

IN THE MATTER

of the Resource
Management Act 1991
(RMA)

AND

IN THE MATTER

of the Proposed
Hurunui Waiau River
Regional Plan
(PHWRRP)

TO BE HEARD BY

Canterbury Regional
Council

HEARING DATE

13 November 2012

**Statement of Evidence of Christopher Adrian Hansen on Behalf of the Hurunui
Water Project**

13 November 2012

Introduction

1. My name is Christopher Adrian Hansen and I am a Director and Senior Planning Consultant with Chris Hansen Consultants Ltd. My qualifications are a Bachelor of Regional Planning (Hons) from Massey University (1980). I am a full member of the New Zealand Planning Institute and a member of the Resource Management Law Assoc. I have over 30 years' experience in planning and resource management.
2. I have particular experience in the review and assessment of regional plans and the preparation of submissions, attendance at hearings providing expert planning evidence, and in mediation to resolve appeals.
3. I provide the following statement of evidence in support of the submission and further submission lodged by the Hurunui Water Project (HWP) to the Proposed Hurunui Waiiau River Regional Plan (PHWRRP). I assisted HWP prepare its submission(s), and have prepared consents on behalf of the HWP for a major irrigation and hydro project in the Hurunui Region.
4. I have read the Code of Conduct contained in the Environment Court's Practice Notes for Expert Witnesses and agree to comply with it.

Outline of Evidence

5. My approach today is to provide you with an overview from a planning perspective of the relief sought by HWP and making comment on the Officer Report's recommendation on that relief.
6. Overall, in its submission the HWP generally supported the intent in the PHWRRP provisions to address the resource management issues identified. In particular, the HWP supported the general approach to irrigation and water storage requirements on Page 2 of the PHWRRP.
7. Furthermore, the HWP considered the amendments it sought (addressed below in this evidence) will add to the overall effectiveness of the PHWRRP to implement the ZIP

and to promote the sustainable management of the natural and physical resources of the Hurunui Waiau River Catchments.

8. Also in attendance at the hearing for HWP are Dr Vaughan Keesing and Peter Callander who will be providing expert evidence technical matters raised by the HWP in relation to ecology and water quality.

Specific Submissions on the PHWRRP Provisions

PHWRRP Plan Provision: Resource Management Issues (Page 2) (Submission Statement 3)

9. Paragraph 10 states: *“Taking water for irrigation has altered the natural flow pattern below the intake point, resulting in lower river flows and higher levels of nitrate and phosphate entering water bodies as a result of higher intensity land use. Higher concentrations of nitrate and phosphate can then cause the growth of nuisance periphyton or toxic cyanobacteria that impacts on recreational uses, amenity values and the mauri of rivers.”*

HWP Submission

10. In its submission, HWP considered this paragraph is unbalanced as there is an assumption that all takes of water for irrigation will cause nuisance growths. This may not necessarily be the case and such effects may be offset by best practice land management, the receiving environment, the distance of the irrigated land use from the river etc. Furthermore the creation of storage structures to achieve irrigation can provide a means of generating flushing flows to manage nuisance growths that may be causing problems.
11. HWP sought an amendment to Paragraph 10 as follows (or similar):
“Taking water for irrigation has altered the natural flow pattern below the intake point, resulting in lower river flows and higher levels of nitrate and phosphate entering water bodies as a result of higher intensity land use. Higher concentrations of nitrate and phosphate can ~~then cause~~ contribute to the growth of nuisance periphyton or toxic cyanobacteria that impacts on recreational uses, amenity values and the mauri of rivers.”

Officer Report comment and recommendation

12. While I note the Officer Report does not specifically address the HWP submission, it states that the changes sought largely relate to better clarifying that it is not irrigation in itself that results in higher levels of nitrate and phosphate, but the more intensive land use enabled by such irrigation, and that this contributes to, but is not solely responsible for nuisance periphyton or toxic cyanobacteria. The Officer Report concludes that the majority of the changes sought are appropriate and the following wording amendments is recommended:

“Taking water for irrigation ~~has altered~~ alters the natural flow pattern below the intake point, resulting in lower river flows. ~~and~~ Higher intensity of land use that is enabled through the taking of water for irrigation may also result in higher levels of nitrate and phosphate entering water bodies as a result of higher intensity land use. Higher concentrations of nitrate and phosphate in water bodies can ~~then cause~~ contribute to the growth of nuisance periphyton or toxic cyanobacteria, ~~that~~ which may impacts on recreational uses, amenity values and the mauri of rivers. Nitrate can also be toxic to fish and invertebrates.”

Comment

13. Overall the amendments proposed address the concerns raised by the HWP, and I support them.

Recommendation

14. I recommend the Commissioners adopt the Officer Report recommendation and amend Paragraph 10 accordingly.

PHWRRP Plan Provision: Issue 1

HWP Submission

15. In its submission, HWP considered Issue 1 properly highlights a key need for reliability of water for irrigation at critical times of the year for agriculture and horticulture activities.

16. HWP supported the intent of Issue 1 and seeks it remain as written.

Officer Report comment and recommendation

17. While the Officer Report does not directly address HWP’s submission point, I note the Officer Report concludes that irrigation is fundamental for activities (agriculture and horticulture) producing ‘more’, as well as about diversification and consistency, and therefore recommends the following change to Issue 1:

“... Irrigation can enable these activities to produce more and diversify and therefore increase the gross domestic product of North Canterbury.”

Comment

18. I consider the proposed amendment is acceptable, and the intent of Issue 1 is retained as sought by the HWP.

Recommendation

19. I recommend the Commissioners adopt the amendment to Issue 1 recommended in the Officer Report.

PHWRRP Plan Provision: Issue 5

HWP Submission

20. HWP supported the general intent of this resource management issue and sought for the overall intent of Issue 5 to be retained as it is currently written.

Officer Report

21. The Officer Report makes no reference to HWP’s support. As a result of other submissions, the Officer Report recommends the following amendment to Issue 5:

- *“The damming of water in some parts of the Hurunui and Waiau catchments ~~will~~would have environmental effects that cannot be adequately mitigated.*
- *The taking of water at higher flows and the development of infrastructure to store this water, if not undertaken in a comprehensive and integrated manner...”.*

Comment

22. I consider the proposed amendment is acceptable, and the intent of Issue 5 is retained as sought by the HWP.

Recommendation

23. I recommend the Commissioners adopt the amendment to Issue 5 recommended in the Officer Report.

PHWRRP Plan Provision: Vision for Sustainable Management of Water Resources of Hurunui and Waiau Rivers - Nutrient load limits need to be set for the major rivers and their tributaries (Page 4)

24. In the last paragraph of Page 4 the Plan states: *“The water quality for Hurunui River at State Highway One was sought to be maintained at or about the same or better standard ‘as present’ (2005 - 2010). The Programme sought that new irrigation development adopt good nutrient management and that implementing load limits be undertaken through a tributary and land/water user-based approach. Implementation of sustainable best practice audited self-management programmes, particularly for water quality, led by community/land user based land care groups and industry was also seen as essential and the Programme sought that this be backed up by a regulatory framework.”*

HWP Submission

25. In its submission, HWP acknowledges the above statement reflects one of the key findings of the ZIP. From this perspective, there are aspects of the vision HWP support, and in particular the need for new irrigation development to adopt good nutrient management, promoting the implementation of sustainable best practice audited self-management programmes, and community/land user based land care groups and industry.
26. Notwithstanding this, HWP have a number of concerns with the overall intent to maintain at or about the same or better standard ‘as present’ (2005 – 2010) water quality for the Hurunui River at the State Highway One. In particular HWP understands that current limits cannot be met if the goal of irrigating 100,000 ha of land is achieved.

27. HWP's concerns are:

- The main issue of concern is nuisance growths, which are not caused solely by N and P. There are other factors relating to river flow, water temperature, substrate condition and climatic factors. Therefore the water quality standards should relate to the occurrence of the nuisance growths, particularly if maintaining or generating flushing flows can provide a means of managing that issue.
- N and P limits should only apply to toxic effects on fish, which only requires a N limit. That limit should be based on the 95% protection limit which is relevant for ecosystems that could be classified as slightly to moderately disturbed. Given the amount of farming and irrigation activity that is already occurring in the catchment it would seem that the 95% guideline criteria is more appropriate for the Hurunui River, particularly at SH1.
- Setting State Highway One as the appropriate location for determining the upstream water quality standard - it assumes that 100,000 ha of land can be irrigated without increasing nitrate levels at SH1 by creating head room at existing sites – this assumption may be flawed.
- Deciding the 2005 – 2010 data represents standards that will be maintained at or better until 2017 and beyond.
- The reliability of the data collected at State Highway One, and the appropriateness of this data to determine standards – the methodology for calculating nitrate loading at SH1 may be questionable as it may be influenced by the annual volume of water rather than concentrations during the critical summer months – in other words the limits could be exceeded prior to 2017.
- How a particular land owner will be able to determine whether their activity will mean compliance with the State Highway One standard.
- How one particular land owner activity relates to another land owner activity when trying to comply with the State Highway One standard.
- Clarity around self-management programmes and how they relate to Nutrient Management Plans; the use of the Overseer Model etc. – in particular the current approach may incentivise land owners to increase nutrient loads over the next 5 years.

28. HWP sought for these issues to be addressed in relevant parts of the Plan, as sought through various parts of this submission.

Officer Report comment and recommendation

29. The Officer Report does not appear to address the matters raised by HWP, and the last paragraph on page 4 remains unchanged.

Comment

30. The matters raised the HWP are fundamental to its concerns which primarily relate to whether 100,000ha of land in the Hurunui Basin can be irrigated within the water quality regime and load limit set. The concerns expressed by HWP in this part of its submission permeate through the rest of its submission. I note Mr Callander is of the view that (paragraph 85 of his evidence): *“The Plan as currently worded with nutrient limits based on current estimated measured loads potentially provides no opportunity for additional irrigation to occur, which is at odds with the provisions in the Plan for additional irrigation and storage infrastructure development.”*
31. For completeness I note that Mr Peter Callander and Dr Vaughan Keesing addresses in their expert technical evidence the matters above relating to: how nuisance growths should be managed; N and P limits - applying N limits to prevent fish toxicity (based on a 95% protection limit) and a P limit to prevent periphyton issues; how to create headroom; the reliability of data used by Council; and self-management and the use of OVERSEER™.
32. From a planning perspective, I am particularly concerned about how one particular land owner or resource user is required to demonstrate compliance with the State Highway One standard, and how one particular land owner or resource user relates to another. This is particular a concern if the load limit for N set at the SH1 bridge remains low, when it could be increased as indicated by Mr Callander in his evidence (paragraph 50. This seems to me to create an unreasonable requirement on land owners and resource users that may lead to issues within the community. I consider there is a need for a co-ordinated approach, with Council taking a lead role in collating information, and ensuring allocation of the load limit determined in ‘allocated’ in a fair and reasonable way. Such an approach could include the consideration of all consents within a sub-catchment at one time.

33. While there are aspects of the vision included in the last paragraph of Page 4 that are supported by HWP, there are other key aspects of the PHWRRP adopted by Council to implement this Vision that are opposed. These aspects relate to matters addressed further in the Plan (including objectives, policies, rules and Schedule 1), and I address them in detail in my evidence there.

Recommendation

34. I recommend that while the Commissioners note HWP's overall support for the Vision (which is in line with the key findings of the ZIP), that concerns raised in HWP's submission about the ability of specific plan provisions to achieve this Vision are addressed accordingly.

Plan Provision: Vision for Sustainable Management of Water Resources of Hurunui and Waiau Rivers - Provision of 'more water' for irrigation and augmentation of river flows (in Waipara River), preferably with associated hydropower development, but not for hydropower development on its own, was sought from integrated use of run-of-river takes and off-mainstem storage. (Page 5)

35. Paragraph 1, (Page 5) states: *"The Waitohi River was the preferred location for major water storage in Hurunui catchment. Water storage options in Lake Sumner or the Hurunui South Branch were sought to be deferred until a Waitohi storage option had been determined to not be viable, or for two years, whichever was the shorter."*
36. Paragraph 2, (Page 5) states: *"The Regional Committee recommended a 3 tier approach to the investigation of storage. In the first instance that the Waitohi should be explored, but if the Waitohi is unable to proceed, then other tributaries in the Hurunui should be considered. If all other options were considered and are not able to proceed then the South Branch and Lake Sumner options should be considered."*

HWP Submission

37. In its submission, HWP generally opposed the inclusion of the ZIP approach to defer the water storage options in Lake Sumner or the Hurunui South Branch in the Plan, which is a statutory document. This approach is considered inappropriate and unnecessary and contrary to sound resource management planning. HWP considers

each scheme should be assessed on its benefits and environmental effects, and its ability to achieve the purpose of the Act.

38. In addition, HWP opposes the inclusion of the 3 Tier approach recommended by the Regional Committee. This approach has not been subject to the same level of community engagement as the ZIP, and it is not considered appropriate that it now be brought through into a statutory document.
39. HWP sought for Council to delete paragraph 1 and 2 of Page 5, as outlined above.

Officer Report comment and recommendation

40. The Officer Report does not directly reference HWP's submission, but states that the proposed Plan should be consistent with what is stated in the CWMS and the ZIP. The Officer Report recommends these submissions be rejected, on the basis that these changes would then not accurately record the process, of the CWMS or ZIP.

Comment

41. I am concerned that the PHWRRP, which is a statutory document, includes a preference for a project which will be subject to separate resource consent applications. While I accept that any statement regarding the ZIP needs to be consistent with it, I do not accept that the PHWRRP needs to reflect the preference of the ZIP (which is a non-statutory document) nor the 3 tier approach outlined by the Regional Committee on this matter. The ZIP will not go through the rigorous statutory process the PHWRRP goes through, and is a preference expressed by the Zone Committee based on its understanding of the issues it is addressing. Such a preference may change in time, and the reference in the PHWRRP may become redundant. I am also concerned that having this preference expressed in the PHWRRP could pre-empt any future consent applications for a project on the South Branch/lake Sumner.

Recommendation

42. I recommend the Commissioners accept the HWP request to delete delete paragraphs 1 and 2 of Page 5 as they are inappropriate and unnecessary.

Plan Provision: ‘How this Plan Responds to the Resource Management Issues and the Hurunui Waiau Zone Implementation Programme’ (Page 6)

43. In paragraph 2 the Plan states the responses to the resource management issues and requirements of the ZIP. Point 5 states: *“Managing the cumulative effects from non-point source discharges from existing and new land uses to ensure nutrient concentration in the mainstems of the Hurunui and Waiau rivers are maintained at current levels and improved over time.”*

HWP Submission

44. In its submission, HWP raised concerns as above regarding determining to maintain water quality at current levels and improve over time, and the appropriateness and reliability of existing data.

45. HWP sought for Council to Point 5 to be amended as follows (or similar):

“Managing the cumulative effects from non-point source discharges from existing and new land uses through the promotion of best practice land management to ensure problematic periphyton or cyanobacterial growths do not occur ~~nutrient concentration~~ in the mainstems of the Hurunui and Waiau rivers ~~are maintained at current levels and improved over time.~~”

Officer Report

46. The Officer Report states that this section of Part 1 provides an explanation of how the identified issues are addressed through the Plan’s provisions. Amendments that provide greater clarity over the approach taken in the PHWRRP are supported, or where other changes recommended necessitate consequential amendments. Where other changes are sought, these are rejected.

