track changes version of the HWRRP attached to my evidence.

7.68 I note that there is ambiguity in the provisions of the proposed HWRRP relating to whether the minimum flow trigger is on the commissioning of any single storage facility of a capacity greater than 20 million m³, or on the cumulative total of any number of schemes in the catchment reaching 20 million m³. In my opinion, the later should be the outcome provided for (together with the reduction in the storage trigger), as this more closely matches with the intent as specified in the introductory sections of the proposed HWRRP. As explained on page 7 of the proposed HWRRP, the minimum flow is able to be raised because storage provides greater reliability of supply during lower river flows. This principle applies whether the storage is in one large facility or a number of smaller ones. In this regard, I support the changes proposed to Policies 2.8 and 2.9 by Ms White at paragraph 201 of her Section 42A report. I include the same change in the track changes version of the HWRRP attached to my evidence.

7.69 Fish & Game also requests that if the C Block allocations are retained, the gap between the A and B Block allocations for the post-storage regime for the Hurunui Catchment be set at 8m³/s, as for the pre-storage regime, rather than being reduced to 5m³/s. As the evidence of Mr Hawker shows, reducing the gap by 3m³/s negates the effect of raising the minimum flow by 3m³/s. In effect, there is no additional water retained in the river and the 'flat-lining' effect occurs for longer. Therefore, in order for the benefits of increasing the minimum flow to be realised, the gap should be retained at 8m³/s. Otherwise, the increase in the minimum flow will not necessarily be appropriate in light of Objective 2 of the proposed HWRRP and the regional and national policy framework.

*Not what
expert said.
Said flat-lining
occurs @
higher flow*

7.70 Overall, considering Part 2 of the RMA, the regional and national policy framework, and the objectives of the proposed HWRRP, I consider that the alternative relief of making takes and use of the C Block allocations non-complying activities, while not as appropriate as removal of the C Block allocations, is more appropriate than the discretionary activity regime currently included in the HWRRP.

Other submission points relating to water allocation**Instream values:**

- 7.71 Fish & Game requests that the links between policies and rules are strengthened to better ensure the protection of instream values, and so that the rules actually achieve the policies. Policy 1.4 has three requirements for community and/or stock water takes to meet (abstraction does not make the river go dry, no reduction in frequency of freshes, and fish passage not compromised), and Fish & Game requests that these requirements are included in Rule 2.2, which addresses takes for community and/or stock water. Policy 3.6 has five requirements for discharges from non-consumptive takes, and Fish & Game request that the four of these relevant to its interests (maintenance of: macro-invertebrate populations, habitat and unimpeded passage for fish, health and safety of people and communities, and water quality) are included in Rule 2.1, which addresses taking, diverting, using and discharging water for non-consumptive activities.
- 7.72 I agree that the policies do require the values identified to be provided for, and that this should be achieved through the rules. I also agree that the rules as currently included in the HWRRP do not achieve this goal. I consider the proposed standards and terms are an appropriate way to ensure the policies are achieved.

E S Grace**12 October 2012**