

# Canterbury Water Management Strategy

## Waimakariri Zone Committee

### Agenda

**Monday 10 December 2018**

**3.00pm**

***Council Chambers,  
Waimakariri District Council,  
215 High Street Rangiora***

***Members:***

David Ashby (Chair)  
Grant Edge (Deputy Chair)  
Carolyn Latham  
Judith Roper-Lindsay  
Gary Walton  
Cameron Henderson  
Michael Blackwell  
Arapata Reuben (Te Ngai Tūāhuriri Rūnanga)  
Sandra Stewart (WDC Councillor)  
Claire McKay (ECan Councillor)

Chairperson and Members

**CWMS WAIMAKARIRI ZONE COMMITTEE**

Agenda for the meeting of the **CANTERBURY WATER MANAGEMENT STRATEGY WAIMAKARIRI ZONE COMMITTEE** to be held in the **WAIMAKARIRI DISTRICT COUNCIL CHAMBERS, 215 HIGH STREET, RANGIORA** on **MONDAY 10 DECEMBER 2018** commencing at **3.00PM**.

Adrienne Smith  
Governance Coordinator

**Recommendations in reports are not to be construed as  
Council policy until adopted by the Council**

**BUSINESS**

**PAGES**

**KARAKIA**

1 **APOLOGIES**

**REGISTER OF INTERESTS**

5 - 6

*Conflicts of interest (if any) to be reported for minuting.*

**CONFIRMATION OF MINUTES**

1.1 **Minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting – 19 November 2018**

7 - 14

*RECOMMENDATION*

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Confirms** the minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting, held on 19 November 2018, as a true and accurate record.

**MATTERS ARISING**

## **OPPORTUNITY FOR THE PUBLIC TO SPEAK**

- 2 **WAIMAKARIRI FINAL ZIP ADDENDUM UPDATE**– David Ashby (Committee Chairperson) and Murray Griffin (CWMS Zone Facilitator)

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### *RECOMMENDATION*

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Receive** this update on the feedback received on the Waimakariri Land and Water Solutions Programme Draft ZIP Addendum 2018.

- 3 **WOODEND STORMWATER NETWORK DISCHARGE CONSENT APPLICATION** – Janet Fraser (Utilities Planner, WDC)

16 - 17

### *RECOMMENDATION*

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Receives** this briefing paper.
- (b) **Notes** the pending application for stormwater discharge consent for the Woodend stormwater network to be lodged shortly with Environment Canterbury.

- 4 **CWMS FIT FOR THE FUTURE PROJECT**– Chris Wikstrom, (ECan) and Murray Griffin (CWMS Facilitator, ECan)

18 - 29

- 5 **COMMITTEE UPDATES** – Zone Committee Members, Murray Griffin, (CWMS Facilitator, ECan)

30 - 31

- 5.1 **CWMS Regional Committee update**– Carolyn Latham, (Waimakariri Zone Regional Committee Representative)

- 5.2 **Auditor-General Letter regarding the Regional Zone Water Management Committees**

32 - 33

- 5.3 **Waimakariri Zone Delivery Update on current priorities in the Zone** (Andrew Arps)

- 5.4 **Waimakariri Immediate Steps Overview – December 2018 – Jason Butt (ECan)**

34

- 5.5 **Media and Communications – Update 1- 30<sup>th</sup> November** – Gina McKenzie (Director – Real Communications)

35 - 36

*RECOMMENDATION*

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Receive** these updates for its information and regarding the committee's 5 Year Outcomes and community engagement priorities for 2019.

6     **GENERAL BUSINESS**

7     **KARAKIA**

8     **NEXT MEETING**

The next meeting of the CWMS Waimakariri Water Zone Committee will be held on Monday 11 February 2019 commencing at 3.00pm.

# WAIMAKARIRI WATER ZONE COMMITTEE

## Register of Interests – at December 2018

Name	Committee Member Interests
<b>David Ashby</b>	<ul style="list-style-type: none"> <li>- Director/shareholder: Pineleigh Farm Limited</li> <li>- Director/shareholder: Dave Ashby Rural Consultants Limited</li> <li>- Shareholder: Waimakariri Irrigation Limited</li> <li>- Member: Cust Main Drain Water User Group</li> </ul>
<b>Michael Backwell</b>	<ul style="list-style-type: none"> <li>- Director/ Shareholder Blackwells Limited , Kaiapoi</li> <li>- Treasurer, North Canterbury Clay Target Association</li> <li>- 4HA property, Tuahiwi.</li> </ul>
<b>Grant Edge</b>	<ul style="list-style-type: none"> <li>- Director: Edge Landscape Projects Ltd, Edge Plants Ltd, and Edge Products Ltd</li> <li>- Member: NZ Institute of Landscape Architects</li> <li>- Member: Urban Design Forum</li> <li>- Member: QEII National Trust</li> <li>- Member: NZ Forest &amp; Bird</li> <li>- Member: Heritage NZ</li> <li>- 1ha property Fernside (shallow bore user)</li> </ul>
<b>Cameron Henderson</b>	<ul style="list-style-type: none"> <li>- Dairy Farmer - Groundwater irrigator</li> <li>- Member - NZ Institute of Primary Industry Management</li> <li>- Member - NZ Dairy Environment Leaders Forum</li> <li>- Chairman - DairyCan - Canterbury Dairy Environment Leaders Forum</li> <li>- Chairman - North Canterbury Federated Farmers</li> </ul>
<b>Carolyn Latham</b>	<ul style="list-style-type: none"> <li>- Farmer: Sheep, beef</li> <li>- Director of Latham Ag Ltd Consulting</li> <li>- Shareholder: Silver Fern Farms, Farmlands</li> <li>- Registered Member: New Zealand Institute of Primary Industry Management</li> </ul>
<b>Claire McKay</b>	<ul style="list-style-type: none"> <li>- Dairy Farmer</li> <li>- Irrigator and shareholder: Waimakariri Irrigation Ltd</li> <li>- Holder of Groundwater take and use consents in Cust groundwater allocation zone</li> <li>- Holder of Effluent discharge consents</li> <li>- Member: Federated Farmers</li> <li>- Member: DairyNZ Dairy Environmental Leaders forum</li> </ul>
<b>Arapata Reuben</b>	<p>Chair – Ngāi Tūāhuriri Rūnanga  Trustee – Tuahiwi Marae  Trustee – Tuhono Trust  Trustee – Mana Waitaha Charitable Trust  Member – National Kiwi Recovery Group  Rūnanga Rep and Chair – Christchurch/West Melton Water Zone Committee  Rūnanga Rep – Ashburton Water Zone Committee</p>
<b>Judith Roper-Lindsay</b>	<ul style="list-style-type: none"> <li>- Director/ecologist: JR-L Consulting Ltd.</li> <li>- Land-owner/small-scale sheep farmer, Ashley downs</li> <li>- Fellow: Environment Institute of Australia and New Zealand (EIANZ)</li> <li>- Assisting Waimakariri Irrigation Ltd in an advisory role.</li> </ul>

<b>Sandra Stewart</b>	<ul style="list-style-type: none"> <li>- Self-employed journalist</li> <li>- Land-owner, 4ha Springbank – sheep &amp; dogs</li> </ul>
<b>Gary Walton</b>	<ul style="list-style-type: none"> <li>- Director, Walton Farm Consulting Ltd</li> <li>- Director &amp; Shareholder, Loburn Irrigation Co</li> <li>- Trustee, Rugby World Heritage Trust</li> <li>- Ashley Rugby Football Club (Inc.)</li> <li>- Farmer, sheep &amp; cattle, Loburn</li> </ul>

**MINUTES FOR THE MEETING OF THE CANTERBURY WATER MANAGEMENT STRATEGY WAIMAKARIRI ZONE COMMITTEE HELD IN THE WAIMAKARIRI DISTRICT COUNCIL CHAMBERS, 215 HIGH STREET, RANGIORA ON MONDAY 19 NOVEMBER 2018 AT 4.00PM.**

**PRESENT**

Dave Ashby (Chairperson), Grant Edge (Deputy Chairperson), Carolyn Latham, Gary Walton, Michael Blackwell, Judith Roper-Lindsay, Claire McKay (Environment Canterbury Councillor), Arapata Reuben and Sandra Stewart (Councillor, Waimakariri District Council).

**IN ATTENDANCE**

Kalley Simpson (3 Waters Manager, WDC), Sophie Allen (Water Environment Advisor, WDC), Owen Davies (Drainage Asset Manager, WDC), Gina McKenzie (Real Communications Ltd), Jason Holland (ECan), Alistair Picken (ECan), Jess Steel (ECan), Diane Shelander (Christchurch City Council), John Benn and Danny Kimber (Department of Conservation, Christchurch), Michael Bate, (Kaiapoi resident), Robert Johnston (Farmer, Ashley Gorge), Craig McIntosh (Farmer, Flaxton), Bruce Stokes, (Farmer Cust) Murray Griffin (CWMS Facilitator, ECan) and Adrienne Smith (Governance Coordinator).

**KARAKIA**

Arapata Reuben provided a karakia to open the meeting.

**1 APOLOGIES**

There were no apologies.

**REGISTER OF INTERESTS**

There were two updates to the Register of Interest:

C McKay noted she is no longer a Member of P21 Canterbury Industry Advisory Group.

J Roper-Lindsay – include that she had been assisting Waimakariri Irrigation Ltd in an advisory role

J Roper Lindsay noted the recent news articles about the WIL Biodiversity project to protect and enhance biodiversity. An inventory has been undertaken and the project is now in a feasibility stage to find suitable sites and interested landowners. J Roper-Lindsay advised that she is helping with some biodiversity advice and peer review work alongside Paul Reece from WIL and landscape architect Dan Cameron.

**CONFIRMATION OF MINUTES**

**1.1 Confirmation of the Minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting – 8 October 2018**

Moved G Walton seconded G Edge

- (a) **Confirms** the minutes of the Canterbury Water Management Strategy Waimakariri Zone Committee meeting, held on 8 October 2018, as a true and accurate record.

**CARRIED**

### **MATTERS ARISING**

S Stewart spoke on the report regarding R Johnston's property which had been received and asked what the next stage for this matter was and has there been any action. In the absence of A Arps, it was suggested that this matter be left until a further update can be provided at the December meeting.

C McKay noted that this report has been circulated to ECan Councillors and Mr. Johnston. Mr. Johnston has also presented to Council regarding some of the issues in the report and Environment Canterbury will be responding about what the options are going forward.

Re item 5 in the minutes, regarding stock water race closure, J Roper-Lindsay spoke on the ecological values of stock water races and noted comments from WDC Drainage Asset Manager Owen Davies (from the previous meeting) that there was minimal ecological value in the races in many cases and the difficulty in undertaking assessment. J Roper-Lindsay would like to see the Council have a system of assessing ecological value prior to closing water races. J Roper-Lindsay offered to provide some information to the Council which may assist in assessing ecological value in a cost efficient and timely manner.

### **OPPORTUNITY FOR THE PUBLIC TO SPEAK**

#### **Craig McIntosh**

Mr. Craig McIntosh spoke on the draft ZIP addendum and questioned how everyone with consents for irrigation on their properties had been informed about its existence. Mr. McIntosh noted this contains important information for the public and he was concerned that there appeared to be some landowners were not aware of the draft ZIP addendum. The Chair and M Griffin advised that all water consents holders had received letters advising of the draft ZIPA and were also invited to targeted discussions in advance of the draft ZIPA's release. Dave noted that the addendum was a series of recommendations from this committee, based on community input and feedback, and would inform the Land and Water Regional Plan. M Griffin confirmed that this information will continue to be updated on the Zone Committee section of the ECan website. Mr. McIntosh noted the information on minimum flows, emphasizing that some members of the public are concerned that the projected minimum flows seem to be unreasonable. Mr. McIntosh noted the importance of knowing what the flows are in the rivers and streams in the area, and any restrictions on minimum flows during a drought could be disastrous for the area. Mr. McIntosh commented on a drought in the 1980s and if this was to be repeated this would put farmers off the land. He suggested that ECan check the records of that drought year (1988) and what the flows were then, to compare with the proposed minimum flows.

