



# Hurunui-Waiau Zone Committee

# Agenda

3.00pm, Monday, 15 August 2016
(Committee workshop to commence at 1.00pm)

Waikari Hall, Princes Street, Waikari.

Community Partnership in Growth and Wellbeing

#### **Committee Membership:**

John Faulkner (Chairperson)

James McCone (Deputy Chairperson)

David Bedford (Canterbury Regional Council)

Mayor Winton Dalley (Hurunui District Council)

Vince Daly (Hurunui District Council)

James Costello

Michele Hawke

Ken Hughey

Makarini Rupene (Te Ngāi Tūāhuriri Rūnanga)

Representative to be advised (Te Rūnanga o Kaikōura)

Ben Ensor

Dan Shand

Olmec Sinclair

#### Quorum:

The quorum of the meeting consists of:

- half of the members if the number of members (including vacancies) is even; or
- a majority of members if the number of members (including vacancies) is odd.

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#### The purpose of local government:

- (1) The purpose of local government is—
  - (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
  - (b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.
- (2) In this Act, **good-quality**, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are
  - (a) efficient; and
  - (b) effective; and
  - (c) appropriate to present and anticipated future circumstances.

(Local Government Act 2002 – Amendment Act 2012)

### Register of Interests for the Hurunui-Waiau Zone Committee

Committee	Interests
James Costello	<ul> <li>Farm owner – sheep in the Hurunui Catchment</li> <li>Water Resource Consent to take water from the Waitohi River</li> <li>Shareholder in Hurunui Water Project</li> <li>Possibly an affected landowner by infrastructure of Hurunui Water Project</li> <li>Dryland Farmers Committee member</li> </ul>
Ben Ensor	<ul> <li>Land owner in the coastal hills, Jed and lower Waiau catchments.</li> <li>Managing director of Seaward Stock Company Ltd, comprising sheep, beef and cropping enterprises.</li> <li>Consent holder to take water for irrigation from a stream hydraulically connected to the Waiau River.</li> <li>Member of the Hurunui Waiau Landcare Group (Dryland Farmers Group).</li> </ul>
John Faulkner	<ul> <li>Dairy farm owner in the Amuri Basin.</li> <li>Irrigation water supplied by Amuri Irrigation Company Ltd (Shareholder).</li> <li>Dairy Support block owner, consent to take water from a gallery.</li> <li>Member of the independent irrigators Group.</li> <li>Rural Real Estate Agent for Bayleys Realty Ltd.</li> </ul>
Michele Hawke	Nil
Dan Shand	<ul> <li>Land owner Hurunui and Waiau catchments</li> <li>Dry land farmer</li> <li>Member of the Hurunui/Waiau Landcare Group</li> </ul>
Mayor Winton Dalley	Register of Interests lies with the CEO of the Hurunui District Council.
Ken Hughey	<ul> <li>Professor of Environmental Management, Lincoln University (2 days per week)</li> <li>Chief Science Advisor, Department of Conservation, Wellington (3 days per week)</li> <li>Board member Waihora Ellesmere Trust</li> <li>Board member Hanmer Springs Conservation Trust</li> <li>Member Royal Forest and Bird Protection Society.</li> <li>Member Royal Society of NZ</li> <li>Member NZ Geographical Society.</li> <li>Occasional contract water-related research work including for Environment Canterbury.</li> </ul>
Olmec Sinclair	Nil
Makarini Rupene	TBC

James McCone	Dairy Farming businesses- Director and Shareholder
	<ul> <li>Dry Creek Dairy Ltd- AIC Balmoral scheme</li> </ul>
	Kinloch Dairy Ltd- AIC Waiau Scheme
	Dairy Farm Director
	<ul> <li>LH Dairy Ltd- Independent irrigation consent, lease of dryland hill</li> </ul>
	country
	Water management
	Amuri Irrigation Company Director
	<ul> <li>Committee Member Upper Waiau Independent Irrigators</li> </ul>
	<ul> <li>Informal interest in potential emu plains irrigation</li> </ul>
Councillor Vince	Farm owner - mixed cropping and livestock farm
Daly	<ul> <li>Water resource consent to take water from unnamed lake in Jed</li> </ul>
	catchment
Commissioner David	<ul> <li>Register of Interests is held by Environment Canterbury.</li> </ul>
Bedford	

#### HURUNUI – WAIAU ZONE COMMITTEE MONDAY, 15 AUGUST 2016

#### WAIKARI HALL, PRINCES STREET, WAIKARI

**TIMETABLE & ORDER OF BUSINESS** 

**NOTE: Zone Committee Workshops prior to meeting:** 

#### **Committee-only workshop**

1.00 – 1.30pm Improving the effectiveness and efficiency of Zone Committee meetings

#### **Public workshop**

1.30 – 2.45pm Finalising the Zone Committee's principles that should underpin the development of property-scale nutrient management: consideration of additional principles beyond those agreed at 18 July workshop.

	3.00pm	<ul> <li>Zone Committee Meeting commences with karakia and formal order of business</li> <li>Apologies</li> <li>Announced urgent business</li> </ul>		
		<ul> <li>Interests register (changes or updates)</li> <li>Confirmation of minutes – 18 July 2016</li> <li>Matters arising</li> </ul>	6 - 14	
1	3.15pm	<ul><li>Update on Regional Committee</li><li>Michele Hawke and Winton Dalley</li></ul>		
2	3.20pm	Update from Zone Committee members on activities and meetings attended that relate to the Committee's outcomes for the zone		
3	3.30pm	Public Contribution		
4	3.35pm	Update from North Canterbury Landcare Group		
5	3.40pm	Update from Zone Manager		
6	3.45pm	Ngai Tahu Farms, Amuri Irrigation Company and Hurunui Water Project		
7	5.00pm	BREAK		
8	5.20pm	Review Hurunui Waiau ZIP recommendations	15 – 28	
9	6.20pm	Zone Facilitator's report  Ian Whitehouse (Environment Canterbury)	29 – 32	
	6.30pm	Meeting concludes		

# HURUNUI DISTRICT COUNCIL MINUTES



Meeting Hurunui-Waiau Zone Committee

Date and Time 18 July 2016, 3.00pm

**Venue** St Johns Rooms, 66 Carters Road, Amberley.

Members Present John Faulkner (Chairperson), Mayor Winton Dalley, Commissioner David

Bedford, James McCone, James Costello, Councillor Vince Daly, Ben Ensor,

Michele Hawke, Dan Shand and Olmec Sinclair.

In Attendance Environment Canterbury (ECan) – Ian Whitehouse (Zone Facilitator), Kevin

Heays, Renay Weir, Jessica Hill, Dennis Jamieson, Ian Brown, Lisa Jenkin,

Stephen Bragg and Philip Burge.

Hurunui Water Project – Alex Adams, Mike Hodgen and Jim Lee.

North Canterbury Landcare Group – Dan Hodgen.

**Rooney Farms** – Richard Draper.

Fonterra – Shaun Lissington.

**Lincoln University** – Ronlyn Duncan.

**Amuri Irrigation Company** – Norm Williamson and David Croft. **Ngai Tahu Farms** – Andrew Priest, Barry Bragg, Edwin Jansen.

Fish and Game - Scott Pearson

Members of the Public – Leslie Shand, Sue Turnbull and David Kirkness.

**Department of Conservation** – John Benn and Daniel Kimber.

**Hurunui Water Project** – Jim Lee.

**Committee Secretary – Michelle Thompson.** 

**Karakia** The karakia was performed by Stephen Bragg.

**Apologies** Ken Hughey, Makarini Rupene and Vince Daly.

Conflict of Interest

**Declarations** 

Nil.

**Urgent Business** 

Nil.

**Interests Register** 

Nil.

Minutes

THAT THE MINUTES OF THE COMMITTEE MEETING HELD ON 20 JUNE 2016 ARE CONFIRMED.

• An addition as detailed in an email received from Alastair Rutherford, to be made to page 7 of the agenda.

Faulkner/McCone CARRIED

**Matters Arising** 

Thank you to James McCone for chairing the June meeting.

#### Correspondence

Two items of outgoing correspondence are included in the agenda commencing on page 12:

- Outgoing letter from Zone Committee to Mr Alex Adams (Hurunui Water Project) regarding statement of support for Hurunui Water Project, 20 June 2016.
- 2. Outgoing letter from Zone Committee to Ngai Tahu Farming, Amuri Irrigation Company and Hurunui Water Project regarding Hurunui Waiau Zone Committee concerns and invitation, 29 June 2016.

The Committee received and considered the correspondence. The Committee made no comment.

# 1. Update on Regional Committee

Nothing to report; there has been no regional committee meeting since the last zone committee meeting.

# 2. Update from Zone Committee Members

The Zone Committee Members provided an update on activities and meetings attended that relate to the Committee's outcomes for the zone.

- Michele Hawke attended a Regional Committee biodiversity Working Group meeting that provided guidance on how to measure if the Committee is making progress and how money is spent on environmental improvement. Ian Whitehouse undertook to circulate an email from Michele Hawke to all committee members on this subject.
- The Zone Committee's Biodiversity sub-committee met this morning to discuss how new projects can scoped and progressed. The subcommittee have decided to meet more frequently in an attempt to get more projects completed.
- Refreshment of the regional committee has just occurred and the new members will be at the next meeting.
- Ben Ensor reported that the Cheviot irrigators have held a successful meeting to form a Nutrient Collective.

# 3. General Public Contribution

Nil

#### 4. Update from Dryland Farmers

The Dryland Farmers reported that it is 'business as usual'. The constitution of the land-care group is currently being finalised and they are working on their submission on Plan Change 5.

