

Land and Water Committee

Agenda

Tuesday 17 May 2022

1pm

Council Chamber 215 High Street Rangiora

Members:

Councillor Sandra Stewart (Chairperson)

Deputy Mayor Neville Atkinson

Councillor Kirstyn Barnett

Councillor Al Blackie

Councillor Niki Mealings

Councillor Paul Williams

Mayor Dan Gordon (ex officio)

AGENDA OF THE LAND AND WATER COMMITTEE TO BE HELD IN THE COUNCIL CHAMBER, 215 HIGH STREET, RANGIORA ON TUESDAY 17 MAY 2022 AT 1PM.

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

BUSINESS

Page No

1 APOLOGIES

2 CONFLICTS OF INTEREST

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

3 CONFIRMATION OF MINUTES

3.1 <u>Minutes of a meeting of the Land and Water Committee held on Tuesday</u>
22 March 2022

6-11

RECOMMENDATION

THAT the Land and Water Committee:

- (a) **Confirms**, as a true and correct record, the circulated Minutes of the meeting of the Land and Water Committee held on 22 March 2022.
- 4 MATTERS ARISING

5 <u>DEPUTATION/PRESENTATIONS</u>

5.1 <u>Update on North Brook Trail – Erin Harvie (Coordinator Waimakariri Landcare Trust)</u>

6 REPORTS

6.1 <u>Application to the Biodiversity Fund – Grant MacLeod (Greenspace Manager) and Gina Maxwell (Policy Technician)</u>

12-21

RECOMMENDATION

THAT the Land and Water Committee:

- (a) Receives report No.220505071036.
- (b) **Notes** the accumulated amount available for allocation in the Biodiversity Fund is \$67,750.

(c) **Recommends** Council approves funding from the Biodiversity Fund of \$5,204.62 for the application of Mia Hofsteede to fence wetland, flax and cabbage trees located at 118 Yaxleys Road.

6.2 Zone Implementation Programme Addendum Capital Works Programme – 2022/23 – Sophie Allen (Water Environment Advisor)

22-29

RECOMMENDATION

THAT the Land and Water Committee:

- (a) Receives report No. 220328045801.
- (b) **Approves** the proposed 2022-23 Waimakariri District Council capital expenditure work programme, based on the Zone Implementation Programme Addendum (ZIPA) recommendations.
- (c) Receives an update on the progress of the Environment Canterbury watercress mahinga kai project on the Cam River before the \$5,000 of WDC ZIPA budget is allocated to this specific project for 2022-23.
- (d) **Circulates** this report to Council, Community Boards, WDC-Rūnanga liaison meeting and the Waimakariri Water Zone Committee for their information.

7 PORTFOLIO UPDATES

- 7.1 Biodiversity Councillor Sandra Stewart
- 7.2 <u>Land based Indigenous Reserves (Including River Margins) –</u>
 Councillor Al Blackie
- 8 QUESTIONS
- 9 URGENT GENERAL BUSINESS

NEXT MEETING

The next meeting of the Land and Water Committee is scheduled for 1pm, Tuesday 16 August 2022.

WAIMAKARIRI DISTRICT COUNCIL

MINUTES OF THE MEETING OF THE LAND AND WATER COMMITTEE HELD VIA ZOOM ON TUESDAY 22 MARCH 2022 AT 1PM.

PRESENT

Councillors S Stewart (Chairperson), N Atkinson, K Barnett, A Blackie, N Mealings and P Williams

IN ATTENDANCE

Councillor P Redmond

C Brown (Manager Community and Recreation), G Cleary (Manager Utilities and Roading), K Simpson (Three Waters Manager), S Allen (Water Environment Advisor) and A Connor (Governance Officer).

1 APOLOGIES

There were no apologies.

2 CONFLICTS OF INTEREST

There were no conflicts of interest declared.

3 CONFIRMATION OF MINUTES

3.1 <u>Minutes of a meeting of the Land and Water Committee held on Tuesday</u>
16 November 2021

Moved: Councillor Stewart Seconded: Councillor Blackie

THAT the Land and Water Committee:

(a) **Confirms**, as a true and correct record, the circulated Minutes of the meeting of the Land and Water Committee held on 16 November 2021.

CARRIED

4 MATTERS ARISING

There were no matters arising.

5 DEPUTATION/PRESENTATIONS

Nil.

6 REPORTS

6.1 <u>Cam River Enhancement Fund Review Decision - S Allen (Water Environment Advisor)</u>

S Allen summarised the report and highlighted the following:

 The Council sought confirmation for the allocation of the remaining \$179,758 of the Cam River Enhancement Fund on in-stream and catchment works from North Canterbury Fish and Game, and the Department of Conservation. She had subsequently received verbal confirmation from North Canterbury Fish and Game, however, had no feedback from the Department of Conservation.

- The Council were currently scoping catchment works rather than looking at what
 was happening in the waterway. One option was an argillite trial where a clay
 based gravel would be used opposed to a regular river run gravel. The
 advantage of this was that less dust would be produced. This trial would take
 place on Marsh and Waikoruru Roads.
- A policy had been proposed for funding of fencing for Cam River Enhancement Fund projects that aligned with stock exclusion requirements for Plan Change 7 of the Land and Water Regional Plan and the RMA Stock Exclusion Regulations (2020). The policy specifically enabled an exemption for funding of fencing for Māori-owned land.

Councillor Stewart asked of more information on the argillite trial. S Allen explained work would be taking place within the next few weeks. The trial was a part of projects the Roading Team were doing in the same area therefore the establishment costs would be shared. The Roading Team were installing \$8,000 of drainage improvements to ensure water did not sit on the road . Argillite would provide a more sealed surface, less dust and run-off than regular river run gravel would. The Marsh Road site was an Environment Canterbury (ECan) monitoring site and they had been taking clarity measurements for quite a while meaning there would be ongoing monitoring.

Councillor Blackie questioned what would happen when land owners requested compensation for fencing. G Cleary stated that compensation was not on the table as there was no funding in place for that.

Councillor Stewart sought clarity on the location of the bank stabilisation works taking place in Southbrook below the Rangiora Wastewater Treatment Plant, and why this would not be covered by the Drainage Budget. S Allen clarified that was rural land, of which the northern side was privately owned and the south side was an esplanade reserve, which was Council owned which was why the Cam River Enhancement Fund was being used.

S Allen requested that the following amendment be made to the staff recommendation contained in the report:

Recommendations (b) and (d) should be amended to read as follows:

- (b) **Notes** that the cost of sediment trap maintenance works would be provided from Drainage Maintenance Budgets or the Zone Implementation Programme Addendum (ZIPA) budget.
- (d) **Delegates** approval of a fencing policy to the Land and Water Committee Chairperson and the Utilities and Roading Manager.

Moved: Councillor Stewart Seconded: Councillor Blackie

THAT the Land and Water Committee:

- (a) Receives Report No. 220111002069.
- (b) **Notes** that the cost of sediment trap maintenance works would be provided from the Drainage Maintenance Budgets or the Zone Implementation Programme Addendum (ZIPA) Budget.
- (c) **Notes** that the fencing projects were intended to be carried out by the Water Environment Advisor role in 2022-23.

- (d) **Delegates** approval of a fencing policy to the Land and Water Committee Chairperson and the Utilities and Roading Manager.
- (e) **Circulates** this report to the Waimakariri Water Zone Committee, the Rangiora-Ashley and Kaiapoi-Tuahiwi Community Boards, the Mahi Tahi Joint Development Committee, and the Central Rural Drainage Advisory Group.

CARRIED

Councillor Stewart was in favour of doing some work on the ground with this fund. She encouraged the Council to take up ECan on their offer to help with consent when the instream works come up for scoping. The Council needed to exhaust all avenues, legislative or regulation wise, to ensure there would be an enhanced environmental outcome for the river if this fund was to be used for fencing.

Councillor Mealings noted the lack of funding for these type of projects, and this funding therefore needed to be used carefully. She also commented that this report should have included sustainability and climate change impacts, as the Cam River Enhancement Fund would surely have a large bearing on sustainability.

6.2 Community Biodiversity Funding – ZIPA Recommendation 2.8 – S Allen (Water Environment Advisor)

S Allen noted that this was the first year the Council had been provided funding from the Zone Implementation Programme Addendum (ZIPA) Budget. The fund was not contestable this year, however, in the next financial year it could be depending on staff resourcing. She also noted that this was an operational fund and was not for a specific project.

Councillor Atkinson sought clarity on how the fund would be contestable if it was only offered to one group. S Allen explained that the contestable fund was a recommendation for the next financial year. Due to Covid and resource shortages, staff did not have the means for the fund to be contestable this financial year.

Councillor Stewart questioned whether the Waimakariri Biodiversity Trust would be able to meet the deliverables of "Mapping and detailing current biodiversity initiatives in the region" and "Website creation, hosting and web designer fees". She also asked if deliverables conflicted with work already being done by staff. S Allen confirmed that the Waimakariri Biodiversity Trust had provided those deliverables. She also noted that if any of the deliverables conflicted with work Council staff were already doing they could be removed.

Moved: Councillor Atkinson Seconded: Councillor Mealings

THAT the Land and Water Committee:

- (a) Receives Report No. 211015166997.
- (b) **Approves** the allocation of \$20,000 to the Waimakariri Biodiversity Trust for operational and establishment expenses from the existing 2021-22 Zone Implementation Programme Addendum (ZIPA) Opex budget.
- (c) **Supports** creation of an open (contestable) funding round for 2022-23 and future budget allocations for ZIPA recommendation 2.8, if Waimakariri District Council staff resourcing was sufficient to administer an open fund.
- (d) **Circulates** this report to the Waimakariri Water Zone Committee and the WDC-Rūnanga Liaison meeting for information.

CARRIED

Councillor Atkinson commented that this was a very worthwhile fund.

S Stewart stated that the Waimakariri District would benefit from a trust focused on increasing the biodiversity footprint.