Regarding the Cam River, Mr. McIntosh noted that the main stem and the tributaries are being treated quite differently and believes this is unfair. This affects just the Inch and McIntosh families. Mr. McIntosh noted the long history that his family have with the dairy farming and community support in the district. The involvement of the late Trevor Inch in the establishment of Waimakariri Irrigation Scheme was also noted.

Following a question from J Roper-Lindsay on the media coverage of the final ZIPA, M Griffin advised hard copies would be made available at the Council service centres, much as the draft ZIPA was, with the final version also available on the ECan website early in the New Year. G McKenzie will manage the publicity.

#### **Robert Johnston**



Mr. Johnston commented on the stock-water races, as an item on the agenda. He noted that one of the original conditions of Waimakariri Irrigation, was that the stock water races would remain. The races also serve another valuable purpose which is to remove surface floodwater during heavy rainfall, and by closing them could increase flooding potential.

Mr. Johnston noted he had attended one of the public information meetings and suggested the ZIPA is confusing, and asked if the ZIPA still reconciles with the regional planning rules and the red/orange nutrient allocation zones from two years ago. Mr. Johnston reiterated his continued concerns with the use of Overseer. It can be used as a farm management tool, but it should not be used as a regulatory tool.

Referring to his property and the erosion from the Ashley/Rakahuri River, he noted deficiencies in the geomorphic report that was provided by ECan. Mr. Johnston suggested the report needs some serious revamping and correction, and questioned some of the statements in it. He is happy to sit down with anyone to note these corrections. Mr. Johnston referred to the Boyle report on the Ashley River and said this report also includes many deficiencies. He noted, for example, some of the maps have incorrect dates. There are photos confirming the amount of land that has been lost on the river frontage on his property. Mr. Johnston added that recent rainfall, which was not significant, had meant further land slips.

Mr. Johnston thanked ECan Councillor C McKay for facilitating the meeting with the Councillors. Legal counsel, engaged by Mr. Johnston, accompanied him to a meeting with ECan Council. The matter of the river bank erosion, as moved by the ECan Chair and seconded by Councillor McKay, has been referred to the Chief Executive for further action.

Mr. Johnston said he has been advised that there has been a weed spraying programme in the lower Ashley River which has been undertaken annually for at least the last ten years. As a consequence, this part of the river was looking much healthier than the upper reaches, from the Okuku to Ashley Gorge. He added funding of \$300,000 had been set aside for vegetation control in the Ashley River and Mr. Johnston would be interested to know what part of the river this is going to be used on.

C McKay will follow up on the budgets as to where the funding for the current spraying is coming from. C McKay also understood that the \$300,000 quoted is a figure that has been suggested to cover the cost for spraying the Ashley River.

### **Michael Bate**

Mr. Bate showed a series of photos taken in waterways north of Christchurch, some taken last year and then recent photos showing the poor state of health, as a result of weed spraying. Mr. Bate stated that he believed there had been weed spray used in the Styx River and this has had a detrimental effect of the waterweed and there is no fish life in the river

J Roper-Lindsay noted that there is a long history of mechanical clearance of weed from the bed of Styx River because of the flooding. The Christchurch City Council manage the Styx, Avon and Heathcote Rivers. Mr. Bate advised he had spoken to the Christchurch West Melton Zone Committee about this matter. He also showed photos of the Halswell River, Kaputone Creek and Lake Forsyth. Mr. Bate said there has to be an end to putting chemicals in our waterways. The current state of the waterways is not natural, and does not believe the dry months of August, September and October had any impact of the health of the waterways.

Mr. Bate was thanked for his presentation.

2 **COMMITTEE UPDATES** – Zone Committee Members, Murray Griffin, (CWMS Facilitator, ECan)

2.1 **CWMS Regional Committee working group meeting 9 October 2018**,– Carolyn Latham, (Waimakariri Zone Regional Committee Representative)

The report was taken as read. Grant Edge noted item four of the report – and that OTOP had expressed concern that biodiversity is potentially a key missing component of FEPs. It was noted that some of the members of this committee were also concerned about this. C Latham noted the Regional working group had discussed this, and noted that FEPs do contain the biodiversity values in relation to some of the compulsory sections. For example, soils or nutrient management, that focus on riparian areas and filter runoff. Plans also specify riparian vegetation. The regional committee noted that though there is not a specific section in FEPs for biodiversity per se, biodiversity that is specified in a District Plans and identified as significant is covered. The Regional committee has sought advice from ECan staff on how best to pick up any biodiversity values that are outside District Plans (e.g. areas of bush) and further clarification from OTOP on their query.

2.2 **Media and Communications – October 2 – 31<sup>st</sup> Update** – Gina McKenzie (Director – Real Communications)

G McKenzie spoke on the report and the articles that have been in the published during October.

Following a question from C Henderson, the Chairperson noted that the article in the Northern Outlook on Ngai Tahu farms on October 31<sup>st</sup>, is factually incorrect and was not sanctioned by Ngai Tahu, but provided by a third party. Arapata Reuben noted that a response is being written to correct this article.

2.3 **Omnibus Plan Change 2019 to the Canterbury Land and Water Regional Plan (LWRP)**,– Andrea Richardson (Senior Planner – Environment Canterbury)

Jason Holland noted that this is the second time ECan has undertaken an Omnibus Plan Change, which endeavours to continually improve the LWRP. This is a region wide plan change which means widespread consultation. With an omnibus, if this gets too big it can be difficult to get it to work within the budget and the timeframe required.

Judith Roper-Lindsay queried if there was a better way to improve some waterways, than managed aquifer recharge (MAR), and whether the current rules are enabling of this. G Edge commented on the non-statutory items that were suggested by zone committees, but ultimately not recommended, for inclusion in the Omnibus 2019 plan change. J Holland advised these topics had been raised some months ago at Regional Committee level, and consideration given to indirect impacts on biodiversity, for example, through riparian planting and mahinga kai enhancements.

J Roper-Lindsay noted that indigenous biodiversity doesn't add significantly to the cost of an FEP and questions what the Step Change in biodiversity will look like.

C Henderson noted that the topic of indigenous biodiversity is quite a contentious topic, and particularly, the mapping of and protecting of sites. C

McKay believes this matter needs further consideration by the committee and suggested further discussion in early 2019.

G Edge noted that OTOP and Waimakariri were two Zone Committees who were not asked for comment on the Omnibus as they were both busy considering their ZIPAs at the time.

J Roper-Lindsay suggested that this is something that could go through the Regional Committee and get them on board with this.

S Stewart would prefer to have a report come to the first meeting of the new year, in February, to have debate with background information. This would not exclude it going forward to the April consultation.

G Edge believes these are shortcomings of the ZIPA. Jason noted all the items that have been suggested are to be included in mapping. It was noted that there are many items in Schedule 7, which outline FEP requirements that will benefit indigenous biodiversity. There was discussion on the value of FEPs for management of properties.

It was agreed J Holland (or another ECan staff member) will provide a report to the February Zone Committee meeting. C Latham will also seek information from the Regional Committee on any updates.

#### 2.4 **Check Clean Dry Behaviour Change Campaign Update** – Gemma Livingstone (Biosecurity Officer), Environment Canterbury)

M Griffin spoke briefly on this report, which has gone to all the Zone Committees, noting that this campaign is underway for the entire region.

#### **CWMS Fit for Future Project (FFF)**

A briefing on this project will be provided for the committee at its 10 December meeting. In the interim the following update has been provided by the CWMS Fit for Future project team:

To help the committee discuss and provide feedback on the Fit for Future (FFF) Goals, the CWMS project team has conducted an initial review of the Waimakariri draft ZIPA's alignment with FFF goals. The ZIPAs recommendations align with the FFF goals. The Waimakariri ZIPA has identified some very clear actions which will flow through the FFF Work Programmes being drafted now. Results of the review will be presented at next month's meeting for the Committee to discuss in detail. OTOP will also get a briefing at their December meeting on the FFF.

Moved C McKay seconded J Roper-Lindsay.

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Receive** these updates for its information and regarding the committee's Solutions Programme and community engagement priorities for 2018/2019.

**CARRIED**

**3 Stock-water Race Bylaw Review 2018 – Owen Davies (Drainage Asset Manager, WDC) and Libica Hurley (Technical Administrator, WDC)**

O Davies and K Simpson spoke to this report which advises the proposed changes to the Stock-water Race Bylaw Review 2018. These are minor amendments from the current Bylaw which dates from 2007.

A matter of interest to the Zone committee members is stock access to waterways and the use of the word "linger" relating to stock. This word is still being used but the bigger concern is the end outcome.

Under spraying. A new clause has been added in, this is not excluding spraying but making sure it is not causing any adverse effects.

**Questions**

Following a question from Michael Blackwell, K Simpson noted that this Bylaw is for a utility asset, water could be in a race or could even be a pipe. At the point of discharge the Council needs to make sure that it is not having an adverse effect on the receiving environment.

Owen Davies also spoke on the possible closing of stock-water races. A report is currently being written to go to the WDC Utilities and Roading Committee on this matter and a copy will come to this committee. O Davies spoke on the matters that are taken into account when closing a water race, noting that at the moment biodiversity is not taken into account, nor such things as lowland stream aquifer recharging. The Council does consider the point raised earlier in this meeting, that the stock-water race system also serving as a drainage system in heavy rainfall periods. This is definitely taken in to account and will be included in the report.

S Stewart noted any concerns of the Water Zone committee could be relayed to the Council before it goes to the WDC Utilities and Roading Committee on 11 December, for recommendation. Is there any provision for the comments of this committee to be included in the Bylaw review? K Simpson said any feedback on the Bylaw minor changes is welcome there could be scope for this matter to go to the February 2019 U&R meeting and then onto Council at the March meeting, which would still mean it would meet the May 2019 deadline.

Judith Roper-Lindsay observed that the Council sees the stock-water races as an asset and the Zone Committee sees them as water ways. K Simpson confirmed that the Council is focused on the protection of the receiving environment, not the drains themselves.

C Latham questioned how spraying will be monitored, so that it is not causing any issues with destabilizing the river bank structure. This Bylaw gives the Council a bit more "teeth" if someone is doing so much spraying on the bank it is causing destabilizing. C Latham asked would this encourage people to spray the water, rather than the weeds. K Simpson noted that mostly it is the occurrence of excessive spraying that is the biggest issue.

O Davies noted there is a large variance in the knowledge amongst landowners in the effects of spraying on riverbanks.

C McKay suggested some changes to the wording under Item 3.4.4 and Item 5.3.2 in this Bylaw.

K Simpson noted that it is intended to keep the wording in 3.4.4 more general with the reference to "nuisance". The key point is to keep it more generic because it is water quality that could be causing the problem. For Item 5.3.2 is intended to deal with more of a flood flow perspective, of water both going into and coming out of the Stock water race.

The Council is happy to shift the timeline if it is felt that any feedback from this committee will be substantial. This could be delayed and go to the February 2019 meeting of the WDC Utilities and Roding committee.

Moved C McKay seconded J Roper-Lindsay

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Receives** this report from the Waimakariri District Council on the Stock-water Race Bylaw Review 2018.

**CARRIED**

- 4 **Waimakariri Final ZIP Addendum - briefing** – Murray Griffin (CWMS Facilitator, Waimakariri), Environment Canterbury

It was agreed that the presentation will be deferred to the December 10 meeting.

Moved G Walton seconded M Blackwell

**THAT** the CWMS Waimakariri Zone Committee:

- (a) **Approve** the Waimakariri Land and Water Solutions Programme Final ZIP Addendum 2018, subject to any final amendments agreed to by the zone committee, to be presented to the Waimakariri District Council and Environment Canterbury.

**CARRIED**

A Reuben, on behalf of Ngāi Tūāhuriri Rūnanga, did not approve of this motion.

- 5 **GENERAL BUSINESS**

There was no general business.

- 6 **KARAKIA**

A Reuben conducted a karakia.