47. In relation to the bulleted point (5) under the main title to this section, the Hurunui Water Project Ltd (Submitters 102 and 127) seek changes to refer to best practice. The officer Report considers that reference to best practice is appropriate, and recommend wording consistent with Policy 5.2 (if retained in its current form) as follows:

“5. Managing the cumulative effects from non-point source discharges from existing and new land uses through best nutrient management practices, to ensure nutrient concentration in the mainstems of the Hurunui and Waiau rivers are maintained at current levels and improved over time.”

Comment

48. The recommended amendment to paragraph 5 to recognise best nutrient management practice is supported.
49. Notwithstanding this, the other matters raised by the HWP have not been addressed, and no reason (apart from clarity) is given. The HWP has raised fundamental issues with the approach taken by Council to nutrient management, as outlined in more detail in the expert evidence of Dr Keesing and Mr Callander. In addition, HWP has questioned the management approach regarding maintaining current nutrient levels and maintaining them over time, and again the expert evidence of Dr Keesing and Mr Callander address this point. In my view, the amendments sought by the HWP are necessary and appropriate, in the context of the issues raised in other parts of its submission to technical aspects of the PHWRRP, and the alternative approaches that could be taken.

Recommendation

50. I recommend the Commissioners accept the request by the HWP to amend Point 5 in order to better reflect the implementation of the ZIP proposed by HWP.

Plan Provision: Mauri of Water Bodies (Page 6)

51. Paragraph 3 (Page 2) of the Plan outlines the importance of the mauri of the Hurunui and Waiau Rivers to Ngāi Tahu Whānui, and in Paragraph 7/8 on Page 6 the elements of the mauri of the river is outlined when developing Environmental Flows.
52. The mauri is defined in the Plan as *“the elements of physical health which Ngāi Tahu use to reflect the status of mauri and identify the enhancements needed include:*
- *Aesthetic qualities e.g. water clarity, natural character and indigenous flora and fauna;*

- *Life supporting capacity and ecosystem robustness;*
- *Depth and velocity of flow;*
- *Continuity of flow from the mountains to the sea;*
- *Fitness for cultural usage; and,*
- *Productive capacity.”*

53. The mauri of the river is carried through into the issues, objectives, policies and rules of the Plan. These provisions are addressed later in this submission.

HWP Submission

54. In its submission, while HWP accepts that the mauri of a water body has spiritual significance to Maori, it expressed concern how the aspects of the mauri of a water body are defined, and what will be required of a resource user as they try to identify and mitigate any potential or actual adverse environmental effects of an activity on the mauri of the water body. This matter becomes a resource consent consideration in the rules, and it is not clear how this area will be handled.

55. In particular HWP consider it is not clear:

- What standards are expected to be met to address the aesthetic qualities identified (as examples);
- What life supporting capacity and ecosystem robustness might mean and how it is measured;
- Whether the continuity of flow requirement would allow for dams, irrigation or water storage projects;
- What the fitness for cultural usage might mean and how it is measured;
- What productive capacity might mean and how it is measured.

56. Where the mauri of the water body is referenced in issues, objectives, policies and rules is included later in this submission. HWP is also concerned that through these plan provisions, various responses are required by the resource users which include protecting the mauri of water bodies; maintaining and enhancing the mauri of water bodies; not adversely impacting/affecting the mauri of water bodies. HWP consider this variety of responses may lead to confusion.

57. HWP sought for Council to amend the Plan to:
- Better define the elements of Mauri
 - Provide clarity in Paragraph 7/8 (Page 6) regarding what the resource user will need to demonstrate for each element in an effects assessment accompanying a resource consent application
 - Amend the objectives, policies and rules of the Plan to require the resource user to recognise the mauri or the river in their assessment and delete the requirement to protect, maintain, enhance etc. as the current plan provisions require
58. HWP raised this matter relating to the following Plan provisions, and sought the same relief:
- Environmental Flows; paragraph 3 (Page 7)
 - Objective 2(a) (Page 11)
 - Policy 2.6 (Page 12)
 - Objective 3(a) (Page 12)
 - Objective 5.12 (a) (Page 14)
 - Policy 5.3 (Page 14)

Officer Report

59. The Officer Report provides an overview of the various submissions on ‘mauri’, comments on the requirement of the RMA and NPSFM, and determines: *“that as this is a Maori term, it is always going to be difficult to ‘define’ it in the sense of providing a European meaning to an indigenous concept”*. The Officer Report also references provisions of the PRPS and NRRP and provides a context for the PHWRRP.
60. Overall the Officer Report amends the definition of ‘mauri’ as requested by Te Rūnanga o Ngāi Tahu, and rejects the request of the HWP as follows: *“I do not agree that it is appropriate to only require ‘recognition’ of mauri. Recognition, in my view, does not provide the same positive protection and would therefore not be strong enough to ensure the safe-guarding of mauri, and as such would be inconsistent with the PRPS. In my view, it is not a more appropriate way to meet the purpose of the RMA, when considering s5(2)(b), s6(e) and s(7)(a).”*

Comment

61. The Officer Report spends a considerable time addressing this matter, and I appreciate the effort they have put into considering the issues raised. I acknowledge they have accurately outlined the concerns included in the HWP submission, and they have also provided an RMA perspective and PRPS and NRRP overview, and their own view on trying to define a Maori term. In my view, such an in-depth look at the issue is required, because I see a clash here between values and resource management planning.
62. From the outset I would like to confirm that neither HWP, nor myself, are questioning the value Maori place on the mauri of water. The issue is really the appropriate resource management response to those values, and putting that response into a legal framework and system that also involves resource users, who may not share the fundamental value in the first place.
63. Naturally as a planner I am guided by the key principles of the RMA, and the Officer Report rightly identifies the s.6 ('recognise and provide for'), s.7 ('have particular regard to') and s.8 ('take into account') approach the RMA puts in place.
64. While beyond this guidance I accept there may be times when additional management approaches may be appropriate (such as to 'protect', or 'enhance', or 'conserve'), I am cautious of adopting such approaches when values are also involved.
65. My main concerns are two-fold: firstly the ability of the plan provisions and Council to achieve the stated outcome – for example the following outcomes are proposed;
- *“mauri of waterbodies in catchments is not adversely affected by the taking of water out of streams”* (Environmental Flows)
 - *“adverse impacts on ... the mauri of waterbodies”* (Objective 2(a))
 - *“any new take, dam or diversion or discharge of water does not adversely affect the mauri of the Hurunui and Waiau rivers”* Policy 2.6)
 - *“protecting the mauri of the waterbodies”* (Objective 3(a))
 - *“maintain and enhance the mauri of waterbodies”* (Objective 5.1 (a))
 - *“to protect existing values, uses and the mauri of the Hurunui River and its tributaries”* (Policy 5.3)

66. My concern is that it is not clear to the resource user how adverse effects on the mauri of water bodies by taking water may be determined, what protecting the mauri of a waterbody may require. Secondly, whether resource users have certainty regarding what they are required to do, and how they are to manage resources, and whether such management is necessary and appropriate, in order to achieve the outcomes sought.
67. The HWP in its submission sought for clear standards and guidelines so that the aspects of the mauri of the river can be determined, the adverse effects can be identified and managed, and measures to protect the mauri can be identified and implemented where required. The Officer report has not addressed this aspect of the HWP's submission. In my view, the relief sought by the HWP is reasonable and necessary.

Recommendation

68. I recommend the Commission review the plan provisions relating to the 'mauri' of waterbodies, and provide clarity regarding what needs to be addressed in any resource consent applications that may be required by resource users.

Plan Provision: Environmental Flows (Page 6)

69. Paragraphs 4 (second column) states: *“Through the development of the environmental flow regime in this Plan it was identified that there are a number of key flows which are critical for the health and mauri of the river catchments. A minimum flow of a river needs to supply sufficient flows to provide food and sustenance to riverbed nesting birds, passage for salmon, trout as well as other aquatic fauna and provide enough water for jet boaters to traverse the mainstems of the Hurunui and Waiau Rivers.”*

HWP Submission

70. In its submission, HWP expressed concern that there is a suggestion that minimum flows are required for jet boaters to traverse the mainstem of the Hurunui River. In particular HWP is concerned the statement implies jet boaters should be able to traverse the entire mainstem all year round. This is not the current situation, and it is questionable whether this should be an outcome sought by the Plan. HWP consider

there should be recognition of the Hurunui River as a regionally significant jet boating destination, with enough flows maintained to provide for the events that are currently operated on the river.

71. HWP sought for paragraph 4 to be amended as follows (or similar):

“... A minimum flow of a river needs to supply sufficient flows to provide food and sustenance to riverbed nesting birds, passage for salmon, trout as well as other aquatic fauna and provide enough water for jet boaters to traverse ~~the~~ those parts of the mainstems of the Hurunui and Waiau Rivers that make these rivers a regionally significant jet boating destination for organised events.”

Officer Report

72. While the Officer doesn't specifically reference HWP's submission, the following amendments are recommended in response to these submissions:

“... A minimum flow of a river needs to supply sufficient flows to provide food and sustenance to riverbed nesting birds, passage for native fish, salmon, and trout ~~as well as other aquatic fauna~~ and provide enough water for recreational use of the river such as jet boating ~~jet boaters to traverse the mainstems of the Hurunui and Waiau Rivers.~~”

Comment

73. While the recommended amendment deletes reference to the mainstem of the Hurunui River, it could still be interpreted that recreational use of the river by jet boaters could be the entire mainstem. I consider the reference to jet boating needs to be deleted to meet the concerns raised by HWP, and to ensure there is no uncertainty regarding what is proposed.

Recommendation

74. I recommend the Commissioners adopt the submission by the HWP and delete any reference to jet boating and the mainstem from Paragraph 4 of the Environmental Flows section accordingly.

Plan Provision: Environmental Flows (Page 7)

75. Paragraphs 1 and 2 (of Page 7) state: *“The Plan also recognises that the B Allocation Block is not sufficiently reliable for run of river irrigation and that storage is needed. Storage provides an opportunity for the minimum flow to be increased to improve ecological health and mauri of the rivers, as stored water is able to be utilised to augment existing abstractors supply when the river falls to low levels, improving reliability.*

This Plan therefore requires the minimum flow in the Hurunui River be increased to 15 cumecs for the months of February, March and April, and decreased to 12 cumecs in August and 10 cumecs in June, July and August for non-consumptive takes following the commissioning of any water storage facility which takes and stores more than 20,000,000m³ of water.”

Paragraph 3 states: *“This Plan therefore seeks to ensure that the mauri of waterbodies in the catchments is not adversely affected by the taking of water for out of stream uses.”*

HWP Submission

76. In its submission, HWP generally supported the recognition of the need for storage to ensure reliability of water for run or river irrigation. HWP seeks that the minimum flows which apply to the Hurunui Catchment (until storage with a capacity greater than 20,000,000m³ is developed) are reduced. (Refer to submission on Table 1: Environmental Flow and Allocation Regime). As discussed above in this submission, the HWP seek for the mauri of waterbodies to be recognised.

77. HWP sought for Council to:

- Retain the overall intent to recognise the need for water storage
- A Block Min flows for December and January (pre storage) should be reduced to 12m³/s and B Block Min Flow for the period December to April should also be reduced.
- The sentence in paragraph 3 to be amended to read: *“This Plan therefore seeks to ensure that the mauri of waterbodies in the catchments is ~~not adversely affected~~ recognised by the when taking of water for out of stream uses.”*

Officer Report

78. While not directly noting HWP's submission, I note the Officer Report does not recommend any changes to the paragraph 1 part quotes in the HWP submission, makes minor amendments to paragraph 2 to read "... *August, ~~and~~ 10 cumecs in June, July and August for non-consumptive activity takes..*" , and deletes paragraph 3.

Comment

79. Overall the intent of the statement to provide for water storage is retained, and I support this. I note and support the deletion of paragraph 3. In relation to HWP's request for the A Block Min flows for December and January (pre storage) to be reduced to 12m³/s and B Block Min Flow for the period December to April should also be reduced, this matter has not been addressed in the Officer Report. Notwithstanding this, the HWP wishes to withdraw this point from its submission.

Recommendation

80. I recommend the Commissioners adopt the Officer Report amendments and note the HWP has withdrawn its submission point seeking a reduction in the minimum flows.

Plan Provision: Allocation of Water (Page 8)

81. Paragraph 5 states: "*The total amount of additional B and C Allocation Block water provided for in this Plan, along with the storage of unutilised A Block water from both the Hurunui and Waiau Rivers, is believed to be sufficient to fully irrigate the Hurunui Waiau Zone, as long as there is sufficient storage capacity*".

HWP Submission

82. In its submission, HWP generally supported the minimum flows and the total amount of additional B and C allocation Block water provided for in the Hurunui 'post storage' flow regime (i.e. when storage with a capacity greater than 20,000,000 m³ is developed). HWP sought to reduce the minimum flows for the Hurunui 'pre-storage' flow regime (i.e. until storage with a capacity greater than 20,000,000m³ is developed).

83. When developing an irrigation scheme with a storage capacity of less than 20,000,000m³ the required storage volume is highly dependent on the A- and B-block minimum flows. A lower minimum flow will enable a larger irrigable area to be irrigated without having to develop large storage facilities.
84. HWP sought for Council to provide for the allocation of water provisions of the Plan to reduce the A-block minimum flow in December and January and to reduce the B-block minimum flow for the Hurunui River pre-storage flow regime for the months December through to April.

Officer Report

85. I note the Officer Report makes no recommendation in relation to amending Paragraph 5.

Comment

86. As stated above, the HWP withdraws its submission point seeking to reduce the A-block minimum flow in December and January and to reduce the B-block minimum flow for the Hurunui River pre-storage flow regime for the months December through to April.

Recommendation

87. I recommend the Commissioners note the HWP has withdrawn its submission point seeking a reduction in the minimum flows.