6.3 Private Well Study - Results From 2021 - Sophie Allen (Water Environment Advisor)

S Allen summarised the findings of the Council's private well study done in 2021. She noted that as well as sampling in Cust and Eyreton the Council expanded the study to include Carleton and Swannanoa. The reason for expanding to Carleton and Swannanoa was based off ECan's modelling that showed these areas may have increased nitrate levels. She highlighted the following:

- There were three wells found that were over the Maximum Acceptable Value (MAV) set for nitrate in the new Zealand Drinking Water Standards for new Zealand (DWSNZ 2005, amended 2018). One was in Cust which the Council had been aware of from the previous studies done in 2020 and 2019. One was in Carleton and the other was in the Swannanoa area.
- Carleton had a large spread of results. Some areas would get denitrification in the ground water giving results that showed almost no nitrate and then there was one well that was over the MAV.
- The owners of the private wells that did not meet DWSNZ had been notified
 to seek water treatment and had been provided with a list of water treatment
 suppliers they could contact. The Council was not recommending any of these
 suppliers the list was just a tool to provide support to the owners.
- A private well booklet was produced in 2021 to provide further support to owners, however, it needed to be updated with information on the Water Services Act 2021.
- There was a correction to item 1.8 in the report which stated the study would be repeated in 2022 with the same 39 wells. There was one well that had filtration for iron before they could take the sample meaning we needed to remove that well from the study. This well would be replaced.

Councillor Williams recommended that the report should also be circulated to Taumata Arowai. G Cleary concurred and undertook to ensure that the information was shared with Taumata Arowai as it would be helpful for them to understand some of the issues the Council had in the district.

Councillor Mealings questioned where the Swannanoa sampling area was. S Allen advised it was at the intersection of Tram and Two Chain Roads.

Moved: Councillor Stewart Seconded: Councillor Mealings

THAT the Land and Water Committee:

- (a) **Receives** report No. 220222024399.
- (b) **Notes** the findings of the 2021 study, with three wells above the nitratenitrogen Maximum Acceptable Value (MAV) set in the Drinking Water Standards for New Zealand 2005, amended 2018). Of the wells sampled 67% in Eyreton, 89% in Cust, 30% in Carleton and 40% in Swannanoa sampling areas were above half of the MAV (5.65 mg/L).
- (c) Notes that the median nitrate concentration for Eyreton and Cust sampling areas, as sampled in the 2021 study, did not meet the limit of a median of 5.65 mg/L nitrate-nitrogen in Plan Change 7 of the Land and Water Regional Plan for private water supply wells. Swannanoa and Carleton sampling areas did meet this limit.

- (d) **Notes** that well owners of the three wells found to be above the MAV for nitrate had been contacted by the Council to discuss supply management or treatment, with the Cust property not currently in domestic use (ie.no one living at the house).
- (e) Notes that Waimakariri District Council and Environment Canterbury staff would continue to raise awareness of the health impacts of high nitrates, and to encourage private well owners to test water regularly, including updating and wider distribution of the publication of a 'managing a private well supply' pamphlet for the District.
- (f) Notes that the Council propose to repeat this study in spring 2022 (with 10 wells in Eyreton, nine wells in Cust, 10 wells in Swannanoa and 10 wells in Carleton). Well owners from the previous sample rounds would be approached for repeat annual sampling, to allow for assessment of trends over time.
- (g) **Notes** that trends for nitrate concentration over time were not able to be concluded from data for only three years, or one year of data for Swannanoa and Carleton sampling areas.
- (h) **Circulates** this report to the Council, Community Boards, Waimakariri Water Zone Committee and Taumata Arowai for information.
- (i) Requests that Environment Canterbury and the Canterbury District Health Board honour the ZIPA recommendation and help fund the expansion of the water quality study to the 180 wells it was originally scoped to sample.

CARRIED

Councillor Stewart stated that the Council was paving the way for study of water quality in private drinking wells and were honouring the 2018 ZIPA recommendation by investing money to fund the study. There would be a much better understanding of the quality of water if other organisations contributed to the funding so that the sampling could be expanded.

Councillor Atkinson noted the importance of the study, however believed that the study should be funded by ECan in total.

Councillor Mealings agreed with Councillor Atkinson that the study should be funded by ECan in totality and not by Waimakariri ratepayers. The public who were using private wells deserved to know that the water they were drinking was safe.

7 PORTFOLIO UPDATES

7.1 Biodiversity – Councillor Sandra Stewart

- Biodiversity Champions meeting with ECan on 21 March 2022. She would like biodiversity implications to be included on all reports that serve at the Council and Committees.
- In 2021 a forum was held by the Council and ECan about the issues with biodiversity enhancement across the region. They had been talking about advancing a region wide skill resource unit for biodiversity to assist territorial authorities that do not have the ratepayer income to fund biodiversity. Also talked about regional GIS mapping that would be a resource for the whole region that would be publicly available.
- Suggested the Council make a submission on the Emission Trading Scheme and the Better Incentives to Encourage Indigenous Forest. Submissions close on 22 April 2022.

7.2 <u>Land based Indigenous Reserves (Including River Margins) – Councillor Al Blackie</u>

- One of the bridges in Silverstream had been funded through the Annual Plan and the other bridge had been donated by the city, meaning the Council would only have to pay for installation costs. Engineering for the donated bridge would also be either pro bono or at a minimal cost.
- Northern Pegasus Bay Bylaw Review Committee met last week as they were
 in their three year review. The car park in Kairaki was used by 40,000 cars
 per annum and a quarter of those cars accessed the beach. There would be
 a group of Auckland University students conducting a survey as part of a
 project to assess the Tuatua sustainability situation on the whole beach.

8 QUESTIONS

Nil.

9 URGENT GENERAL BUSINESS

Nil.

10 MATTERS TO BE CONSIDERED WITH THE PUBLIC EXCLUDED

Section 48, Local Government Official Information and Meetings Act 1987

Moved Councillor Stewart

Seconded Councillor Barnett

THAT the public be excluded from the following parts of the proceedings of this meeting.

The general subject of the matter to be considered while the public was excluded, the reason for passing this resolution in relation to the matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution, are as follows:

Item Nº	Minutes/Report of:	General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution	
10.1	Minutes of a public excluded portion of a meeting of the Land and Water Committee held 16 November 2021	Confirmation of Minutes	Good reason to withhold exists under Section 7	Section 48(1)(a)	

This resolution was made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987, and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public were as follows:

Item N° Reason for protection of interests		Ref NZS 9202:2003 Appendix A
10.1	Protection of privacy of natural persons To carry out commercial activities without prejudice	A2(a) A2(b)ii

CLOSED MEETING

Resolution to Resume in open meeting	
resolution to resume in open meeting	
Moved: Councillor Stewart	Seconded: Councillor Atkinson
THAT the Land and Water Committee:	
10.1 Confirmation of Minutes of the Public Committee meeting of Tuesday 16 Nov	Excluded portion of the Land and Water vember 2021
Resolves that the Minutes remain public	excluded.
<u>OPEN MEETING</u>	
NEXT MEETING	
The next meeting of the Land and Water Comm 2022.	nittee is scheduled for 1pm, Tuesday 17 May
THERE BEING NO FURTHER BUSINESS THE	E MEETING CONCLUDED AT 2.26PM.
CONFIRMED	
	Chairperson

Date

WAIMAKARIRI DISTRICT COUNCIL REPORT FOR DECISION

FILE NO and TRIM NO: DDS-08-05/220505071036

REPORT TO: Land and Water Committee

DATE OF MEETING: 17 May 2022

FROM: Gina Maxell, Policy Technician

Grant MacLeod, GreenSpace Manager

SUBJECT: Application to the Biodiversity Fund

SIGNED BY:

(for Reports to Council, Committees or Boards)

Department Manager

Chief Executive

1. SUMMARY

- 1.1 The purpose of this report is to seek support from the Land and Water Committee for funding to the Biodiversity Fund application received from Mia Hofsteede. The application relates to the fencing of wetland, flax and cabbage trees located at 118 Yaxleys Road.
- 1.2 The Biodiversity Fund is a contestable fund that is provided for owners of Biodiversity sites listed in the District Plan in order to preserve and enhance the Biodiversity we have left in the district. The fund was last advertised in 2019, and has accumulated to a total of \$67,750.

Attachments:

i. Application 118 Yaxleys Road, Rangiora District plan site: SNA013 (211013165281)

2. **RECOMMENDATION**

THAT the Land and Water Committee:

- (a) Receives report No.220505071036
- (b) Notes the accumulated amount available for allocation in the Biodiversity Fund is \$67,750
- (c) Recommends Council approves funding from the Biodiversity Fund of \$5,204.62 for the application of Mia Hofsteede to fence wetland, flax and cabbage trees located at 118 Yaxleys Road

3. BACKGROUND

- 3.1. The aim of the Biodiversity fund is to support district biodiversity by providing financial assistance to owners of SNA sites listed in the Waimakariri District Plan who are undertaking work to protect these assets.
- 3.2. In December 2020 The Heritage, Biodiversity and Ecological Fund was approved to be split from 30th June 2021 into two separate heritage and biodiversity funds.
- 3.3. A total of \$7,000 has been allocated to one Biodiversity project since 2020.

- 3.4. The Biodiversity Fund has a current balance of approximately \$67,750 that has an annual budget of \$15,000 with an increase of \$10,000 each year after.
- 3.5. The Biodiversity Fund is now open as a continuous fund allocation, rather than the previous triannual *Contestable Fund* rounds.

4. ISSUES AND OPTIONS

- 4.1. The options available to the Committee are to either decline or approve funding of the application. If the Committee choose to decline the funding, staff will inform the applicant and close the application file. A subset of the option to approve the funding is to fund a specific amount from within the fund based on the protection of Biodiversity.
- 4.2 Funding for the proposed fencing of this wetland is recommended because it will prevent the wetland vegetation being grazed by cattle, sheep and/or goats (as noted during a field visit to this wetland in 2020) which will help indigenous wetland vegetation to regenerate, and also reduce sediment and nutrients entering the wetland. It is noted that removal of grazing can allow exotic weeds to spread, therefore an ongoing weed control programme will be necessary in conjunction with stock exclusion.
- 4.4 The applicant will be advised of the outcome of their application. If successful, the applicant will required to sign an accountability agreement outlining the expectations for completion of the funded works. Payment of the allocations is intended to be upon receipt of an invoice for the completed work.
- 4.5. The management team have reviewed and support this recommendation.