7     **NEXT MEETING**

The next meeting of the CWMS Waimakariri Water Zone Committee will be held on Monday 10 December 2018 commencing at 3.00pm.

There being no further business, the meeting closed at 6.10pm.

CONFIRMED

\_\_\_\_\_  
Chairperson

\_\_\_\_\_  
Date

<b>AGENDA ITEM NO: 2</b>	<b>SUBJECT:</b> Waimakariri Final ZIP Addendum – briefing
<b>REPORT TO:</b> Waimakariri Water Zone Committee	<b>MEETING DATE:</b> 10 December 2018
<b>REPORT BY:</b> Murray Griffin, CWMS Facilitator – Waimakariri, Environment Canterbury	

### **PROPOSAL**

This agenda item provides an update on community feedback received on the Waimakariri Draft Zone Implementation Programme (ZIP) Addendum, and the zone committee's advance of the draft to a final ZIP Addendum to be presented to both the Waimakariri District Council and Environment Canterbury.

### **RECOMMENDATIONS**

- 1) The zone committee are asked to receive this update on the feedback received on the Waimakariri Land and Water Solutions Programme Draft ZIP Addendum 2018.

### **Feedback on the Draft ZIP Addendum**

An overview of the feedback received on the draft ZIP Addendum will be presented at the meeting.

### **The Waimakariri Land and Water Solutions Programme schedule** for the period until mid-2019 looks like:

- Draft ZIP Addendum & recommendations for the Waimakariri Land & Water Solutions Programme approved for public consultation – 10 September 2018
  - Draft ZIP Addendum consultation – September/October 2018
  - Zone Committee sign-off final recommendations for Solutions Programme – 19 November 2018
  - **Final Solutions programme recommendations to ECan and WDC councils – December 2018**
  - Informing the community on the final Land and Water Solutions Programme – January to March 2019
  - Notify a sub-region plan change to the Land and Water Regional Plan in response to the ZC's recommendations – mid 2019.
-

<b>AGENDA ITEM NO: 3</b>	<b>SUBJECT MATTER:</b> WAIMAKARIRI WATER MANAGEMENT ZONE COMMITTEE – WOODEND NETWORK CONSENT UPDATE
<b>REPORT:</b> Woodend Stormwater Network Discharge Consent Application	<b>DATE OF MEETING:</b> 10 December 2018
<b>REPORT BY:</b> Janet Fraser, on Behalf of Waimakariri District Council	<b>ENDORSED BY:</b> Gerard Cleary, Manager Utilities and Roothing

### Purpose

This paper updates the Waimakariri Water Management Zone Committee on progress preparing the Woodend Stormwater Network Discharge Consent Application.

A power point presentation will be provided during the meeting to further update the Committee on the application's content.

The consent application is being finalised and will be shortly lodged with Environment Canterbury, including any feedback provided at this meeting.

### Requirement for Discharge Consents

The Woodend stormwater consent application is a requirement of the Canterbury Land and Water Regional Plan (CLWRP). The CLWRP requires the Council as network operator to obtain consent for all reticulated stormwater system discharges into the receiving environment (land and water) in the District. All applications must be lodged with Environment Canterbury by 30 June 2018 or later date as agreed between Environment Canterbury and the Waimakariri District Council.

### Term and Approach

The Woodend Stormwater Network Discharge Consent is sought for a term of 35 years.

During the period from 2018 to 2025 the Council will develop a comprehensive stormwater management plan to determine how the Council will achieve CLWRP water quality targets for all the Woodend stormwater network discharges.

The Council's target is to ensure discharges from the Woodend stormwater network comply with all applicable plan standards as at 2040.

### Stormwater Management Plan

An interim stormwater management plan has been prepared by staff and will be lodged with the consent application. Its key proposals include:

- Investigating source control options for identified contaminants.
- Investigate low impact design options to improve treatment at a sub-catchment level.
- Where practicable, incorporate measures to improve stormwater treatment as part of the capital works programme.
- Phase in use of pollution prevention plans to manage discharges from medium risk premises.

*(Note: Discharges from high risk premises into the network are intended to continue to be controlled by Environment Canterbury).*



**Key Contaminant Findings**

The power-point presentation will include water quality monitoring results for the Woodend stormwater network and receiving environment.

**Recommendations**

That the Waimakariri Water Management Zone Committee:

1. **Receives** this briefing paper.
2. **Notes** the pending application for stormwater discharge consent for the Woodend stormwater network to be lodged shortly with Environment Canterbury.

Janet Fraser, on behalf of Waimakariri District Council

<b>AGENDA ITEM NO: 4</b>	<b>SUBJECT MATTER:</b> CWMS Fit for the Future Project
<b>REPORT BY:</b> Chris Wikstrom, Environment Canterbury	<b>DATE OF MEETING:</b> 10 December, 2018

### Purpose of the Paper

1. The purpose of this paper is to enable Zone Committees to provide input into the Fit for the Future Canterbury Water Management Strategy (CWMS) project. This is through:
  - Giving their views on what is needed to support delivery of the targets: are there gaps in the "Proposed Work Programmes (Appendix 2 attached) and who needs to do more (and what do they need to do)?
  - Providing feedback, if time permits, on the draft CWMS goals for 2025 and 2030.

### Key input requested

Looking at the proposed Work Programmes (Appendix 2), identify:

- key actions needed (to achieve the targets);
- who needs to do more and what is it?
- any gaps in the proposed work programme for this Zone?

*Use the column in the table to identify key actions needed, who needs to do more (and what), and any gaps.*

If time permits (unlikely), we would also like feedback on the 2025 and 2030 targets.

If you want to provide further input, than you were able to in the zone committee meeting, email them to [cwmstargets@ecan.govt.nz](mailto:cwmstargets@ecan.govt.nz) by 28 November (although earlier comments would be appreciated).

### Background

See attached PowerPoint slides for background and update on progress.

1. The Goals Working Group has discussed the draft goals and considered at a high level the activities that should be undertaken to support the delivery of the draft goals and the Strategy.
2. The Goals Working Group noted the following issues were important in thinking about the draft goals and delivery of the Strategy:
  - The social capital that has been built up during the CWMS process is reliant on continued confidence that the CWMS targets and goals will be met. The goals need to be achievable and meet all the CWMS values, and implementation needs to be co-designed with communities. Getting greater certainty is important, including for investment confidence.
  - There are concerns by iwi that cultural outcomes (for example, mahinga kai) are not being met fast enough.

- The contribution of water and its use to the vibrancy and financial health of small communities needs to be explored.
- We need to be smarter about the way that we collect information and report on CWMS progress.
- There are significant resourcing and capacity issues.
- Urban waterway quality needs greater focus.
- There is a need to address over-allocation and the implications of doing so.

### **Draft Goals and Implementation**

3. Attached as Appendix 1 is the detailed table “Draft goals for 2025 and 2030”. The table sets the draft goals out by CWMS target area. For ease of reading:
  - i. A “Theme” column has been added to the table to help describe the objective of each goal.
  - ii. All the existing targets for 2020 and 2040 are underlined.
  - iii. Percentage increases, or reductions for the 2025 and 2030 goals are yet to be determined so are denoted with ‘X%’ for further analysis.
4. Appendix 2, “Targets and Proposed Work Programmes”, is a table that sets out the targets and suggested work programmes that might be needed to support the delivery of the Strategy.
5. The two appendices are still ‘work in progress’. In particular:
  - There is a need to integrate the goals in Appendix 1 between the different target areas – there is some overlap and lack of clarity between the target areas.
  - Several the draft goals in Appendix 1 look like elements of a work programme. Further analysis on how those proposals can be incorporated into advice to the Mayoral Forum will be carried out. That analysis will need to make sure that the proposals carry sufficient weight so that there is confidence that the mix of goals and work programmes lead to the outcomes being sought.
  - The Appendices do not yet address the Regional and National Economies target area. This Task Group has only had one meeting and is exploring whether the use of a framework that reflects economic, social and natural capital would be useful for the CWMS and this target area.
  - The detailed work programmes have yet to be fully developed. We are seeking views on whether the work programmes that have been identified are broadly correct, or whether they need adding to or modifying.

### **Future Process**

6. This paper is part of the round of engagement on the Fit for the Future project that is scheduled from 12 November to 11 December. Following that, there will be an opportunity for Te Rōpū Tuia, the Regional Committee and the Goals Working Group to consider the results of the engagement. The Chief Executives’ Forum and Mayoral Forum will consider the outcome of this process in February and May 2019.

## Appendix 1: Draft Goals for 2025 and 2030

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A1	DRI	<b>Drinking Water</b>								
		Source water quality targets	Protect Existing Untreated Supplies	For those communities that currently have access to untreated and safe drinking water, implement actions to ensure the source water quality remains high enough to meet the current Drinking Water Standards for New Zealand without treatment						
A17	DRI									
		Source water quality targets	Reduce the Need for Additional Treatment	Prevent further decline in source water quality for those communities that currently have to treat drinking-water, such that this requires increased level of treatment or monitoring			Protection zones in place and enforced by rules and compliance to improve protection of drinking water at source, with priority given to drinking water over other uses in LWRP and District Plans.	All source drinking water is protected from land use activities, with priority given to drinking water over other uses in LWRP and District Plans.		Protection zones by themselves do not protect - need to inform and enforce.
A21	DRI									
		Source <u>quantity</u>	Protect Water Volumes	No new activities in a drinking water catchment that reduce access to sufficient quantities of drinking water supplies			Priority is given to drinking water over other uses in the Land and Water Regional Plan and territorial authorities' district plans.	Ensure drinking water supply (community use and stockwater) is maintained as a first order priority when reviewing regional policies and planning		
A10.3	DRI									
		Source water quality - Nitrates	Reduce Nitrates Levels in Groundwater			83) A demonstrable decrease in nitrate concentrations in shallow groundwater in priority areas is achieved.	Nitrate concentration levels remain stable or reduce where required by plans. Report on changes to nitrate concentrations for monitored shallow and groundwater sites, recognising trends and zone variation to inform risk factors. Average annual nitrate levels in x% of groundwater wells in Canterbury are below 50% of the maximum allowable value for drinking water.	Nitrate concentration levels reducing where required by plans. Report on changes to nitrate concentrations for monitored shallow and groundwater sites, recognising trends and zone variation to inform risk factors. Average annual nitrate levels in x% of groundwater wells in Canterbury are below 50% of the maximum allowable value for drinking water.	86) Average annual nitrate levels in all groundwater wells in Canterbury are below 50% of the maximum allowable value for drinking water	Key indicator for CWMS; linked to Environmental Limits target. Taskgroup 2 re-wrote goal so natural progression. Work needed to determine what the x% will be.
A11	DRI									
		Source water quality targets	Improve Drinking Water Supplies			84) There is an increase in the percentage of the population supplied with water that meets the New Zealand Drinking Water Standards for health-based determinants.	There is an increase in the percentage of the population supplied with potable water from community supplies that consistently meets Drinking Water Standards of New Zealand. 100% of all community drinking water supplies meet the New Zealand Drinking Water Standards for health-based determinants.	There is an increase in the percentage of the population supplied with potable water from community supplies that consistently meets Drinking Water Standards of New Zealand. 100% of all drinking water supplies meet the New Zealand Drinking Water Standards for health-based determinants.	87) Nitrate levels in community drinking water wells are below the maximum allowable values of drinking water	Feedback focused on: Source water quality remains high enough to meet DWSNZ without treatment: Source water quality does not decline further for water supplies that currently have to treat drinking-water: Distribution systems supply water that meet DWSNZ. Taskgroup 2 re-wrote goal as not deemed measurable.
A13	DRI									
		New*	Improve Groundwater Modelling				Improve monitoring and model to help anticipate and prepare for future shocks. Develop detailed dynamic groundwater modelling to provide data that ensures policy recognises impact of contaminants, land use and climate change.	Improve monitoring and model to help anticipate and prepare for future shocks.		Monitoring and modelling need to be done in time to help anticipate future shocks.
A18	DRI									
		Catchment nutrient loads (Drinking Water)	Set Catchment Nutrient Loads		Demonstrated, and included in implementation programmes, how land within the zone will be managed to achieve catchment load limits		Implementation programmes and their goals and objectives are adjusted as monitoring signals rate of progress towards meeting catchment load limits	Catchment load limits are met (timeframes set in implementation programmes)		
A19	DRI									
		Catchment nutrient loads (Drinking Water)	Set and Meet Good Management Practice		Set catchment load limits for nitrate consistent with drinking water quality targets for each zone, identified priority areas where targets are not met and implemented actions to ensure there is no further enrichment	82) Achieved nutrient efficiency targets for the zone on all new irrigated land and 80% of other land in major rural land uses (pasture, major arable and major horticulture crops), and have 100% of rural properties working towards those targets (and of properties within urban boundaries that apply nutrients over significant areas).	Achieved nutrient efficiency targets for all zones as set out in plans.	Achieved nutrient efficiency targets for all zones as set out in plans.	88) Achieved nutrient efficiency targets for the zone on all new irrigated land and 100% of other rural properties (and of properties within urban boundaries that apply nutrients over significant areas).	Feedback - link to targets in plans and ZIPAs.
A20	DRI									
		Emerging contaminant risks	Understand Emerging Contaminant Risks		Emerging contaminant risks are understood and any at risk areas identified for targeted management, and a remedial programme underway	85) Understood any emerging contaminant risks and identified any at risk areas for targeted management and a remedial programme underway	Emerging contaminant risks are understood and at risk areas are managed with targeted remedial programme in place	Emerging contaminant risks are understood and at risk areas are managed with targeted remedial programme in place	89) Understood any emerging contaminant risks and identified any at risk areas for targeted management and a remedial programme underway	Need to consider a fuller range of potential contaminants and their impact on microflora.
A16	DRI									