Leslie Shand suggested that controlling the wilding trees in all areas would be beneficial. Commissioner Bedford reported that central government have allocated funding to control problem wilding pines across New Zealand. Commissioner Bedford requested that Environment Canterbury provide the Committee with a briefing on what is happening with this at a future meeting.

# 5. Update from Zone Manager

Kevin Heays (Environment Canterbury Zone Manager) provided a verbal update which covered the following points:

- The Cheviot Irrigators' Group is making good progress.
- Environment Canterbury visited Lakes Station to further the work being done around high country lake stock exclusion. As result it has been

agreed that a farm plan will be written which will include biodiversity aspects and stock exclusion from waterways. It was noted that the property owner is cooperating fully despite adverse publicity.

- The consent to open the Waipara River mouth is at the final stage.
- Also in relation to Waipara mouth, the Access to the Beach Plan is progressing with input from stakeholders. A track on the Moir's property is being constructed in the near future.
- The Waitohi River catchment investigation although expensive will be carried out soon. The investigation is likely to centre on the hydrology, the historic, current and recommended use of the water resources there.
- An accidental spillage in the Hawarden area of 2-4-5-T has resulted in a drive to clarify processes and provide farmers with a simple protocol to follow if this should occur again.

#### 6. Stakeholders

Representatives from Ngai Tahu Farms (NTFE), Amuri Irrigation Company (AIC) and Hurunui Water Project (HWP) were present to speak to the Committee as a result of receiving the outward correspondence to the chairs of NTFE, AIC and HWP, dated 29 June 2016 (included on pages 13-14 of the agenda).

Norm Williamson (AIC) stated that he would like to defer a detailed response to the three questions raised in the letter until the August 2016 meeting. He added that the three stakeholders had met in May with a renewed intent of better communication and working towards a better understanding of an integrated storage solution. He added that working on improving nutrient levels is another area that the stakeholders can work on prior to the plan change.

Andrew Priest (NTFE) commented that they are making good progress on an integrated storage solution and river health and how NTFE can work with Environment Canterbury to improve this.

Jim Lee (acting chair HWP) commented that there had been several collaborative telephone conversations and he is positive that things will improve.

James McCone (acting chair of the June HWZC meeting) stated that there had been a heated discussion around the Ngai Tahu Farming consent application at the last HWZC meeting. He said that this had caught the Committee off guard. He said that he would like to hear more about the consent application and why the other stakeholders did not know more about this.

Jim Lee (HWP) asked that this not be re-litigated as the stakeholders are now in better communication.

Andrew Priest (NTFE) stated that the consent application has now been withdrawn and another path is being taken.

Mayor Dalley stated that the HWZC members in general are disappointed that after six years not much progress had been made and it appears that things are not working out well.

John Faulkner (chair HWZC) stated that the community desired outcomes and the actual outcomes of the three different stakeholders may not be the same; so this is why it is important that the three parties are in agreement. He stated that he had told NTFE last year that he wanted to have something

on the table in the next six months. He said that he is getting tired of no progress.

Jim Lee noted that HWP has a special general meeting scheduled for 27 July 2016. At this meeting shareholders will be asked to take on debt and HWP's joint ownership with NTFE is fundamental to this being achieved. He stated that he remained optimistic of a positive outcome, but HWP has a deadline to overcome this month.

Andrew Priest (NTFE) stated that the fact that the consent application has been withdrawn is a measure of the good faith that NTFE has with HWP.

Jim Lee (HWP) stated that none of the three stakeholders are going to get everything they want. There will not be total happiness for every party and accepting this has meant that there has been progress with the collaborative approach.

Commissioner Bedford stated that there are expectations on what the stakeholders will come back with. He asked if the stakeholders could inform the Committee of what they will be addressing and when the Committee may expect to hear it.

Norm Williamson (AIC) stated that they are working on an integrated storage solution and have a timeframe to decide whether this can be achieved. He stated that the Committee may have some tasks to complete as a result of this.

The stakeholders confirmed that they will be in a better position to answer the first two questions in the letter and discuss the last question at the August 2016 zone committee meeting.

John Faulkner thanked the stakeholder representatives for their attendance.

#### 7. Break

The meeting adjourned for a break at 4.27 pm and reconvened at 4.48pm.

# Extra Item: HWP Update

Alex Adams (HWP) provided a verbal update on the activities of the HWP:

- There will be a shareholder special meeting 27 July 2016 to approve new lending.
- HWP have no fixed assets only monetary assets.
- It is hoped that a shareholders loan is subscribed and a contractor signed up by 31 August 2016.
- HWP needs both of these.
- HWP are looking for early contractor involvement; asking contractors for money and work in kind and in return they get the contract to complete the work.
- A feasibility study needs to be conducted which will indicate whether the
  project will continue or stop; early indicators are that the project is not
  low cost but is economic.
- HWP need the Irrigation Acceleration Fund (IAF) money which will be applied for in the near future.
- In general HWP is making good progress; the agri-bankers will be communicated to next week.

#### 8. Additional Environment Canterbury

A power point presentation on additional Environment Canterbury monitoring and investigations for the sub-regional process relating to water quality and quantity was included in the agenda commencing on page 15 of

### monitoring and investigations

the agenda. Tim Davie (Environment Canterbury) was present to speak to the Committee. An apology was tabled for Ned Norton (Environment Canterbury).

Tim Davie explained where the permanent monitoring occurs in the Conway catchment as shown in the legend on the map on page 18. He provided an explanation of the new monitoring in Conway catchment as detailed on page 28 and shown on the map on page 29.

He explained that there is the continual measurement then a change of site to give an idea of where the water is coming from.

The current river flow monitoring of the Waiau (Hanmer, Emu and Amuri Plains) is detailed on page 19 and illustrated on the map on page 20. It was noted that some of the tributaries have been monitored for a long time.

The new monitoring for the Waiau is shown on page 30 and detailed on the map on page 31. Tim Davie noted that that there is some more ground water monitoring.

Tim Davie explained that the proposed new monitoring is not set in stone and Environment Canterbury welcomes feedback.

Commissioner Bedford asked for clarification on what a gauging site is. Tim Davie explained that it helps provide answers as to where water is coming from and to facilitate an improved understanding of how the whole system is working. A gauging site represents a whole day of work for three to four people. He noted that the new monitoring will give a better idea of how things vary within the catchment.

The Committee asked if there is any collaboration with other scientific groups to ascertain if there are any gaps. Tim Davie stated that they are working collaboratively with other groups so the testing happens on the same day so a more complete picture can be put together.

Edwin Jansen asked what the parameters were of what was being tested and what specifically is Environment Canterbury testing for. Tim Davie stated that they are using a standard suite of testing including but not limited to nitrogen, phosphorus, dissolved oxygen, periphyton cover and water clarity.

Current monitoring in the inland Hurunui catchment is described on page 21 and illustrated on the map on page 22. New monitoring is shown on page 33.

Tim Davie explained that when the Waitohi River water comes down it is known that a lot is lost to ground water but when it pops up again Environment Canterbury are unsure as to whether it is from the Waitohi or whether it is coming across from elsewhere. He said that this new monitoring will help answer this and provide a clearer picture. He added that a wet winter is needed to monitor this accurately and this has not occurred this year.

New monitoring on coastal Hurunui, Waiau and Parnassus is detailed on page 35. He stated that Environment Canterbury has good information on the flow of the Waiau; but the biggest problem with the Waiau is the access to it. He added that it is a case of accessing the technology and getting this to work. He said that Environment Canterbury still does not know if the Waiau mouth is open during monitoring. Knowing this will enable Environment Canterbury to calculate the flow required to keep the mouth open. He added

that these are complex systems and this is a real problem to be resolved.

Current monitoring in the Waitari, Waipara Motunau and Kowai catchments are shown on page 25. Tim Davie noted that there is some long term monitoring in this area and some reasonably new. The new monitoring is described on page 36. He noted that the hapua of the Waipara is important and drew the Committee's attention to the extra gauging as shown on page 37.

Tim Davie asked for feedback from the Committee either at the meeting or later via email. He explained that Environment Canterbury have some room to manoeuvre but do not have an endless budget.

James McCone asked if there is a process to engage with various parties and scientists. Tim Davie explained that Ned Norton would be a better person to answer this question. He added however that he understood that there is a big effort to get various well known and trusted scientific parties together to agree on how they should interact and collaborate. He assured the Committee that Environment Canterbury is working hard to find and an agreed idea of how things work and how they can work together in the future.

The Committee asked how this data may be accessed. Tim Davie explained that the data is not always immediately available, but when it is it can be viewed on <a href="https://www.lawa.org.nz">www.lawa.org.nz</a>.

The Stakeholders agreed that they would accept the data and work with the scientific community performing this monitoring.

9. Finalise outcomes that will underpin sub-regional process

A report on finalising the outcomes that will underpin the sub-regional was provided by Ian Whitehouse and included in the agenda commencing on page 40 of the agenda. The zone committee agreed to the vision modified only slightly from what is in the Zone Implementation Plan (ZIP). Ian Whitehouse noted that the Committee had agreed on the first four outcomes previously and recommended that these (and the vision) be accepted. The Committee agreed and decided to move on to consider and agree upon the remaining outcomes. The Committee considered the remaining outcomes as follows:

- 5. natural character no comments to add from the Committee.
- 6. land based economy no comments to add from the Committee
- 7. rural communities no changes.
- 8. recreation and amenity no changes to add from the Committee.
- 9. Hydro-electricity the Committee agreed to add "to increase hydro-electric generation within parameters".