Plan Provision: Cumulative Effects of Land Use on Water Quality (Page 9)

HWP Submission

88. HWP considered this is an important section in the Plan, as it sets the framework for controlling land uses in the future to maintain and improve water quality in the catchment. HWP considered the key paragraphs are:
- Paragraph 1 – *“To maintain and improve water quality in the Hurunui and Waiau rivers and protect current values, uses and the mauri of the rivers, while ensuring the economic return from land is maximised, land use practices that result in the loss of nutrient to water need to be improved”*

- Paragraph 4 – *“There are two parts to the regulatory backstop. From the date of notification of this Plan discretion will be given to whether a take, diversion or use of water will result in the nutrient limits contained in Schedule 1 of this Plan being exceeded. This consideration will only apply to new applications (or replacement of existing resource consents that have expired) and only applies to the take and use of water.”*
- Paragraph 5 – *“The second part of the regulatory backstop enables existing land uses to continue as permitted activities provided property owners have an industry certification system, a catchment agreement, an irrigation scheme management plan or lifestyle block management plan, in place by 2017.”*

89. In its submission, HWP has a number of matters it wishes to raise regarding the above paragraphs:

- In paragraph 1 there seems to be an inherent assumption that any land use that results in a loss of nutrients to water is through poor management and improvements are needed, regardless of whether the nutrient loss has an environmental effect. HWP questions this assumption;
- In relation to paragraph 4, HWP has raised issues above relating to the appropriateness and reliability of data included in Schedule 1, the using the State Highway One Bridge as a benchmark for water quality upstream of that site, and whether a particular land owner can determine whether their activity will cause non-compliance with the standards set in Schedule 1.
- In paragraph 5 the approach proposes permitted activity status for those property owners who have an industry certification system, a catchment agreement, an irrigation scheme management plan or lifestyle block management plan, in place by 2017. While in principle this seems a reasonable approach, HWP are concerned that there are uncertainties around the various mechanisms defined in the Plan, and the need for Council to approve these mechanisms. This may lead to a situation where property owners have endeavoured to provide these mechanisms, but not to Council’s satisfaction. To have a third party approving a mechanism that will ensure a permitted activity status is contrary to good planning principles. HWP considers it is essential Schedule 2 has clear guidance as to exactly what will be required to be addressed in each mechanism to provide certainty to the resource user their activity is permitted.

90. HWP sought for Council to amend the PHWRRP provisions as follows (or similar):

- Amend paragraph 1 to read: *“To maintain and improve water quality in the Hurunui and Waiau rivers and protect current values, uses and the mauri of the*

rivers, while ensuring the economic return from land is maximised, and best practice land uses are adopted to manage ~~practices that result in the loss of nutrient to water need to be improved~~".

- Amend Schedule 1 as sought by HWP later in its submission.
- Amend Schedule 2 as sought by HWP later in its submission.

Officer Report

91. While the Officer Report does not specifically address HWP's submission points, it does recommend the following amendments:
- An amendment to Paragraph 1 as follows: "... *land use practices that result in the loss of nutrient to water need to be improved in line with best practise.*"
 - An amendment to Paragraph 4 as follows: "...~~the nutrient limits contained in water quality outcomes of this Plan not being achieved~~ Schedule 1 of this Plan being exceeded. This..."
 - An amendment to Paragraph 5 as follows: "...*The resource consent applicant, in these circumstances, will be required to demonstrate ~~that~~ how their land use practices, in combination with all other land uses in the specific catchment, ~~can~~ will achieve the limit in ~~Schedule 1~~ water quality outcomes of this Plan."*

Comment

92. While the Officer Report recommended amendments to Paragraph 1 are not exactly as sought by HWP, the intent of HWP's submission is captured in the proposed amendment, and I support it for that reason. The proposed amendments to Paragraphs 4 and 5 appear appropriate to me, and I remain neutral on them.
93. In relation to Schedule 1 matters, the concerns raised have been discussed above, and any changes to Schedule 1 are best addressed later in my evidence. A similar approach is taken to matter raised regarding Schedule 2.

Recommendation

94. I recommend the Commissioners adopt the amendment proposed to Paragraph 1 as discussed above. Other matters regarding Schedule 1 and 2 will be addressed below.

Plan Provision: Storage and Additional Demand for Water Resources (Page 9/10)

95. Paragraph 3 (Page 9) states: *“This Plan shows in Map 3 the areas of the Hurunui, Waiau and Jed catchments that have been identified as being suitable for development of water storage infrastructure. These parts of the catchments are described as Zone B ‘Infrastructure Development Areas’. The Map also shows the areas where water storage should not be progressed. These parts of the catchments are described as Zone A ‘High Value Areas’. Finally the Map identifies areas where only limited investigations have been carried out. In these areas water storage infrastructure may be appropriate as long as a range of environmental, cultural and recreational effects are addressed, less environmentally sensitive areas have been explored and the affordability gap between what can be afforded and the cost of infrastructure development have been unable to be resolved. These parts of the catchments are described as Zone C ‘Areas not identified as High Value or Infrastructure Development’.”*
96. Paragraph 4 (Page 9) introduces the need for an Infrastructure Development Plan to ensure water storage infrastructure is developed in an integrated way. In addition, Paragraph 4 goes on to state: *“This Plan must show how the application fits within the zone wide pattern and provides for the storage of water for irrigation in the Waitohi River as a first option. Or if this is not able to be progressed, in other tributaries of the Hurunui River achieving the Objectives of the Plan while maximising the economic and social benefits of water abstraction, including utilising water for multiple out of stream uses.”*
97. Paragraph 1 on Page 10 states: *“The inter-catchment transfer of water (for example between the Hurunui and Waiau Rivers or vice versa) may be an important component of achieving the full irrigation of the 100,000ha of potentially irrigable land. This Plan provides for the transfer of water between the Hurunui and Waiau Rivers or from the Hurunui or Waiau Rivers to rivers outside the Plan area as long as the method of transfer and distribution meets the cultural needs of Ngāi Tahu and local Rununga, and other requirements in Policy 6.6 and only seeks to transfer water*

that is located within the A or the B Block as set out in the Environmental Flow and Allocation Regime in Table 1.”

98. Paragraph 4 (Page 10) states: *“The mainstems of both the Hurunui and Waiau rivers are iconic and regionally important features and they have very high social, cultural and environmental values which would be significantly impacted if either the Hurunui or Waiau mainstem was dammed. Therefore this Plan prohibits damming on the mainstems of the Hurunui and Waiau Rivers.”*

HWP Submission

99. In its submission, HWP generally supported the identification of areas where new water storage infrastructure can be developed, and generally agrees with the areas identified in Zone B. The HWP agrees with the need for an Infrastructure Development Plan to ensure an integrated approach is achieved, although there are matters of detail that are of concern that are addressed later in this submission. HWP also generally supports the intent of the inter-catchment transfer of water approach.
100. HWP opposed the requirement for the Waitohi River to be the first option, for reasons already given above. The HWP also questioned the prohibiting of the damming of the mainstem of the Hurunui River, particularly when the mainstem is not clearly defined. Notwithstanding this, the HWP notes Policy 6.3 suggest prohibiting damming on the mainstem of the Hurunui River below the confluence of the South Branch. While the HWP opposes in principle the prohibiting of the damming of the mainstem of the Hurunui River, this opposition may be less if the definition of the mainstem of the Hurunui River is clearly defined.
101. HWP sought for Council to:
- The retention of the intent to identify areas where new water storage infrastructure can be developed, and the current areas identified in Zone B;
 - The requirement for an Infrastructure Development Plan, subject to amendments sought later in this submission;
 - The intent of the inter-catchment transfer of water approach to be retained as it is currently written;

- The discussion on storage structures should also promote their potentially beneficial environmental role of enhancing flows when they would otherwise be very low and their ability to generate flushing flows to enhance river health by removing nuisance growths;
- Deletion of the reference to the Waitohi River as a first option;
- Deletion of the prohibition of the damming of the mainstem of the Hurunui River.

Officer Report

102. The Officer Report does not specifically address the matters raised by HWP, and makes no amendments to the text identified on pages 9 and 10.

Comment

103. The HWP raised a number of matters and I can only assume the Officer Report rejects the HWP submission. Notwithstanding this, I note the HWP's request to retain the intent to identify areas where new water storage infrastructure can be developed (and the current areas identified in Zone B); the requirement for an Infrastructure Development Plan (subject to amendments sought later in this submission); and the intent of the inter-catchment transfer of water approach to be retained as it is currently written is positive, and I support.
104. I note the other matters have not been addressed in the Officer Report and no amendments to the Plan are recommended. In relation to the deletion of the reference to the Waitohi River as a first option, I have covered this matter above and consider the same points apply. In relation to deletion of the prohibition of the damming of the mainstem of the Hurunui River, this is confusing as the Officer Report recommends a definition that appears to defines the mainstem as the North Branch. The implications of this appears to be that Policy 6.1 prohibits the damming or impoundment of water on the mainstem if the Hurunui River (i.e. the North Branch), while Policy 6.5 (ii) iii provides an opportunity for a project on the North Branch (i.e. now defined as the mainstem) and Rule 4.1 provides for the damming of water, greater than 20,000 m³, is a non-complying activity (HWP has sought Discretionary Activity status for this activity in its submission), where it is within the bed of a river located in Zone C on Map 3. I note the Officer Report recommends that some of the rules be amended to reflect the mainstem definition recommended. In my view, the proposed Plan as it

was notified is appropriate, with the mainstem of the Hurunui River being below the confluence of the South and North Branches. I have not seen any reasonable argument for why that definition needs to be amended. I also have a fundamental problem with adopting a prohibited activity status for this activity and believe it should be deleted from this part of the Plan.

Recommendation

105. I recommend the Commissioners note the lack of response in the Officer Report to the matters raised by the HWP in its submission, retain the current Plan provisions relating to Infrastructure Development Plans and the inter-catchment transfer of water supported by the HWP submission, retain the definition of 'mainstem' included in the notified Plan and the policies and rules as notified, and delete reference to the Waitohi River as a first option in paragraph 4 on Page 9.

Plan Provision: Efficient use of groundwater (Page 10)

106. Paragraph 4 states: *"It is recognised that storage infrastructure and hydro-electric power generation infrastructure can be very costly to develop and the infrastructure that is developed is likely to have a working life in excess of 80 years. This Plan therefore seeks that these types of activities, when the capital cost is greater than \$10,000,000, have resource consented for up to 35 years, the maximum term possible under the Resource Management Act."*

Paragraph 6 states: *"The Plan recognises that within the A Allocation Block existing consent holders will continue to have priority for future allocation, and within the B Allocation Block irrigation, both existing and future, will also have first priority. This means that allocated water needs to be available for first priority uses when and where those uses wish to have access to, that water."*

HWP Submission

107. HWP supported the intent of paragraphs 4 and 6.
108. HWP sought for the intent of paragraphs 4 and 6 be retained as currently written.

Officer Report

109. The Officer Report does not specifically identify the support provided by the HWP in its submission. The Officer Report recommends a number of amendments to the paragraphs supported by the HWP:

Paragraph 4: *“It is recognised that large scale water storage, infrastructure and hydro-electric power generation and large-scale irrigation infrastructure can be very costly to develop and ~~the infrastructure that is developed is likely to~~ may have a working life in excess of 80 years. This Plan therefore ~~seeks~~ ensures that these types of activities, when the capital cost is greater than \$10,000,000, ~~have resource~~ can be consented for up to 35 years, the maximum term possible under the Resource Management Act.”*

Paragraph 6: *“In addition to the first and second order priorities set out in the Canterbury Water Management Strategy, ~~the Plan also~~ recognises that within the A Allocation Block existing consent holders will continue to have priority for future allocation, and within the B Allocation Block irrigation, both existing and future, will also have ~~first~~ priority. This means that, within the A and B Allocation Blocks, allocated water needs to be available for ~~first priority~~ these uses when and where those uses wish to have access to, that water.*

Comment

110. I have reviewed the recommended amendments to the paragraphs supported by the HWP in its submission, and I consider the overall intent is retained.

Recommendation

111. I recommend the Commissioners adopt the amendments recommended by the Officer to paragraphs 4 and 6 of the Efficient Use of Groundwater section.

Plan Provision: Objective 2(a) (Page 11)

HWP Submission

112. HWP has raised concerns above regarding defining the concept of the mauri of a water body and including the concept into the Plan provisions. Objective 2 (a) is an example of how management of water levels and flows cannot result in an adverse impact on the mauri of a water body. It is not clear how an adverse impact on the

mauri of a water body will be determined or measured (particularly considering the elements listed above).

113. In addition, the objective seems to seek no adverse impacts on a range of matters. This is considered contrary to the intent of the Resource Management Act 1991 (RMA) that does anticipate effects from activities, so long as these effects are managed. The RMA does not anticipate no adverse impacts. HWP considers that currently Objective 2 is written like a policy.

114. HWP sought an amendment to Objective 2 (a) as follows (or similar):

“Management of water levels and flows in the Hurunui, Waiau or Jed rivers and their tributaries ~~does not result in~~ takes into account adverse impacts on:”

Officer Report

115. As discussed above, the Officer Report makes considerable mention of the concept behind what the mauri of the waterbody is, and recommendations. The Officer Report also notes: “For completeness I also note that it is my view that the proposed wording does not foreclose the ability for adverse effects to be avoided, remedied or mitigated, such that these measures ensure mauri is protected”. The Officer Report recommends the following amendment to Objective 2:

“~~Management of W~~water levels and flows in the Hurunui, Waiau or Jed rivers and their tributaries are managed to avoid, remedy or mitigate ~~does not result in~~ adverse impacts-effects on:...”

Comment

116. I note the proposed amendment to Objective 2, and support this recommendation as it addresses one of the matters raised by HWP. Other concerns regarding managing adverse effects on the mauri of the waterbody have been addressed above.

Recommendation

117. I recommend the Commissions adopt the recommended changes to Objective 2 that provides for the avoidance, remedying or mitigation of adverse effects, and address the concerns already raised above regarding the mauri of waterbodies.

Plan Provision: Policy 2.3 (Page 11)

118. Policy 2.3 states: *“To require all takes and diversions of water on the mainstem of the Hurunui and Waiau rivers, to reduce the amount of water taken on a pro-rata basis,…”*

HWP Submission

119. The HWP submitted that while the intent of the policy is to reduce the amount taken/diverted from the mainstem of the Hurunui and Waiau Rivers, the policy is considered inappropriate because it does not recognise that a resource consent may have been granted for a specific amount to be taken, and impracticable because there is no time limit stated meaning it does not recognise that at some stage it will not be possible to reduce any further the amount taken/diverted due to the need for the water. There is also no recognition that when the Table 1 environmental flows are being met, there is no longer a need to reduce the amount taken/diverted. The policy seems to apply to existing and new consents.
120. HWP sought for Policy 2.3 to be deleted or amended to clarify what is intended.

Officer Report

121. The Officer Report recognises HWP’s submission, and makes the following statement: *“It is not clear to me what sort of time limit would be applied to the policy to make it more efficient or effective. It is my view that the policy adequately addresses the ‘need’ for water, by seeking an equitable system for reducing takes between all users, while protecting the environmental, cultural and recreational bottom lines sought by the Plan. In my opinion it would not be appropriate for the policy to include reference that when the Table 1 regime is met, there is no longer a need to reduce the amount taken, because that is exactly what the policy applies to. The Plan requires that **no** water is taken (except for community and stock drinking water supplies) when the minimum flow is reached, with the pro-rata reduction relating to flows that are above this minimum, but less than the flow at the full allocation of any allocation block”*. The Officer Report also identifies a formatting error it recommends is addressed.

Comment

122. While the formatting error does clarify better what the intent of Policy 2.3 is, in my view the concerns of the HWP are still valid as they relate to implementation of the policy. In particular as the policy has no timeframes and applies to all takes and diversions of water, I am concerned that the policy will impact on all consent holders, regardless as to whether the Environmental Flow and Allocation Regime is being breached. I consider the policy is confusing and needs to be revisited by providing timeframes and clarity regarding when reduced takes and diversions may be required.

Recommendation

123. I recommend the Commissions accept the concerns being raised by the HWP and revisit the policy to provide timeframes and clarity regarding when reduced takes and diversions may be required.