Key: (Strikethrough - old content) (Underline - cannot be changed)

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A23	REC		<b>Recreation and Amenity</b>							
		Water based recreational opportunities	Improve Recreational Opportunities	Maintain existing diversity and quality of water based recreation sites, opportunities and experiences.	A positive trend in the availability and/or quality of recreational opportunities in each zone.	<u>96) A positive trend in the availability and/or quality of recreational opportunities in each zone.</u>	A continuing and measurable positive trend, against baseline information, in the diversity, availability and quality of recreational opportunities in each zone. A work plan in place in each zone to implement improvement.	A continuing and measurable positive trend, against baseline information, in the diversity, availability and quality of recreational opportunities in each zone. Plans are enacted that protect recreation and amenity opportunities.	100) Restored at least one major fresh water recreational opportunity in each zone that was not currently available in 2010.	Establish baseline information to understand trends. Note: No target set for 2040
A32	REC	Water based recreational opportunities	Restore Recreational Opportunities				Identify the restoration of a freshwater recreational opportunity in each zone, developing plans to achieve and show measurable progress.	Restoration and protection of freshwater recreational opportunities in each zone, achieving and showing measurable progress.		Some feedback as that one major restoration in each zone by 2040 was unambitious
A33	REC	Water based recreational opportunities	Understand Emerging Contaminant Risks				Identify potential threats to freshwater recreational opportunities and act to reduce risk to freshwater recreational opportunities.	Identify potential threats to freshwater recreational opportunities and act to reduce risk.		Groups considered the concept of emerging contaminant risk was not well understood - we don't know what we don't know. This target was specifically to identify contaminants related to recreation including didymo and cyanobacteria. No targets set for 2020 or 2040.
A34	REC	Freshwater Angling	Protect Fishing Opportunities		A positive trend in the availability and/or quality of freshwater angling opportunities. An increase in freshwater angler numbers (or catch rate) assessed over a five year average.	Note: No targets set for 2020	Advocate for and support measures to effectively restore and protect fishing opportunities in each water management zone.	Restoration and protection of fishing opportunities in each water management zone.	<u>99) Restored fishing opportunities in most lowland streams in each water management zone</u>	Groups generally considered 2040 to be too far away for recreational opportunities to be restored. Need to quantify this target for 2025 and 2030 to stretch for 2040
A35	REC	Freshwater Angling	Improve Lowland Stream Health				Health of lowland streams, rivers and lakes in Canterbury show improving habitat and an increase in fishing opportunities.	Substantial improvement in health of lowland streams, rivers and lakes in Canterbury.		Suggested a specific focus on Lowland streams given their importance and recent decline in health and in recreational opportunities
A36	REC	Recreational water flows	Set and Meet Recreational Flows		Identify where environmental flows are not met or require change to meet recreational outcomes and implemented actions to rectify.	<u>97) Made progress toward achieving environmental flows.</u>	Environmental flows, which include recreation and amenities, are set as part of the rule setting process in new plans and included in existing plans when up for review to support recreational flow requirements.	Environmental flows, which include recreation and amenities, are set as part of the rule setting process in new plans and included in existing plans when up for review to support recreational flow requirements. All new and existing consents in review are linked to environmental flows.	<u>98) Achieved all environmental flows.</u>	Environmental flows support recreational flows?
A39	REC	Recreational water quality	Improve Recreational Quality		At least 80% of river bathing sites graded as suitable for contact recreation.	<u>95) Of the lake and river sites used for contact recreation, an increase in the percentage that meet recreational water quality guidelines.</u>	Improve on percentage of rivers and lakes being swimmable since 2020 due to consistent water quality monitoring and real-time results.	Achieve the National Policy Statement for Freshwater Management target of 92 percent of rivers and 81 percent of lakes in Canterbury being swimmable by 2020.		ECan set and is committed to NPS-FM regional targets.
A41	REC	New: Cyanobacteria	Reduce Cyanobacteria				Develop and implement monitoring protocols to manage cyanobacteria risk for priority contact recreation sites in Canterbury rivers and lakes	Achieve 10% reduction of incidents where cyanobacteria have exceeded the nationally adopted approach to managing risk in water used for contact recreational purposes.		Only national guidelines currently exist, guidelines are not mandatory, govt is working towards adopting a nationally unified approach to managing cyanobacteria
A42	REC									
A53	ECO		<b>Ecosystem Health and Biodiversity</b>							
		Freshwater species and their habitat	Freshwater species and habitat	Implement actions to correct the decline in freshwater species, habitat quality or ecosystems.						Broad target for 2010. This target should carry through for all species should not just be measured through progress in exotic and native fish species.
A63	ECO		Protect Fisheries		No further reduction in the number and areas of existing salmon spawning sites.  Increasing annual trout spawning counts in identified important areas (based on a 5-year average) as an indicator of habitat availability for salmonid and	<u>19) An upward trend in diversity and abundance of native fish populations.</u>	<del>Fewer freshwater fish classified as threatened in Canterbury, compared to 2020.</del>  Reword to: Increase in abundance of all threatened/at-risk fish species compared to 2020	<del>Fewer freshwater fish classified as threatened in Canterbury, compared to 2025.</del>  Reword to: Increase in abundance of all threatened/at-risk fish species compared to 2025		Rewording to make targets positive.  NEW 2040 Target proposed: Increase in abundance of all threatened/at-risk fish species compared to 2030 by 50%  Feedback suggests separation of targets for native fish and for exotics
A63.1		Lowland streams	Increase Riparian Planting			<u>22) Increased the length of waterway with riparian management appropriate to aquatic ecosystem protection by 50% from 2010 figures.</u>	Increase area of riparian management appropriate to aquatic ecosystem protection by x% from 2020 figures over time. Reword to: Increase area of riparian planting and management to protect aquatic ecosystems by x% from 2020 figures over time.	New: Increase area of riparian planting and management to protect aquatic ecosystems by x% from 2025 figures over time.		Riparian protection Carry over language of riparian management <u>appropriate</u> to aquatic ecosystem protection
A64	ECO									

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
		Wetlands	Protect Wetlands	Prevent further loss of area of naturally occurring wetlands.	Protected all and restored at least two significant wetlands in each zone.	<u>20) Protected all existing wetlands.</u>		X% of wetlands physically protected and/or are in the process of being restored to a self-sustaining system. Reword to: All existing 2020 wetlands physically protected and/or are in the process of being restored to a self-sustaining system. 10% of former or new wetland sites being restored.	<u>27) (Protected all wetlands.) New wording proposed: 100% of 2020 wetlands protected and/or in the process of being restored to a self-sustaining system and 25% of former or new wetland sites restored.</u>	100% not realistic Round 2: We've already lost 90% of existing wetlands.  Need to differentiate between existing wetlands of which there is very little left (so even if 100% of these are protected it is still very little) and new wetlands/restored wetlands.  New 2040 Target proposed: Land use activities do not compromise the ecosystem health of wetlands.
A66	ECO	Hapua, lagoons, estuaries	Lagoons and Hapua Health	Implement actions to prevent further loss of ecosystem health in river mouths and coastal lagoons.	Accelerate the current riparian restoration and management programme for Te Waihora/Lake Ellesmere and tributary streams.	<u>21) A significant protection and restoration programme is in place on the most ecologically significant river mouth or coastal lagoon in each management zone.</u>	A significant protection and restoration programme is in place on the most ecologically significant river mouths or coastal lagoons in the region	Progress has been made towards achieving the goals of each significant protection and restoration programme	<u>26) Examples of thriving coastal lagoons, and lowland or spring-fed ecosystems in each water management zone.</u>	
A69	ECO	Lowland streams	Improve Lowland Stream Health	Identify and prioritise protection for lowland streams ecosystems in each zone.	Protect and enhance the ecological health of the best examples of lowland streams ecosystems in each zone. Improve ecosystem condition in at least another 10% of lowland streams in each zone.	<u>17) Improved condition and water quality in at least 60% of lowland streams and 60% of lowland lakes in each zone.</u>	Improve condition and water quality in at least 70% of lowland streams and lowland lakes.	Improve condition and water quality in at least 80% of lowland streams and lowland lakes.	<u>28) 100% of lowland and spring-fed streams with at least good aquatic ecosystem health or showing an upward trend.</u>	Consistency of wording with A73, A76 100% not realistic Round 2: 2025 and 2030 goals don't link with 2040 goals  Proposed new 2040 Target : New: Land use activities do not compromise the ecosystem health of lowland streams and lakes.
A70	ECO	High country and foothill streams	Improve Foothill River Health		Highlighted any high country spring-fed or foothill streams where ecosystem health is declining, and identified the cause with an action plan in place.	<u>18) All foothill rivers and high country rivers and/or lakes either in good ecological health or better, or showing upward trend.</u>	Maintain or improve condition and water quality of all foothill and high country rivers and high country lakes.	Maintain or improve condition and water quality of all foothill and high country rivers and high country lakes.	<u>30) Maintained upland spring-fed streams and lakes in very good aquatic ecosystem health (no decline from 2010).</u>	Round 2: 2025 and 2030 goals don't link with 2040 goals
A73	ECO	High country and foothill streams	Improve Foothill River Health						<u>29) 80% of other rivers/streams and lakes with very good aquatic ecosystem health.</u>	This 2040 target is directly related to A73
A74	ECO	None yet defined	Protect Dryland Ecosystems	Maintain existing high quality indigenous aquatic and dryland ecosystems in intermontane basins and on the plains			No further loss of remaining dryland ecosystems in intermontane basins and on the plains	No further loss of remaining dryland ecosystems in intermontane basins and on the plains		Analysts task to do: Need to develop appropriate interim targets for 2025 and 2030 and set appropriate % with reference to current trend and expectations. Carry 2010 target through; model wording of A73
A76	ECO	Catchment nutrient loads (Ecosystem Health/Biodiversity)	Set and Meet Good Management Practice			<u>23) Achieved nutrient efficiency targets for the zone on all new irrigated land and 80% of other land in major rural uses (pasture, major arable and major horticulture crops) and have 100% of rural properties working towards those targets (and of properties within urban boundaries that apply nutrients over significant areas).</u>	Also covered in Environmental Limits	Also covered in Environmental Limits	<u>31) Achieved nutrient efficiency targets for the zone on all new irrigated land and 100% of other rural properties (and of properties within urban boundaries that apply nutrients over significant areas).</u>	No 2040 target. New Target suggested was: Land use activities do not compromise the ecosystem health of drylands. Even though these are reported in ENV LIMITS its important that they stay reported here also. This target reinforces the need to set limits "for Ecosystems"
A80	ECO	Environmental flows (Ecosystem Health/Biodiversity)	Set and Meet Good Management Practice			<u>24) Made progress towards achieving environmental flow and catchment load limits.</u>	Also covered in Environmental Limits	Also covered in Environmental Limits	<u>25) Achieved all environmental flow and catchment load limits.</u>	Even though these are reported in ENV LIMITS its important that they stay reported here also. This target reinforces the need to set limits "for Ecosystems"
A81	ECO	Emerging contaminant risks	Understand Emerging Contaminant Risks		Understood any emerging contaminant risks and identified any at-risk areas for targeted management.	Round 2: Understood any emerging contaminant risks and identified any at-risk areas for targeted management	Round 2 Review and target	Round 2 Review and target	<u>32) Understood any emerging contaminant risks and identified any at-risk areas for targeted management</u>	Even though these are reported in ENV LIMITS its important that they stay reported here also. This target reinforces the need to set limits "for Ecosystems"
A84	BRA	<b>Natural Character of Braided Rivers</b>								
A85	BRA	Ecosystems, habitats and species	Protect Braided River Habitats			<u>42) Protected significant habitat for a full range of indigenous braided river flora and fauna.</u>	Identify significant habitat for indigenous braided river flora and fauna	Protect significant habitat for indigenous braided river flora and fauna		Round 2: Protection includes pest control? Significant habitat should include abundance, range What does significant habitat as a measure mean? How is it measured?
A86	BRA	Riparian wetlands, springs and lagoons	Protect Braided River Habitats	Implement actions to correct the decline in usable braided river bird habitat.	Enhance and protect breeding populations of indigenous braided river birds.	<u>43) Protected and enhanced the habitats in riparian wetlands, springs and the lagoons associated with braided rivers.</u>	Programmes in place to address threats to improve the naturally uncommon ecosystems from endangered to vulnerable.	Status of naturally uncommon ecosystems has shifted from endangered to vulnerable; programmes in place to shift vulnerable ecosystems to non-threatened	<u>47) All indigenous braided river-dependent species are showing positive trends in abundance and health.</u>	Groups commented on the number of programmes other than those run by Environment Canterbury. Round 2: 2025 goal is broader than just wetlands. Goal 2030 is too technical. Suggested new goal: Any ecosystem listed as uncommon that their status improve 2025 20% increase from 2020. 2030 40% increase from 2025.
A87	BRA	Environmental flows (Braided River)	Set and Meet Ecological Flows			<u>44) Made progress towards achieving environmental flows.</u>	Also covered in Environmental Limits	Also covered in Environmental Limits	<u>45) Achieved all environmental flows.</u>	Even though these are reported in ENV LIMITS its important that they stay reported here also. This target reinforces the need to set limits "for Ecosystems" Round 2: Confusion around wording; are we meaning ecological or environmental flows? Suggested change to 2020: Environmental Flows are impacted and consents are reviewed.
A88	BRA	None yet defined	Protect Braided River Habitats				Increased community knowledge, awareness and guardianship of the importance of mauri within braided river systems.			Support for 2025 target; clarify BRIDGE; flow, room to meander/move, deal with invasive weeds/predation, 4WDs