#### How to outcomes:

- 10. GMP or better Ken Hughey had previously added point v. the Committee agreed with this with no further changes.
- 11. Irrigation It was noted that this has always been challenging. James McCone requested that point (a) be changed to "Provide water to meet current and future irrigation demand." The Committee agreed to this addition in order that it is future proved.

# 10. Immediate Steps

A report on a proposed project for Immediate Steps Biodiversity Funding – Ladino (Kowai River) was provided by Jessica Hill (Environment Canterbury) and included in the agenda. The author was present to speak to the Committee.

Michele Hawke explained that the bio-diversity sub-committee had worked through this project earlier in the day. The sub-committee had seen the breakdown of the costings and recommended that this project proceed. This landowner has a proven record of being able to complete and maintain a project.

THAT THE ZONE COMMITTEE SUPPORT FUNDING THE NEW IMMEDIATE STEPS PROJECT: THE LADINO ENHANCEMENT PROJECT.

Hawke/Shand CARRIED

# 11. Future of Immediate Steps

A report on the future of the Immediate Steps programme was included in the agenda. There was an apology from Chris Keeling (Environment Canterbury) the author of the report. The report was taken as read. The Immediate Steps programme has been extended for another five years but some changes are proposed. Commissioner Bedford asked for an explanation of these changes.

Jessica Hill (Environment Canterbury) noted the following:

- The programme will continue in current fashion but operationally projects that are \$5,000 or less may be approved by officers without coming to zone committee and some of the in house process would be simplified.
- Zone committee are to decide if the high priority areas will be kept or changed.
- Biodiversity remains the goal although the criteria for community engagement becomes higher importance. The criteria will not be driven entirely by ecological value. This will provide for more scope for community planting.

The Committee discussed this report. The following comments and questions raised were included (but not limited to) in the discussion:

- The Committee asked if there was a cumulative cap on small projects that could be approved by staff.
- Michele Hawke said that this committee would want to see all these under \$5,000 projects.
- Michele Hawke said that she would like some reporting on the status of previously approved/actioned projects.
- The Committee noted that the framework for consideration is unclear. The Committee noted moving to a point where there is come competition for funding may be beneficial. Jess Hill undertook to show the Committee some projects that do not meet the criteria and are therefore declined.
- Jess Hill explained that it is intended to have a move towards a wider score card when projects are considered for approval with more wriggle room and a widening of the consideration beyond just the ecological value.
- Jess Hill explained that it is proposed that the Zone Committee identify areas of value and where the Immediate Steps programme

should focus resources. She added that it is envisioned that this Committee will go out to these identified areas and get projects off the ground. This pro-active approach is a change from the current reactive approach. She provided examples of how the zone committee based in the Kaikoura district had identified potential Immediate Steps projects in the zone and pro-actively driven these projects forward by engaging with and encouraging community group ownership.

- Jessica Hill noted that there has been a drop off in Immediate Steps applications. Recently there has been more interest in QE11 applications. There are not many potential Immediate Steps projects to assess against as the projects are just not coming forward.
- Jessica Hill noted that one of the key issues is how the approved projects are managed five to ten years down the track. There are serious weed and pest issues with some projects post completion.
- In response to the questions asked in the report the Committee felt it could not answer them fully until the questions it had raised were answered to the Committee's satisfaction.
- Mayor Dalley asked the zone committee if there is a flagship project;
   a project that will not be achieved otherwise.

# 12. Informing regional work programmes

Ellie McNae (Environment Canterbury) provided a report on informing regional work programmes: recreational and amenity initiatives and regional biodiversity. This was included in the agenda commencing on page 49. Ellie McNae tabled a document titled Recreation and Amenity Information Pack for Hurunui-Waiau Zone Committee and provided a presentation on her report.

Commissioner Bedford asked what the Committee is meant to do with this information. Ellie McNae explained that the report was an overview for the Committee to use when deciding what types of projects you the Committee may wish to progress. She added that the report is for the Committee's information.

Ellie McNae added that the criteria around recreation and amenity flagship projects had not been defined yet. The zone committee is being asked to consider what a flagship project may be. Ellie McNae added that the flagship project cannot be an amenity only project; it must be a recreation and amenity project.

Commissioner Bedford said that some of the recreational values held to be important have already received investment. He added that the Committee were not clear of the purpose of the report and what to do with the information.

Mayor Dalley stated that in reality he has been sitting around the regional committee for the last six years and the zone committee has done a good job of identifying these things. In his opinion he did not think the regional committee could have done more. If there were examples of things that have slipped through the cracks then the Committee would be in a better position to make recommendations.

Jamie McFadden (Environment Canterbury) stated that a strategic approach to protect and secure the existing dry land ecology and fresh water biodiversity is needed. He argued that this does not exist at present. He

added that what we have here and now needs to be protected and that it is all very well doing flagship projects but how are they going to be managed. How is biodiversity dealt with long term; there needs to be a management plan for weeds and pests.

Commission Bedford said we do not have a good biodiversity strategy because stakeholders are not coming together. He added that an inventory is needed but this is hard to achieve because of trust issues. Jamie McFadden recommended that a strategy be progressed as opposed to an inventory. He advocated for a move away from creating new projects to looking after and enhancing what is already in existence.

# 13. Zone Facilitators report

The Zone Facilitator's report was provided by Ian Whitehouse and included in the agenda. The report was taken as read. The key points worth noting are:

- It was noted that Andrew Priest (Ngai Tahu Farming) has advised that NTFE has withdrawn its consent application.
- Environment Canterbury staff are talking to people about how they want to engage and be informed about the HWRRP review/subregional process.

**Urgent Business** 

Nil

Meeting concluded

The meeting concluded at 6.12pm.

**Next meeting** 

Monday, 15 August 2016.