Implications for Community Wellbeing

4.6 There are no specific implications for community wellbeing; however, and of note, the retention of the districts Biodiversity resources is both a community outcome and a direction within the Waimakariri District Plan.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are not likely to be affected by, or have an interest in the subject matter of this report.

5.2. Groups and Organisations

All owners of listed heritage, notable tree and vegetation sites were advised of the opening of the Heritage, Biodiversity and Ecological Fund in 2019. There are no specific groups that will be affected by the recommendations of this report.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report that is greater than a general desire to protect the districts remaining biodiversity.

6. IMPLICATIONS AND RISKS

6.1. Financial Implications

The Fund has accumulated a total of \$67,750. It is noted that if the applicant is successful they will be required to sign an accountability agreement for allocation of the fund.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do not have sustainability and/or climate change impacts.

6.3. Risk Management

There are no known risks associated with the fund allocation.

6.4. Health and Safety

There are no health and safety issues to consider.

7. CONTEXT

7.1. **Policy**

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Legislation

Allocations for Biodiversity grants are made under the provision for discretionary grants provided for in the Local Government Act 2002.

7.3. Community Outcomes

The Council's community outcomes are relevant to the actions arising from recommendations in this report, as follows:

Indigenous flora and fauna, and their habitats, especially Significant Natural Areas are protected and enhanced

Conservation, restoration and development of significant areas of indigenous vegetation and/or habitats is actively promoted.

7.4. **Delegations**

Council has the delegation to approve funding applications.

Gina Maxwell Policy Technician PART A - Details of Applicant

Waimakariri District Council 215 High Street Private Bag 1005 Rangiora 7440, New Zealand Phone 0800 965 468

The Heritage, Biodiversity and Ecological Fund Application Form

To provide financial assistance to owners of notable plants, vegetation and heritage sites listed in the District Plan.

Please read "Information" and "Guidelines" before completing this form.

Name of Applicant: MIA LOVISE HOFSTEEDE	
Name/status of contact person for this application:	pove
Address of Applicant: 118 Yaxleys Road, RD3 Range	giora
Phone Number: Mobile: 0277411101 Home: _	Work:
Email: mia.hofsteede@gmail.com	
J	
Land Details: Name and contact details of land owner: Mia Hofsteed (If different to applicant)	e and Jacob Vincent
Phone Number: Mobile: 0277411101 Home: _	Work:
Site Reference: VI48	Size of vegetation site: 0.6ha 20.4ha
Have you received funding from the Contestable Fund in the	past and if so what was it used for?
	Continued over page



PART B -	Summary	of work
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Aim	of	Project	(brief):
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Aim of Project (brief):
· fence off wetland area to protect from Stock · Plant and enhance native plants in protected area
Date project to be started: ASAP Two independant quotes to be attached:
Expected duration and staging of project, including expected costs of each stage: 1 Stage - fencing 2 Over time (12/24 months) See quote
If you are granted funds how and when will they be spent:
Fencing to protect Wetland See attached
Have you applied to any other fund for this project? (i.e Ecan Environment Fund) YES NO
 What fund? How much was applied for?

3. How much has been granted?

PART C - Detailed description of project

Description: Provide an overall description of the site and project, keeping in mind the purpose and outcome of the fund (as set out below):

- Wetland / flax and Cabbage trees in two sites
 totalling I hectare
 Fencing around Wetland to profect area / prevent
 any disturbance
 Planting local shrubs and plants

orange area = to be restored. Secontached: Pink line=Already Fenced. Blue line = to be fenced.

Work to date: Describe any work that has been carried out to-date toward the project (eg: restoration, fencing, pest control, planting, planning and design, etc):

· Paritally fenced.

Future Management: Describe the future management, protection and maintenance of the project site, if you are successful in securing this fund:

· Continue to enhance sike and protect plants Within.

Do you consent to a Council employee contacting you to investigate whether any other sources of funding may be available for your work?

YES

NO

PART D - Acknowledgement

I confirm that:

- 1. I am authorised to sign this application as the applicant or on behalf of the applicant, and I am prepared to sign an accountability agreement
- 2. The answers given on this form are true and correct
- 3. The funds will be spent by the applicant in the manner declared in this application
- 4. If the applicant is a group, I will be personally responsible for how the funds are spent
- 5. I will inform the Waimakariri District Council in writing if I receive a funding grant from any other source before I am informed of a decision on this application
- 6. I have read and agree with the 'Notes for Applicants' below.

Name (please print): Mrg Hoßteede

Date: 13-10-2021

Applications must be posted or delivered to:

The Waimakariri Contestable Fund

215 High Street, Rangiora 7400

For more information:

Contact Gina Maxwell on 03 266 9247, or email gina.maxwell@wmk.govt.nz

Information

The purpose of the fund is to make available financial assistance to owners of notable plants, vegetation and heritage sites listed in the District Plan, to encourage and assist with work that benefits the natural and built environment for these sites.

A growing number of landowners are protecting and restoring notable plants, vegetation and heritage sites on their private land, The Contestable Fund was established as a response to the decline of native biodiversity in the District to encourage and assist private landowners to carry out work that benefits the natural native environment.

The fund is a contestable fund which is assessed and approved in funding rounds throughout the year by the Council's Resource Management and Regulatory Committee. (Council staff, with expert advice where necessary, will make recommendations to the committee.)

There is a variable amount available in this Fund, it will be distributed among the successful applicants. If there are no applications or no appropriate projects, the fund may not necessarily be distributed either in whole or in part.

Guidelines

Who can apply?

The fund is open only to ratepayers of the Waimakariri District - individuals or groups - for work relating to either private or public land listed in the District Plan.

The Fund is not available:

- i. For work that there is a legal obligation to do
- ii. To compensate for work already done. It is intended to assist with the cost of future work
- iii. For beautification projects, or to support those driven primarily for financial gain.

How to apply?

Applications will be accepted throughout the year-funding rounds will be advertised. Applications will be acknowledged upon receipt.

Return completed application form to: The Waimakariri Contestable Fund

215 High Street, Rangiora 7400.

- 1. The application must be a signed original of this application form. Applicants are encouraged to attach any supporting documents, such as planting plans, diagrams, maps, and photos
- 2. Applications without any supporting documents will still be considered, but applicants may be asked for more information
- 3. Applications will be assessed throughout the year. It is intended to distribute the funds via regular funding rounds which will be advertised
- 4. The recipient will be required to complete a signed "accountability form" when the funds have been spent, confirming that they have been spent in the way set out in the application.

Funding Criteria

Applications will be assessed on merit based on criteria listed below:

- 1. Priority of funding is given to sites identified by the Waimakariri District Council as potentiality significant natural areas as listed in the District Plan
- 2. The degree to which the work improves, protects, benefits, enhances, restores or reinstates native natural resources or Heritage Buildings in particular, land, vegetation and Heritage sites
- 3. If the Applicant or Project has been past recipients of the Fund.

Terms and Conditions

- 1. Grants will be allocated on a case by case basis
- 2. Financial assistance will usually be no more than 50% of a project's total costs
- 3. The applicants share of the costs can be by way of in kind contributions (e.g. labour), or cash
- 4. Unless prior arrangement is made, grants must be spent within one year of the awarding of the grant
- 5. Preference for funding will generally be given to those who have not received grants from this fund in the past
- 6. Approval of funding may be subject to conditions
- 7. All decisions will be final and no correspondence will be entered into
- 8. The Council's Resource Management and Regulatory Committee may wish to visit sites prior to making a decision
- 9. The fund recipients will be required to either make progress reports, or a final report on the project after the grant monies have been spent.

Please Note:

The Council hereby undertakes to all applicants that information concerning private property supplied in this application, or obtained when assessing it, will be used by the Council for no purpose other than for assessing the application or if considered appropriate, for publicity purposes. However, once an application has been received, the information contained within it becomes public information, accessible by members of the public when requested. By lodging the application, the applicant agrees that if funds are given to the applicant, the amount received and the applicant's name and photo may be publicised, and used for publicity purposes.

TRIM: 211013165281 / DDS-08-04



Shelley Milosavljevic | Senior Policy Planner Development Planning Unit Phone: 0800 965 468 (0800 WMK GOV)





TRIM: 211013165281 / DDS-08-04

QUOTE

Mia Hofsteede

Date 12 Oct 2021

Quote Number QU-0001

GST Number 133-688-544

JV Contracting 2021

Limited

503 Barkers Road

RD2

Rangiora 7472

Description	Quantity	Unit Price	Amount NZD
Posts	100.00	18.00	1,800.00
Roll of Netting (200m)	1.00	449.00	449.00
High tensile wire (100m)	2.00	104.00	208.00
Labour per metre	205.00	7.00	1,435.00
High tensile wire (100m)	1.00	50.00	50.00
		449.00 104.00 7.00 50.00 Subtotal	3,942.00
	T	OTAL GST 15%	591.30
		TOTAL NZD	4,533.30

Records Staff To: Cc: Shellev Milosavlievi

Shelley Milosavijevic Re: FW: Biodiversity Fund - application Wednesday, 13 October 2021 10:46:42 AM image:004.png 0.png 13102021104316-0001.pdf Subject: Date

[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender email address and know the content is safe.

Good morning,

Please see attached

Thank you for your time.

Mia Hofsteede

On Mon, 27 Sept 2021 at 08:56, Shelley Milosavljevic <shelley.milosavljevic@wmk.govt.nz> wrote:

Hi Mia.

Attached is the application form for the Biodiversity Fund (also the form for the heritage fund but just ignore this).

Let me know if you need any assistance with completing the form and ill see if I can help.

Once completed, please email it to records@wmk.govt.nz, it will then be checked for eligibility and a report will be written for Council's District Planning and Regulation Committee to consider whether the application is approved.

Kind regards, Shelley

Shelley Milosavljevic | Senior Policy Planner

Development Planning Unit Phone: 0800 965 468 (0800 WMK GOV)





From: Gina Maxwell <gina.maxwell@wmk.govt.nz>

Sent: Monday, 27 September 2021 8:51 AM

To: Shelley Milosavljevic <shelley.milosavljevic@wmk.govt.nz>

Subject: RE: Biodiversity Fund - application

Hi Shelley,

Thanks for your email.