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A89	BRA	None yet defined	Increase Braided River Bird Habitats				Halt...?	Double the area... (of BR bird species)	48) Increase habitat area usable by all species of braided river indigenous birds.	Some mapping of these ecosystems has begun
A90	BRA	None yet defined								
A91	BRA	None yet defined	Protect Braided River Habitats			Canterbury's braided rivers show the dynamic, braided nature typical of such rivers.	All resource management decisions concerning braided river systems recognise and provide for ki uta ki tai.		46) Canterbury's braided rivers show the dynamic, braided nature typical of such rivers.	There are a number of characteristics of Braided rivers that are under threat from land use and abstraction. Feed Round 2: target 2025 should include prioritise or support and include an additional target no barriers to fish passage from source to sea. 2030 target should include one around "no river mouth sedimentation/clogging due to water abstraction? 2010 targets are excellent- pull back in and in to 2040. Show up again as interim
A96	ENV		<b>Environmental Limits</b>							
A104	ENV	Environmental flows and catchment load limits	Set and Meet Environmental Flows		Set environmental flows for surface streams, rivers and groundwater that are consistent with the fundamental principals of the CWMS. Set catchment load limits for nutrients for each water management zone that are consistent with the fundamental principles of the CWMS.	156) Review of environmental flows and catchment load limits in response to changing monitoring information, new understanding and technologies, and if requested by regional and zone committees	Review environmental flows and catchment load limits in response to changing monitoring information, new understanding and technologies, and if requested by regional and zone committees	Review environmental flows and catchment load limits in response to changing monitoring information, new understanding and technologies, and if requested by regional and zone committees	158) Review of environmental flows and catchment load limits in response to changing monitoring information, new understanding and technologies, and if requested by regional and zone committees.	- There is large variability between catchments across the region, in the extent to which targets are met, the knowledge of the water systems and the complexity of the hydrology and infrastructure. Can this be reflected somehow in the targets? - Consent was expressed that constant reviews can be seen as constantly shifting the goal posts, leading to lack of community buy-in to achieving the targets. If reviews are to be done regularly, it is important that the community understand and support the reasons for any changes.
A105	ENV	None yet defined	Set Urban Catchment Loads				Establish catchment loads for urban contaminants and other rural contaminants.	Water quantity allocation limits are achieved.		- Support for an increased focus on urban waterways, but is this something that is covered by A104? That is, we now have information that suggests urban waterways are lagging behind rural communities and that reviews should address this. Should this target be deleted?
A106	ENV	Environmental flows and catchment load limits	Set and Meet Environmental Flows and Load Limits		Established and begun to implement a programme to apply environmental flows to existing consents.	157) Established and begun to implement a programme to review existing consents where such review is necessary in order to achieve catchment load limits		Progress against implementation plans is reported annually and implementation plans are reviewed alongside reviews of environmental flows and catchment load limits.	159) Environmental flow and catchment load limits achieved in all waterbodies.	- Is it realistic to set targets for 100% achievement of environmental limits if the limits are in a constant cycle of review? - General comments were made in relation to A106 and A106.1 that these should be what Ecan is doing as part of its core business. Why do they need to be recorded in targets?
A106.1	ENV	None yet defined	Establish Implementation Plans for Flows and Limits				Implementation plans are in place for all catchments to outline how environmental limits flows and catchment load limits will be managed and achieved			- Groups questioned how achievement against these will be measured. They would like to see community groups empowered to do more.
A107	ENV	None yet defined	Monitor Effectiveness - measuring and reporting against environmental limits				Developed and implemented an effective monitoring and reporting framework for freshwater health.	Increasing use of the monitoring and reporting framework for freshwater health by a wide range of the community.		- There was support for the developing a real time monitoring and reporting framework but this is not a target to deliver change. They recommended it be deleted and recorded as an implementation method. - Focusing on real time monitoring may not reflect future technological advances - best to keep this open and delete. - the difference between knowledge and reporting varies significantly between schemes and individual freshwater bodies of schemes.
A108	ENV	None yet defined					Developed and implemented a method for annual reporting on progress toward achieving environmental flow and catchment load limits.	Reporting annually on progress toward achieving environmental flow and catchment load limits.		- There was support for this but, similar to A107, this is too detailed for a target. It should be deleted from the targets. Too much detail detracts from the main outcomes being sought. - this will need to be communicated to urban and rural communities. - this is detailed implementation and should be deleted
A109	ENV	None yet defined	New: Adopting new technology				Plan provisions enable rather than restrict the uptake of new technology that contributes to achieving environmental limits. (Note 3)	Technological innovations are widely communicated and support is available for their uptake and ongoing use.		- similar to above, this shouldn't be a target as plans should be doing this anyway and communication should be a no-brainer. - A general target was suggested by several groups that focusses on communicating and disseminating information.
A119	KAI		<b>Kaitiakitanga</b>							
A128	KAI		<b>Marae Water supply</b>							
A129	KAI	Marae water supply	Assure Marae Drinking Water Supply	Prevent further decline in the quality or quantity of water bodies used as a drinking water supply to marae and associated papakāinga.		71) All marae and associated papakāinga have access to high quality drinking water	Prevent further decline in the quality or quantity of water bodies used as a drinking water supply to marae and associated papakāinga	All marae and associated papakāinga have access to high quality drinking water (repeat of 2020 targets)		Maintain a focus on protecting source water quality
A130	KAI	None yet defined	Assure Marae Drinking Water Supply				New: Supply to marae from Community and private wells provide healthy drinking water			Although this says "supply" the intent here is for "source" as it is referring to potable water, not supplied/networked water
A131	KAI	None yet defined					New: Drinking water from community and private wells are XX % below 11.3 mg/L			This may be covered in Drinking Water Targets. Percentage to be worked on. Drinking Water Standards for New Zealand set a Maximum Acceptable Level (MAV) of 50mg/L for nitrate, which is equivalent to 11.3mg/L nitrate-nitrogen.
A132	KAI		<b>Working together in partnership</b>							
A133	KAI	None yet defined	Integrate kaitiakitanga	Formally recognise Te Rūnanga o Ngāi Tahu Freshwater Policy and, in each zone, work towards resolving issues related to Ngāi Tahu policies.	Protocols for the recognition and exercise of mana, including kaitiakitanga within the Ngāi Tahu rohe, are implemented.		An integrated Te Rūnanga O Ngāi Tahu/papatipu rūnanga reporting mechanism is developed.		75) Kaitiakitanga is a normalised and an integrated practice of water management	