### **AGENDA ITEM 8 Review of Hurunui Waiau ZIP recommendations**

### Prompt for discussion at 15 August 2016 Zone meeting

	Topic	ZIP Recommendation	Status	Comment/Recommendation
3.1.1	Immediate Steps Biodiversity Fund	Target Immediate Steps Biodiversity Funding for 2011/12 through 2014/15 to some or all of the following priority areas:  1. North Pegasus Bay coastal wetlands 2. Lower Waitohi wetlands 3. Conway Flat to Waiau River mouth; 4. Braided River Ecosystems 5. Sumner Lakes complex. Seek Immediate Steps funding proposals from biodiversity "experts" and interested individuals/communities.		\$435,323 allocated to July 2016 of \$500,000 Immediate Steps funding. 22 projects.  Environment Canterbury will continue Immediate Steps funding for further five years.  RECOMMENDATION: Zone Committee reviews priority areas and considers a strategic/multi-year approach for some areas.
3.1.2	River flows to protect aquatic ecosystems and braided-river processes	See sections 6 - 9		
3.1.3 (a)	Wetland protection & land use development	Work with landowners (and potential developers) to identify significant wetlands throughout the Zone, obtain independent ecological assessment to identify and protect, maintain and enhance these wetlands. Where wetlands are impacted by land-use development ensure appropriate offsets are developed to ensure no 'net loss' of wetlands.		No systematic identification of significant wetlands.  HWP has identified wetlands in their command area.  RECOMMENDATION: Work with HWP. Accept that zone-wide identification and independent assessment of significant wetlands is in "too hard" basket.
3.1.3 (b)	Wetland protection target	Set a target for wetland protection in the Zone (taking into account the CWMS target/goals) and identify how this target would be achieved (including through 3.1.3(a)).	<u> </u>	See above.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
3.1.4	Ecosystem protection & irrigation development	Work with landowners to identify and prioritise for protection significant native ecosystems throughout the Zone and obtain independent ecological assessment to identify the most significant native ecosystems. Developers will ensure, as part of irrigation development, that the most significant ecosystems adjacent to the proposed development (including dam, reservoir, canals and irrigation command area) are protected and have a restoration plan as a first order priority or where affected, ensure appropriate offsets are developed.		No systematic identification of significant native ecosystems.  HWP has identified native ecosystems in their command area and wants to protect these.  RECOMMENDATION: Accept that zone-wide identification and independent assessment of significant wetlands is in "too hard" basket. Encourage HWP to protect and restore biodiversity as part of development.
3.1.5	Protection of high- value conservation lands in upper catchments	See Section 12. The Zone Committee does not support major water storage reservoirs in the any of the following locations:  • mainstems of Waiau River including Boyle and Hope Rivers;  • all tributaries of Waiau, Boyle and Hope Rivers, above Hope-Waiau Confluence  • mainstem of Hurunui River below the South Branch confluence. The Zone Committee supports deferring South Branch and Lake Sumner water storages until Waitohi options are demonstrated not to be viable or for two years, whichever is shorter. The Zone Committee will work with developers and other parties to progress other more preferable water reservoir options.		Achieved in HWRRP.  HWP has consent for off-mainstem storage in Waitohi.  Other irrigators looking at other off-mainstem storage.  RECOMMENDATION: Continue to work with developers.
3.1.6 (a)	Hapua improvement	Identify what is required, beyond river flow regime, for thriving culturally and recreationally attractive river mouths and hapua on the four rivers in the zone, including cost of activities and how these might be implemented.		Actions agreed and being progressed for Waipara hapua.  No list of activities available for other hapua. Richard Measures (NIWA) currently doing Ph.D. study on Hurunui hapua that may provide information.  RECOMMENDATION: As part of HWRRP review seek to understand then recommend actions to protect hapua.
3.1.6 (b)	Hapua as 'ultimate' health measure	Identify and prioritise the use of hapua to monitor the "ultimate" health of the contributing catchment, including advantages/limitations, current monitoring and cost of additional monitoring and how these might be implemented.  This monitoring should start as soon as possible.		Some monitoring/investigations will be done for HWRRP review. <b>RECOMMENDATION</b> : Review investigations/monitoring done as part of informing HWRRP review and then make recommendation about on-going monitoring programme.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
3.1.7 (a)	Baseline assessment of aquatic ecosystem health	Provide baseline assessment (from currently available information including from cultural assessments) of aquatic ecosystem health of rivers/streams and lakes in the Zone and identify significant information gaps and how these will be addressed.		Routine state of environment ecosystem health and water quality monitoring.  RECOMMENDATION: Zone committee to be briefed on health and water quality of rivers and lakes, catchment by catchment to understand current state and trends and any issues of concern.
3.1.7 (b)(i)	Baseline assessment of aquatic ecosystem health	Provide identification (from current information) of intermontane basin & plains aquatic and dryland (native) ecosystems, lowland stream ecosystems, high-country spring-fed foothill rivers and lakes ecosystems, and wetlands in the Zone (including relative significance of each site).	<u> </u>	No systematic identification of significant native ecosystems.  RECOMMENDATION: Accept that zone-wide identification and independent assessment of native ecosystems is in "too hard" category.
3.1.7 (b)(ii)	Baseline assessment of aquatic ecosystem health	Define ecosystems targets for valued ecosystems and the threats to achieving these targets.		No targets set.  RECOMMENDATION: Accept that this is not going to happen.
3.1.8 (a)	Freshwater fisheries: eel	Zone Committee be informed of North Canterbury Eel Management Plan and extract key policies for inclusion in the 2012 ZIP.  Ministry of Fisheries provide Zone Committee with status of longfin eel in Zone.		Zone Committee has not been briefed; however, Regional Committee has pursued increased protection of longfin eel.  RECOMMENDATION: Keep informed of Regional Committee's work to protect longfin eel.
3.1.8 (b)	Freshwater fisheries: inanga	The Zone Committee encourage University of Canterbury (with links to Department of Conservation) to identify current (and historic) inanga spawning sites in the Zone and with DOC, Rūnanga and interested parties establish spawning area targets and management actions.		Plan Change 4 to LWRP provides map of inanga spawning habitat and provisions to protect these habitats.  RECOMMENDATION: No further action required by zone committee.
3.1.8 (c)	Other native fisheries	Zone Committee be informed about and develop recommendations for other native fisheries.		.No specific recommendations for zone.  Regional committee project on fish barriers  RECOMMENDATION: Not a committee priority unless specific issues identified in HWRRP review.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
3.1.9 (a)	Braided riverbed weeds	Identify the reaches of all (major) rivers in the Zone where the active riverbed is being invaded by standing trees (e.g. willow), woody and herbaceous weeds and to develop a control strategy.	9	Not done.  RECOMMENDATION: Committee to consider if this is a priority and, if so, how it wants to proceed.
3.1.9 (b)	Braided riverbed weeds	Develop policies and rules that facilitate river-bed weed control without compromising flood protection	<u> </u>	Not done.  RECOMMENDATION: Committee to consider if this is a priority and, if so, how it wants to proceed.
3.1.10	Increasing funding for biodiversity	The Zone Committee supports a feasibility study and investigation of the development of an ongoing biodiversity fund (in addition to any funding from the CWMS) by way of public and landowner contribution as part of an integrated more water option.		HWP has a mechanism in place to fund biodiversity enhancement once irrigation development has happened.  RECOMMENDATION: Committee to continue to support HWP.
4.1.1	Ensuring drinking water supply	The Hurunui Waiau Regional Plan must include provision of water availability to meet future demand for community water supplies in volume, quality and location to align with existing schemes as identified by Hurunui District Council.		Provisions in HWRRP.  RECOMMENDATION: No further action required.
4.1.2	Cost of providing drinking water source	A whole-of-life cost assessment will be carried out of the provision of secure community drinking water (and stockwater) from a Waitohi water storage reservoir.		Not done as Waitohi water storage not started. <b>RECOMMENDATION</b> : HDC and HWP work on this if HDC wishes to consider the option.
4.1.3	Drinking water provided from major water storage	Provision of secure community drinking water (and stockwater) of a quality capable of being treated to New Zealand Drinking Water Standard should be part of an integrated "more water" project and developers will partner with Hurunui District Council to deliver this outcome in their proposals and plans		No "more water" developments have progressed beyond early design so too early to say if they could provide secure water supply.  RECOMMENDATION: HDC and HWP work on this if HDC wishes to consider the option
4.1.4	Partial funding for community supplies from regional and national government	In a first world country all citizens should be prepared to contribute to making clean drinking water available to communities that are not able to financially afford to meet the costs on their own.  Support, as appropriate, Hurunui District Council initiatives to improve community water supplies to meet New Zealand Drinking Water Standard.		RECOMMENDATION: Zone Committee support HDC, if requested.

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	Торіс	ZIP Recommendation	Status	Comment/Recommendation		
5.1	Mixing of waters	The Hurunui Waiau Regional Plan will require all developers who seek to mix waters to engage with Tangata Whenua so that appropriate solutions can be identified on a case-by-case basis.		Mixing of water provisions in HWRRP		
5.2	Te Runanga o Ngai Tahu Freshwater Policy & other relevant iwi Environmental Management Plans	The Hurunui Waiau Regional Plan will take into account the Ngāi Tahu Freshwater Policy and other relevant Iwi Environmental Management Plans including Te Pōhā o Tohu Raumati – Te Rūnanga o Kaikōura Environmental Management Plan (2005); Te Whakatau Kaupapa – Ngāi Tahu Resource Management Strategy for the Canterbury Region (1990), and the North Canterbury South Marlborough Eel Management Plan (1999).		Considered in developing HWRRP and by Hearing Commissioners.  RECOMMENDATION: No further action required		
5.3	Cultural Monitoring	The Hurunui Waiau Regional Plan will recognize and provide for cultural monitoring on all rivers in the zone.		HWRRP does not include a requirement to provide cultural monitoring of all rivers.  State of Takiwa monitoring of Hurunui River done in 2011 and needs to be written up.  RECOMMENDATION: Cultural monitoring (or COMAR) to be done to inform HWRRP review.		
5.4	Wāhi Tapu & Wāhi Taonga	The Hurunui Waiau Regional Plan will recognize and provide for all wāhi tapu and wāhi taonga within the Hurunui and Waiau catchments (e.g. spawning grounds and key habitats for native fish species are protected and maintained or enhanced to ensure the ongoing health and vitality of those species).		No HWRRP provisions specifically relate to wāhi tapu and wāhi taonga although provisions seek to protect mauri and native fish and take into consideration Ngai Tahu values.  RECOMMENDATION: As part of HWRRP review consider whether specific provisions are needed relating to wāhi tapu and wāhi taonga.		

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	Topic	ZIP Recommendation	Status	Comment/Recommendation
6.1.1	Environmental flows (minimum flows and flow variability)	The Hurunui Waiau Regional Plan must include minimum flows and flow variability for Waiau River that provide for:  • in-stream river ecology (including native fish and invertebrates);  • maintain mauri of river;  • maintenance of river mouth and hapua;  • mahinga kai;  • protection of river-nesting birds during breeding season;  • the needs for salmon and trout fisheries (including fishability);  • maintenance of in-stream recreation opportunities (particularly whitewater kayaking and jet-boating (including commercial jetboating));  • maintain existing out-of-stream uses and allow for future growth in out-of-stream uses:  • primarily, irrigation supply  • secondarily, hydro-power generation.		HWRRP revised minimum flows and allocation. As there has been no review of existing consents these have not been implemented except for new consents.  RECOMMENDATION: In the revision of HWRRP only change minimum flows and allocation regime if there are very compelling reasons to do so.
6.1.2	Tributary minimum flows	The Hurunui Waiau Regional Plan must include minimum flows for key tributaries of Waiau River to protect in-stream values of these tributaries while allowing for out-of-stream use.		HWRRP includes minimum flows for key tributaries though consents have not been reviewed to give effect to these on current consents.  RECOMMENDATION: In the revision of HWRRP only change minimum flows if there are very compelling reasons to do so, such as there being no minimum flow set on a tributary where there is current water takes.
7.1.1	Environmental flows (minimum flows and flow variability)	The Hurunui Waiau Regional Plan must include minimum flows and flow variability for Hurunui River that provide for:  • in-stream river ecology (including native fish and invertebrates);  • maintain mauri of the river;  • maintenance of river mouth and hapua;  • mahinga kai;  • protection of river-nesting birds during breeding season;  • the needs for salmon and trout fisheries (including fishability);  • maintenance of in-stream recreation opportunities (particularly whitewater kayaking and jet-boating (including commercial jetboating))  • out-of-stream uses:  o primarily, irrigation supply o secondarily, hydro-power generation.		HWRRP revised minimum flows and allocation. As there has been no review of existing consents these have not been implemented except for new consents.  RECOMMENDATION: In the revision of HWRRP only change minimum flows and allocation regime if there are very compelling reasons to do so.