Plan Provision: Policy 2.4 (Page 12)

HWP Submission

124. This is the same matters as addressed above for Policy 2.3.
125. HWP sought for Policy 2.4 to be deleted or amended to clarify what is intended.

Officer Report

126. The Officer Report's comments on HWP's submission on Policy 2. 3 above apply.

Comment

127. Similar comments above apply.

Recommendation

128. I recommend the Commissions accept the concerns being raised by the HWP and revisit the policy to provide timeframes and clarity regarding when reduced takes and diversions may be required.

Plan Provision: Policy 2.6 (Page 12)

HWP Submission

129. HWP has raised concerns regarding defining the concept of the mauri of a water body and including the concept into the PHWRRP provisions have been discussed above. Policy 2.6 is an example of how any new irrigation or water storage project cannot adversely affect the mauri of the Hurunui or Waiau Rivers. It is not clear how an adverse impact on the mauri of these rivers will be determined or measured (particularly considering the elements listed above).
130. HWP sought for Policy 2.6 be amended to the following (or similar):
“To ensure that any new take, dam, diversion or discharge of water ~~does not adversely affect~~ recognises the mauri of the Hurunui and Waiau rivers and their tributaries.”

Officer Report

131. The Officer Report comment and recommendations have been outlined above.

Comment

132. Same comments as above apply.

Recommendation

133. Same recommendation as above applies.

Plan Provision: Policy 2.7 (Page 12)

HWP Submission

134. HWP raised concerns that Policy 2.7 seems to apply to the entire reach of the mainstem of the Hurunui River, regardless of whether any recreational activities are undertaken. From this perspective, the policy is considered too broad and unnecessary and should be focussed on ensuring certain parts of the mainstem of the Hurunui River remain as a regionally significant recreation destination.

135. HWP sought for Policy 2.7 to be amended as follows (or similar):
“To ensure that any new take, dam or diversion of water provides for a range of flows, between 30 and 50 m³/s in the mainstem of the Hurunui River and between 35 and 75 m³/s in the mainstem of the Waiau River, in those parts of the rivers that ~~to~~ provide for regionally significant recreational activities.”

Officer Report

136. While the Officer Report recognises the HWP submission points, it makes no comment on the validity of the concerns, and does not adopt the changes sought by the HWP. The Officer Report does recommend the following changes to Policy 2.7:
“To ensure that any new take, dam or diversion of water provides for flow variability above the minimum flow ~~a range of flows, between 30 and 50 m³/s in the mainstem of the Hurunui River and between 35 and 75 m³/s in the mainstem of the Waiau Rivers,~~ to provide for existing recreational activities uses and values.”

Comment

137. While the Officer Report does not specifically adopt the words proposed by the HWP, it has tightened up the policy by only applying it to existing recreational users and values. However, I do have several concerns with this approach: firstly, there is no recognition of the significance of the recreational uses and values, and I believe this is important if there are going to be constraints on new take, dam or diversion of water activities. In my view, regionally significant recreational uses and values should only justify such constraints. Secondly, it is not clear what happens when new recreational activities are proposed. This matter needs addressing.

Recommendation

138. I recommend the Commissioners adopt the amendments sought by the HWP and amend Policy 2.7 accordingly.

Plan Provision: Objective 3 (Page 12)

139. Objective 3 states: *“Water is allocated so as to enable further economic development, while:”*

HWP Submission

140. HWP supported the overall intent of Objective 3 and sought for the overall intent of Objective 3 to be retained.

Officer Report

141. The Officer Report recognises the HWP support for the intent of the Objective. While there are a number amendments recommended to Objective 3, the intent supported by the HWP remains as notified.

Comment

142. I support the retention of the intent of Objective 3.

Recommendation

143. I recommend the Commissioners retain the intent of Objective 3 as notified.

Plan Provision: Objective 3(a) (Page12)

HWP Submission

144. HWP raised the above concerns regarding defining the concept of the mauri of a water body and including the concept into the PHWRRP provisions have been discussed above. Objective 3 (a) is an example of how the allocation of water is specifically required to protect the mauri of the water bodies of the catchment. It is not clear how this protection is to be achieved or measured (particularly considering the elements listed above). HWP sought for Objective 3 (a) be amended as follows (or similar):

“Water is allocated so as to enable further economic development, while:

(a) ~~protecting~~ recognising the mauri of the waterbodies;...”

Officer Report

145. The Officer Report comment and recommendation on the ‘mauri’ of water bodies has been outlined above.

Comment

146. The same comments apply as above.

Recommendation

147. The same recommendation applies as above.

Plan Provision: Objective 3(b) (g) (Page 12)

148. Objective 3 (b) and (g) state: “*Water is allocated so as to enable further economic development, while:*
(b) ensuring that water quality is not decreased;...
(g) maintaining the ability to navigate the river by Jet Boat;”

HWP Submission

149. While the intent of the policy is supported, HWP raised concerns above regarding the assumption that 100,000 ha of land can be irrigated in the future without affecting nutrient limits, how the plan will determine the effects of land use change on water quality, the reliability of the data included in Schedule 1, and the use of the State Highway One Bridge as a benchmark location. These matters require addressing before Objective 3 (b) can be supported.
150. In relation to Objective 3 (g), HWP question why the entire river is required to be maintained for navigation by jet boat, when there are parts of the mainstem of the Hurunui River that are not currently navigable through parts of the year. HWP consider Objective 3 (g) should focus on maintaining existing jet boating opportunities, and ensuring water flows provide for key events for jet boats on the Hurunui River
151. HWP support in principle Objective 3 and seek this intent to be retained, while undertaking the following amendments to (b) and (g) (or similar):
(b) ensuring that water quality is ~~not decreased~~ maintained by controlling nuisance periphyton or toxic cyanobacteria;...
(g) ~~maintaining the ability to navigate the river by Jet Boat;~~ providing sufficient water for jet boaters to traverse those parts of the mainstems of the Hurunui and Waiau Rivers that make these rivers a regionally significant jet boating destination;

Officer Report

152. The Officer Report identifies the HWP concerns, and states: *“I firstly note that a number of these concerns are addressed more fully in the 'Water Quality' section of this report. In relation to this objective, it is my view that periphyton and toxic cyanobacteria are effects that can result, in part, from water quality contaminants entering water bodies. It is my view that it is more appropriate that the HWRRP seek to manage those contaminants through rules and policies relating to them, with the objective describing the environmental outcome sought, rather than in itself addressing how it is to be achieved”*.
153. In relation to (b), the Officer Report, the Officer Report states: *“The HWP seeks that water quality is “maintained”, by controlling these factors... It is however my view that as sought by Hurunui Water Project Ltd (Submitter 127), “maintain” is more appropriate than “not decreased” as the latter implies a quantitative assessment for what is a qualitative measure”*.
154. In relation to (g), the Officer Report states: *“HWP seeks that (g) be deleted but replaced with “providing sufficient water for jet boaters to traverse those parts of the mainstems of the Hurunui and Waiau Rivers that make these rivers a regionally significant jet boating destination.” This is on the basis that the current wording implies that the entire river is to be maintained for navigation by jet boat, when this is not currently the case during parts of the year, and that it should instead focus on maintaining the existing opportunities”*.
155. The Officer Report goes on to state: *“... in my view, Objective 3(g) seeks to ensure that allocation of water above the minimum flow also maintains the ability for jet boats to navigate the river. ...Similarly, referring only to regionally significant jet boating destinations does not take into account that this type of activity and the amenity values derived from it pertain to a journey, rather than a destination. To ensure that amenity values are maintained for kayakers, I also consider that it is appropriate for the objective to also refer to kayaks. I therefore recommend that part (h) is amended as follows:*
“maintaining the ability to navigate the river by Jet Boat and kayak” .

Comment

156. The matters raised by HWP regarding: the assumption that 100,000 ha of land can be irrigated in the future without affecting nutrient limits; how the plan will determine the effects of land use change on water quality; the reliability of the data included in Schedule 1; and the use of the State Highway One Bridge as a benchmark location are addressed in other parts of my evidence.
157. In relation to the requested amendments to Objective 3 (b), while the Officer Report recommends an amendment that addresses part of HWP's concerns, it does not adopt the need to control nuisance periphyton or toxic cyanobacteria. I concur with the recommendation to replace the term '*not decreased*' with '*maintained*', and support this amendment. I also accept the Officer Report view that the Objective should address the environmental outcomes sought, and policies and rules should address controlling nuisance periphyton or toxic cyanobacteria.
158. Furthermore, the Officer Report recommendation in relation to Objective 3 (g) is not to amend the condition as requested by the HWP, but instead to add reference to kayaks. This amendment is opposed as it intends the allocation of water for opportunities that may not exist, and there may be no demand for such activities. This amendment seems contrary to the intent of the Plan to provide for water storage opportunities, and may require allocation that puts at risk a proposal for recreational activities that do not exist. In my view, the Objective should place a priority on maintaining regionally significant recreational opportunities, but other than that, priority should be given to ensure allocation meets environmental flows for instream values and provides for water storage for activities that have economic returns, as proposed by Objective 3.

Recommendation

159. I recommend the Commissioners amend Objective 3 (b) as recommended by the Officer Report, and amend (g) as sought by the HWP in its submission.

Plan Provision: Policy 3.4 (Page 13)

HWP Submission

160. HWP supported the intent of Policy 3.4. and sought for the intent of Policy 3.4 to be retained as it is currently written.

Officer Report

161. While the Officer Report does not specifically identify the HWP's support for the intent of the policy, I note there are no amendments recommended and Policy 3.4 remains unchanged.

Comment

162. I support the Officer Report recommendation not to amend Policy 3.4.

Recommendation

163. I recommend the Commissioners accept the Officer Report recommendation to leave Policy 3.4 unchanged.

Plan Provision: Policy 3.5 (Page 13)

HWP Submission

164. HWP questions whether it is necessary or appropriate to 'maintain' all of the matters listed. HWP consider it is more appropriate for the policy to require these matters to be recognised or considered.

165. HWP seeks Policy 3.5 to be amended as follows (or similar):

"To 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, provided the following ~~is maintained~~ recognised or considered:..."

Officer Report

166. The Officer Report recognised HWP's request to change "*maintained*" to "*recognised or considered*".

167. The Officer Report states: *“It is my view that requiring that the matters in Policy 3.5 be recognised or considered does not provide strong enough direction, and as such is not the most appropriate way to meet the objectives of the Plan. For example, it is difficult to see how recognising or considering the reliability of supply for existing abstractors (Policy 3.5(f)) will ensure that this is protected, as sought under Objective 3(f). In addition, and as noted above, it is my view that strong policy guidance is necessary to support the discretionary activity status for takes within the C Block Allocation”*.

168. The Officer Report suggests amendments to rules will address some of the concerns raised by the HWP, and no amendment to Policy 3.5 is recommended.

Comment

169. This is not a matter the HWP wishes to pursue further.

Recommendation

170. I recommend the Commissioners note the HWP does not wish to pursue this matter any further.

Plan Provision: Policy 4.2 (c) (Page 13)

HWP Submission

171. The HWP had concerns as to whether the existing groundwater takes which are hydraulically connected have been factored into the allocation regime set out in Table 1: Environmental Flow and Allocation Regime.

172. HWP seeks clarification as to whether the connected groundwater takes have been taken into account in the setting of the allocation regime. If this has not occurred the allocation regime needs to be revised to include the relevant groundwater takes.

Officer Report

173. The Officer Report identifies that Policy 4.2 seeks to manage the effect of groundwater takes on surface flows, by directing how hydraulic connections will be determined. The Officer Report notes that HWP seeks clarity as to whether the

connected groundwater takes referred to in Policy 4.2(c) have been taken into account in the setting of the allocation regime, seeking that if this has not occurred, the allocation regime should be revised to include the relevant groundwater takes.

174. The Officer Report states: *“It is my view that the setting of the allocation regime for surface, groundwater and hydraulically-connected groundwater takes has taken into account the different effects that each take has on the water resource, and on the values that the Plan seeks to manage. It is my understanding that surface water takes, for example, have an immediate and full effect, whereas groundwater takes have a longer and lesser effect. Therefore, in my opinion it is appropriate that there are separate limits for surface water allocation and groundwater allocation, with hydraulically-connected groundwater counted proportionally in both, rather than the groundwater takes being included in the surface water allocation regime in totality.”*

Comment

175. I consider the Officer Report response has provided sufficient assurance that an appropriate mechanism has been identified to pick up new hydraulically-connected groundwater takes with the level of existing takes quite small.

Recommendation

176. I recommend the Commissioners note the Officer Report has satisfied the concerns raised by HWP in its submission.

Plan Provision: Objective 5.1(a) (Page 14)

HWP Submission

177. The HWP has raised above concerns regarding defining the concept of the mauri of a water body and including the concept into the PHWRRP provisions have been discussed above. Objective 5.1 (a) is an example of how the concentration of nutrients entering the mainstem of the Hurunui, Waiau and Jed Rivers is specifically required to maintain and enhance the mauri of these water bodies. It is not clear how this maintenance and enhancement is to be achieved or measured (particularly considering the elements listed above).

178. HWP seek an amendment to Objective 5.1 (a) as follows (or similar):
“Concentrations of nutrients entering the mainstems of the Hurunui, Waiau and Jed rivers are managed to while:
(a) ~~maintain and enhance~~ recognising the mauri of the waterbodies”.

Officer Report

179. The comments and recommendation in the Officer Report regarding the mauri of waterbodies has been outlined above.

Comment

180. My comment on this matter has been provided above.

Recommendation

181. My recommendation on this matter has been provided above.

Plan Provision: Policy 5.1/5.2 (Page 14)

182. Policy 5.1 states: “To take a tributary and community based approach to managing water quality and improving nutrient management practices.”
Policy 5.2 states: “To ensure all existing and new land use activities in the Nutrient Management Area shown on Map 4, have best nutrient management practices in place by 2017.”

HWP Submission

183. HWP consider Policies 5.1 and 5.2 are appropriate and their intent is supported, and sought for the intent of Policies 5.1 and 5.2 to be retained.

Officer Report

184. While the Officer Report does not specifically identify the HWP’s support for the intent of the policy, I note there are no amendments recommended and Policies 5.1 and 5.2 remain unchanged.

Comment

185. I support the Officer Report recommendation not to amend Policies 5.1 and 5.2.

Recommendation

186. I recommend the Commissioners accept the Officer Report recommendation to leave Policies 5.1 and 5.2 unchanged.

Plan Provision: Policy 5.3 (Page 14)

187. Policy 5.3 states:

“To protect existing values, uses and the mauri of the Hurunui River and its tributaries while also providing for future development in the catchment by ensuring the annual nutrient loads (as set out in Schedule 1) at the:

(a) Mandamus flow recorder, for both Dissolved Inorganic Nitrogen and Dissolved Reactive Phosphorous, are maintained at 2005 – 2010 levels.

(b) “State Highway 1 flow recorder:

(i) dissolved Reactive Phosphorous, is maintained at 2005 – 2010 levels;

(ii) dissolved Inorganic Nitrogen prior to 2017, does not increase more than 20% above 2005 – 2010 levels; and

(iii) dissolved Inorganic Nitrogen post 2017, is improved to 2005 – 2010 levels or better.”