Counter	TA	TT (Themes from 2017 & 2015 Targets Report)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A134	KAI	Working together in partnership	Planning Regime Reflects Ki uta ki tai		Iwi Management Plans are in place for north and mid Canterbury. A separate Waitaki IMP has been drafted but is still waiting sign off from the iwi authority before it can be lodged with the Councils. No formal IMP for area between Ashburton and Waitaki.	<u>70) Integrated Ki Uta Ki Tai environmental management philosophies into zonal and regional management planning</u>	An integrated ki uta ki tai strategic plan is developed for identified catchments that sets out the agreed actions for all participants	New: Iwi Management Plans are refreshed and responded to.		An integrated Ki uta ki tai plan has been proposed. How does this add to exiting Iwi Management plan and the need to integrate philosophies into planning frameworks?  Iwi management plans are used by iwi/hapū to express kaitiakitanga and must be taken into account when preparing or changing regional policy statements and regional and district plans.
A135	KAI	None yet defined	Improve Succession Planning		Institutional capability within local government to adequately recognise and provide for the principle of kaitiakitanga in water management.		Succession plans and rangatahi forums are in place to enable the next generation to participate in zone committees and other water management processes	Succession planning needed [to continue to exercise mana and manage demands]		This concept needs development - there are a number of leadership programmes that could be borrowed from.
A136	KAI	Working together in partnership	Establish New co-Governance Arrangements		A formal co-governance arrangements for the active management of Te Waihora (Lake Ellesmere) and its catchment.	<u>69) Further co-governance arrangements (developed in partnership by Ngāi Tahu, the Crown and Canterbury local government) for the active management of nominated waterbodies in North and South Canterbury.</u>	Staged implementation of arrangements agreed by 2020	Staged implementation of arrangements agreed by 2020		Because the 2020 target already outlines further co-Governance arrangements GWG determined that 2025 and 2030 targets should focus on staged implementation of the 2020 arrangements
A137	KAI	Working together in partnership	Establish Tangata Tiakiwai		A system for appointing Ngāi Tahu tangata tiakiwai (water guardians) who have formal recognition and support from local government is established.	<u>72) At least one Ngāi Tahu tangata tiakiwai is appointed in each zone. [Note 2]</u>	Papatipu Rūnanga are decision-makers for the allocation of "Ngāi Tahu" water in catchments	At least one Ngāi Tahu tangata tiakiwai is appointed in each zone		There is a clear 2020 target for the role of tangata tiaki to be established. There is work to do to ensure there is a shared understanding of role, the appropriate resourcing and ensure sufficient mana is attached to the position.
A138	KAI	Wāhi Taonga and mahinga kai								
A139	KAI	None yet defined	Protect Waterways for Mahinga Kai	Prevent further loss or degradation of Ngāi Tahu nominated wāhi taonga.	All degraded wāhi taonga and mahinga kai waterways nominated by Ngāi Tahu have an active restoration programme in place that responds to cultural priorities.		X % of crown and council owned lands foster & support Ngāi Tahu cultural practices.	X (+10) % of crown and council owned lands foster & support Ngāi Tahu cultural practices. Monitoring is in place to demonstrate the effectiveness of restoration programmes and refreshed limit setting/planning provisions	<u>74) Protection, in accordance with Ngāi Tahu values and practices, of wāhi taonga and mahinga kai waterways</u>	The 2025 and 2030 targets draw on the already established 2040 target.
A140	KAI	None yet defined	Establish Mātauranga Maori Reporting		A report on the health of all Ngāi Tahu nominated water-bodies using the Ngāi Tahu Cultural Health Monitoring Tool.	New: Mātauranga Maori. Probably sits best in "Working Together in Partnership"	An annual mātauranga informed report is provided for rūnanga on the health of waterways to inform water management decision-making (by councils and Ngāi Tahu)	Outcomes reporting is being informed by Mātauranga Maori Report		Need to established the practices/methodology of mātauranga maori, the standards and also regular repeatable monitoring and reporting to be able to show trend and inform action
A141	KAI	Please input Reporting Theme from 2017 Report	Protect Waterways for Mahinga Kai		Identified customary uses (current and potentially restored) for all waterways.		A/some Freshwater taonga species (e.g. wai kākahi or wai tuna) are identified and protection zones are identified and put in place	All freshwater mātaital are healthy places to gather kai.		(Feasibility of "all" in 2030 was questioned by the GWG 06 Sep 2018)
A142	KAI	Please input Reporting Theme from 2017 Report			A programme for identifying cultural preferences for river and stream flow agreed in each zone.		Flows are returned to sustain 50% of Fenton reserves and fishing easements	Flows are returned to sustain 100% of Fenton reserves and fishing easements		Fenton Reserves were awarded by Judge Fenton following the 1868; over time there has been degradation of the 'Fenton' fisheries easements. Fenton Reserves means the Taerutu, Waimaiaia, Torotoroa, Te Aka Aka, Pukatahi and TeHouriri reserves (claims 3 to 6, and 10 as set out in the Ngai Tahu Ancillary Claims Report 1995);
A143	KAI	Please input Reporting Theme from 2017 Report	Improve Decision Making for Allocations				Papatipu Rūnanga are decision makers for allocations of Ngai Tahu water in each catchment			Feedback suggested that there are governance and resourcing issues that need to be discussed along with capability and capacity are issues
A144	KAI	Wāhi taonga and mahinga kai	Increase Opportunities for Mahinga Kai			<u>68) Increased the abundance of access to and use of mahinga kai</u>	Mahinga kai is a first order priority	A region-wide mahinga kai plan is developed and implemented, that informs and influences statutory and non-statutory plans)		Feedback: Need to ensure customary use is affirmed as a first order priority suggested the region wide plan for Mahinga Kai be a 2025 target.  <a href="https://ngaitahu.iwi.nz/ngai-tahu/the-settlement/settlement-offer/cultural-redress/ownership-and-control/mahinga-kai/">https://ngaitahu.iwi.nz/ngai-tahu/the-settlement/settlement-offer/cultural-redress/ownership-and-control/mahinga-kai/</a>
A145	KAI	Wāhi taonga and mahinga kai	Protect Specific Reaches for Mahinga Kai		Work and research has commenced on establishing a mahinga kai food gathering standard.	<u>73) A mahinga kai food gathering standard is confirmed and implemented as a water quality monitoring tool</u>	Specific reaches of rivers and lakes are prioritised by Papatipu Rūnanga for the protection and use of mahinga kai and/or other cultural practices [Note1]	Mahinga kai is available in abundance and quality		<a href="https://ngaitahu.iwi.nz/ngai-tahu/the-settlement/settlement-offer/cultural-redress/ownership-and-control/mahinga-kai/">https://ngaitahu.iwi.nz/ngai-tahu/the-settlement/settlement-offer/cultural-redress/ownership-and-control/mahinga-kai/</a>
A146	KAI	Please input Reporting Theme from 2017 Report	Protect Waterways for Mahinga Kai (Specific species)				Protection Zones are identified for longfin and short fin tuna throughout the region.	Protection Zones are identified for longfin and short fin tuna throughout the region.		New Targets for Tikanga Maori and Mātauranga Maori - are recognised and integrated into the monitoring systems
A147	KAI	Please input Reporting Theme from 2017 Report	Establish Mātauranga Maori			New: Tikanga Maori and Mātauranga Maori and Te Ao Māori	Need targets that run through all time periods on education of values and Te Ao Maori	Need targets that run through all time periods on education of values and Te Ao Maori		New Targets for Tikanga Maori and Mātauranga Maori - are recognised and integrated into planning frameworks, workplans and monitoring systems



Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A148	KAI	Please input Reporting Theme from 2017 Report				New Targets Theme: Monitoring Native Fish	Monitoring to demonstrate the effectiveness of restoration programmes.	100% of all waterbodies are regularly or 2 yearly monitored for native fish species.		Feedback was this target was more about monitoring effectiveness. A separate target for monitoring native fish species should be kept in - Not merged with Ecosystem Health or Recreation Targets
A149	KAI	Please input Reporting Theme from 2017 Report	Stop Loss of Intergenerational Knowledge			New Targets Theme: Intergenerational knowledge		No loss of intergenerational cultural knowledge		Intergeneration loss due to decline in opportunity
A152	IRR	<b>Irrigated Land Area Infrastructure</b>								
A162	IRR		Analysts suggest having distinct targets for 1) Land Area and 2) Reliability							
A168	IRR	Infrastructure	Build Agreed Integrated Infrastructure		A system of regionally distributed rural water infrastructure for the storage and distribution of water that provides reliable water to all irrigated land has been designed, timetabled, costed and staged.  The system has been demonstrated to align with the principles and targets of this strategy	119) Started construction of regional storage and improved reliability of supply for at least 50% of irrigated land	Construction of regional centralised infrastructure for storage and distribution of water that provides reliable water to all irrigated land and improved reliability of supply for at least 80% of irrigated land	Construction of regional centralised infrastructure for storage and distribution of water that provides reliable water to all irrigated land and improved reliability of supply for at least 80% of irrigated land	The 2040 targets are included below and are focused on reliability and include the indicative target of 850,000 ha irrigation	The suggested 2025 and 2030 targets extend the existing 2015 target which anticipated a (fully) integrated regional solution to water infrastructure. We do have a regional model for infrastructure, based on a approach to facilitate thinking around nodes of activity that deliver on all elements of the strategy. And, there is a significant emerging environmental infrastructure component.  This target should remain as task groups' feedback was that we still need to pursue strategic integrated solutions, particularly given that significant proposals are struggling for various reasons to reach viability and the uncertainty surrounding the impact of climate change.  Task groups discussed the need to have a integrated regional approach.
A166	IRR	Funding Challenges	Funding Integrated Infrastructure Solutions		Decided mechanisms for funding infrastructure and the ongoing operation of the strategy		Continue work to overcome the funding challenges remain for integrated infrastructure – that integrates all targets of the CWMS	Continue work to overcome the funding challenges remain for integrated infrastructure – that integrates all targets of the CWMS		This continues the 2015 target - which recognises the challenges of raising capital from users to funding infrastructure that provides intergenerational benefits and serve multiple uses.  Support from Central Govt has been key in overcoming the collective investments funding issues and ensuring multiple use options are considered. Nitrogen limits have also impact on viability of schemes.  Feedback suggests that funding is still a strategic issue that needs to be resolved. The difficulties in securing investment for new water in particular are well-known. Investment in water storage is an intergenerational challenge but is often decided upon based on shorter term horizons.
A169	IRR	Consent Reconfiguration	Undertake Consents Reconfiguration		Started on the infrastructure (or reconfiguration of existing consents) that facilitates efficiency improvements and is linked into the regional storage plan		'Consent reconfiguration' options identified across region considering existing regulatory environment and any modifications that may be required to meet community desired outcomes in a timely manner.	Complete 80% of 'consent configuration' activity		These targets extend the existing 2015 target. "...infrastructure or consent reconfiguration that facilitates efficiency improvements...". Need to be considered in the context of reliable water to meet all targets.  The figure of 80% in 2030 consent reconfiguration needs to be checked  This is best aligned to Strategic Option C (CSWS III) - "reconfigure consents and infrastructure for protection and repair of the environment, improved reliability of supply and for development"
A170	IRR	Zone Infrastructure Plans	Build Agreed Integrated Infrastructure		Specified, for each zone, their infrastructure requirements consistent with the regional storage plan, and the principles and targets of the strategy	120) Started construction of infrastructure identified in zonal implementation programmes.	Progress in construction of integrated infrastructure identified in zone implementation programmes (Integrated - both irrigation and environmental)	Progress in construction of integrated infrastructure identified in zone implementation programmes (Integrated - both irrigation and environmental)	The 2040 targets are included below are focused on reliability and include the indicative target of 850,000 ha irrigation	Focus of feedback has been in integrated infrastructure concepts that serve all targets, consider climate change impacts, and regional in approach. The limitation of current funding mechanisms was also an issue.
A171	IRR	Reliability								
A172	IRR	Irrigated Land Area	Improve Reliability	No reduction in irrigated land area in Canterbury or in overall reliability with each zone.	Increased the area of irrigated land and/or reliability of irrigation.	Improved reliability of supply for at least 50% of irrigated land (Part of A168 and A164 above)	Should indicative targets be set for irrigated land area for 2025 and 2030 that step towards this 2040 target?	Should indicative targets be set for irrigated land area for 2025 and 2030 that step towards this 2040 target?	121) A substantial increase in the reliability of supply and the area of land irrigated in Canterbury all of which has demonstrated high standards of riparian, nutrient and water use management, and has been shown to be consistent with the principles of the strategy. An indicative target is 850,000 hectares of irrigated land with at least 95% reliability	Groups and feedback suggests targets for irrigated area while contentious are needed for balance across the strategy. And that we need a better understanding of the current % reliability across % area of land, before committing to % targets in 2025 and 2030 Improvement of reliability is considered fundamental ("more important than irrigated area").  Reliability depends on supply, demand and efficient use and timing of availability. Efficient water use improves options for nutrient management.  The indicative target of 850,000 hectares seems ambitious given recent challenges in securing commitment to irrigation schemes and withdrawal of funding support from Central Government.