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	Торіс	ZIP Recommendation	Status	Comment/Recommendation
7.1.2	Tributary minimum flows	The Hurunui Waiau Regional Plan must include minimum flows for key tributaries of Hurunui River to protect in-stream values of these tributaries while allowing for out-of-stream use.		HWRRP includes minimum flows for key tributaries though consents have not been reviewed to give effect to these on current consents.
				<b>RECOMMENDATION</b> : In the revision of HWRRP only change minimum flows if there are very compelling reasons to do so, such as there being no minimum flow set on a tributary where there are current water takes.
8.1.1	Increasing Waipara River Flows	The Committee supports an increase in Waipara River flows.  The Committee, supported by Environment Canterbury and Hurunui District Council, will work with water users, Ngāi Tūāhuriri Rūnanga and interest groups to establish and then support a Waipara River Care Group that includes all interested parties from source to sea that will:  • identify options for increasing river flows (including willow control and flow augmentation from outside of catchment);  • identify other actions required to improve Waipara River.		Waipara Working Group identified that willow control would improve low flows but not result in flushing flows to remove periphyton.  Augmentation depends on HWP's irrigation plans.  RECOMMENDATION: Consider ways of improving Waipara River as part of HWRRP review/sub-regional process.
9.1.1	Variation to Conway River/Tutae Putaputa Flow and Allocation Plan	The variation to the Conway River/ Tutae Putaputa Plan be further developed through discussion with submitters to ensure that concerns on the following are addressed:  • value of the hapua;  • river-mouth opening;  • value as a bird habitat;  • reliability of supply.		Decisions of Hearing on Conway flows was included in LWRP and now operative.
10.1.1	Priority to drinking water & stockwater schemes	The Hurunui Waiau Regional Plan must give priority to takes for community drinking water and stock water schemes.		Provisions in HWRRP give priority to drinking water and stock water takes.
10.1.2	Environmental flows	The Hurunui Waiau Regional Plan must provide environmental flows for Hurunui and Waiau rivers and their tributaries (see sections 6 and 7).		See above

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	Topic	ZIP Recommendation	Status	Comment/Recommendation
10.1.3	Takes for water storage	The Hurunui Waiau Regional Plan must include provision for takes to major storage.		C Block included in HWRRP for Waiau and Hurunui Rivers (but not for tributaries) providing high flows to be taken to storage.
				<b>RECOMMENDATION</b> : Consider whether C Block takes should be allowed on some tributaries (such as Leader River) as part of HWRRP review/sub-regional process.
10.1.4	Irrigation vs hydro	The Hurunui Waiau Regional Plan should give priority to allocation for irrigation development (particularly for integrated irrigation and hydrogeneration projects) rather than allocation just for hydro-generation.	<u> </u>	This provision removed from notified HWRRP by Hearing Commissioners after considering submission from Meridian.
				All proposed developments to date are primarily irrigation developments with complementary generation.
				<b>RECOMMENDATION</b> : Committee continue to work with developers.
10.1.5	Inter-catchment transfers	The Hurunui Waiau Regional Plan must provide for transfer of water from Waiau River to Hurunui Basin and from Hurunui River to Waipara catchment. The River Plan should ensure local Runanga determine how the waters are mixed.		Included in HWRRP
10.1.6	Parnassus – Cheviot irrigation	The Hurunui Waiau Regional Plan will ensure water will be available to meet reasonable demand for new irrigation in Parnassus – Spotswood – Cheviot area.		Policy and rules provide for this
10.1.7	Irrigable land target	The Hurunui Waiau Regional Plan should ensure water would be available (including through storage) to irrigate the approximately 100,000ha (net) irrigable area in the Zone.		C Block allocation on Waiau and Hurunui Rivers provides sufficient water for all irrigable land in zone.
10.1.8 (a)	Water use efficiency	The Hurunui Waiau Regional Plan will ensure new irrigation includes efficient distribution and irrigation systems and that water-use efficiency continues to improve in current irrigation.		Policies in HWRRP relating to water use efficiency.
10.1.8 (b)	Water use efficiency	The Zone Committee will work with Amuri Irrigation Company and Irrigation New Zealand to identify and then support activities to improve water-use efficiency amongst current irrigators in the Zone.		AIC's Irrigation Management System includes focus on water-use efficiency. Piping will improve water-use efficiency.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
11.1.1	Water Quality Outcomes for Zone	Water quality outcomes for mainstem of Hurunui and Waiau Rivers:  • Achieve in most years periphyton limits as identified in NRRP (that is, four years in every five);  • Safe for contact recreation;  • Maintain or enhance the mauri of the river;  • Toxin producing cyanobacteria shall not render the river unsuitable for recreation or animal drinking water;  • Nutrients (particularly nitrate and phosphorous) will decrease over time at sufficient rate and to a level such that additional irrigation development can occur without compromising water quality outcomes for the river (i.e. reduce current loads to create "headroom" for new		Water quality outcomes are reflected in HWRRP.  N and P have not decreased over time – no headroom created.  Toxic algae (Phormidium) have been present on occasions in Hurunui River.  RECOMMENDATION: Review the water quality outcomes as part of review of HWRRP. Revise if required.
		<ul> <li>irrigation development).</li> <li>Water quality outcomes for tributaries of major rivers:</li> <li>As above for mainstems, and;</li> <li>Achieve ecosystem health outcomes agreed for the particular tributary through a collaborative community-based process.</li> </ul>		
11.1.2	Nutrient load limits for Hurunui River	The goal for water quality in the Hurunui River at the SH1 bridge will be at or about the same or better standard as present, in terms of nitrate and phosphorus loads.  The Hurunui and Waiau River Plan will include targets for nitrate (N) and phosphorous (P) limits for the Hurunui River (mainstem) at Mandamus, State Highway 1 and the river mouth.  These limits must be implemented and applied in a way that results in the wide uptake of best practices without diminishing the viability of current land users.  This will require flexibility in the timing of their implementation where consequences arise that unreasonably impact on the wellbeing of the Hurunui community. This is not a get out of jail card for farmers but recognition of the need to provide reasonable time for change to occur in a manner that does not destroy existing economic value.  The load limits will be reviewed in five years.		Limits included in HWRRP with supporting rules to manage to the limits.  The "10%-rule" has unintended consequences for dry land farmers. This has been addressed through the Environment Canterbury Advice Note.  RECOMMENDATION: Review the water quality limit framework for Hurunui River and the approach to managing to these at the property-scale as part of review of HWRRP. Revise as required.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
11.1.3	Implementation Plan	Urgently develop a plan for implementing improved nutrient management in Hurunui Basin. This plan must identify roles, responsibilities and timetable, including incentives for uptake and resourcing to facilitate and support the tributary- and farmer-based approach. The direct involvement and leadership by community based land user groups will be critical to this approach being successful. Develop plan(s) for implementing improved nutrient management in other parts of the Zone.		Improved nutrient management is being led by AIC and North Canterbury Landcare Group. A "GMP game plan" has been developed, with priorities, as part of the 5-year Delivery Outcomes and Milestones.  RECOMMENDATION: Continue to support the "collectives".
11.1.4	Tributary- and community-based approach	Implementation of improved nutrient management to achieve the load limits should take a tributary- and land/water user-based approach.  The Hurunui and Waiau River Plan should support a tributary- and land/water user-based approach to nutrient management.		HWRRP strongly encourages a "collective" approach.  RECOMMENDATION: Continue to support the "collectives".
11.1.5	Zone Committee leadership	The Zone Committee will take a lead role in communicating the need for and supporting improved nutrient management in the Zone based on a tributary and farmer-based approach. The nitrate (N) and phosphorous (P) guidelines for the tributaries of Hurunui River (Pahau, St Leonards, Dry and Waitohi should be consistent with the water quality standards set in the Hurunui Waiau plan for the Hurunui river at State Highway 1.		Zone Committee has taken leadership in supporting the need for good nutrient management.  RECOMMENDATION: Continue to take a leadership role in supporting good nutrient management practices.
11.1.6	Farm-scale guidelines	Implementation of improved nutrient management will include guidelines to land/water users on "good management" N and P loads for their land.		Industry-agreed GMPs produced and being implemented through audited FEPs.  RECOMMENDATION: As part of review of HWRRP, review property-scale approach to nutrient management to achieve water quality outcomes.
11.1.7	Regulatory backstop	The Hurunui and Waiau River Plan should require land/water users in Hurunui Basin to adopt good nutrient management practices within a reasonable time if voluntary farmer-based approach has not achieved required uptake of good nutrient management practice. The Committee will engage with land users and others to determine what is a "reasonable" time.		HWRRP encourages "collective" approach with land use farming activity consent required in 2017 as a backstop where not part of collective.  RECOMMENDATION: As part of review of HWRRP, review property-scale approach to nutrient management to achieve water quality outcomes.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
11.1.8	New irrigation development	The Hurunui and Waiau River Plan will include a requirement for new irrigation development to adopt good nutrient management practice and achieve their own load limits for Hurunui River and other catchment load limits as these are set.		AIC, HWP and NTP have land use consents that include nutrient discharge allowances and committed to GMP.  RECOMMENDATION: As part of review of HWRRP, review water quality limits and nutrient management requirements needed to achieve water quality outcomes.
11.1.9	Waiau River & Hurunui below SH1	Set load limits based on NRRP targets, for N and P for Waiau River and for Domett area and then for other areas in the Zone including Conway and Waipara Rivers.	<u>@</u>	Water quality limits still to be set for other rivers. Will be part of revision of HWRRP/sub-regional process.
11.1.1	Monitoring	Prepare and then implement a monitoring programme to provide the knowledge required to underpin improved nutrient management that achieves load limits for Hurunui and Waiau Rivers and main tributaries. This must include monitoring of water quality in hapua.		Monitoring programme in place for rivers; not for water quality in hapua.  See 3.1.6 (b)
12.1.1	Integrated approach	The Zone Committee will work with developers to bring forward an integrated "more water" proposal or proposals for the Zone that:  • uses water from Waiau and Hurunui Rivers in an integrated manner;  • utilizes off-mainstem storage reservoir(s);  • provides more water for Waipara River and environmental flows for Waitohi River;  • includes hydro-power generation as part of an integrated approach with irrigation development;  • protects and develops wetlands and significant native ecosystems within the irrigation command area;  • will be capable of irrigating (with existing irrigation) most of the approximately 100,000ha (net) of irrigable land in the Zone;  • will adopt good nutrient management practices to meet their share of nutrient load limits for Hurunui River (and other areas as limits developed for all of the Zone);  • meets significant in-stream, cultural, environmental and recreational needs  • uses highly efficient distribution and irrigation systems;  • takes a community irrigation scheme approach;  • provides recreation opportunities, where possible.		Committee has worked hard, with limited success to date, to get NTP, AIC and HWP to work together on an integrated water infrastructure approach. Signs are encouraging that the developers are now working collaboratively and could bring an integrated approach to the committee in the near future.  RECOMMENDATION: Zone Committee continue to encourage and support a collaborative, integrated approach to water infrastructure.