If you get the landowner to complete the attached form and provide documentation and email it to records@wmk.govt.nz

Once the application is received it will be checked that it meets the criteria, a report sent to DRP&R with staff recommendations and DP&R will approve or decline the application.

Thanks

Gina Maxwell | Technical Assistant - Policy

Policy and Strategy Unit Phone: 0800 965 468 (0800 WMK GOV)





From: Shelley Milosavljevic <<u>shelley.milosavljevic@wmk.govt.nz</u>>

Sent: Friday, 24 September 2021 10:48 AM To: Gina Maxwell <gina.maxwell@wmk.govt.nz> Subject: Biodiversity Fund - application

Hi Gina,

We have an enquiry from a landowner about the Biodiversity Fund as they want to fence around their wetland (which is a 'Vegetation and Habitat sites in the Operative District Plan and a SNA in the Proposed District Plan).

What is the process from here? Could you please send me the form for her to complete and also an outline of how the application process works? When her application would be assessed etc? Thanks, Shelley Shelley Milosavljevic | Senior Policy Planner Phone: 0800 965 468 (0800 WMK GOV) (f) (a) waimakariri,govt.nz From: Mia Hofsteede < mia.hofsteede@gmail.com > Sent: Thursday, 23 September 2021 10:01 AM To: Shelley Milosavljevic <<u>shelley.milosavljevic@wmk.govt.nz</u>> Subject: Re: FW: Acknowledgement of listed notable trees, heritage sites and vegetation and habitat sites [THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender email address and know the content is safe. Hi Shelley, Thank you for your time. We look forward to hearing from you. Thanks Mia On Thu, 23 Sept 2021 at 07:40, Shelley Milosavljevic <<u>shelley.milosavljevic@wmk.govt.nz</u>> wrote:

Thanks for your email. I am following up on this and will get back to you soon.

Regards, Shelley

Shelley Milosavljevic | Senior Policy Planner

Development Planning Unit Phone: 0800 965 468 (0800 WMK GOV)





From: Mia Hofsteede <mia.hofsteede@gmail.com>
Sent: Tuesday, 21 September 2021 12:56 PM
To: Records Staff <records@wmk.govt.nz>

Subject: Re: Acknowledgement of listed notable trees, heritage sites and vegetation and habitat sites

[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender email address and know the content is safe.

Hi Tascha,

Thank you for getting back to me.

Our address is 118 Yaxleys Road, Loburn

ı	
Т	Thanks
C	On Tue, 21 Sep 2021 at 12:52 PM Records Staff < <u>records@wmk.govt.nz</u> > wrote:
	Hi Mia,
	Just so I can record your message in the correct place, can you please let me know the address you are referring to?
	Kind regards, Tascha
	Tascha Lawry Information Management Officer
	Information & Technology Services Phone: 0800 965 468 (0800 WMK GOV)
	WAIMAKARIRI DISTRICT COUNCIL
	From: Council Office <office@wmk.govt.nz> Sent: Tuesday, 21 September 2021 11:13 AM</office@wmk.govt.nz>
	To: Records Staff < records@wmk.govt.nz>
	Subject: FW: Acknowledgement of listed notable trees, heritage sites and vegetation and habitat sites
	From: Mia Hofsteede <mia.hofsteede@gmail.com></mia.hofsteede@gmail.com>
	Sent: Tuesday, 21 September 2021 8:44 AM To: Council Office <office@wmk.govt.nz></office@wmk.govt.nz>
	Subject: Acknowledgement of listed notable trees, heritage sites and vegetation and habitat sites
	[THIS EMAIL IS FROM AN EXTERNAL SOURCE] DO NOT CLICK links or attachments unless you recognise the sender email address and know the content is safe
	Good Morning,
	The property that we have recently purchased notes a protected wetland area. It was part of the management plan that this area is to be maintained and enhanced.
	We intend to erect a permanent fence around this area to protect and encourage the enhancement of the trees within and note that there may be a

We intend to erect a permanent fence around this area to protect and encourage the enhancement of the trees within and note that there may be a contestable fund available to assist landowners with this.

Can you please provide us with more information about this fund, whether it is still available and if so, how we go about applying.

We look forward to hearing from you.

Kind Regards,

Mia Hofsteede

0277411101

WAIMAKARIRI DISTRICT COUNCIL

REPORT FOR DECISION

FILE NO and TRIM NO: WAT-10-14 / 220328045801

REPORT TO: LAND AND WATER COMMITTEE

DATE OF MEETING: 17 May 2022

AUTHOR(S): Sophie Allen – Water Environment Advisor

SUBJECT: Zone Implementation Programme Addendum Capital Works Programme –

2022-23

ENDORSED BY:

(for Reports to Council, Committees or Boards)

Department Manager

Chief Executive

1. SUMMARY

- 1.1 This report details the proposed Waimakariri District Council (WDC) capital works programme for 2022-23 as developed from the Zone Implementation Programme Addendum (ZIPA), including;
 - a. Fish passage improvements on the North Brook tributary at Cotter Lane in Rangiora;
 - b. Creation of a low flow channel on Jeffs Drain in Ohoka with biodegradable textile bags, as recommended as a trial technique in the WDC Drainage Maintenance Management Plan project;
 - c. Biodiversity and amenity improvements for the South Brook at Townsend Fields;
 - d. Terrestrial planting along the Kaiapoi River, and support the second phase of an Environment Canterbury watercress Mahinga Kai project, and
 - e. Improvements to inanga (whitebait) spawning areas located on land owned by Waimakariri District Council on the McIntosh Drain.
- 1.2 There is a capital expenditure allocation of \$50,000 per annum from 2021-31 in the draft Long Term Plan, from the Zone Implementation Programme Addendum (ZIPA) budget from the general rate.
- 1.3 Capital expenditure ZIPA projects will be scoped and presented to the Land and Water Committee prior to the commencement of each financial year.

Attachments:

i. Waimakariri ZIPA WDC Role and funding review Long Term Plan
– March 2021 (210401054372)

2. RECOMMENDATION

THAT the Land and Water Committee:

- (a) **Receives** report No. 220328045801.
- (b) **Approves** the proposed 2022-23 Waimakariri District Council capital expenditure work programme, based on the Zone Implementation Programme Addendum (ZIPA) recommendations.
- (c) **Receives** an update on the progress of the Environment Canterbury watercress mahinga kai project on the Cam River before the \$5,000 of WDC ZIPA budget is allocated to this specific project for 2022-23.
- (d) **Circulates** this report to Council, Community Boards, WDC-Rūnanga liaison meeting and the Waimakariri Water Zone Committee for their information.

3. BACKGROUND

- 3.1 A report was presented on 29 January 2019 to Council, seeking a decision on the role of WDC in ZIPA implementation, staff resourcing, and funding of projects (refer to TRIM 181217148924).
- 3.2 A total of \$305,000 per annum was approved by Council for 2019-21 on 28 May 2019 (refer to TRIM 190501061992), of which \$100,000 was capital expenditure. Due to COVID-19 pandemic budget revisions, the capital expenditure was reduced to \$50,000 from 2020-21 onwards.
- 3.3 A ZIPA role and budget allocation review was carried out in 2021 for the Long Term Plan 2021-31, which was present to the Land and Water Committee at the 20 July 2021 meeting (Attachment 1).

4. <u>ISSUES AND OPTIONS</u>

4.1. Of the \$255 per annum total allocation for ZIPA implementation in the 2021-31 Long Term Plan, \$50K is allocated to capital expenditure (CAPEX) projects (see Table 1), and \$205K to operational expenditure.

Table 1: Summary of capital expenditure proposed for 2022-23 for WDC ZIPA works

CAPEX project	ZIPA recommendation	Budgeted amount
Fish passage improvements – Rock ramp on the North Brook tributary at Cotter Lane in Rangiora	1.8	\$10,000
Projects for improvement of contaminant losses and aquatic life: Creation of a low flow channel using biodegradable textile bags on Jeffs Drain, as recommended by the WDC Drainage Maintenance Management Plan (201203164171)	1.14	\$10,000

Biodiversity and amenity values in Waimakariri River tributaries – South Brook Townsend Fields project	1.26	\$5,000		
Terrestrial plantings on the Kaiapoi River, and support for the Environment Canterbury-led mahinga kai watercress enhancement project on the Cam River (pending an updated on the progress of this project).	1.27	\$15,000		
McIntosh Drain spawning habitat improvements — bank rebattering and planting to the north of the proposed pump station	2.11	\$10,000		
TOTAL		\$50,000		

Fish Passage

4.2. A concrete apron structure on a tributary of the North Brook (corner of Cotter Lane and Northbrook Road) is proposed to have a rock ramp installed below it (placement of loose cobbles and boulders) which will create a pooled area over the concrete apron where there is currently a shallow, fast-flowing drop (see Figure 1). This concrete apron is believed to prevent some migratory species such as īnanga from being able to move upstream, based on survey data from Aquatic Ecology Ltd and spotlighting data from WDC staff. An example of a constructed rock ramp is shown in Figure 2.



Figure 1: Likely partial fish passage barrier on a North Brook tributary - Corner of Cotter Lane and Northbrook Road



Figure 2: A rock ramp constructed to enable fish passage through a culvert by creating a pool downstream. (Photo credit: NIWA)

Low flow channel creation - Jeffs Drain

- 4.3. Creation of a low flow channel (i.e. a deliberately narrowed flow path with higher flow velocity that remains free of water weeds such as watercress) has been proposed in the WDC Drainage Maintenance and Management Plan as a technique to trial for the potential benefit of a long-term reduction in weed clearing requirements. Narrowing of the drain with plantings was trialled in 2020-21, however was not successful due to pukekos removing the plants (TRIM 210316044295).
- 4.4. Installation of biodegradable bags, such as hessian sacks, are proposed along the drain edges at the same trial site on Jeffs Drain Road. An assessment of the reduction in hydraulic capacity of the drain, and potential to exacerbate any flooding issues is recommended before confirming this trial site.