HWP Submission

188. In relation to Policy 5.3(a), HWP raised two concerns. Firstly, regarding the protection of the mauri of the Hurunui River and its tributaries, and secondly, concerns regarding the reliability and appropriateness of the nutrient load limits included in Schedule 1. HWP sought that the nitrate nitrogen concentrations do not exceed the chronic nitrate toxicity threshold for 95% protection (1.7 mg/L) instead of a nitrogen load, and that no phosphorous limit be set, but instead an algae growth limit be set.

189. In relation to the first matter, HWP seek Policy 5.3(a) to be amended as follows (or similar):

“To protect existing values, uses and the recognition of the mauri of the Hurunui River and its tributaries while also providing for future development in the catchment

by ensuring the ~~annual nutrient loads~~ (as that nuisance growths do not exceed the limits set out in Schedule 1) ~~at the:~~

190. In relation to the second matter, HWP seek amendments to Schedule 1 to address this matter.
191. In relation to Policy 5.3(b), HWP raised the concerns above regarding the approach to addressing the cumulative effects of land use change on water quality. HWP sought that the only limit should be that the nitrate nitrogen concentration does not exceed a 95% level of protection as outlined above

Officer Report

192. The Officer Report identifies the amendments sought by HWP. The Officer Report states: *“it is my view that there are difficulties associated with both the use of a load limit and the use of nutrient concentrations and periphyton biomass limits, in terms of the effectiveness of these approaches for meeting the Plan’s objectives. Notwithstanding this, while an alternative approach such as the use of NDAs may prove more appropriate in the longer term, I consider that it is not the most efficient or effective method at this time. This is because, as identified by Mr Norton, and outlined above, the process of converting load limits to limits at the point of export from the root zone, and of allocating these limits amongst users is not simple, and in my view it would be inefficient to hold up this Plan process to allow further time for these to be developed. In the LWRP, while it is anticipated that such limits will be established, they are not yet identified.”*
193. The Officer Report goes on to state: *“Further, I consider that the current approach of referencing the load limits in Policy 5.3 is inefficient and ineffective in that it creates a circular framework. This is because where an application for land use change is made as a discretionary activity because the load limit is exceeded, under the current Plan framework consideration would need to be given to whether or not the load limit is exceeded when considered against Policy 5.3. Therefore, to be consistent with the policy, an applicant would have to demonstrate how they were going to ensure that the load limit would not be breached. This would be difficult given it is the*

exceedance that triggers the requirement for consent in the first place. It is also my view that to demonstrate compliance with the load limit would likely require reliance on mitigation taken by other parties to reduce nutrients, and in my view this is not efficient or effective. In addition, it is inappropriate to place reliance on actions of other parties. While I consider that a consent could still be issued, even if an application was inconsistent with the policy, following the balancing and weighing of all other relevant factors, it is my view that gaining approval could be difficult. In my view it would be inefficient to create a Plan framework that would allow for this”.

194. The Officer Report recommends the following Policy 5.3 to replace the existing policy: *“To manage water quality in the mainstem of the Hurunui River to ensure that:*

(a) Periphyton biomass of the mainstem of the lower Hurunui River (below Pahau R confluence) does not exceed 120 mg/m² and 20% cover of filamentous algae in 4 years out of 5 years.

(b) Nitrate nitrogen concentration does not exceed the chronic nitrate toxicity threshold for 99% level of protection (1.0 mg N/L)

(c) Average annual dissolved reactive phosphorus concentration does not exceed the current annual average (0.0044mg P/L)

195. I note the Policy 5.3 proposed above addresses matters relating to the Mainstem of the Hurunui River. The Officer Report recommends a new Policy 5.4 to address the tributaries of the Hurunui River as follows:

“To manage water quality in the Pahau River, Waitohi River, Dry Stream and Waikari River tributaries of the Hurunui River to ensure that:

(a) Periphyton biomass of the Pahau and Waitohi rivers should not exceed 200 mg/m² and 30% cover of filamentous algae in 4 years out of 5 years.

(b) 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.”

Comment

196. The matter raised by the HWP in relation to the mauri of the river has been discussed above.
197. Of more importance is the reliability and appropriateness of the nutrient load limits included in Schedule 1. I note the Officer Report provides a very comprehensive and in-depth discussion on the matters associated with Policy 5.3.
198. I also note that Mr Callander (paragraph 15 of his evidence) provides his views on the Officer Report recommendation, and in particular considers the 99% level of protection chronic nitrate-nitrogen toxicity threshold adopted for the Hurunui River is the incorrect criteria to use for the river. Mr Callander believes that based on the recommendations in the ANZECC guidelines and Hickey and Martin (2009) for slightly to moderately disturbed systems, the appropriate level of protection for the lower Hurunui River is a 95% level of protection. Mr Callander is of the view that this requirement could be incorporated into Policy 5.3.
199. In order to facilitate discussion, the following new Policy 5.3 is proposed to address the matters raised in HWP's submission, and Mr Callander's expert evidence:

"To manage water quality in the mainstem of the Hurunui River to ensure that:

- a) Periphyton biomass of the mainstem of the lower Hurunui River (below Pahau River confluence) does not exceed 120 mg/m² and 20% of cover of filamentous algae in 4 years out of 5 years.*
- b) Annual median nitrate nitrogen concentration does not exceed 2.3 mg/L and the 95th percentile nitrate nitrogen concentration does not exceed 3.6 mg/L. This provides a 95% level of protection.*
- c) The modelled nutrient loads do not change by the following amounts:*
 - i. Dissolved inorganic nitrogen can increase by not more than 50% above the leaching load at the date the Plan becomes operative; and*
 - ii. Dissolved reactive phosphorus must not increase above the leaching load at the date the Plan becomes operative."*

The modelled load is determined by a catchment wide modelling methodology approved by the Canterbury Regional Council.

200. In my view, the proposition put forward by Mr Callander goes a long way to address a number of concerns the HWP have expressed throughout their submission. In particular, it addresses concerns about the limits set in Schedule 1, it provides understanding to the resource user regarding the current load and how they can undertake land use change, and assists with the resource consent process providing clarity and certainty. I also consider the new Policy 5.4 recommended by the Officer Report is not required, and should be deleted.

Recommendation

201. I recommend the Commissioners reject the Officer Report recommendation to amend Policy 5.3 and introduce a new Policy 5.4, and adopt the proposed approach outlined in Mr Callander's evidence, and adopt the new Policy 5.3 provided above.

Plan Provision: Policy 5.4 (Page 14)

HWP Submission

202. While HWP supported in principle this approach to progressively set nutrient limits in tributaries of the Hurunui River, this support is subject to the issues raised above regarding Objectives 5.1 and 5.2. HWP sought Policy 5.4 be amended as follows (or similar):

“To progressively set periphyton and nutrient limits in tributaries of the Hurunui River, at the river mouth and in the Waiau River Catchment to ensure that Objective 5.1 and 5.2 are met”

Officer Report

203. [**Note:** in the Plan as amended by recommendations, there are two Policies numbered 5.4 as the Officer Report has not amended the original Policy 5.4 numbering. This submission relates to the original Policy 5.4].
204. The Officer Report identified HWP's concerns with Objectives 5.1 and 5.2, and the amendment sought to Policy 5.4 to include periphyton. The Officer Report states: *“In line with the discussions above in relation to load limits, nutrient concentrations and periphyton limits, and the comments made by Mr Norton in particular, it is my view that as information and understanding increase, it may be determined that it is most*

appropriate to set both periphyton and nutrient limits in order to achieve the Plan's objectives. However other limits may in time be proven to be more appropriate. As such, it is my view that Policy 5.4 should be amended to refer to "water quality limits" generally, with the specific type of limit left to be determined through a Plan Change process. In my view this is also more consistent with the PRPS which refers to "water quality standards", and the NPSFM which refers to "freshwater quality limits". The policy is therefore recommended to be amended as follows:

205. *"Policy 5.4 To progressively set ~~nutrient~~ water quality limits in tributaries of the Hurunui River, at the river mouth and in the Waiau River Catchment to ensure that Objective 5.1 and 5.2 are met."*

Comment

206. I consider further work needs to be undertaken to decide on an appropriate approach to the tributaries. Until this is done the recommended approach set out above is appropriate. If a 95% level of protection is set for the tributaries this is likely to severely restrict irrigation without considering alternative methods which may be available to improve water quality in respect of individual tributaries.

Recommendation

207. I recommend the Commissioners adopt the amended original Policy 5.4.

Plan Provision: Policy 6.1 (Page 14)

HWP Submission

208. The HWP opposed the prohibiting of the damming of the mainstem of the Hurunui River for reasons already given above in its submission. This opposition may be less if the mainstem of the Hurunui River is defined as that included in Policy 6.3.
209. HWP sought the deletion of the reference to prohibiting damming of mainstem of Hurunui River in Policy 6.1, or a clear definition of the mainstem of the Hurunui River being below the confluence of the South Branch.

Officer Report

210. The Officer Report provides a lengthy discussion on the appropriateness of non-complying and prohibited activity status. The Officer Report states, in relation to a non-complying activity: *“In my opinion, the damming or large-scale water storage in the South Branch and Lake Summer would fall within this category, as is reflected in the extensive planning history outlined in Mr Parrish’s evidence.”*
211. The Officer Report also considers whether prohibited activity status should be required for the South Branch and Lake Summer areas to be included within Zone A, as sought by a number of submitters. The Officer Report notes the recommendations made by the Special Tribunal on the WCO, and considers that departing from these earlier determinations, given the evidence that these determinations were based on, should not be taken lightly.
212. The Officer Report also concludes that the overall approach in the HWRRP in relation to large-scale storage and damming is also consistent with the PRPS, (except in relation to one area which I discuss further below). This is because the definition of main stem in the PRPS (and also in the HWRRP which refers to the PRPS definition) is:
*“In relation to braided rivers 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” (Emphasis added).”*
213. The Officer Report then defines ‘stem’ of the river (*“that flows from the source to the sea is the North Branch, and as noted in legal submissions, the South Branch of the Hurunui River, with a smaller (lesser flow) than the North Branch, is considered to be a tributary”*). The Officer Report goes on to state: *“As such, the South Branch would fall within Policy 7.3.2(2) of the PRPS which directs that the damming of such a tributary does not reduce the braided character of the mainstem of the river. It is my view that part (e) of Policy 6.3 is consistent with this, requiring that the braided character of rivers within the Hurunui and Waiau catchments is preserved.”*
214. The Officer Report recommends that the definition ‘mainstem’ is amended as follows:

“Has the same meaning as that in the Proposed Canterbury Regional Policy Statement 2011 In relation to braided rivers 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.”

215. The Officer Report goes on to state: *“The one area where I consider the HWRRP is inconsistent with the PRPS is that as currently drafted, proposed Rule 5.1(b) of the HWRRP lists, as a prohibited activity, the damming or impoundment of water in “the mainstem of the Hurunui River below the confluence of the North and South Branch”. In my view, this conflicts with the direction in the PRPS because this excludes that part of the mainstem (North Branch) above the confluence to the Lake Sumner outlet, and those parts of the river above the inlet to the lake that under the methods to Policy 7.3.2(1) in the PRPS would be required to be prohibited.”*
216. The Officer Report identifies that the current wording is supported by the HWP who seeks that prohibiting damming of the mainstem of the Hurunui River is removed, or that in relation to Policy 6.1, a clear definition of the mainstem being below the confluence of the South Branch is included. The Officer Report states: *“It is my view, given the definition of ‘mainstem’ that Rule 5.1(b) does not give effect to Policy 6.1, because the policy refers to the mainstem, while the rule only refers to parts of the mainstem.”*
217. *Related to this, Department of Conservation (Submitter 90) seeks that Policy 6.3(a), is amended as follows:*
- “To enable proposals to dam water within the parts of the Hurunui, Waiau and Jed river catchments shown as Zone C ‘Areas not identified as High Value or Infrastructure Development’ on Map 3, where they will:*
- (a) not impound water on the mainstem of the Hurunui River, ~~downstream of the confluence of the South Branch,~~ or Waiau River ~~downstream of the confluence with the Hope River;~~*
218. *It is my view that these amendments are appropriate, as they are consistent with the PRPS, and with Policy 6.1.*

219. *It is therefore my view that in order to give effect to the PRPS (once it is made operative) and in order to achieve Policy 6.1 of the HWRRP, proposed Rule 5.1(b) would need to be amended. This could be done by referring to “the mainstem of the Hurunui River” in this rule, noting the earlier comments that this would not include the South Branch or Lake Sumner itself and therefore would still be consistent with the Zone Committee’s position.”*
220. The Officer Report makes no recommended changes to Policy 6.1.

Comment

221. As discussed above, the Officer Report is confusing on how it has recommended ‘mainstem’ be defined and how the policies and rules are amended. My comments above apply. HWP had considered that if the mainstem of the Hurunui River had remained as previously understood (i.e. below the confluence of the South and North Branch), then this policy was less of a concern. Due to the confusion, it would appear that the Officer Report intends to prohibit damming above the confluence of the North and South Branch, and in fact amends Rule 5.1 so that any damming of the mainstem of the Hurunui River up to Lake Sumner is prohibited. As already stated, I do not agree that prohibited activity is required for the damming of the mainstem of the Hurunui.

Recommendation

222. I recommend the Commissioners reject the Officer Report recommendation regarding defining the mainstem of the Hurunui River and amend Policy 6.1 so that the damming of the mainstem of the Hurunui River is a non-complying activity consistent with Rule 4.1.

Plan Provision: Policy 6.2 (Page 14)

HWP Submission

223. While HWP supported the overall intent of Policy 6.2, it questions the practicality of providing for existing recreational activities, when some of these activities may no longer be possible due to the nature of the environment once a storage facility is

developed. HWP would prefer to have an off-setting approach adopted to recreational activities.

224. HWP seek the overall intent of Policy 6.2 to be retained, while amending (i) as follows (or similar):
- (i) *existing recreational activities which occurred prior to storage are provided for OR off-set with new recreational opportunities, or alternative opportunities are identified/available elsewhere.*

Officer Report

225. While the Officer Report does not specifically reference HWP's submission, it does recommend the following amendment to Policy 6.2 (i): "*(i) existing recreational activities ~~which occurred prior to storage~~ are provided for or, if appropriate, off-set with new recreational opportunities of a similar kind and scale.*"

Comment

226. The recommended amendments address the HWP concerns, and I support them.

Recommendation

227. I recommend the Commissioners adopt the Officer Report amendment to Policy 6.2 (i).

Plan Provision: Policy 6.3 (Page 15)

HWP Submission

228. HWP supported the mainstem of the Hurunui River as defined in (a). HWP considers this should be definition of the mainstem of the Hurunui River should be adopted throughout the Plan.
229. HWP seek Policy 6.3 be retained as currently written, and the definition of the mainstem of the Hurunui River in (a) be adopted throughout the Plan.