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	Topic	ZIP Recommendation	Status	Comment/Recommendation
12.1.2	Economic viability	Zone Committee will work with developers and others to progress investigations, funding discussions and economic assessments of major water storage in Waitohi River.		HWP has consent for storage in Waitohi River.
12.1.3	Waitohi/Waiau option	The Committee supports an integrated option utilizing a major water storage in Waitohi River combined with or in conjunction with transfer of Waiau River water and storage of Waiau River water. The Committee regards this is an environmentally & recreationally attractive option but acknowledges that it is uncertain at this stage if Waitohi River storage is affordable.		HWP has consent for Waitohi storage but construction has not started.
12.1.4	Lake Sumner	The proposal to manage Lake Sumner as a water storage be deferred until a Waitohi storage option is shown not to be economically viable or for two years (from October 2011), whichever is sooner.	<u>@</u>	HWRRP prohibits the use of Lake Sumner as a water storage.
12.1.5	South Branch	The proposal to dam South Branch for a water storage be deferred until a Waitohi storage option is shown not to be economically viable or for two years (from October 2011), whichever is sooner.	<u>@</u>	HWRRP prohibits damming of South Branch Hurunui River.
12.1.6	Excluded areas for major water storage reservoirs	The Zone Committee does not support major water storage reservoirs in the any of the following locations:  • mainstems of Waiau River including Boyle and Hope Rivers;  • all tributaries of Waiau, Boyle and Hope Rivers, above Hope-Waiau Confluence;  • mainstem of Hurunui River below the South Branch confluence.  The Zone Committee will work with developers and other parties to		HWRRP prohibits damming and water storage in these areas.
		progress other water reservoir options.		
12.1.7	On-farm and small- scale storage	The Zone Committee supports on-farm storage and small-scale storage as part of an integrated approach. The Hurunui Waiau Regional Plan should make the consent process for on-farm and small-scale storage less onerous than at present.		HWRRP supports on-farm and small-scale storage, however, the HWRRP does not provide C Block allocations for tributaries that would allow high flows to be taken to storage.  See 10.1.3

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	Торіс	ZIP Recommendation	Status	Comment/Recommendation
12.1.8	Regional Plan give effect to Zone Committee position	The Hurunui Waiau Regional Plan will give effect to the Zone Committee position as above on:  • The scope and requirements in an integrated approach (12.1.1);  • The "preferred option" (12.1.3);  • Lake Sumner (12.1.4);  • South Branch (12.1.5);  • Excluded areas (12.1.6)  • On-farm storage (12.1.7).		See above
13.1.1	Protect significant recreation locations	<ul> <li>The Hurunui and Waiau Regional Plan must safeguard:</li> <li>Significant salmon spawning sites;</li> <li>Significant trout fishing river reaches;</li> <li>The Hurunui River from Sisters Stream to Surveyors Stream as a nationally-significant whitewater kayaking river-reach.</li> <li>Upper Waiau and Hope catchments as a highly valued whitewater kayaking resource.</li> </ul>		HWRRP includes schedule of significant salmon spawning sites, protects significant trout fishing reaches in upper Waiau and upper Hurunui Rivers, and protects the nationally-significant whitewater Maori Gully reach of Hurunui River.
13.1.2	River flows for recreation	The Hurunui and Waiau Regional plan will ensure that the flow regime will:  • Ensure salmon passage;  • Prevent mouth closures.  The Hurunui and Waiau Regional plan will recognise:  • Flows needed for salmon angling;  • Flows needed for jet boating.  The Zone Committee will work with developers to increase flows in the Waipara and provide flows in the Waitohi in a manner that will benefit recreation (swimming/fishing).		HWRRP set minimum flows and allocation taking into account the requirements for salmon passage and for preventing mouth closures and recognising flows needed for angling and jet boating. These minimum flows are not yet operative as consents have not been reviewed. Waiau River mouth has closed at least once in last few years.  HWP development required to increase flows in Waipara or Waitohi Rivers.
13.1.3	Quality of bathing sites	The Hurunui and Waiau Regional Plan will include gradings to be achieved in bathing sites for the Hurunui and Waiau Rivers.  The Zone Committee with support from Environment Canterbury will work with developers and interested parties to deliver enhancement opportunities for the bathing sites identified in the Waipara and Waitohi Rivers.	<u> </u>	HWRRP does not include gradings to be achieved at specified bathing sites.  RECOMMENDATION: As part of HWRRP review consider water quality outcomes in relation to contact recreation.

	Topic	ZIP Recommendation	Status	Comment/Recommendation
13.1.4	Toxic Algae	The Hurunui and Waiau Regional Plan will ensure there are no toxic algae outbreaks in the Hurunui and Waiau Rivers.  The Zone Committee with support from Environment Canterbury will work with developers and interested parties to ensure that toxic algae blooms do not occur in the Waipara and Waitohi Rivers		Toxic algae (Phormidium) outbreaks have occurred, for example at Balmoral camping ground (SH7 bridge) on Hurunui River.  RECOMMENDATION: Zone Committee accept that a target of no toxic algae outbreaks is probably unrealistic and as part of review of HWRRP set target(s) and recommend actions to minimise toxic algae outbreaks.
13.1.5	Increased trout spawning	Require monitoring in the Waipara and Waitohi Rivers to ensure increased flow is increasing trout spawning habitat.		Augmentation of flows has not occurred as HWP not yet underway.

AGENDA ITEM NO: 9	SUBJECT MATTER: Zone Facilitator's Report
REPORT BY: Ian Whitehouse, Environment Canterbury	DATE OF MEETING: 15 August 2016

#### **Action required**

- 1. Note the release of the Hearing Commissioners' decision on the "Omnibus" Plan Change 4 to the Canterbury Land and Water Regional Plan.
- 2. Note the meeting with the Ministry for the Environment Team reviewing the implementation of the NPS for Freshwater Management Amberley Library 11.00am on Tuesday 16 August.

#### 1 LWRP Omnibus Plan Change

The Hearing Commissioners' decisions on Plan Change 4 to the LWRP (the "Omnibus" Plan Change) will be notified 30 July 2016 and the decisions take legal effect from that date. An Information Sheet is attached.

#### The Plan Change addresses:

- · Protection of inanga spawning habitat;
- Preservation of the biodiversity and natural character of braided rivers;
- Community drinking water supplies;
- Stock exclusion from waterways;
- Managing stormwater discharges.

# Canterbury Land & Water Regional Plan What does it mean?



#### **Omnibus Plan Change**

**Questions and Answers** 

**July 2016** 

#### What is the Omnibus Plan Change about?

Plan Change 4 to the Canterbury Land & Water Regional Plan ("the Omnibus Plan Change"):

- Addresses implementation issues in the Land & Water Regional Plan that have been identified following the release of the decisions on the Land & Water Regional Plan in January 2014
- Introduces new rules to ensure sustainable management of the region's land and water resources.

#### What are the key issues the Omnibus Plan Change addresses?

The four significant issues addressed by the plan change are:

#### 1 Protection of inanga spawning habitat

- The Omnibus Plan Change provides greater protection for areas where inanga may spawn. Inanga spawning habitat areas are identified in the Planning Maps.
- The protection of inanga spawning habitat is achieved through rules controlling a range of
  activities. Some works in waterways are permitted in inanga spawning areas if they happen
  outside the inanga spawning period of 1 March to 1 June. This exclusion period is longer for
  activities that would have a longer lasting impact on the habitat, such as works involving
  vegetation clearance, cultivation or earthworks.
- Farmed pigs, cattle and deer must be excluded from inanga spawning habitat year-round.

#### 2 Preservation of the biodiversity and natural character of braided rivers

- The Omnibus Plan Change includes new restrictions on vegetation clearance, cultivation and earthworks within the beds and margins of Canterbury's braided rivers (Policy 4.85A, Rules 5.163 5.169).
- These changes restrict, as a permitted activity, clearance of vegetation and use of land for earthworks and cultivation after 5 September 2015 within the bed and margins of the Clarence, Waiau, Hurunui, Waimakariri, Rakaia, Rangitata, and the Waitaki rivers. An exception to these restrictions exists if the works or vegetation clearances are for specified purposes (such as maintenance of the floodway, maintenance of fence lines, structures, tracks and public access, removal of pest plant species).
- These restrictions ensure that any adverse effects arising from vegetation clearance, cultivation and earthworks in the bed or margins of braided rivers (for example, effects on indigenous biodiversity, natural character of braided riverbed systems) are considered through a consent process.