Biodiversity and amenity - South Brook Townsend Fields

- WDC staff have been working in this area since 2019 on improving a WDC-owned 4.5. esplanade reserve on the South Brook beside the Townsend Fields Stormwater Management Area (see Figure 3). It is recommended to continue planting with ecosourced indigenous plants directly upstream of current plantings, and to install signage that informs users that the area is WDC esplanade reserve with public access. This work will continue to be led by the WDC Greenspace Team and Jobs for Nature rangers in 2022-23.
- 4.6. The surrounding area is undergoing development of urban housing, including the placement of a nearby retirement village. The area on the south side was cleared of willows in August 2019, with some of the areas planted with native plants in 2019-21. The planting areas are suitable terrain for community planting events to be held, however has not been possible to-date due to COVID restrictions, but may be possible in 2022-23.
- 4.7. Budget for plant maintenance, such as weeding around plants and weed control (e.g. blackberry) is available under the ZIPA operational budget for 2022-23.



Figure 3: Existing native planting along the South Brook beside the Townsend Fields Stormwater Management Area (April 2022)

Terrestrial plantings on the Kaiapoi River, and Environment Canterbury mahinga kai watercress project support

The Greenspace team has produced a Kaiapoi River spatial planting plan, which 4.8. incorporates both terrestrial and aquatic tidal plantings. This plan takes into consideration

- Kaiapoi town planning, Kaiapoi Regeneration Zone planning, and Environment Canterbury priorities.
- 4.9. \$10,000 is proposed be allocated in the 2022-23 year to Kaiapoi River riparian planting, and \$5,000 allocated to the Environment Canterbury watercress mahinga kai project for the Cam River.
- 4.10. WDC staff and Environment Canterbury (as landowner) have been progressively planting native species along the riparian margins and also intertidal flats of the Kaiapoi River since the Canterbury earthquake sequence as part of earthquake recovery, as well as for biodiversity and amenity improvements. The intertidal planting been completed by WDC staff, with existing plantings predicted to spread in size and distribution over time. Therefore there is only requirement for further terrestrial plantings, with no further intertidal plantings.
- 4.11. Environment Canterbury Tuia staff commenced a mahinga kai watercress enhancement project for the Cam River above Bramleys Road Bridge in 2021-22, in consultation with Ngāi Tūāhuriri members. The first phase of this project, which involved weeding out of competing water plants has received positive feedback from a kai gatherer that there has an increase in watercress available.
- 4.12. WDC staff understand that the works proposed in 2022-23 include improving bank access for harvesting with steps or re-battering of slope, installation of sediment traps, and continued weeding out of the monkey musk and water speedwell species, as competing water plants. WDC staff propose to allocate a budget a \$5,000 budget from ZIPA Recommendation 1.27 to this project as it meets the aim to 'improve habitat for mahinga kai' in the Cam River, pending receipt and discussion of an update on the progress of this project to the Land and Water Committee. Further discussion with Environment Canterbury staff is also needed to establish how this WDC funding would be best utilised in conjunction with a continued allocation of Environment Canterbury budget for 2022-23.
- 4.13. If suitable allocation of the \$5,000 WDC ZIPA budget is not found with the watercress mahinga kai project, a potential re-allocation could be to the North Brook Trail project, for partial funding of deer fencing to create a riparian buffer or other capex costs.

McIntosh Drain - Inanga spawning habitat improvements

- 4.14. There are significant īnanga spawning sites located on WDC land, such as at Taranaki Stream, Courtenay Stream and McIntosh Drain. These sites have received ZIPA in previous years for īnanga habitat improvements to increase spawning success, as recommended by Aquatic Ecology Ltd.
- 4.15. Aquatic Ecology Ltd (AEL) reviewed inanga spawning sites and quality of habitat in the Waimakariri District in reports from 2017, 2019 and 2021. Habitat improvements carried out by WDC are thought to have improved spawning in the Courtenay Stream, but it is too soon to see if the Taranaki improvements have been successful. Additional works, following recommendations from AEL are proposed to be carried out by WDC staff at McIntosh Drain (Figure 4) directly upstream of a proposed new pump station.

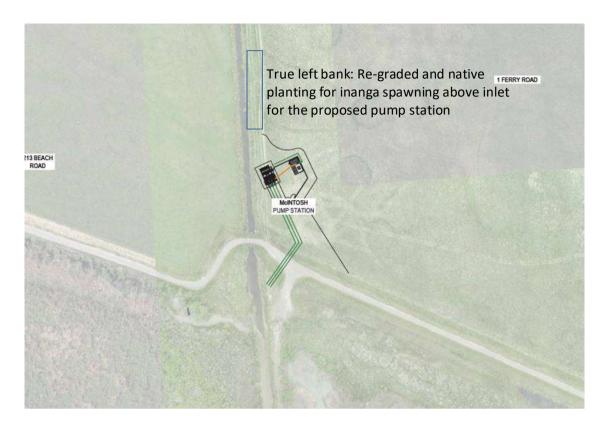


Figure 4: The location of the proposed bank re-grading, followed by native planting on the McIntosh Drain, north of a proposed pump station.

- 4.16. Co-funding for this project has been secured from the Environment Canterbury Regional Fish Habitat Fund for \$5,575 (excluding GST) towards the cost of bank regrading to at least a 1:3 ratio, and planting of native inanga spawning grasses (such as *Carex virgata* and *Cyperus ustulatus*).
- 4.17. Initially bank regrading and planting was proposed from ZIPA budget in 2019-20, however was paused due to unconfirmed plans for the area as part of the Kaiapoi flood improvements project i.e. 'Shovel Ready' project for the McIntosh Drain. With finalised Shovel Ready plans excluding re-battering and planting of the bank to the north of the pump station, this is now proposed again to be provided from ZIPA budget in 2022-23. The Shovel Ready project will re-batter and plant natives along the inlet to the pump station, as required by resource consent conditions.

Alignment with the Waimakariri Water Zone Committee Action Plan 2021-24

- 4.18. The Capex projects proposed in this report align with the WWZC Action Plan goals of:
 - 4.18.1. Increased indigenous biodiversity in the zone.
 - 4.18.2. Protection and enhancement of recreation in the zone.
 - 4.18.3. Improved mahinga kai within the Waimakariri Water Zone.

Implications for Community Wellbeing

- 4.19. There are implications on community wellbeing by the issues and options that are the subject matter of this report. The ZIPA recommendations and budget allocations are to meet targets in the Canterbury Water Management Strategy for recreation and amenity, biodiversity and mahinga kai provision for example.
- 4.20. The Management Team has reviewed this report and support the recommendations.

5. COMMUNITY VIEWS

5.1. Mana whenua

Te Ngāi Tūāhuriri hapū are likely to be affected by, or have an interest in the subject matter of this report. The projects in this report will be presented to the next WDC- Ngāi Tūāhuriri liaison meeting for discussion.

5.2. Groups and Organisations

There are groups and organisations likely to be affected by, or to have an interest in the subject matter of this report.

5.2.1. Waimakariri Water Zone Committee – An update on the progress of ZIPA projects is presented quarterly to the Waimakariri Water Zone Committee for comment and discussion.

5.3. Wider Community

The wider community is not likely to be affected by, or to have an interest in the subject matter of this report. The wider community was consulted on the role of WDC and budget allocation for the ZIPA in the draft Annual Plan public consultation in March-April 2019.

6. OTHER IMPLICATIONS AND RISK MANAGEMENT

6.1. Financial Implications

There are no financial implications of the decisions sought by this report. Budget has been already been approved in the Long Term Plan for 2021-31. This report is for more detailed specificsof the proposed projects for 2022-23.

6.2. Sustainability and Climate Change Impacts

The recommendations in this report do have sustainability and/or climate change impacts. The projects for planting of trees will help to sequester carbon. Fish passage remediation will aid the sustainable future of local fish populations that are migratory species.

6.3 Risk Management

There are no risks arising from the adoption/implementation of the recommendations in this report.

ZIPA capex spend is be reported on quarterly in a summary capital expenditure report to the Audit and Risk Committee. This provides governance with information of any risk of an under or overspend.

Health and Safety

There are no health and safety risks arising from the adoption/implementation of the recommendations in this report.

ZIPA capital expenditure project implementation will follow established health and safety processes. There are no new health and safety risks or hazards that have been identified.

7. CONTEXT

7.1. Consistency with Policy

This matter is not a matter of significance in terms of the Council's Significance and Engagement Policy.

7.2. Authorising Legislation

Resource Management Act (1991). All capital expenditure works requiring consent are anticipated to be covered by the 'Maintenance and Minor Works in Waterways' global

17 May 2022

consent (CRC195065, CRC195066, CRC195067) that WDC has been granted from Environment Canterbury, and the Waimakariri District Council consent RC19143 for works beside waterways.

7.3. Consistency with Community Outcomes

The Council's community outcomes are relevant to the actions arising from recommendations in this report.

7.4. Authorising Delegations

The Land and Water Committee hold the delegation for the allocation of the ZIPA budget.