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A173		Reliability	Develop Storage for Irrigation Reliability				Integrated infrastructure system provides <del>x95%</del> reliability to <del>x25%</del> of irrigated land area while also ensuring all target area water uses (environmental (incl. MAR, drinking water, kaitiakitanga) are met as per CWMS priorities.	Integrated infrastructure system provides <del>x95%</del> reliability to <del>x75%</del> of irrigated land area while also ensuring all target area water uses (environmental (incl. MAR, drinking water, kaitiakitanga) are met as per CWMS priorities.	122) <u>Improved reliability of supply for all irrigated land.</u>	Before agreeing to 95% reliability need to know what this means across Canterbury – how much of that comes from additional supply, scheduling, efficiency gains and storage/capacity.  Related to A168 - Infrastructure is focused on providing reliability. The targets for % reliability on % land are at odds within A168 and need to be agreed with reference to current understanding of reliability.  Current understanding of reliability needs to be qualified by our understanding of the impact of climate change in terms of reliable flows (supply) and evapotranspiration (demand).  No Infrastructure targets were set for 2040. A new target was suggested for 2040: that infrastructure system provides 95% reliability to 100% of irrigated land area while also ensuring all target area water uses (environmental (incl. MAR, drinking water, kaitiakitanga) are met as per CWMS priorities.
A175	IRR	New* High Value Production	Ensure Water Use for High Value Output			New Sustainable high-value primary production and increasingly diversified sustainable land use	Identify metrics that provide information on irrigation enabled innovative, high value, sustainable primary production. (May be better situated under Economies Targets)	Metrics give objective information on diversified land use using irrigation enabled innovative, high value, sustainable primary production.		Struck out the 2020 targets as we are focused only on 2025 and 2030.  High Value Production was discussed as an option to consider given 1) the challenge faced in gaining farmer commitment to new irrigation schemes and 2) a desire to steer away from an irrigated area target to a target and set a target with a focus on higher value production from the application of water.  Feedback suggests limited support for High Value and Sustainable Land Use Targets here or in the CWMS - was suggested by Task Group that "By 2030, access to reliable water is a foundational element in driving increasingly higher value production options for the primary sector; Primary Sector brand recognition is tied to suitable production – especially in the use of water
A177	IRR	New: Promote Sustainable Land Use Options					Strong interaction and links established with initiatives (commercial, research) into alternative markets and options for sustainable land use options	2030 Target inserted: Diversified Land Use: Land use change with smaller environmental footprint may need to be considered in the future. alternative high value land uses are required. may sit better as an economics target.		Again feedback suggests limited support for High Value and Sustainable Land Use Targets here or in the CWMS
A178	WUE	Water Use Efficiency								
A179	WUE	Benchmarks	Establish Benchmarks for Water Use	Initiate the development of models/benchmarks of reasonable and efficient use of water in irrigation.	"Established and reported against a benchmark of current water use efficiency for irrigation" (from target A184 below)		Established and reported against a benchmark of current water use	Established and reported against a benchmark of current water use		The Industry-agreed GMPs do include practices relating to irrigation and water use. The FEP and FEP Audit process only reports grade levels A through D. Specific metrics for water use will require access to better information on farm type and actual use.  Feedback from groups was that benchmarks are important to allow peers to compare progress.
A182	WUE	General (Water Use Efficiency)	Establish Best Practice Standards for Water Use	No decline in the efficiency of water use	60% of water used for irrigation is operating according to best practice water use	106) 80% of water used for irrigation and stockwater is operating according to best practice water use	Best Good Management Practice: 100% of water used for irrigation and stockwater is operating according to best practice water use	Best Good Management Practice: 100% of water used for irrigation and stockwater is operating according to water use Good Management Practices.	109) <u>Implemented best practice water use on all irrigation, stockwater and industrial/commercial use in Canterbury</u>	This target extends on the 2015 target of "... 60% of water used for irrigation is at best practice" and the 2020 target which continues this theme on best practice. Some concern about this 100% target and the need to refer to GMP not 'Best Practice'.  Because the FEP Audit process only reports a summary grade; level A through D, access to specific data best or good practices in water use will be required to adequately report on this goal.
A184	WUE	General (Water Use Efficiency)	Implement Demand Management in Urban Water Use		Established and reported against a benchmark of current water use efficiency for irrigation, community (potable, industrial and commercial) and stockwater	107) <u>Reduced water used for community water supply by 10% (measured in litres per person per day) compared to that used in 2010</u>	Urban: Drinking water suppliers have demand management programmes in place as part of good infrastructure practices.	Urban: Drinking water suppliers implementing demand management programmes as part of good infrastructure practices.	112) <u>Reduced water used for community water supply by 20% (measured in litres per person per day) compared to that used in 2010.</u>	Benchmarks for irrigation are covered in A179. Territorial Authorities need to set appropriate benchmarks for this target. Feedback is that this level of benchmarking should already be in place for urban water management.  Need to check that these percentage reductions are feasible and that it is possible to report the 2010 baseline.
A185	WUE	General (Water Use Efficiency)	Increase Value Benefits from Water Use			108) <u>Increased the benefits gained per unit of water so that the volume of water beneficially used (used in production of crops, electricity, or commercial uses) in each zone as a proportion of the volume of water take is, on average, 5% greater than that achieved in 2010.</u>	Developed and reported on metrics for water use efficiency, incorporating the benefits gained from use of the water.	Increased the benefits gained per unit of water so that the volume of water beneficially used (used in production of crops, electricity, or commercial uses) in each zone as a proportion of the volume of water take is, on average, 5% greater than that achieved in 2020.	110) <u>Increased the benefits gained per unit of water so that the volume of water beneficially used (used in production of crops, electricity, or commercial uses) in each zone as a proportion of the volume of water take is, on average, 25% greater than that achieved in 2010.</u>	This target requires a detailed level of analysis across both consumptive and non-consumptive use. Access to basic level use by farm type or use by industry is not easy to find. In addition, beneficial use requires access to data related to production.  Need to check that these percentage gains are feasible and that it is possible to report the 2010 baseline.
A188	ENE	Energy Security and Efficiency								
A196	ENE	Efficiency	Optimise Energy Use via Improved Scheduling			127) <u>Increased the productivity per unit of electricity – per hectare consumption for irrigation sector and equivalent measures in other sectors.</u>	Measured and reported on productivity per unit of energy.	Increased the productivity per unit of energy by X from 2025 (downward trend in energy use per hectare).		Difficult to measure productivity per unit of electricity. More work needed to resolve how this would be measured.  Feedback from stakeholders focused on the summer demand for irrigation. Energy demand for electricity in 2016-17 for Canterbury peaked in mid-summer  Feedback from schemes that they are already focused on this especially lines changes. Task Group suggested taking that a step further with scheduling demand using new technology.

Counter	TA	TT (Themes from 2017 & 2015 Targets Reports)	Intent (The Objective in 4-5 words)	2010	2015	2020	2025	2030	2040	Some of the Feedback from Consultation
A197	ENE	Energy Use in Irrigation	Measure Productivity of Energy Use		Identified and implemented opportunities to reduce electricity used in the use of water		Scheduling: Programme available to encourage integrated water and energy use with industry through technology especially around scheduling and management.	Scheduling: Optimised line use charges through new scheduling technology.	129) <u>Reduced the energy used per hectare for irrigation in Canterbury compared to that used in the 2010/11 season</u>	<p>Energy use per hectare could only be done through sampling/surveying - could be done as part of an ongoing EECA project.</p> <p>Schemes have invested in some cases (piping) to supply water at pressure to reduce electricity demand.</p> <p>Feedback from the groups was focused on the options that <u>scheduling</u> technology could provide. Scheduling and therefore the leveling of electricity load can only be enabled through improved reliability and cooperation across users.</p> <p>There are many ways of achieving this also on-farm - adoption of hardware and technology; Solar PV becoming cheaper.</p> <p>Need to check that energy used per hectare is measurable and that reductions for 2040 are</p>
A199	ENE	Multi-Use Infrastructure	Ensure Efficient Energy Use in Irrigation	Seek opportunities, as part of design and planning for new infrastructure, to reduce electricity used in the use of water, to provide for multiple use, and to factor generation into existing irrigation infrastructure.	Started projects to generate electricity from existing irrigation infrastructure.	130) <u>Generate at least 40-45% of the power used by irrigation in Canterbury from irrigation infrastructure (including multi-use hydro and irrigation systems) within Canterbury and other renewable on-farm sources</u>	<p>Develop an understanding of the electricity demand of irrigation to determine options to reduce both energy and water usage</p> <p>Electricity distribution companies work engage with major water users to increase understanding and coordination of opportunities for mutual benefit (load management, capacity availability, generation options).</p>	Collaborate between irrigators to reduce transmission demand and cost through better use of technology.	128) <u>Factored efficient use of electricity in all irrigation infrastructure</u>	<p>Feedback from task group was that it was difficult to see how the 40-45% target could be achieved by 2020 given the changing market conditions for investment in electricity generation and whether it was appropriate for this to focus on the irrigation sector alone.</p> <p>Does the 2015 target still stand, is it realistic?</p> <p>How do we measure the demand from irrigation?</p> <p>Multi use options - are they still viable? We have co-use through CPW and Rakaia 'Scheme', Montalto Highbank. What are the realistic options or future scenarios?</p>
A201	ENE	Maintain Canterbury's Contribution to Energy Supply	Maintain Contribution to National Energy Objectives	Maintain Canterbury's existing contribution to New Zealand's security of electricity supply		131) <u>Maintain or increase Canterbury's contribution to New Zealand's security of electricity supply.</u>	<p><del>Electricity distribution companies work engage with major water users to increase understanding and coordination of opportunities for mutual benefit (load management, capacity availability, generation options).</del></p> <p>Continue to maintain or increase Canterbury's contribution to New Zealand's security of electricity supply.</p>	<p><del>Electricity use practices in water infrastructure applications represent good practice</del></p> <p>Continue to maintain or increase Canterbury's contribution to New Zealand's security of electricity supply.</p>		<p>Canterbury's contribution to the national energy picture is important. External factors and uncertainty about future supply and demand have influenced thinking from stakeholder groups. Task and sector groups have questioned - how realistic this is.</p> <p>To meet GHG objectives and Central Government objectives for renewable energy, the hydro lake system provides important virtual storage for wind energy where wind operates as "must run" generation with hydro responding to natural fluctuations and vice versa. The degree of hydro energy spillage and/or use for irrigation is needed to balance these broader national objectives and is an important design objective when considering new infrastructure.</p>

## Appendix 2 - Targets and Proposed Work Programmes

Target	Proposed work programmes	Key actions needed Who needs to do more (and what is it)? Any gaps (for this zone)?
<b>Drinking water</b>	<p><b>Alignment of regional and district plans</b> – identify areas in plans that are barriers to CWMS targets</p> <p><b>Drinking water standards</b> – a programme to focus on private supplies; improvement programme for community supplies, including better compliance</p> <p><b>Comms/education</b> – develop guidance documents aimed at consistent regional application; turn data and monitoring into information that the community can use</p> <p><b>Measuring and monitoring</b> – develop a comprehensive groundwater monitoring programme</p> <p><b>Possible contaminants</b> - develop a watchlist</p>	
<b>Recreation and amenity</b>	<p><b>Measuring and monitoring</b> – develop recreational base data (flow, quality, site) and model future trends in recreation; review science behind flow regimes and flow limits</p> <p><b>Protection</b> – identify options and priorities by zone for protection and enhancement; review consents to ensure flows are met</p>	
<b>Ecosystem health and biodiversity</b> <b>Braided rivers</b>	<p><b>Comms/education</b> – use social science to develop tools for behaviour change</p> <p><b>Funding</b> – provide funding for landowners to make changes, including for land retirement</p> <p><b>Regulation</b> – review flow regimes, including considering use of Cawthron methodology</p> <p><b>At risk ecosystems and restoration targets</b> – identify the ecosystems at risk and critical source areas (including groundwater); identify restoration areas</p> <p><b>Measuring and monitoring</b> – improve monitoring so success against goals can be measured</p>	
<b>Environmental Limits</b>	<p><b>Measuring and monitoring</b> – measure and review progress on meeting limits, and report to the community, sector groups, Ngai Tahu etc.</p> <p><b>Regulation and adaptation</b> – review limits in plans and the on-ground actions being taken to meet limits to assess their effectiveness.</p>	
<b>Kaitiakitanga</b>	<b>Marae</b> – ensure marae drinking water quality and availability (led by rūnanga)	

Target	Proposed work programmes	Key actions needed Who needs to do more (and what is it)? Any gaps (for this zone)?
	<p><b>Measuring and monitoring</b>- identify Mātauranga indicators</p> <p><b>Protection zones</b> - develop actions plans for protection zones (led by Papatipu).</p> <p><b>Identify and use a generic process</b> for actions towards goals (e.g. improved mahinga kai) with year by year action plans, lead agencies, funders, communications</p> <p><b>Align work programmes</b> with existing Tuia/Ngāi Tahu programmes</p> <p><b>Comms/education</b> – develop programme for community understanding of kaitiakitanga</p>	
<b>Irrigated land area and reliability</b>	<p><b>Infrastructure</b>- need to develop regional strategic storage to improve reliability.</p> <p><b>Innovation</b> – innovation support and technology needed to allow exploration of new farm systems and alternative land use</p> <p><b>Comms/education</b> – improve irrigation scheme collaboration; develop education programme for the public, schools etc</p> <p>Funding – need to explore new options for infrastructure</p> <p>Measuring and monitoring – improve data and information collection and analysis</p>	
<b>Water use efficiency</b>	<p><b>Innovation</b> – increase use of new technology, such as automated control systems</p> <p><b>Benchmarking</b> – allocation and efficiency measurement to drive better water use.</p> <p>Measuring and monitoring – develop better methods for collecting and analysing water use efficiency data.</p> <p><b>Regulation</b> - new allocation models are needed.</p>	
<b>Energy security and efficiency</b>	<p><b>Benchmarking</b> – better measurement to allow benchmarking of energy efficiency</p> <p><b>Innovation</b> – develop understanding of new technology</p>	

<b>AGENDA ITEM NO: 5</b>	<b>SUBJECT:</b> Committee Updates
<b>REPORT TO:</b> Waimakariri Water Zone Committee	<b>MEETING DATE:</b> 10 December 2018
<b>REPORT BY:</b> Murray Griffin, CWMS Facilitator – Waimakariri, ECan	

## PROPOSAL

This agenda item provides the committee with an overview of updates for review.