#### 3 Community drinking water supplies

- The term "group drinking water supply" is omitted and the definition of "community drinking water supply" is changed.
- The change to the definition of "community drinking water supply" means any drinking
  water supply that is listed on the drinking water register, and which supplies drinking water
  to no fewer than 25 persons per year being treated as a "community drinking water supply".
  The existing definition provides this level of protection only to supplies that serve more than
  500 people.
- Some activities within the protection zone of a community drinking water supply will require consent.
- The Omnibus Plan Change 4 also makes changes to Schedule 1 (Community Drinking Water Supplies Schedule) to allow owners of existing community drinking water supplies the flexibility to apply for a consent to have a "specific protection zone" applied to their water supply. Schedule 1 provides guidance to applicants and Environment Canterbury on the matters that need to be considered when determining how large the protection zone should be.
- There is also a small list of specific water supplies included in Schedule 1(a) that are each to be classified as a community drinking water supply even though they do not meet the general definition. This list consists of Kimbell Rural Supply, Burkes Pass and Pukaki Airport.

#### 4 Stock exclusion from waterways

The Land & Water Regional Plan includes rules that protect water quality and natural habitats in Canterbury waterways from the adverse effects of stock access:

• It is not permitted for any stock to use and disturb the bed (including the banks) of any lake, river, or wetland where that access causes pugging or de-vegetation that exposes bare earth, or causes conspicuous change in colour or clarity of the water.

- The Omnibus Plan Change prohibits farmed deer, cattle and pigs from inanga spawning habitats year round.
- There are also changes to lake access in the Hill and High Country Area due to the significant challenges of excluding non-intensively farmed cattle from standing in the water on these vast properties and the minor impact it has on water quality. Cattle can stand in some lakes in this area without requiring a resource consent (provided they do not cause pugging or devegetation that exposes bare earth, or cause a conspicuous change in colour or clarity of the water). However, lakes located in a Lake Zone or classified as a High Naturalness Waterbody, or any lakes outside the Hill and High Country Area, will still have restricted cattle access.
- The Omnibus Plan Change introduces a new rule (5.68A) that gives more clarity on the definition of the bed of a braided river. This will make it easier to understand how to comply with the rules.

#### When will the Omnibus Plan Change hearing decisions be notified?

Plan Change 4 was originally publicly notified on 12 September 2015. It has since gone through the submission and hearing process and the decisions will be publicly notified on 30 July 2016.

#### When do these rules apply and how do they relate to my zone?

The hearing decisions will be notified on 30 July 2016 and will have legal effect from that date, replacing the version notified in September 2015.

Detailed advice is currently being developed about the implications of this plan change for each water management zone in Canterbury. Generally, the Omnibus Plan Change and the Land & Water Regional Plan will need to be considered in all zones, except to the extent that:

- a zone is the subject of a sub-regional section of the Land & Water Regional Plan, or a catchment-specific plan, that covers the same subject matter; and
- those provisions are either operative or can be treated as operative.

In other words, the Omnibus Plan Change is relevant wherever the region-wide provisions of the Land & Water Regional Plan (that are amended by the plan change) currently apply.

Where the Omnibus Plan Change is relevant, to be a permitted activity resource users must meet the conditions in the Land & Water Regional Plan, and the rules as amended or changed by Plan Change 4. If you can't meet both sets of rules, consent will be required - provided the activity is not prohibited by the Land & Water Regional Plan.

The need for resource users to consider both the omnibus Plan Change and the Land & Water Regional Plan will end when any appeals are resolved, and the plan change is made operative.

#### More information

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### **Hurunui Waiau Zone Water Management Committee**

#### **Terms of Reference**

The area of the Hurunui Waiau Water Management Zone is shown on the attached map.

#### **Establishment**

The Committee is established under the auspices of the Local Government Act 2002 in accordance with the Canterbury Water Management Strategy 2009.

The Committee is a joint Committee of Environment Canterbury (the Regional Council) and Hurunui District Council (the Territorial Authority).

#### **Purpose and Functions**

The purpose and function of the Committee is to:

- Facilitate community involvement in the development, implementation, review and updating of a Zone Implementation Programme that gives effect to the Canterbury Water Management Strategy in the Hurunui Waiau area; and
- Monitor progress of the implementation of the Zone Implementation Programme.

#### **Objectives**

- 1) Develop a Zone Implementation Programme that seeks to advance the CWMS vision, principles, and targets in the Hurunui Waiau Zone.
- 2) Oversee the delivery of the Zone Implementation Programme.
- 3) Support other Zone Implementation Programmes and the Regional Implementation Programme to the extent they have common areas of interest or interface.
- 4) Ensure that the community of the Zone are informed, have opportunity for input, and are involved in the development and delivery of the Hurunui Waiau Implementation Programme.
- 5) Consult with other Zone Water Management Committees throughout the development and implementation of the Hurunui Waiau Implementation Programme on matters impacting on other zone areas
- 6) Engage with relevant stakeholders throughout the development of the Hurunui Waiau Implementation Programme.
- 7) Recommend the Hurunui Waiau Implementation Programme to their respective Councils.
- 8) Review the Implementation Programme on a three yearly cycle and recommend any changes to the respective Councils.
- 9) Monitor the performance of Environment Canterbury, Hurunui District Council, and other agencies in relation to the implementation of the Hurunui Waiau Implementation Programme.
- 10) Provide Environment Canterbury and Hurunui District Council with updates on progress against the Zone Implementation Programme.







#### **Limitation of Powers**

The Committee does not have the authority to commit any Council to any path or expenditure and its recommendations do not compromise the Councils' freedom to deliberate and make decisions.

The Committee does not have the authority to submit on proposed Resource Management or Local Government Plans.

The Committee does not have the authority to submit on resource consent matters.

#### **Committee Membership**

The Zone Committee will comprise:

- 1) One elected member or Commissioner appointed by Environment Canterbury;
- 2) One elected member appointed by each Territorial Authority operating within the Zone Boundary;
- 3) One member from each of Tūāhuriri and Kaikōura Rūnanga;
- 4) Between 4-7 members appointed from the community and who come from a range of backgrounds and interests within the community;
- 5) Environment Canterbury and Hurunui District Council will appoint their own representatives on the Committee. Tūāhuriri and Kaikōura Rūnanga will nominate their representatives and the appointments will be confirmed by Environment Canterbury and Hurunui District Council.

#### **Selection of Community Members**

To be eligible for appointment to a Zone Committee the candidate must either live in or have a significant relationship with the zone. Recommendations on Community Members for the Hurunui Waiau Zone Committee will be made to Environment Canterbury and Hurunui District Council by a working group of representatives from Environment Canterbury, Hurunui District Council, Tūāhuriri and Kaikōura Rūnanga. The recommendations will take into account the balance of interests required for Hurunui Waiau, geographic spread of members and the ability of the applicants to work in a collaborative, consensus-seeking manner. Environment Canterbury and Hurunui District Council will receive the recommendations and make the appointments.

#### Quorum

The quorum at a meeting consists of:

- (i) Half of the members if the number of members (including vacancies) is even; or
- (ii) A majority of members if the number of members (including vacancies) is odd.

#### **Chair and Deputy Chair**

Each year, the Committee shall appoint the Chair and Deputy Chair from the membership by simple majority. There is no limit on how long a person can be in either of these positions.

#### **Term of Appointment**

Members of Committees are appointed for a term of three years. To coincide with Local Government Election processes terms shall commence from January each year, with each Committee requiring confirmation of membership by the incoming Council. The term for community members will be staggered so that one third of the community members is appointed (or reappointed) each year. There is no limit on the number of consecutive terms.



#### **Financial Delegations**

None

#### **Operating Philosophy**

The Committees will at all times operate in accordance with the requirements of the Local Government Official Information and Meetings Act 1987, and will observe the following principles:

- 1) Give effect to the Fundamental Principles, Targets and goals of the CWMS;
- 2) Be culturally sensitive observing tikanga Maori;
- 3) Apply a Ki uta ki tai (from the mountains to the sea) approach;
- 4) Work with the CWMS Regional Committee to support the implementation of the CWMS across the region as a whole:
- 5) Give consideration to and balance the interests of all water interests in the region in debate and decision-making;
- 6) Work in a collaborative and co-operative manner using best endeavours to reach solutions that take account of the interests of all sectors of the community;
- 7) Contribute their knowledge and perspective but not promote the views or positions of any particular interest or stakeholder group;
- 8) Promote a philosophy of integrated water management to achieve the multiple objectives of the range of interests in water:
- 9) Seek consensus in decision-making where at all possible. In the event that neither unanimous agreement is able to be reached nor a significant majority view formed, in the first instance seek assistance from an external facilitator to further Committee discussions and deliberations. Where the Committee encounters fundamental disagreements, despite having sought assistance and exhausted all avenues to resolve matters, recommend that the respective Councils disband them and appoint a new Committee.

#### **Meeting and Remuneration Guidelines**

- 1) The Committee will meet at least eight times per annum and with workshops and additional meetings as required. At times, the workload will be substantially higher. Proxies or alternates are not permitted.
- 2) Any Committee may co-opt such other expert or advisory members as it deems necessary to ensure it is able to achieve its purpose. Any such co-option will be on a non-voting basis.
- 3) Remuneration for members will be paid in the form of an honorarium currently set at the following levels:

a. Appointed members - \$4,000 pab. Deputy Chair - \$5,000 pac. Chair - \$6,000 pa

Staff or elected members of Territorial Authorities or the Environment Canterbury shall not be eligible for remuneration.