Waimakariri ZIPA - Final version (26 November 2018)		WDC and ECan	WDC and ECan roles (MOU) WDC Funding								
Reco mmen dation	Text	Project Lead	Project Contributor	Current funding per annum (K) 19/20, 20/21	Option A Low WDC funding (K) CAPEX	Option A Low	Option B	OPEX	WDC funding (K) CAPEX	Option C High WDC funding (K) OPEX	
1.1	That Environment Canterbury and the Waimakariri District Council support the Waimakariri Water Zone Committee to prioritise catchments and develop at least two Catchment Management Plans per year. These plans will provide specific catchment management goals and actions, priorities and monitoring programmes to support the implementation of ZIP Addendum recommendations.	Waimakariri Water Zone Committee	ECan Zone Delivery		0)	0	0		Would be for Taranaki Coastal Streams, maybe Saltwater Creek Catchment (Still need to scope cost and scope of Catchment Management Plans first before funding. High level funding could be for funding for Catchment Groups to lead catchment planning work.
	That Environment Canterbury and the Waimakariri Water Zone Committee support industry groups to provide sector, and catchment-specific support to landowners implementing Good Management Practice (GMP), including: a. sub-catchment groups working to reduce contaminant losses. b. increasing education and awareness of the Farm Environment Plan audit and accreditation process amongst wider community. c. educating and supporting landowners to protect catchment-specific ecological, biodiversity and Ngāi Tūāhuriri values by: — Preparing catchment management plans to implement on-the-ground waterway remediation projects at sites identified as priorities. — Providing workshops in vulnerable hotspots (i.e. high value or high contaminant loss) areas.	ECan Zone Delivery	ECan Regional Support, Waimakariri Water Zone CommitteeW DC 3 Waters, Ngãi Tūāhuriri Rūnanga,		0			0	0	0	
	That Environment Canterbury implement a comprehensive waterway monitoring plan for the Waimakariri Water Zone, including: a. Monitoring water quality and ecological health of waterways. b. State of the Takiwā monitoring, including the health and wellbeing of mahinga kai species. c. Measuring diversity and distributions of freshwater fish, invertebrates and aquatic vegetation throughout the zone. d. Identifying critical sources areas and measuring deposited sediment extent and character, particularly in spring-fed plains streams. e. Including important bathing sites in Schedule 6 of the Land and Water Regional Plan and assessing primary recreational water quality at: — Ashley River/Rakahuri at Gorge — Ashley River/Rakahuri at State Highway 1 — Kaiapoi River at Kaiapoi township — Pegasus Lake at Motu Quay — Cam River at Bramleys Rd f. Continuing to share information and integrating monitoring programmes between organisations, and promoting community-based monitoring of waterways (citizen science) and education initiatives g. Investigating the ecosystem health of hill country waterways to identify issues and catchment-specific management options as required. h. Supporting ongoing research into emerging contaminants, including endocrine disruptors, in the Waimakariri Water Zone. i. Investigating tidal waterbodies related to: l. Sediment deposition and salt water intrusion in: — Ashley River/Rakahuri — Saltwater Creek Estuary — Tidal reaches of Kaiapoi River, Saltwater Creek and Taranaki Creek II. Aquatic habitat shifts associated with climate change and sea level rise, including changes in īnanga spawning areas. j. Monitoring water quality and ecological health in urban streams and rivers in conjunction with Waimakariri District Council	WDC 3 Waters (j. only)	ECan Science (j.only)						0		(J) only - Urban stream monitoring together with ECan. Covered under existing budgets for stormwater improvements.
	That Environment Canterbury and Waimakariri District Council investigate the impact of commercial forestry practices and wilding pines on downstream freshwater ecosystems.	ECan Science	WDC 3 Waters	(0	(0	0	0		National Environmental Standard for Plantation Forestry. Could start with the Saltwater Creek Catchment, due to catchment management group and Ashley Forest
	That Environment Canterbury and the Waimakariri District Council support further research into factors that influence and/or control toxic cyanobacteria growth in the Ashley River/Rakahuri.	ECan Science	WDC 3 Waters	(0	(C	0	0		Research would require substantial funding of a third part e.g. Cawthron Institute. It would be better to advocate for central government research funding support. Proposed

Reco	Text	Project Lead	Project	Current	Option A Low	Option A Low	Option B	Option B	Option C High	Option C High	Notes
mmen			Contributor	funding per		WDC funding		Medium WDC	WDC funding	WDC funding	
dation				annum (K) 19/20, 20/21	(K) CAPEX	(K) OPEX	funding (K) CAPEX	funding (K) OPEX	(K) CAPEX	(K) OPEX	
1.7	That Environment Canterbury, Waimakariri District Council, and Ngāi Tūāhuriri review the waterway management and maintenance methods used in the Zone. The review which should be publicly reported, would include: a. Preparation of an inventory of the main methods, including chemicals and mechanical methods, used by public and private land and water managers in the Zone; b. The findings of recent work by EPA, MfE or other relevant New Zealand organisations reviewing the potential effects of the listed chemicals on waterway ecosystem health and of other methods; c. An assessment of the risk to soil biodiversity and waterway ecosystem health in the Zone from use of chemicals or other methods.	WDC 3 Waters	Ngāi Tūāhuriri Rūnanga, ECan Science	10	0		0	0	C	10	Review completed in 2020 for WDC Drainage Maintenance Management Plan (200728095074). Could fund hours by WDC Water Environment Advisor, or WDC contractor for private drainage management practices and education. ECan will promote existing resources as BAU.
1.8	That Environment Canterbury, Waimakariri District Council, Department of Conservation, Fish and Game, and Ngãi Tūāhuriri review the presence and effects of barriers to indigenous and introduced fish migration on waterways in the Zone in consultation with stakeholders and land owners. The review should: a. Identify locations where there are barriers to migrating indigenous fish and salmonids b. Consider the purpose of specific barriers (e.g. tidal control, flood management, drainage) c. Determine and prioritise options for removing or retrofitting barriers appropriate to different species at specific sites.	ECan Zone Delivery	WDC 3 Waters, Ngāi Tūāhuriri Rūnanga, DOC, Fish & Game	20	5		5 10	5	30	10	Fish passage projects or survey work. Fish passage guidelines now required by the National Policy Statement for Freshwater Management (2020)
	That Environment Canterbury and Waimakariri District Council ensure waterway management and maintenance activities minimise contaminant losses to downstream waterbodies and loss of aquatic life, while maintaining flood carrying capacity.	WDC 3 Waters, ECan Zone Delivery		20	15	į	5 10	15	60	20	Funding to start implementation of initiatives under the Drainage Maintenance Management Plan (200728095074). Funding for drain shading, channel
	That Environment Canterbury and the Waimakariri District Council support landowners with education and guidance on appropriate riparian set back distances and plantings for different situations.	ECan Zone Delivery	WDC 3 Waters, WDC	0	0	(0	0	C	0	Resource provided by ECan/National guidance? BAU with 70 hours Water Environment Advisor. Setback details from Section 360 Stock Regulations
1.19	That Environment Canterbury and Waimakariri District Council work with the forestry sector and MPI to: a. Identify high risk periods over the next 5 years when earthworks and harvesting will take place within the Waimakariri Water Zone, so resources can be targeted to ensure potential environmental effects are mitigated or avoided. b. ensure that implementation of the NES is effective within the zone.	ECan Strategy & Planning	WDC Policy & Strategy	0	0	(0	0	C	0	BAU with ECan, and working with forestry industry
	That Ngãi Tüāhuriri, Te Rūnanga o Ngãi Tahu, Environment Canterbury, and Waimakariri District Council work together to identify areas and waterways of high cultural value and options for protecting those values including providing for mahinga kai and the protection of wāhi tapu and wāhi taonga within the Waimakariri Water Zone.	ECan Planning	Ngāi Tūāhuriri Rūnanga,	0	0	(0	0	C	0	0
1.21	That Environment Canterbury prioritise on the ground projects for Taranaki Creek, given its significant value to Ngāi Tūāhuriri and proximity to Kaiapoi Pā, particularly those related to: • reducing and removing sources and legacies of deposited fine sediment • improving the quality of habitat for mahinga kai species • removing barriers to native fish passage • removal of invasive fish species	ECan Science	Ngāi Tūāhuriri Rūnanga, WDC 3 Waters, WDC Greenspace, ECan Zone Delivery	0	0		0	0	C	0	
1.22	That Environment Canterbury and the Waimakariri District Council recognise the Ashley River/Rakahuri for its important natural landscape values, braided river characteristics, and braided river bird (nesting and feeding) habitat.	WDC Planning, ECan Planning		0	0		0	0	C		Recognised as Outstanding Natural Landscape and Special Amenity Area in draft District Plan. Ecologist-Biodiversity role with 30 hours/year to implement? Braided river work
1.24	That Environment Canterbury and the Waimakariri District Council recognise the Upper Ashley River/Rakahuri catchment, including Lees Valley, for its high natural landscape and ecosystem values, and protect its waterways from degradation by: • avoiding increased contaminant losses to waterways. • preventing the removal or degradation of any existing wetlands. • preventing the expansion of wilding pines.	ECan Planning	WDC Planning	0	0		0	0		0	On track to protect Lees Valley wetlands as SNAs in District Plan, and designate area as Outstanding Natural Landscape . BAU with 70 hours Water Environment Advisor / Ecologist - Biodiversity for compliance
1.25	That Environment Canterbury and the Waimakariri District Council initiate public education and awareness campaigns aimed at improving the water quality and health of urban waterways.	WDC 3 Waters	ECan Zone Delivery	20	0	10	0	10	C	20	Urban waterway education (funding for Enviroschools Canterbury- decision from S17a review report)