Officer Report

230. As discussed above, the Officer Report recommends an amendment to Policy 6.3 (a): *(a) not impound water on the mainstem of the Hurunui River, ~~downstream of the confluence of the South Branch,~~ or Waiau River ~~downstream of the confluence with the Hope River;~~*
231. The Officer Report states: “...*that these amendments are appropriate, as they are consistent with the PRPS, and with Policy 6.1*”.

Comment

232. I disagree with the Officer Report recommended amendment, as I consider the amendments are inappropriate and unclear and I oppose them.

Recommendation

233. I recommend the Commissioners reject the Officer Report recommendation and retain the policy as written.

Plan Provision: Policy 6.4 (Page 15)

234. Policy 6.4 states: “*Notwithstanding Policy 6.3, to avoid the damming of water in Zone C ‘Areas not identified as High Value or Infrastructure Development’ on Map 3 until:*
(a) until 2 years after this plan is notified; and,
(b) it can be demonstrated that opportunities for water storage in Zone B ‘Infrastructure Development’ are not able to proceed.”

HWP Submission

235. HWP opposes Policy 6.4 as it is considered unnecessary and inappropriate, and sought for Policy 6.4 to be deleted in its entirety.

Officer Report

236. The Officer Report states: “*The reason for this policy is so that damming within the areas within Zone C that are considered more sensitive does not proceed unless the areas identified as being more appropriate for infrastructure development (Zone B) have been shown to be unviable.*” The Officer Report recommends no changes to Policy 6.4.

Comment

237. It is not clear from the Plan that Zone C has areas that are more sensitive. In my view, the reasons given in the Officer Report to not change my view that the policy is unnecessary and inappropriate. I am of the view that the Policy should be deleted as it will unnecessarily constrain infrastructure opportunities in that area.

Recommendation

238. I recommend the Commissioners accept the HWP submission and delete Policy 6.4 in its entirety.

Plan Provision: Policy 6.5 (Page 15)

239. Policy 6.5 states: *“To require any proposal utilising water from the Hurunui, Waiau and Jed river catchments to:*
- (a) demonstrate how it will fit within a zone wide pattern of infrastructure development designed to optimise the amount of land irrigated, and:....*
 - (ii) provide for the storage of water in:*
 - i. the Waitohi River as a first option, or if this is not able to proceed;*
 - ii. in other tributaries of the Hurunui River located in Zone B in Map 3, or if these are not able to proceed; and,*
 - iii. in the other tributaries of the Hurunui River, including the North Branch upstream of the confluence of the South Branch located in Zone C.”*

HWP Submission

240. HWP opposed the tiered approach and sought the deletion of Policy 6.5 in its entirety.

Officer Report

241. The Officer report does not specifically identify the matters raised by HWP, and makes not recommended amendment to Policy 6.5.

Comment

242. As already discussed in my evidence, I consider the ‘preference’ approach is inappropriate and does not represent good resource management planning. I do not

consider it is appropriate for the Plan to ‘pick winners’, and I consider it could unduly constrain a proposal for the South Branch. I also consider the policy is wrong as it appears to refer to the North Branch as a tributary, and seems contradictory to earlier definition of the mainstem of the Hurunui River included in the Officer Report.

Recommendation

243. I recommend the Commissioners adopt the relief sought by the HWP and delete Policy 6.5 in its entirety.

Plan Provision: Policy 6.9 (Page 15)

HWP Submission

244. HWP opposes Policy 6.9 as it is considered the practicality and potential costs to the resource user makes this policy inappropriate and unacceptable, particularly considering the level of engineering design required for gaining full consents. For a major project (such as an irrigation project or water storage scheme), it is more sensible to identify critical resource consents that need to be gained (such as the take, use, discharge consents) and apply for these first to ensure the water is available. Once gaining access to the water is certain, the many other regional and district consents can be prepared and applied for accordingly.
245. HWP sought the deletion of Policy 6.9.

Officer Report

246. The Officer Report recommends Policy 6.9 be deleted on the basis that under s91, the Council retains the discretion to require that additional consent applications be made, where it is appropriate from the point of view of better understanding that overall proposal.

Comment

247. I concur with the views expressed in the Officer Report, and the recommendation to delete Policy 6.9 in its entirety.

Recommendation

248. I recommend the Commissioners adopt the Officer Report recommendation and delete Policy 6.9 in its entirety.

Plan Provision: Objective 7 (Page 16)

HWP Submission

249. HWP supports the intent of this Objective and sought the intent of Objective 7 to be retained as it is currently written.

Officer Report

250. The Officer Report identifies the HWP support for Objective 7, and confirms it the most appropriate way to achieve the purpose of the RMA, “...because it allows for the transfer of water take consents to assist in maximising the economic benefits of water, while ensuring that the effects are adequately managed to protect in stream values and the life supporting capacity of the rivers”.

Comment

251. I concur with the Officer Report comments and recommendation.

Recommendation

252. I recommend the Commissioners adopt the Officer Report recommendation and retain Object 7 as it is currently written.

Plan Provision: Objective 8 (Page 16)

HWP Submission

253. The HWP considered Objective 8 is currently poorly written, and should accurately reflect the need to efficiently use water. It is not clear what the term ‘*greatest extent practicable*’ might mean.
254. HWP sought for Objective 8 to be rewritten to reflect a desired outcome of achieving the efficient use of water.

Officer Report

255. The Officer Report identifies the HWP concerns and states: “Other submitters raise concerns about the way the objective is currently written, arguing that the proposed wording has little direct relevance to water use efficiency and does not address the environmental issue from which this stems, and ultimately is confusing.” The Officer Report agreed with these concerns, and recommends Objective 8 be amended to read: *“Water taken for out of stream purposes is used efficiently”*.

Comment

256. I concur with the Officer Report comments, and support the recommended new wording for Objective 8.

Recommendation

257. I recommend the Commissioners adopt the new Objective 8 recommended in the Officer Report.

Plan Provision: Policy 8.1(c) (Page 16)

HWP Submission

258. HWP supports the intent of Policy 8.1 (c) and sought for the intent of Policy 8.1 (c) to be retained as it is currently written.

Officer Report

259. The Officer Report considers the 80% application efficiency in Policy 8.1 (c) is appropriate, and recommends it be retained. The Officer Report makes some minor amendments to (c): *“a minimum of 80% application efficiency is achieved for irrigation uses as per Policy WQN16 of the...”*

Comment

260. I consider the recommended amendment is acceptable, and that the intent of Policy 8.1 (c) is retained.

Recommendation

261. I recommend the Commissioners adopt the recommendation of the Officer Report to retain the intent of Policy 8.1 (c).

Plan provision: Objective 9 (Page 17)

HWP Submission

262. HWP supported the intent of Policy 9 sought the intent of Policy 9 to be retained as it is currently written.

Officer Report

263. The Officer Report identifies HWP's support for Objective 9, and recommends it remain unchanged.

Comment

264. I support the Officer Report recommendation.

Recommendation

265. I recommend the Commissioners adopt the Officer Report recommendation to retain Objective 9 as written.

Plan provision: Policy 9.2 (Page 17)

HWP Submission

266. HWP supported the intent and provisions of Policy 9.2. and sought the intent and provisions of Policy 9.2 to be retained as written.

Officer Report

267. The Officer Report recommends the following amendment: *“Notwithstanding Policy 9.1, to recognise the regional significance of applications for hydro-electric generation, ~~and~~ large scale water storage and large scale irrigation infrastructure with a capital cost of more than \$10,000,000, and provide for a resource consent duration of up to 35 years.”*

Comment

268. The Officer Report identifies HWP's support for Policy 9.2, and recommends some minor amendments. I concur with these amendments, and support them.

Recommendation

269. I recommend the Commissioners accept the recommended amendments to policy 9.2.

Plan provision: Policy 9.3 (Page 17)

HWP Submission

270. While HWP supported the intent and provisions of Policy 9.3, reference to the Canterbury Water Management Strategy is not considered appropriate as this document has been through a non-statutory process, and can be changed at any time.
271. HWP seeks the intent and provisions of Policy 9.3 to be retained as written, with the deletion of the reference to Canterbury Water Management Strategy.

Officer Report

272. The Officer Report recognises HWP support for the intent of the policy, and the concern about referring to the CWMS. The officer Report states: *"I note that the legal submissions address the matter of weight to be given to the CWMS"*.
273. However, the Officer Report recommends Policy 9.3 be deleted as the priorities have already been included in the PHWRRP. Should the Commissioners decide to retain Policy 9.3, the Officer Report provides an amended policy that reflects the CWMS without the resource consent priorities identified.

Comment

274. While the HWP sought the retention of Policy 9.3, I accept the Officer Report reasoning for deleting the policy.

Recommendation

275. I recommend the Commissioners note the HWP accept the reasoning put forward in the Officer Report for deleting Policy 9.3.

Plan provision: Policy 9.4 (b) (Page 17)

HWP Submission

276. HWP support the intent and provisions of Policy 9.4 (b) and sought the intent and provisions of Policy 9.4 (b) to be retained as written.

Officer Report

277. The Officer Report identifies the HWP's support for Policy 9.4(b), and makes no recommendation to amend this provision.

Comment

278. I support the retention of the intent Policy 9.4 (b) as written.

Recommendation

279. I recommend the Commissioners retain the intent of Policy 9.4(b) as written.

Plan Provision: Rule 1.4 (Page 18)

HWP Submission

280. HWP supported the intent and provisions of Rule 1.4 and sought the intent and provisions of Rule 1.4 to be retained as written.

Officer Report

281. The Officer Report identifies the HWP's support for Rule 1.4, and makes no recommendation to amend this provision.

Comment

282. I support the retention of the intent Rule 1.4 as written.

Recommendation

283. I recommend the Commissioners retain the intent of Rule 1.4 as written.

Plan Provision: Rule 2.3 (Page 20)

HWP Submission

284. While HWP support the rule in principle, concerns have been raised above regarding:
- The Infrastructure Development Plan (concerns expressed later in its submission)
 - The matters Council has restricted its discretion to include the effects on water quality and whether the nutrient limits in Schedule 1 are exceeded.
285. HWP sought these matters be addressed before it fully supports this rule.
286. While HWP supported in principle Rule 2.3, it sought its concerns regarding the Infrastructure Development Plan and Schedule 1 be addressed (as outlined later in this evidence).

Officer Report

287. The Officer Report identifies HWP's concerns relating nutrient limits. The Officer Report states: *"However again, because the matter for discretion currently refers to the "activity", I recommend that this matter for discretion is amended, as sought by some the submitters, so that it simply refers to "any effects on water quality". In my view, is it not necessary for the assessment matter to extend further to refer to particular policies and objectives against which an application should, in my view, automatically be considered against".* The Officer Report recommends Rule 2.3 (ii) to read: *"(ii) any effects on water quality, ~~including whether the activity in combination with all other activities will result in the nutrient limits in Schedule 1 being exceeded;~~"*

Comment

288. While the HWP's concerns relate to the Infrastructure Development Plan (IDP) and nutrient limits specifically, it submitted on Rule 2.3 as these matters are referenced in it. The concerns relating to the IDP are addressed later in this evidence. In relation to the nutrient limits, I agree with the Officer Report comment and support the deletion of the reference to the Schedule 1 nutrient limits.

Recommendation

289. I recommend the Commissioners accept the Officer Report amendments to Rule 2.3(ii).

Plan Provision: Rule 2.4 (Page 20)

HWP Submission

290. While HWP supported the rule in principle, it questioned why the discretionary activity status could not also apply to activities in the Zone C area, where further investigations are required. In addition, similar to Rule 2.3 above, HWP has raised concerns above regarding the Infrastructure Development Plan and the matters Council has restricted its discretion to include the effects on water quality and whether the nutrient limits in Schedule 1 are exceeded.
291. While HWP support in principle Rule 2.4, it seeks Discretionary Activity status for activities in the Zone C area.

Officer Report

292. The Officer Report does not specifically identify HWP's submission, and the intent of the rule is retained.

Comment

293. It would appear that the HWP's request for discretionary activity status for activities in the Zone C area should perhaps have been directed towards seeking a new Rule 3.X., and I will address this below. I note the Officer Report does not address the concern raised regarding matters Council has restricted its discretion to include the effects on water quality and whether the nutrient limits in Schedule 1 are exceeded. This is surprising considering the views expressed above, and the amendment to Rule 2.3. Matters relating to the IDP are discussed below in this evidence.

Recommendation

294. I recommend the Commissioners retain the overall intent of Rule 2.4, and delete the term "*..including whether the activity in combination with all other activities will result in the nutrient limits in Schedule 1 being exceeded*" from (v) matters of discretion.

Plan Provision: Rule 4.1 (Page 21)

HWP Submission

295. HWP opposed the non-complying status of activities located in the Zone C area on Map 3 as this activity is considered overly restrictive and unnecessary. HWP sought Discretionary Activity status for these activities.
296. HWP sought Rule 4.1 be amended to provide for activities in the Zone C area to be Discretionary Activities.

Officer Report

297. While the Officer Report does not specifically identify HWP's submission, it states: *"It is my view that a discretionary activity for this type of development in Zone C would remove the hierarchy between Zones B and C, which in my view is not an appropriate way to implement the Plan's policies and achieve its objectives."*

Comment

298. While I note the Officer Report recommends a new discretionary Rule 3.3: *"The taking, using, diverting, damming of water within Zone D that is not authorised as a permitted activity"*, it does not adopt discretionary activity status for activities with Zone C. I find this surprising, as my understanding of the Zone C is that *"...water storage infrastructure may be appropriate as long as a range of environmental, cultural and recreational effects are addressed, less environmentally sensitive areas have been explored and the affordability gap between what can be afforded and the cost of infrastructure development have been unable to be resolved"* (Page 9 of the PHWRRP). In my view, and with the objectives of the CWMS and ZIP in mind, this approach may constrain further infrastructure development in areas where further investigations may prove they are viable, and environmentally acceptable. A fully discretionary activity would allow for a proposal to be declined if environmental effects cannot be managed, and yet not require the more rigorous statutory test a non-complying activity has to meet.

Recommendation

299. I recommend the Commissioners adopt the HWP request to provide for activities located in the Zone C area on Map 3 as a Discretionary Activity.

Plan Provision: Cumulative Effects of Land Use on Water Quality - rules (Page 24)

300. The introduction to this section states: *“Rules 10.1, 10.2, 11.1 and 11.2 do not come into effect until 1 January 2017. The Rules are included here now to provide a transitional lead in period to allow land managers to modify their farming practices outside of a regulatory framework.”*

HWP Submission

301. HWP has raised issues above regarding deferring the rules to 2017, and the mechanisms that need to be put in place by a property owner to be a permitted activity. This creates a problem of potentially encouraging increasing discharges through to 2017.
302. HWP sought amendments to the overall approach to address its concerns.

Officer Report

303. The Officer Report has an extensive discussion on the rules addressing cumulative effects on land uses, and recommends a number of changes to the structure and intent of the rules. The Officer Report states: *“In my opinion, the key question in relation to this matter is whether it is appropriate to rely on non-statutory measures in the short term to implement the Plan’s policies and meet its objectives, or whether the risks of this approach potentially not meeting the Plan’s objectives are sufficient to justify a regulatory approach being taken prior to 2017”.*
304. In essence, the Officer Report develops two options: Option A – Continue with the current approach in PHWRRP; Option B – Amend Rule 10.2 to apply to prior to 2017. While undertaking an assessment of the benefits and risks associated with each option, the Officer Report does not make a recommendation, but does suggest changes should Option B be favoured by the Commissioners.