## RECOMMENDATIONS

- The Zone Committee are asked to receive these updates for its information and regarding the committee's 5 Year Outcomes and community engagement priorities.

## COMMITTEE UPDATES

The following updates are tabled for the committee:

### 1. CWMS Regional Committee – update

The next Regional Committee meeting will be held on Tuesday 11 December.

- The link to the CWMS Regional Committee papers is provided below:  
<https://ecan.govt.nz/data/document-library/?Search=regional+water+management+committee%2C+agenda&documentTypes=-1&pageSize=12&start=1&sortDir=desc>

### 2. Auditor General Letter regarding the Regional Zone Water Management Committees

- The letter attached from the Auditor-General, **agenda item 5-1**, grants declarations in relation to the Canterbury Regional Water Management Committee and the ten Zone Water Management Committees. These declarations enable all members of those committees to participate in all discussions and decisions relating to the development of implementation programmes to achieve the targets and goals set out in the Canterbury Water Management Strategy, despite any pecuniary interests that members may have in those matters.

### 3. Waimakariri Zone Delivery – Update

- North Canterbury Zone Delivery Manager, Andrew Arps, will provide an update on current ECan Zone Delivery priorities in the Zone.
- An overview of the Immediate Steps biodiversity funding will be provided to the committee by Jason Butt, with a summary of the current funding status for Immediate Steps provided as **agenda item 5-2**.
- A media and communications report is provided by Gina McKenzie as **agenda item 5-3**

#### **4. Zone committee 2019 meeting schedule**

The 2019 zone committee meeting schedule is as follows:

- 11 February
- 11 March
- 8 April
- 3 May
- *No June meeting – possible field trip*
- 8 July
- 12 August
- 9 September

Meetings will be held in WDC Council Chambers in Rangiora, on the second Monday of the month, from 3pm.

#### **RECOMMENDATIONS**

- The Zone Committee is asked to receive these updates for its information and regarding the committee's 5 Year Outcomes and community engagement priorities for 2019.



13 November 2018

Steve Lowndes  
Chair  
Environment Canterbury Regional Council  
By email: [Governance@ecan.govt.nz](mailto:Governance@ecan.govt.nz)

Dear Mr Lowndes

**LOCAL AUTHORITIES (MEMBERS' INTERESTS) ACT 1968 – APPLICATION FOR DECLARATION FOR REGIONAL AND ZONE MANAGEMENT COMMITTEES**

I refer to your letter dated 23 October 2018.

In 2011 and 2013 the Auditor-General granted declarations in relation to the Canterbury Regional Water Management Committee and the ten Zone Water Management Committees. The declarations enabled all members of those committees to participate in all discussions and decisions relating to the development of implementation programmes to achieve the targets and goals set out in the Canterbury Water Management Strategy, despite any pecuniary interests that members may have in those matters.

Section 6(1) of the Local Authorities (Members' Interests) Act 1968 states that members of council committees must not participate in decisions in which they have a personal financial interest. Under section 6(4), we can declare that the rule in section 6(1) will not apply to a specified matter or class of matter if we are satisfied that its application would impede the transaction of business, or that it is in the interests of the electors or inhabitants of the area for it not to apply. We granted our previous declarations based on the knowledge that many committee members will have personal financial interests in a range of matters to be discussed by the committees. We concluded that, in the circumstances, both the tests for granting a declaration were met.

The 2013 declaration expired five years from 24 October 2013. You applied for a declaration covering another five years. In a letter dated 25 October 2018, I granted an interim declaration to allow time to consider your application for a five-year declaration.

In your letter, you advised that the committees continue to play an integral role in implementing the Canterbury Water Management Strategy. As foreshadowed in your 2013 correspondence, rolling memberships have been established to enable a third of each committee to be replaced or reappointed each year, and the terms of reference for the committees have been updated accordingly. You noted in your letter that the reasons for a declaration contained in your first application and our previous decisions still apply. These are:

- the Regional and Zone Committees have been deliberately appointed to allow for a balance of all main interest groups' views;
- the committee members represent a range of interest groups made up of conservation organisations, community, agricultural industry, councils, Ngāi Tahu and Rūnanga;
- the Regional and Zone Committees are working collaboratively towards a consensus to develop and implement work programmes to achieve the Canterbury Water Management Strategy and its targets and goals.

In view of the above, I am satisfied that the grounds for the 2013 declaration still apply, and grant the declaration requested. This declaration replaces my interim declaration dated 25 October 2018.



## Declaration

I therefore make the following declaration (acting under delegated authority):

*The Auditor-General declares, under section 6(4) of the Local Authorities (Members' Interests) Act 1968, that section 6(1) of the Act will not apply to prevent any members of the following committees from discussing or voting on matters related to the development of implementation programmes to achieve the targets and goals set out in the Canterbury Water Management Strategy:*

- *Regional Water Management Committee;*
- *Kaikoura Zone Water Management Committee;*
- *Hurunui – Waiau Zone Water Management Committee;*
- *Waimakariri Zone Water Management Committee;*
- *Selwyn – Waihora Zone Water Management Committee;*
- *Christchurch – West Melton Zone Water Management Committee;*
- *Banks Peninsula Zone Water Management Committee;*
- *Ashburton Zone Water Management Committee;*
- *Orari – Opihi – Pareora Zone Water Management Committee;*
- *Lower Waitaki - South Coastal Canterbury Zone Water Management Committee; and*
- *Upper Waitaki Zone Water Management Committee.*

*This declaration expires five years from the date of this letter.*

I would be grateful if you could provide copies of this letter to relevant staff and to the members of the Committees.

Please do not hesitate to contact me if you need to discuss any aspect of this letter.

Yours sincerely



Melanie Webb  
Assistant Auditor-General, Legal

### Waimakariri Zone Immediate Steps Position

### Dec-18

	FY2017		FY2018		FY2019		FY2020	
Carried over from previous year		\$30,000		\$27,261				
New allocation		\$100,000		\$100,000		\$100,000		\$100,000
Total funding available		\$130,000		\$127,261		\$100,000		\$100,000
Available to allocate (pre-allocate)		100%		100%		70%		70%
Project	Allocated	Remaining	Allocated	Remaining	Allocated	Remaining	Allocated	Remaining
Riparian Restoration – Upper Cam River	\$1,000							
Ashley Rakahuri Island Creation	\$4,820							
First 500 Springhead Protection	\$30,000							
Pines Beach Wetland Weed Control (FY2018)	\$52,000							
Waimakariri Corridor – Smiths Stream	\$14,919							
	\$102,739	\$27,261						
Ashley Rakahuri Weeds (Aug 2017)			\$13,170					
White Rock Mains QEII (Oct 2017)			\$30,000					
Morriss Farm Wetland (Oct 2017)			\$10,313					
Wakeman Wetland (Dec 2017)			\$7,263					
Easterbrook Road Community Planting (June 2018)			\$49,710					
Kānuka Row 2018 (June 2018)			\$8,000					
Dagnum 2018 (June 2018)			\$8,000					
			\$126,456	\$805				
Pines Beach Wetland Weed Control (FY2019)					\$30,000			
White Rock Mains (FY2019)					\$28,000			
					\$58,000	\$42,000		
White Rock Mains (FY2020)							\$28,000	
							\$28,000	\$72,000
	\$102,739		\$126,456		\$58,000		\$28,000	

## **Waimakariri Zone Committee Media and Communications Report -November 1<sup>st</sup> – 30<sup>th</sup>**

### **Newsletters sent**

- November - sent out monthly newsletter to 1000+ subscribers (this newsletter took the form of a ZIPA update)

### **Articles provided to media**

- Opinion piece from Dave – ZIPA update
- News article on Cam Henderson's scholarship
- News article on illegal Cam River structures (2<sup>nd</sup> article on this topic)
- Denitrification wall trial

### **Articles published (articles supplied and articles of interest to the committee)**

#### **\*\* denotes content provided to media**

- November 1<sup>st</sup> – North Canterbury News – Irrigation refresher for farm staff – discusses irrigation training days and farm environment plans in Waimakariri.
- November 2<sup>nd</sup> – Northern Outlook – Keep off the dunes – article about the environmental damage being caused by people driving on sand dunes. ECan and other local authorities/community groups to form an enforcement group
- November 8<sup>th</sup> – North Canterbury News – ARRG to get support from Rangiora Lions Club and RHS Blue Planet Group for March 2019 River Ramble event (does ZC want to get involved?)
- \*\*November 9<sup>th</sup> – Northern Outlook – full page feature on denitrification wall trial with images
- November 14<sup>th</sup> – Northern Outlook – Revamp for Kaiapoi – Kaiapoi Town Plan adopted by WDC aims to make Kaiapoi NZ's best river town
- November 15<sup>th</sup> – North Canterbury News – article on rubbish at Pines Beach – local artist Matt Akehurst collected 300 pieces of rubbish from the beach following Guy Fawkes celebrations
- November 15<sup>th</sup> – North Canterbury News – Malborough River Queen to be relocated to Kaiapoi River as part of the regeneration of the river.
- \*\*November 15<sup>th</sup> – North Canterbury News – article on Cam Henderson's Nuffield Scholarship award
- November 22<sup>nd</sup> – North Canterbury News – Silverstream Reserve Volunteer Group seeks assistance with predator control project
- November 23<sup>rd</sup> – Northern Outlook – Endangered gulls nest on Ashley River – largest colony of black-billed gulls in 20 years is nesting along the Ashley/Rakahuri River.
- November 23<sup>rd</sup> – Northern Outlook – Cancer risk from contaminated water – study from Fish and Game on Canterbury drinking water samples from rural bores

- November 23<sup>rd</sup> – Northern Outlook – Number of cows up 2.7 per cent across NZ – largest average herd size of 803 cows is in North Canterbury
- November 30<sup>th</sup> – Northern Outlook – Heavy rain wipes out black billed gull colony from Ashley/Rakahuri River
- \*\*November 30<sup>th</sup> – Northern Outlook – Illegal structures to be removed from the Cam River by the end of January

#### **Upcoming articles**

- Update on infiltration trial
- Profile on Victoria Trainer/next generation farmers group (January/Feb)
- Article on Morriss wetland planting (retired farmland) (January)

#### **Videos**

- On the ground actions at Silverstream
- Infiltration trial at Silverstream

#### **Current cinema advertisement**

- ARRG – take care on the Ashley/Rakahuri River during nesting season. Raising awareness of the unique braided river birds living along the Ashley/Rakahuri River.