Reco	Text	Project Lead	Project	Current	Option A Low	Option A Low	Option B	Option B	Option C High	Option C High	Notes
mmen			Contributor	funding per annum (K) 19/20, 20/21	WDC funding (K) CAPEX	_		Medium WDC funding (K) OPEX	WDC funding (K) CAPEX	WDC funding (K) OPEX	
1.26	That Environment Canterbury and the Waimakariri District Council support projects that have enduring benefits for improved stream health, Ngāi Tūāhuriri values, and improved recreational amenity in the North Waimakariri River tributaries.	ECan Zone Delivery	WDC 3 Waters, WDC Greenspace, Ngāi Tūāhuriri Rūnanga	70	10	5	5	15	40	20	Fencing, walkways on WDC land, as well as biodiversity and stream health projects. Continue with South Brook Townsend Fields Reserve and possibly start work on a new esplanade reserve.
1.27	That Environment Canterbury and the Waimakariri District Council prioritise on-the-ground projects in the Cam River/Ruataniwha and Kaiapoi/Silverstream, including but not limited to: Reducing and removing sources and legacies of deposited fine sediment. Improving the quality of habitat for mahinga kai. Removing barriers to native fish passage.	ECan Zone Delivery	WDC 3 Waters, Ngāi Tūāhuriri Rūnanga	10	15	5	20	10	45	15	Kaiapoi river projects e.g. plantings (\$10k for 3 years), transitions to funding for Cam River, post the Cam River Enhancement Fund (projects and emptying of sediment traps). Watercress mahinga kai enhancement (access,signage,shade management)
1.28	That Environment Canterbury and Waimakariri District Council investigate options to fund plants for riparian or wetland planting on land managed in accordance with an FEP or a Management Plan. (see also Rec 2.9)	ECan Regional Support	WDC 3 Waters	0	0	0	0	0	10	10	Contribute to Environment Canterbury to find funding and providing guidance to landowners- could fund a community organisation, with WDC Biodiversity Contestable Fund focussing on SNAs
2.1	The zone committee recommends that Environment Canterbury and the Waimakariri District Council work with Ngãi Tūāhuriri, landowners, agencies and stakeholders to integrate indigenous biodiversity in a whole of waterway, Ki Uta Ki Tai, approach to managing catchments in the Waimakariri Water Zone.	ECan Zone Delivery	WDC 3 Waters, WDC Planning,	0	0	0	0	0	0	0	Capture in District Plan (Natural Character of waterbodies chapter etc.) and Catchment Management Plans
2.2	The Waimakariri Water Zone Committee endorses and supports the implementation of the Canterbury Regional Biodiversity Strategy as it applies in the Waimakariri Water Zone. In particular: a. The zone committee endorses the vision, goals, targets, and actions of Canterbury Regional Biodiversity Strategy: b. The zone committee recommends that Environment Canterbury support the appointment of a regional co-ordinator for the Canterbury Regional Biodiversity Strategy c. The zone committee recommends that Waimakariri District Council increase its biodiversity capability and capacity	Waimakariri Water Zone Committee	ECan Strategy & Planning	110	0	110	0	110	0	110	1 X Ecologist-Biodiversity at 90k/yr plus 20K overheads
2.5	The zone committee recommends implementing the Canterbury Biodiversity Strategy, at the water zone level, with a Waimakariri Biodiversity Action Plan to enable the following actions: • Developing and illustrating a vision for indigenous biodiversity (and related values) across the zone • Mapping indigenous habitats, vegetation and, as appropriate, threatened plant and animal species in the zone • Identifying actions for protection and enhancement of indigenous habitats, vegetation types and plant and animal species • Identifying priority sites, waterways, springheads, wetlands, reaches or locations for protection • Identifying priority habitats and vegetation for management actions • Setting targets for biodiversity protection and enhancement in the zone • Working with willing landowners to action indigenous biodiversity protection and enhancement on private land.	ECan Regional Support	Waimakariri Water Zone Committee, WDC Policy & Strategy, WDC Greenspace, WDC 3 Waters, ECan Zone Delivery, Ngāi Tūāhuriri Rūnanga, DOC	0	0	0	0	0	0		No support for Waimakariri Biodiversity Action Plan until scoped further? Environmental and Biodiversity Strategy will be supported by BAU for Policy and Strategy Team inhouse
2.4	That Environment Canterbury and the Waimakariri District Council consider climate change and sea level rise impacts on indigenous biodiversity in the Waimakariri Water Zone.	ECan Science	WDC Policy & Strategy, WDC 3	10	0	0	0	0	0	0	Was allocated to PhD 2019-21. BAU with Water Environment Advisor Ecologist-Bioidversity

Reco	Text	Project Lead	Project	Current	Option A Low	Option A Low	Option B	Option B	Option C High	Option C High	Notes
mmen				funding per			Medium WDC	Medium WDC	_	WDC funding	
dation				annum (K) 19/20, 20/21	(K) CAPEX	(K) OPEX	funding (K) CAPEX	funding (K) OPEX	(K) CAPEX	(K) OPEX	
	That Environment Canterbury and the Waimakariri District Council integrate indigenous biodiversity and instream ecological values into councils' planning and operational activities, including in work carried out by consultants or contractors.		WDC Policy & Strategy, WDC 3 Waters, ECan Zone Delivery, ECan Science		0	10	C) 10	C	20	Ecology surveys to assist planning and operational. Relates to rec. 1.7
	That Environment Canterbury and Waimakariri District Council investigate further ways to protect braided river-bed breeding bird habitat and bird populations from the impacts of vehicles.	Support	WDC 3 Waters, Ashley Rakahuri	0	0	0	C	0	O	10	BAU Planning tools e.g. a Bylaw, signage education monitoring? Funding would be to support Ashley Rakahuri Rivercare Group
2.7	That Environment Canterbury, Waimakariri District Council and the Department of Conservation work with, and support, Ngãi Tūāhuriri Fenton Reserve Trustees in the Land and Water Solutions Programme project to reconnect coastal ecosystems between the Lower Ashley River/Rakahuri, the estuary and Te Aka Aka Fenton Reserve to provide for mahinga kai benefits for Ngãi Tūāhuriri Rūnanga.		ECan Science, ECan Zone Delivery, WDC Policy & Strategy	0	0	0	C	0	0	0	Support with scoping as BAU, for potential funding later
2.8	That Environment Canterbury and the Waimakariri District Council work with community groups to address indigenous biodiversity protection and enhancement by means such as: • Provision of administrative support; • Provision of financial assistance; • Identification of funding sources; • Provision of technical advice; and • Endorsement of projects.	ECan Zone Delivery	WDC 3 Waters, ECan Regional Support, ECan Science	0	0	0	C	20	20	30	Baseline support for community organisations for the Arohatia te Awa riparian planting, and could stretch to District-wide support for catchment groups and community groups
2.9	That Environment Canterbury and the Waimakariri District Council work with Ngãi Tūāhuriri, Department of Conservation and other agencies to assist landowners/land managers by: • Establishing a biodiversity advisory service (e.g. advice on appropriate plant sources or riparian planting) • Advising on indigenous biodiversity management as part of farm management planning within catchment plans • Publicising positive biodiversity actions, events and news • Promoting and raising awareness of biodiversity values and protection or enhancement opportunities • Investigating the development of a system to ensure appropriate sources of plant material for revegetation and enhancement projects • Promoting and advising on appropriate wetland habitat and waterway protection	Delivery	ECan Regional Support, WDC Greenspace, Ngāi Tuāhuriri Rūnanga, DOC, ECan Science	0	0	0	C	0	O	0	Provided through Rec 2.8, or BAU for Water Environment Advisor and Ecologist - Biodiversity. Service delivery model though baseline funding for a community organisation (e.g. Te Ara Kakariri) for ATA sites in ATA budget, but that is Cam River specific (need for whole of District.)
2.10	That Environment Canterbury and the Waimakariri District Council explore consenting options to enable landowners to undertake indigenous biodiversity initiatives including, but not restricted, to: • habitat protection and enhancement • wetland creation or restoration • predator control of high values sites • revegetation projects	ECan Planning	ECan Consents Planning, WDC Planning	0	0	0	C	0	O	0	BAU Planning tools (green consenting, bonus development lots) e.g. permitted actitivities, and/or WDC provides access to global consent in partnership
	recommends that Environment Canterbury and the Waimakariri District Council support the development of habitat at īnanga spawning sites and riparian planting.	ECan Science	ECan Regional Support	10	0	0	5	5 5	5	5	Started with the McIntosh, Courtenay - potential further CAPEX work at Taranaki, Benzies Creek, Saltwater Creek - as well as follow-up survey work and sea level rise preparation (OPEX)
2.12	The Waimakariri Water Zone Committee acknowledges the Ashley Estuary (Te Aka Aka) as a taonga within the Waimakariri Water Zone; and acknowledges the current project in relation to the Fenton Reserves (see Rec 2.7); and recommends the establishment of a working group comprising representatives of Ngāi Tūāhuriri, Environment Canterbury, Waimakariri District Council, Department of Conservation, Fish and Game and other agencies to develop a strategy and programme to protect and enhance Ngāi Tūāhuriri, biodiversity and recreational values in the face of current pressures, climate change and rising sea levels.		ECan Science, ECan Zone Delivery, WDC 3 Waters, WDC Policy & Strategy		0	0	C) C	C	0	BAU Water Environment Advisor support of 30 hours/year. Could overlap with the existing Northern Pegasus Bay Bylaw Advisory Group - but this group does not have a strong biodiversity focus currently.