Comment

305. This is a fundamental matter that has been addressed at some length in the Officer Report. I note the key points in the amendments suggested should Option B be adopted are:
- Rules 10.1 and 11.1 relating to existing activities do not take effect until 2017 and are included to provide a transitional lead in period
 - Rules 10.2 and 11.2 relating to changes in land use take effect from the date the plan becomes operative
306. I also note there a number of significant changes to Rules 10.1, 10.2, 11.1 and 11.2 which I cover below. In particular, I note that while the Officer Report recommendation is to provide a lead in time for Rules 10.1 and 11.1, the Plan as amended by recommendations included in Appendix 2 to the Officer Report has these rules also taking effect when the Plan becomes operative. This is confusing and needs clarification.
307. Overall, the Plan as amended by the Officer Report recommendations has all four permitted activity rules have effect when the Plan becomes operative is acceptable, and I support this amendment.

Recommendation

308. It is recommended the Commissioners note the difference between the Officer Report recommendation, and the Plan as amended by recommendations, and have all four permitted activity rules taking effect when the plan is made operative.

Plan Provision: Rule 10.1 (Page 24)

309. Rule 10.1 states: *“Any existing land use as at 1 October 2011, in the Nutrient Management Area shown on Map 4, is a permitted activity provided that on or before 1 January 2017, one of the following is being implemented by the landowner or occupier:*
- (i) an Industry Certification System; or*
 - (ii) a Catchment Agreement; or*
 - (iii) an Irrigation Scheme Management Plan; or*
 - (iv) a Lifestyle Block Management Plan.”*

HWP Submission

310. While HWP supported in principle the permitted activity status for existing land uses and a non-regulatory approach to self-management, concerns have been expressed above regarding the mechanisms the property owner is required to have in place to be a permitted activity.
311. In addition, HWP questioned how the Nutrient Management Area is determined in Map 4, how this area relates to the water quality standards in Schedule 1, and the definitions of the implementation systems (outlined further in Schedule 2) included in the PHWRRP. Specific concerns are raised later in this submission when considering the Nutrient Management Area schedules and definitions. In particular there is no reference to the opportunity to prepare a Nutrient Management Plan for a property, use of the Overseer Model, and use of best practice guidelines.
312. HWP sought clarity regarding how the Nutrient Management Areas were defined and amendments to Schedule 2 are required to clearly define what the self-management mechanism need to include so they can be approved by Council, as previously sought in this submission.

Officer Report

313. The Officer Report recommends Rule 10.1 be amended to apply from the date the Plan becomes operative for existing land uses *“that results in a discharge of nitrogen or phosphorus which may enter water”*
314. An additional requirement is added to Rule 10.1: *“A record of the annual amount of nitrogen and phosphate loss from the land, for the period from 1 July 2012 to 30 June 2013, calculated using the Overseer nutrient model is submitted to the Council by 1 October 2013”*

Comment

315. I note HWP supported the permitted activity status for land use activities that may affect water quality, and that this activity status is retained. I support this approach. However, the Officer Report does not clarify how Map 4 is developed, and the

relationship of Map 4 to Schedule 1. HWP also highlighted there is no reference to the opportunity to prepare a Nutrient Management Plan for a property, use of the Overseer Model, and use of best practice guidelines. These matters are still outstanding.

316. Mr Callander addresses his concerns regarding Rule 10.1 in his evidence, and proposes an alternative rule as follows:

“Any existing land use as at the date the Plan is made operative that results in a discharge of nitrogen or phosphorus which may enter water, in the Nutrient Management Area shown on Area 4, is a permitted activity provided that:

- a) On or before 1 October 2013, one of the following is being implemented by the landowner or occupier:
 - i. a Farm Environment Management Plan; or*
 - ii. an Industry Certification System; or*
 - iii. a Catchment Agreement; or*
 - iv. an Irrigation Scheme Management Plan; or*
 - v. a Lifestyle Block Management Plan.**
- b) A record of the annual amount of nitrogen and phosphate loss from the land, for the period from 1 July 2012 to 30 June 2013, calculated using the Overseer nutrient model is submitted to the Council by 1 October 2013.*
- c) The nitrogen leaching rate is not greater than 35 kg/ha/year by 1 October 2013.*

Recommendation

317. I recommend the Commissioners note the matters raised by HWP that have not been addressed, and replace the existing Rule 10.1 with the alternative rule proposed by Mr Callander.

Plan Provision: Rule 10.2 (Page 24)

318. Rule 10.2 states: *“After 2017, any change in land use, resulting in an increase to a discharge of nitrogen or phosphorous which may enter water, in the Nutrient*

Management Area shown on Map 4, is a permitted activity, provided the following conditions are complied with:

(a) the annual nitrogen and phosphate load at the downstream water quality monitoring site is less than the limit specified for that site in Schedule 1; and,

(b) on or before 1 January 2017, one of the following is being implemented by the landowner or occupier:

(i) an Industry Certification System; or

(ii) a Catchment Agreement; or

(iii) an Irrigation Scheme Management Plan; or

(iv) a Lifestyle Block Management Plan.”

HWP Submission

319. HWP’s concerns relating to Rule 10.1 above apply. In addition, HWP also raised above concerns relating to the reliability and appropriateness of the nutrient limits.

320. HWP sought amendments to Rule 10.2 and amendments to Schedule 1 which include the setting of a nitrate nitrogen concentration of 1.7 mg/L (i.e. 95% level of protection) and that no phosphorous limit be set, but instead an algal growth limit be set.

Officer Report

321. The Officer Report recommends Rule 10.2 be amended as follows:

“~~After~~ From [date this Plan is made operative]2017, any change in land use, ~~resulting in an increase to a discharge of nitrogen or phosphorous which may enter water~~ (refer Part 5 – Definitions), in the Nutrient Management Area shown on Map 4, is a permitted activity, provided the following conditions are complied with:

(a) the annual nitrogen and phosphate load at the downstream water quality monitoring site is less than the limit specified for that site in Schedule 1 from 1 January 2017; and,

(b) ~~on or before 1 January 2017, One ...”~~

Comment

322. I note HWP supported the permitted activity status for land use activities that may affect water quality, and that this activity status is retained. I support this approach. However, the Officer Report does not clarify how Map 4 is developed, and the relationship of Map 4 to Schedule 1. HWP also highlighted there is no reference to the opportunity to prepare a Nutrient Management Plan for a property, use of the Overseer Model, and use of best practice guidelines. These matters are still outstanding.

323. Mr Callander addresses his concerns regarding Rule 10.2 in his evidence, and proposes an alternative rule as follows:

“From the date this Plan is made operative, any change in land use, in the Nutrient Management Area shown on Map 4, is a permitted activity, provided the following conditions are complied with:

- a) The nitrogen leaching rate is not greater than 35 kg/ha/year by 1 October 2013; and*
- b) The cumulative dissolved inorganic nitrogen load is not more than 50% above the leaching load at the date the Plan becomes operative at State Highway 1.*
- c) The cumulative dissolved reactive phosphorus is not above the leaching load at the date the Plan becomes operative.*
- d) One of the following is being implemented by the landowner or occupier:*
 - i. a Farm Environment Management Plan; or*
 - ii. an Industry Certification System; or*
 - iii. a Catchment Agreement; or*
 - iv. an Irrigation Scheme Management Plan; or*
 - v. a Lifestyle Block Management Plan.*

Recommendation

324. I recommend the Commissioners note the matters raised by HWP that have not been addressed, and replace the existing Rule 10.2 with the alternative rule proposed by Mr Callander.

Plan Provision: Rule 11.1 & 11.2 (Page 24)

325. Rule 11.1 states: “*Any existing land use as at 1 October 2011, in the Nutrient Management Area shown on Map 4, which does not comply with Rule 10.1 is a discretionary activity.*”
326. Rule 11.2 states: “*After 2017, any change in land use, resulting in an increase to a discharge of nitrogen or phosphorous which may enter water, in the Nutrient Management Area shown on Map 4, which does not comply with one or more of the conditions of Rule 10.2 is a discretionary activity.*”

HWP Submission

327. HWP has raised above concerns regarding the Nutrient Management Area and Schedule 1 data. In addition, HWP questioned why non-compliance with Rule 10.1 and 10.2 above results in a discretionary activity, and not a restricted discretionary activity.
328. HWP sought Rules 11.1 and 11.2 be amended by providing restricted discretionary activity status for any activity that is unable to comply with the permitted activity conditions.

Officer Report

329. Rules 11.1 and 11.2 are now restricted discretionary activities and apply from date Plan becomes operative.
330. Rule 11.1 is recommended to be amended as follows:

“Any existing land use as at the date the Plan is made operative ~~1 October 2011~~ that results in a discharge of nitrogen or phosphorus which may enter water, in the Nutrient Management Area shown on Map 4, which does not comply with Rule 10.1 is a restricted discretionary activity.

The Canterbury Regional Council will restrict the exercise of its discretion to the following matters:

(i) Any effects on water quality resulting from nutrient loss, including whether the activity in combination with all other activities will result in the nutrient limits in Schedule 1 being exceeded.

(ii) The appropriateness of any methods proposed to address issues managed under the systems, agreements or plans specified in Rule 10.1(a)(i) – (iv).

(iii) The appropriateness of any alternative methods proposed to achieve the Plan’s policies and objectives.”

331. Rule 11.2 is recommended to be amended as follows:

“From [date this Plan is made operative], ~~After 2017,~~ any change in land use (refer Part 5 – Definitions), ~~resulting in an increase to a discharge of nitrogen or phosphorous which may enter water,~~ in the Nutrient Management Area shown on Map 4, which does not comply with one or more of the conditions of Rule 10.2 is a restricted discretionary activity provided that the Nitrogen Load is less than 125%, and the Phosphorus Load is less than 110%, of that specified in Schedule 1. The Canterbury Regional Council will restrict the exercise of its discretion to the following matters:

(i) Any effects on water quality resulting from nutrient loss, and the effectiveness of any mitigation measures proposed to reduce nutrient loss.

(ii) The appropriateness of any methods proposed to achieve the Plan’s policies and objectives, including the implementation of a system, agreement or plan specified in Rule 10.2(b)(i) – (iv).

(iii) The appropriateness of any methods proposed to address issues managed under the systems, agreements or plans specified in Rule 10.2(b)(i) – (iv.).”

332. The Officer Report recommends a restricted discretionary activity be provided when the Nitrogen Load is less than 125%, and the Phosphorus Load is less than 110%, of that specified in Schedule 1.

Comment

333. I support the recommended restricted discretionary activity status for activities that do not comply with the permitted activity rule standards. However, similar to above,

there is no reference to the opportunity to prepare a Nutrient Management Plan for a property, use of the Overseer Model, and use of best practice guidelines. These matters are still outstanding.

334. Mr Callander addresses his concerns regarding Rules 11.1 and 11.2 in his evidence, and proposes an alternative rule as follows:

New Rule 11.1 “Any existing land use as at the date the Plan is made operative that results in a discharge of nitrogen or phosphorus which may enter water, in the Nutrient Management Area shown on Map 4, which does not comply with Rule 10.1 is a restricted discretionary activity.

The Canterbury Regional Council will restrict the exercise of its discretion to the following matters:

- (i) Any effects on water quality resulting from nutrient loss.*
- (ii) The appropriateness of any methods proposed to address issues managed under the systems, agreements or plans specified in Rule 10.1(a)(i)-(iv).*
- (iv) The appropriateness of any alternative methods proposed to achieve the Plan’s policies and objectives.”*

New Rule 11.2 Proposed:

“From the date this Plan is made operative, any change in land use in the Nutrient Management Area shown on Map 4, which does not comply with one or more of the conditions of Rule 10.2 is a restricted discretionary activity.

The Canterbury Regional Council will restrict the exercise of its discretion to the following matters:

- (i) Any effects on water quality resulting from nutrient loss.*
- (ii) The appropriateness of any methods proposed to address issues managed under the systems, agreements or plans specified in Rule 10.2(b)(i)-(iv).*
- (iii) The appropriateness of any alternative methods proposed to achieve the Plan’s policies and objectives.”*

335. I also note the Officer Report recommends a new Rule 12.1 – Non-complying activity for any activity that has a load above the N (125%) and P (110%) figures. With the alternative rules provided by Mr Callander, Rule 12.1 is not required.

Recommendation

336. I recommend the Commissioners note the matters raised by HWP that have not been addressed, and replace the existing Rule 11.1 and 11.2 with the alternative rule proposed by Mr Callander, and reject the Officer Report recommendations to amend the notified Rules 11.1 and 11.2 and the new Rule 12.1 recommended.

Plan Provision: Rule 12.1 (Page 25)

337. Rule 12.1 states: *“The temporary or permanent transfer of a resource consent (or part thereof) to take or use surface water wholly within one surface water allocation zone, on Map 1, is a restricted discretionary activity provided it complies with the following standards and terms.*

The Canterbury Regional Council will restrict the exercise of its discretion to the following matters:

(vii) any effects on water quality, including whether the activity in combination with all other activities will result in the nutrient limits in Schedule 1 being exceeded;”

HWP Submission

338. While HWP supports the rule in principle, it has raised above concerns regarding the data included in Schedule 1.

339. HWP sought the intent of Rule 12.1 to be retained as written, while adopting the changes to Schedule 1 sought by HWP in this submission.

Officer Report

340. The Officer Report identifies the HWP support for the intent of the rule (now Rule 13.1), and the request to change load limits in Schedule 1. The Officer Report also makes a number of recommended changes to the rule (added provision regarding preventing fish from entering water intake), and the matters of discretion (deleted reference to Schedule 1 as per discussed above).

Comment

341. In my view, the amendments recommended are acceptable and are supported. I note the intent of the rule remains, and this was supported by the HWP.

Recommendation

342. I recommend the Commissioners accept the Officer Report recommendations and amend Rule 12.1 (now 13.1) and retain the intent as sought by HWP.

Plan Provision: Table 1 Environmental Flow and Allocation Regime (Pages 26)

HWP Submission

343. HWP seeks that the minimum flows which apply to the Hurunui Catchment (until storage with a capacity greater than 20,000,000m³ is developed) are reduced. The A Block Minimum flows for December and January (pre storage) should be reduced to 12m³/s and B Block Minimum Flows for the period December to April should also be reduced.

Comment

344. As discussed above, the HWP wishes to withdraw this request.

Recommendation

345. I recommend the Commissioners note HWP withdraws this point.

Plan Provision: Definitions (Pages 30 - 32)

346. Change of land use – *“For the purposes of this Plan a change in land use, is calculated on a per property basis, and is determined as being either:*
a) an increase greater than 10% in the stocking number measured in stock units; or,
b) an increase greater than 10% in the release of Nitrogen or Phosphate to land which may enter water, measured on a kg/ha basis, but calculated on the gross load per property.”