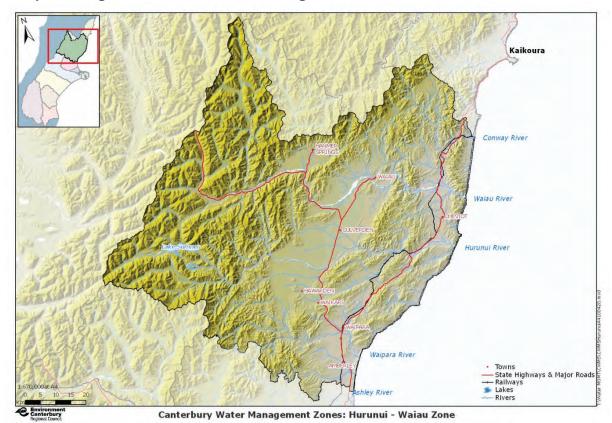
Mileage will be reimbursed.

#### **Committee Support**

The Committee shall be supported staff from the Territorial Councils and Environment Canterbury, primarily through the Committee Secretary and the Zone Facilitator.



#### Map showing Hurunui Waiau Water Management









#### PUBLIC WORKSHOP

1.30pm, Monday 15 August 2016, Waikari Hall

Hurunui Waiau Zone Committee's Nutrient Management Principles that should underpin the development of property-scale nutrient management in the zone

Revised Principles following discussion at 18 July workshop. Still to consider "additional" principles

#### Context

The unintended consequences of the so-called "10%-rule" in the Hurunui Waiau Rivers Regional Plan (HWRRP) raised farmer concerns about approaches to property-scale nutrient management, particularly nitrogen (N) allocation. In October 2015 the Zone Committee included property-scale nutrient management as one of the big issues they needed to progress in preparation for the HWRRP review/sub-regional process. The committee prepared a set of principles for property-scale nutrient management in the zone in April 2016. Fourteen organisations provided feedback on these in June 2016. The committee considered this feedback and revised the principles as below in July 2016.

Property-scale nutrient management, including N allocation, is only one of the tools for achieving water quality. It is likely that a range of tools will be used. The starting point should be the community's outcomes for freshwater and a scientifically robust assessment of current water quality and the reasons for poor quality. This informs what needs to be done to manage water quality to deliver the community's outcomes for freshwater. The solutions package, including rules and limits, to deliver water quality outcomes in the zone must give effect to the NPS for Freshwater Management, including the requirement to maintain water quality. It is likely that property-scale nutrient management will be part of the suite of actions required to maintain, or where needed, improve water quality.

The following principle will be used by the zone committee to advise Environment Canterbury on changes to the HWRRP and on a water management solutions package for the zone. In using these principles the zone committee will consider all of the principles not just one or some in isolation.

Principles (agreed by Zone Committee on 18 July, 2016)

- 1 Manage all contaminants (N, P, sediment and pathogens)
- 2 All land users are required to use good management practices (GMP) or better
- 3 The properties, land uses or activities that contribute most to a water quality issue should have to contribute most to addressing the issue
- 4 Where change is required, timeframes should be realistic
- Where regulatory control is justified including rules and conditions, monitoring, auditing and reporting it should be commensurate with the degree of environmental impact and pressure
- 6 Support the use of group approaches to discharge management

7	Use the best available information to inform evidence-based decision making.			

# Other additional Principles that have been suggested and will be considered by Zone Committee at public workshop 1.00pm Monday 15 August at Waikari

As requested at 18 July meeting the Zone Facilitator's has provided comments on whether the additional principles are already covered.

a) The requirements for nutrient management should be the same on like land

**Comment** – this is not covered by the seven (agreed) principles above. Not all sectors support such a Principle because of the impact on current land users with high nutrient losses. If the committee adopted this principle it would do so recognising Principle 4 above ("Timeframes should be realistic") and that nutrient trading may be required to fully implement this "like land" Principle.

The Principle is included in the Beef + Lamb "Principles for the Allocation of Nutrients". Their explanatory text says:

"Allocation should be based on the intrinsic qualities of the land. Two pieces of land with the same qualities should receive the same allocation. This principle recognises that allocation regimes should not be overly influenced by existing land use."

b) A right to discharge a contaminant comes with an overriding obligation to minimise that discharge for any given landuse;

**Comment** – this is only partly covered by Principle 2 ("GMP or better") above as this proposed principle talks about "rights" and "obligations" which is not part of any of the principles.

c) The discharge of contaminants to water should not be a tradable property right;

**Comment** – this is not covered by the seven currently agreed Principles.

In my experience there are strong opposing views on nutrient trading. On the one hand there are those who strongly oppose the idea of a "pollutant" being traded. Then there are those who consider discharges need to be transferred within a catchment to where they are most valued and/or have a lower environmental impact and that markets are the most efficient way of achieving this. I have observed that people's (and sector) views on trading are often aligned with whether they see themselves as being better or worse off under "grandparenting" of nutrient discharges. There is concern that trading just adds further weight to N being the only discharge that has to be managed.

In my opinion, the current level of knowledge, of N losses across different land uses (particularly arable and horticulture) and of the N loss reductions from particular mitigations, probably means that it would be premature to introduce N trading at this time.

d) A right to discharge a contaminant could be coupled with an obligation to minimise that discharge in accordance with MGM practices and to periodically surrender all discharge rights in excess of reasonable requirements.

**Comment** – the first part of this proposed additional Principle is covered by Principle 2 (GMP or better). The second part (to periodically surrender excess discharges) is not covered by the seven currently agreed Principles.

e) The allocation system should be technically feasible, simple to operate and understandable.

**Comment** – this is not covered by the seven currently agreed Principles.

In my opinion the intent is laudable as some of the allocation frameworks developed to date in sub-regional processes appear, in my view, to be complex and hard to implement (for example those with multiple maxi- and flexi-caps based on hard Overseer numbers).

This proposed Principle is one of the Beef + Lamb "Principles for the Allocation of Nutrients". Their explanatory text says:

"A high level of technical feasibility is fundamental to a successful allocation approach. The simpler the system, the more likely it is to be able to operate effectively. The approach must also be understandable by land users and the wider community. It must be able to be administered fairly and at minimum transaction costs to users and the regulator."

If this Principle was to be added it should be reworded to not just apply to the "allocation system". For example the wording could be:

The framework for property-scale nutrient management should be technically feasible, simple to operate and understandable.

f) Allocation approaches should provide for adaptive management and new farm systems information

**Comment** – this is not covered by the seven currently agreed Principles.

This proposed Principle is one of the Beef + Lamb "Principles for the Allocation of Nutrients". Their explanatory text says:

"Allocation decisions are primarily made on the information we know now and modelled future scenarios. Our understanding and the availability of both catchment and farm systems will change over the life of an allocation system as will possible management techniques. Allocation systems should provide sufficient flexibility to provide for adaptive management and be reviewed regularly to incorporate new information. Adequate transition times should be provided to incorporate new information where allocation changes as a result.

The intent of this Principle is to ensure that the nutrient management approach developed is "future proof" – able to adapt to change. The additional Principle j) below also is about being able to adapt to change, though the change envisaged is in response to major climatic or environmental effects.

If the committee wished to include an "adaptive management" principle it may wish to consider the following:

"Be able to accommodate future changes in farm practices and land use and respond to major climatic events."

g) In under-allocated catchments, where property based nutrient allocation has not been adopted in setting water quality limits, the system for allocating nutrients must be determined well before the limit is reached, be clear and easy to understand, and designed to avoid over-allocation

**Comment** – this is not covered by the seven currently agreed Principles.

This proposed Principle is one of the Beef + Lamb "Principles for the Allocation of Nutrients". Their explanatory text says:

"The mechanism for allocating nutrients, even if it does not have immediate effect, should be clear from the time when water quality limits are set. Allocation mechanisms should reflect the level of risk that the catchment will become over allocated. This may include the adoption of a pre-agreed catchment-specific environmental threshold (e.g. 75%-90% of a limit) to determine when an allocation regime should be adopted.

The committee needs to decide whether such a principle is needed. It is expected that the Committee's recommended water management solutions package will include property-scale nutrient management requirements where these are needed as part of achieving freshwater outcomes (and limits). Therefore this proposed Principle may be addressing a concern that will not eventuate.

h) Maintain community wellbeing by having a nutrient management framework that does not create or exacerbate divisions among different land use types.

**Comment** – The intent of this proposed Principle is to maintain community wellbeing. The proposed Principle is analogous to Principles previously discussed by the committee for "maintaining or improving water quality" and "maintaining farm viability and economic prosperity". These Principles were deleted as they were considered "outcomes", not principles.

 Develop a long term vision for nutrient management at the property level that goes beyond meeting minimum statutory requirements and good management practices.

**Comment** – This proposed Principle is similar to "Provide a vision of the long-term approach for property-scale nutrient management, including N allocation" that was considered by the committee at the 18 July workshop. The committee said that development of a long-term vision needed to be part of the process but did not consider this was a "Principle."

j) Provide adaptive management solutions for the sustainable management of resources in order to respond to major climatic or environmental effects in real time and between plan change cycles.

Comment - see f) above.

k) Provide leadership and support in pursuing innovation, to positively address the challenges of working within nutrient limits at the individual property level.

**Comment** – this is not covered by the seven currently agreed Principles.

Innovation will be important in "farming to limits." So too will be incentives (as the Committee has noted previously). The Committee needs to decide if it specifically needs an "Innovation" Principle.