HWP Submission

347. HWP considered this definition is important when considering the Plan provisions addressing the effects of a change in land use on water quality. HWP's concern here is that this definition is not necessarily effects based, and the percentages chosen are arbitrary. For example, if small stock numbers are currently run on a property, a 10% increase in stock numbers may have little or no adverse environmental effects. Further discussion may be needed regarding a 10% increase in the release of Nitrogen or Phosphate.
348. HWP sought the definition of *change of land use* to be rewritten to represent an effects based approach to defining a change in land use activity.

Officer Report

349. The Officer Report identifies HWP's concerns, and discusses the issues. It concludes that there is difficulty in using stock numbers, and recommend (a) be deleted. In relation to the HWP's concerns with (b), the Officer Report states: "*As such, it is my view that the definition and approach are effects-based, and the changes sought by the submitters would not be more appropriate to implement the Plan's policies and achieve its objectives*". The Officer Report also recommends the words '*long term average*' be added after the words "... *than increase in 10% in the ..*". The Officer Report notes that HWP did not provide an example definition of an effects based approach.

Comment

350. I concur with the Officer Report findings in relation to the deletion of (a), and support this amendment. Notwithstanding this, I have concerns about the definition of (b) and in particular the increase in 10% of N and P.
351. In particular, it is my view that a 10 % change is an arbitrary selection, not necessarily linked to adverse effects.
352. Such a change may be of quite variable significance depending on the current losses. For example a farm with N loss of 50 kg N/ha/yr could affect a relatively significant change, increasing average loss by up to 5 kg N/ha/yr without registering land use

change, while inequitably, a low intensity farm with N loss of just 10 kg N /ha/yr would trigger a requirement for consent under this definition with relatively mild N loss increase of just 1 kg N /ha/yr.

353. In addition, considering the accepted margin of error for Overseer of 20-30 % the selection of 10 % N loss as a definition of land use change seems inconsistent with the accepted bounds of system variability.
354. Under these circumstances consent would be unduly onerous, costly and would achieve no resource management purpose. The definition, if amended and retained, should specifically be for measures which apply when the Plan becomes operative.
355. It is also noted ‘changed’ is to be measured on a ‘per property’ basis, and the definition of ‘property’ is not included in PHWRRP. I believe a broad definition of ‘property’ is needed (for example it should not be restricted to land title but area of farm operations) to ensure the determination of change is appropriate and associated with a particular farming activity.
356. I am aware that the Fertiliser Association of NZ and Ravensdown have proposed an alternative definition for ‘change’ as follows:

“(i) Greater than 20 % of the farm area changing from one of the listed farm activities to another farm activity, or

(ii) Increase in average Nitrogen loss/ha/yr as estimated by Overseer of more than 6 kg N/ha/yr

Listed farm activities being; dairy, drystock grazing, cropping, horticulture, irrigated farming.

Note: The rationale for selecting a change of 6 kg N loss/ha/yr as a definition of land use change is made on the basis of there being 20 % of an arbitrary 30 kg N/ha/yr benchmark N loss for most farms, (assuming 20 kg N /ha/yr is too low to be practicable for most farms, using Overseer Version 6).”

Recommendation

357. I recommend the Commissioners reject the definition recommended by the Officer Report and adopt the definition set out above at paragraph 356.

358. Infrastructure Development Plan – “An Infrastructure Development Plan is a Plan submitted with a resource consent application that provides:

For irrigation takes:

- *A description of the way that infrastructure will be developed to allow for the irrigation of up to 100,000ha of land in the Hurunui and Waiau Zone and enable future irrigation of the currently un-irrigated areas adjacent to the site of the development;*
- *The location of any water storage reservoirs, and a description of:*
 - (i) the size of these reservoirs;*
 - (ii) the operating rules;*
 - (iii) any recreational activities that these reservoirs could provide; and,*
 - (iv) any riparian management,*
- *A map and a description of the location of the point of take, any diversion(s) and any point source discharge(s);*
- *A map and description of the location of any riparian planting or other biodiversity works to assist in managing water quality;*
- *A description of the properties that will be provided with water from the proposed scheme and the application rate that is proposed for each property;*
- *A description of how any water will be distributed and used with maximum efficiency;*
- *A description of how existing abstractors’ reliability, within the command area, will remain the same or improve under the proposed development;*
- *If the development is proposed in the Hurunui or Waiau River Catchments and involves the storage of more than 20,000,000m³ a description will be provided as to how the river regime will be managed to achieve an increase in the Minimum Flow as shown on Table 1.”*

HWP Submission

359. While the HWP supported in principle the idea of the integrated approach to providing irrigation infrastructure to meet the desired outcome to irrigate 100,000 ha

of land, it is concerned that the Infrastructure Development Plan does not provide adequate guidance regarding the level of information required and what particular matters need to be addressed for a particular type of project. The timing of the provision of the Infrastructure Development Plan may also mean some of the information required is not available.

360. HWP sought the definition of Infrastructure Development Plan to focus closely on the reason for the plan (to ensure an integrated approach to the provision of infrastructure), and provide more clarity regarding the level of information required which is at a high level due to the timing of the requirement for the Plan.

Officer Report

361. The Officer Report identifies HWP concerns, and states: “...*in relation to the level of information required, it is my view that it is clear in the Plan that the level of information required will be that which corresponds to the scale and significance of the activity, and ultimately can only be determined on a case-by-case basis. While I acknowledge the comments made by the submitter in relation to the timing of information, the submitter has not identified what parts of the IDP requirements they consider this would apply to. The matters listed are those that I would generally expect to be known at the time of consent application; however should the submitter shed further light on this, I will consider whether it is appropriate to amend the requirements.*”

Comment

362. The matters of concern to HWP regarding information requirements and timing relate to:
- For irrigation takes – the way that irrigation will be developed to allow for irrigation of up to 1000,000ha; a map and description of any riparian planting or other biodiversity works; a description of the properties that will be provided with water and application rate proposed for each property; a description of how any water will be distributed and used with maximum efficiency;

363. The recent applications for HWP's water storage facilities on the Waitohi River has highlighted the difficulty in provide sound and robust information on the future infrastructure that might be required for the project. The HWP had an agreement in principle to apply for 'critical consents', being the take, use, divert, and discharge of water from the Hurunui and Waitohi Rivers. The design of infrastructure for distribution is costly, and pointless if consents to get access in the first place are not secured. The information requirements in the IDP, while not unreasonable, need to take a staged approach, as the project development is staged. Considerable cost and effort was required to provide sufficient information in the IDP to have it accepted by Council, and there is a high likelihood this information will change as the second stage of the project develops.

Recommendation

364. I recommend the Commissioners note the concerns raised in HWP's submission regarding information requirements in the IDP, and consider a staged approach to requiring that information.

365. Industry Certification System – *“An Industry Certification System is a system approved by Canterbury Regional Council that identifies actions to be undertaken to actively manage the use of natural resources in order to achieve high standards of environmental management and optimise production from all properties within an industry class. Any Industry Certification System must at a minimum, to the extent considered appropriate and corresponding to the scale and significance of the activities undertaken by that industry class, contain the elements identified in Schedule 2.”*

HWP Submission

366. While HWP supported the overall intent of the system proposed, it considers there is the opportunity for best practice to be identified, including the preparation of Nutrient Management Plans and the use of the Overseer Model by certified practitioners. It is considered the definitions and Schedule 2 elements would benefit by having some specifics included.

367. While HWP supported in principle the intent of the systems proposed, it sought an amendment to the definition to have reference to specific best practice (such as Nutrient Management Plans and use of the Overseer Model) and the supporting need for certified practitioners to strengthen the intent of the approach.

Officer Report

368. While the Officer Report does not specifically identify HWP's submission points, it provides general comments about a number of changes requested by other submitters. The Officer Report states: *"In general, it is my view that the amendments recommended in relation to clarifying Schedule 2 adequately address these concerns, without requiring changes to the definitions of the ASM programmes."* No amendment is recommended to the definition.

Comment

369. While the Officer Report does not recommend any amendment to the definition of *Industry Certification System*, it does add the following as a minimum requirement in Schedule 2: *"An inventory of the current (from [date this Plan is made operative]) nitrogen loss rate (kg/year) for each property in the Programme area, as determined by application of Overseer by a suitably qualified independent practitioner"*.

370. I support the minimum requirement recommended to be added to Schedule 2.

Recommendation

371. I recommend the Commissioners adopt the recommended changes to Schedule 2 regarding an inventory of N loss as determined by OVERSEERTM and used by a certified practitioner.

372. Irrigation Scheme Management Plan – *"An Irrigation Scheme Management Plan is a Plan approved by Canterbury Regional Council that identifies actions to be undertaken to actively manage the use of natural resources in order to achieve high standards of environmental management and optimise production from the land within the irrigation schemes command area. Any Irrigation Scheme Management Plan must at a minimum, to the extent considered appropriate and corresponding to*

the scale and significance of activities carried out within the irrigation scheme, contain the elements identified in Schedule 2.”

HWP Submission

373. While HWP supported in principle the Irrigation Scheme Management Plan approach, it has raised concerns above regarding the certainty around what this management plan may look like, the discretion that it held by Council approving the management plan, and the uncertainty as to whether an activity is permitted.
374. HWP sought clarity regarding what is required in the Irrigation Scheme Management Plan for it to be approved by Council.

Officer Report

375. The same comment applies as above for the Industrial Certification System. No amendment is recommended to the definition of Irrigation Scheme Management Plan (ISMP).

Comment

376. I note that while HWP supported the ISMP in principle, it has concerns regarding what this plan might look like. Furthermore, I am concerned that it is a condition for gaining a permitted activity, and such a condition requires certainty and reasonableness (among other things). The test of certainty is two way – a resource user needs to have certainty the activity they propose is permitted. Likewise, a neighbour should have certainty that an activity being undertaken by someone else can happen. With the reliance on the various mechanisms in the rules, it is important that the mechanisms themselves are well defined, and can be prepared and accepted by Council. In my view, as highlighted above regarding the Infrastructure development Plan, there may be difficulty in providing some of the information in Schedule 2, and this may lead to uncertainty as to whether an activity is permitted. I do not consider this is appropriate, and is not effects based.

Recommendation

377. I recommend the Commissioners note the concerns raised in HWP’s submission regarding information requirements in the ISMP and Schedule 2, and consider a staged approach to requiring that information.

378. Lifestyle Block Management Plan – “A Lifestyle Block Management Plan is a Plan approved by Canterbury Regional Council that identifies actions to be undertaken to actively manage the use of natural resources in order to achieve high standards of environmental management. Any Lifestyle Block Management Plan must at a minimum, to the extent considered appropriate and corresponding to the scale and significance of activities carried out on the lifestyle block, contain the elements identified in Schedule 2.”

HWP Submission

379. While HWP supported in principle the Lifestyle Block Management Plan approach, it has raised concerns above regarding the certainty around what this management plan may look like, the discretion that it held by Council approving the management plan, and the uncertainty as to whether an activity is permitted.

380. HWP sought clarity regarding what is required in the Lifestyle Block Management Plan for it to be approved by Council.

Officer Report

381. The same comments apply as above.

Comment

382. The same comments apply as above.

Recommendation

383. I recommend the Commissioners note the concerns raised in HWP’s submission regarding information requirements in the LBMP and Schedule 2, and consider a staged approach to requiring that information.

Plan Provision: Schedule 1: Catchment Nutrient Load Limits (Page 33)

384. HWP has raised above concerns regarding the reliability and appropriateness of these limits. In particular, relying on limit data and the fact that little is understood about the leaching rates of nutrients, HWP questions the load limits set under Schedule 1.
385. HWP sought:
- that a nitrate - nitrogen limit be set at a concentration of 1.7 mg/L (i.e. 95% level of protection) with a review of limits set once modelling gives better understanding of what levels should be set.
 - that no phosphorous limit be set, but instead an algal growth limit be set, such as, between 1 November and 30 April the maximum cover of visible stream bed shall not exceed xx% of diatom/ cyanobacteria mats greater than 0.3 cm thick or yy% of filamentous algae greater than 2cm long. The exact numbers should be determined in consultation with interested parties.

Officer Report

386. The Officer Report has a detailed assessment of the submissions relating to Schedule 1, and while the amended Plan in Appendix 2 does not include any changes in numbers, I note the Officer Report recommends changes to the nutrient load limits as follows:

“Schedule 1: Catchment Nutrient Load Limits

Catchment	State recorder	Catchment	Monitoring site location	Nutrient Load Limits	
				Dissolved Inorganic Nitrogen (tonnes/ year)	Dissolved Reactive Phosphorus (tonnes /year)
		Hurunui	Mandamus flow recorder	40 <u>39</u>	3.6 <u>3.2</u>

Note: This limit is the Nitrogen and Dissolved Phosphorus limit reduced by 20% prior to 2017.

Comment

I note the expert evidence of Mr Callander who addresses this matter in detail. I also note that Mr Callander provides two alternative proposals for Schedule 1 as follows:

Options for Schedule 1

Catchment	Monitoring site location	Dissolved inorganic nitrogen (tonnes/year)	Dissolved Reactive Phosphorus
Hurunui catchment	Mandamus	Modelled load at date Plan operative	Modelled load at date Plan operative
	SH1	Modelled load at date Plan operative plus 50%	Modelled load at date Plan operative

OR

Catchment	Monitoring site location	Dissolved inorganic nitrogen (tonnes/year)	Dissolved Reactive Phosphorus
Hurunui catchment	Mandamus	40	3.6
	SH1	1155	10.7

Recommendation

387. I recommend the Commissioners review the technical evidence of Mr Callander and adopt one of the two alternative proposals he has put forward for Schedule 1 limits. The HWP preference is the modelled approach to be adopted but if this is not accepted the dissolved inorganic nitrogen limit should be increased to 1155 tonnes/year.

Plan Provision: Schedule 2 (Page 34) - Matter to be addressed in any System, Agreement or Plan in accordance with Rules 10.1 and 10.2.

HWP Submission

388. HWP has raised above concerns regarding the general nature of the systems and approaches proposed, and the need to strengthen the provisions by referencing best practice including the preparation of Nutrient Management Plans and utilising the Overseer Model.
389. HWP sought a review of the self-management mechanisms included in Schedule 2 with the intention of providing clarity around what needs to be included in these

mechanisms to ensure they are able to be approved by Council, and provide certainty that the activities are permitted activities.

Officer Report

390. As per above comments on various mechanisms.

Comment

391. As per above comments on various mechanisms.

Recommendation

392. I recommend the Commissioners note the concerns raised in HWP's submission regarding information requirements in the various mechanisms, and consider a staged approach to requiring that information.

Plan Provision: Map 4 - Nutrient Management Areas (Page 55)

HWP Submission

393. HWP is not clear how this Nutrient Management Area has been established, and it is therefore difficult to determine whether it is appropriate and necessary.

394. HWP seek clarification on the approach and methodology used to determine the Nutrient Management Area to determine its appropriateness and necessity.

Officer Report

395. I am unable to find any reference in the Officer Report to the matters raised by HWP in its submission.

Comment

396. Without a response, it is difficult to comment on this matter.

Recommendation

397. I recommend the Commissioners note the matters raised, and the lack of response in the Officer Report.

Chris Hansen

Date October 2012