Reco	Text	Project Lead	Project	Current	Option A Low	Option A Low	Option B	Option B	Option C High	Option C High	Notes
mmen		·	Contributor	funding per	WDC funding	WDC funding	Medium WDC	Medium WDC	WDC funding	WDC funding	
dation				annum (K) 19/20, 20/21	(K) CAPEX	(K) OPEX	funding (K) CAPEX	funding (K) OPEX	(K) CAPEX	(K) OPEX	
3.16	That Environment Canterbury, Waimakariri District Council and Canterbury District Health Board work together to: a. develop a programme for testing and reporting of water quality in private drinking water supply wells, and b. raise awareness of health impacts from high nitrates in drinking water	ECan Science, WDC 3 Waters	ECan Comms, CDHB	10	0	5	CATEA	10	0		Cost of water sampling if full chemical suite analysis. Programme delivered by WDC, with technical support from ECan Groundwater Team, Option A is to continue with only 20 wells, Option B is 40 wells, Option C is 180 wells. Would also need considerable support from Water Environment Advisor as BAU. Alternative to just sample nitrate-nitrogen
3.17	Environment Canterbury and Waimakariri District Council should consider provision of guidance and information regarding a minimum depth for new drinking water supply wells and well head security, to provide better water quality protection.	ECan Science	WDC 3 Waters	5	0	(C	0	0	0	To be completed 2020-21. BAU distribution of leaflet
3.20	That Environment Canterbury commences a review of the Waimakariri section of the Land and Water Regional Plan in 2030 to incorporate new information and understanding of: how social, cultural, economic and environmental systems have responded; and whether we are on track to meet the plan nitrate limits.	ECan Planning	ECan Science, ECan Strategy & Planning, WDC Policy & Strategy		0	C	C	0	0	0	
3.22	That Environment Canterbury works with the Waimakariri community and Ngãi Tūāhuriri Rūnanga, to respond accordingly to new information, emerging opportunities and technology, and review the Waimakariri section of the Land and Water Regional Plan at least once every 10 years.	ECan Strategy & Planning	ECan Regional Support, WDC 3	0	0	C	C	0	0	0	
3.25	The Environment Canterbury and Waimakariri District Council explore a funding stream and management structure to deliver the significant improvements in stream health and biodiversity, and mahinga kai diversity and abundance for the Waimakariri Water Zone over the next 5-10 years. The option of Targeted Rating Districts should be explored by Environment Canterbury. Industry and government funding partners should also be sought.		ECan Strategy & Planning, WDC Policy & Strategy	0	0	C	C	0	0	0	Continue discussion with ECan over targeted rating districts
4.12	That any changes to the water race network (e.g. race closure or piping) in the Waimakariri Water Zone be subject to wider consideration by Environment Canterbury and Waimakariri District Council, given the existing benefits of race losses in diluting nitrate concentrations, and supporting groundwater levels and stream flows.	ECan Planning, WDC 3 Waters		0	0	(C	0	0	0	Assessment of Environmental Effects (AEE) for closures. Annual report to U&R / WWZC about overview of changes to the Stockwater Race system potentially
4.19	In all zone committee proceedings and documentation, the local naming convention is to be adopted: a. The term 'Silverstream' will be used to define the section of watercourse from the springheads to the three streams confluence. b. The term 'Kaiapoi River' will be used to define the section of watercourse from the three streams confluence to the Waimakariri River confluence.	ECan Planning	ECan Comms, WDC 3 Waters, ECan Science, ECan Zone Delivery	0	0	C	o c	0	0	0	
4.20	Environment Canterbury investigate further actions necessary to reverse the degraded features of the water quality and habitat of the 'Kaiapoi River' that detract from its vision of being 'New Zealand's best Rivertown'.	ECan Science	ECan Strategy & Planning, WDC 3 Waters	0	0	C	C	0	0	0	
1.3	That Environment Canterbury engages with small block owners to increase awareness and uptake of good management practices.	ECan Zone Delivery	ECan Regional Support	0	0	C	C	0	0	0	
1.9	That Environment Canterbury work with Ngãi Tūāhuriri and Department of Conservation to identify the types of activities and controls needed to protect the aquatic habitat of the threatened Canterbury mudfish and amend plan provisions to ensure protection at key sites in waterbodies including the following: • Tutaepatu Lagoon • Taranaki Creek • Eyre River tributaries • Coopers Creek tributaries • Mounseys Stream tributaries	ECan Planning	ECan Science Ngāi Tūāhuriri Rūnanga DOC	0	0	C	C	0	0	0	

Reco	Text	Project Lead	Project	Current	Option A Low	Ontion A Low	Ontion B	Option B	Option C High	Option C High	Notes
mmen		Troject zedu		funding per annum (K) 19/20, 20/21	WDC funding			Medium WDC funding (K) OPEX		WDC funding (K) OPEX	NOCCS
1.10	That Environment Canterbury work with Ngāi Tūāhuriri and Department of Conservation to identify the locations and types of activities and controls needed to protect the habitat of important indigenous species including but not limited to: • Freshwater crayfish/kōura • Freshwater mussels/kākahi • Lamprey/kanakana	ECan Planning	ECan Science Ngāi Tūāhuriri Rūnanga DOC	(0	C	C	C	O	0	
1.11	That Environment Canterbury support catchment management plans that implement on the ground projects targeted at rehabilitating the wetland, freshwater or estuarine habitats of threatened species or species of high value to Ngãi Tūāhuriri.	ECan Science	ECan Zone Delivery	(0	C	0	0	O	0	
1.12	That Environment Canterbury support further assessment of the issue of lost ecological and cultural values resulting from waterway realignments for consented and permitted activities.	ECan Science	Ngāi Tūāhuriri Rūnanga	(0	C	C	0	0	0	
1.13	That Environment Canterbury promotes actions that improve bank stabilisation and reduce sediment inputs to spring-fed plains waterways.	ECan Zone Delivery	ECan Science	(0	C	0	0	0	0	
1.15	That Environment Canterbury strengthen the LWRP rules on stock exclusion to exclude intensively farmed stock from: • All springheads that permanently or intermittently contain water; and • All open drains and other artificial watercourses, (including but not restricted to irrigation canals and water races) with surface water in them that discharge into a stream, river or lake.	ECan Planning	ECan Science	C	0	C) c) c	С	0	
1.16	That Environment Canterbury strengthen the LWRP rules on stock exclusion to exclude non-intensively farmed cattle and deer on the plains from: • All waterways and their tributaries, • All springheads that permanently or intermittently contain water; and • All open drains and other artificial watercourses, (including but not restricted to irrigation canals and water races) with surface water in them that discharge into a stream, river or lake.	ECan Planning	ECan Science	C	0	C	0	0	C	0	
1.17	That Environment Canterbury educate horse owners to exclude grazing horses from access to waterways.	ECan Zone Delivery	ECan Comms	(0	C	0	0	0	0	
	That Environment Canterbury investigate funding for projects to address key environmental issues in consultation with LINZ and Department of Conservation for the Ashley River/Rakahuri, particularly the removal of woody weeds above the confluence with the Okuku River.	ECan Zone Delivery	ECan Strategy & Planning	(0	C	0	0	O	0	
2.13	That Environment Canterbury undertake a programme of investigations and monitoring in the Ashley Estuary (Te Aka Aka) to provide information for the deliberations of the working group identified in Rec 2.12 and the group implementing Rec 2.7. The programme should include: • Determination of eutrophication susceptibility. This requires determining the flushing potential, the dilution potential, nutrient inputs and nutrient load susceptibility • Development and implementation of a programme to assess current trophic state and to monitor trophic state over time (important considerations are location of sites, parameters to be measured, frequency of sampling, seasonality of sampling) • Annual mid-summer broad-scale monitoring to assess the occurrence of macro-algae. • Monthly water quality monitoring for ecosystem health at the site near the estuary mouth. • Five-yearly monitoring of sediment quality at two sites – present site adjacent to Saltwater Creek and downstream from SH1 and a site in proximity to where Taranaki Creek flows into the Ashley Estuary (Te Aka Aka). • Monitoring of cockles and pipis from sites in the estuary to assess contaminant levels in shellfish flesh. • Establish stations at various locations in the estuary and begin to monitor sedimentation. • Annual monitoring of the sediments and macrobiota at one site within the estuary. • Baseline surveys of the fish and bird populations of this estuary.	ECan Science	ECan Science			C			0	0	
3.1	That Environment Canterbury reflect in the Waimakariri section of the Land and Water Regional Plan a staged approach to reduce nitrate losses over time in the Waimakariri Water Zone.	ECan Planning	ECan Science	(0	C	0	0	0	0	
3.2	Two water quality management areas are proposed; a Nitrate Priority Management Area and a Runoff Priority Management Area.	ECan Planning	ECan Science	(0	C	0	0	0	0	

Reco	Text	Project Lead	Project	Current	Option A Low	Ontion A Low	Ontion R	Option B	Option C High	Option C High	Notes
mmen	TEAL	rioject Leau		funding per	WDC funding			-		WDC funding	Notes
dation				annum (K)	(K) CAPEX	(K) OPEX	funding (K)	funding (K)	(K) CAPEX	(K) OPEX	
2.2	The zone committee recommend that farmers in the Runoff Priority Management Area are not required	ECon Blooming	1	19/20, 20/21	0		CAPEX	OPEX	0	0	
3.3	to achieve beyond Baseline GMP reductions. The expectation is that landowners in this area will focus on	ECan Planning	ECan Science, ECan Zone		0		' '	٥	٥	U	
	minimizing overland flow of contaminants such as sediment, phosphate, nitrate and pathogens.		Delivery,								
			ECan								
			Regional								
			Support								
3.4	The Waimakariri Water Zone Committee proposes Baseline GMP as the starting point for nitrate	ECan Planning	ECan Science,	0	0	0) 0	0	0	0	
3.4	reductions from 1 July 2020 (at the onset of expiry of land use consents). Baseline GMP is the average	Lean Flaming	ECan Zone				΄ ΄		Ĭ	Ĭ	
	nitrogen loss rate, estimated by the Farm Portal, for the farming activity carried out during the baseline period of 2009-2013, if operated at good management practice.		Delivery,								
	period of 2000 2000) it operated at 5000 management produce.		ECan								
3.5	Dairy in the Nitrate Priority Management Area should achieve a 15% beyond Baseline GMP reduction by	ECan Planning	ECan Science,	0	0	О	0	0	0	0	
	2030.		ECan Zone								
3.6	All other consented farming activities in the Nutrient Priority Management Area should achieve a 5% beyond Baseline GMP reduction by 2030.	ECan Planning	ECan Science,	0	0	0	0	0	0	0	
			ECan Zone								
3.7	The zone committee encourage industry and local authorities to provide incentives to achieve nutrient reductions greater than the recommended reductions in this ZIP Addendum.	_	ECan Science,	0	0	0	0	0	0	0	
		Support	ECan Zone Delivery								
3.8	Unless amended in a Waimakariri plan review process, the nitrate loss reductions in recs 3.5 and 3.6	ECan Planning	ECan Science	0	0	0	0	0	0	0	
	above should be repeated until: a. the nitrate reductions necessary to achieve the plan limits have been met, or										
	b. the science information available shows the plan limit is likely to be met in the future without the need										
	for further reductions.										
3.9	The zone committee recommends the plan change includes policy criteria that allow for and guides	ECan Planning	ECan Science	0	0	О	0	0	0	0	
	consideration of extensions to the 2030 target date for beyond baseline GMP reductions in exceptional circumstances.										
3.10	Investigate and implement a nitrate "floor" to exclude low nitrogen emitters from having to make further	ECan Planning	ECan Science	0	0	0	0	0	0	0	
	reductions in nitrogen loss beyond Baseline GMP within the Nitrate Priority Management Area.										
3 11	The Waimakariri Water Zone Permitted Activity winter grazing allowances should be reduced across the	ECan Planning	ECan Science	0	0	0		0	0	0	
3.11	whole Waimakariri Water Zone to minimise the potential for further nitrate increases in streams and	LCall Flatilling	LCan Science			ا	ĺ			Ĭ	
	groundwater. The following winter grazing PA property size thresholds should be implemented: Property sizes:										
	• less than 5 ha do not require consent for winter grazing;										
	Between 5 ha and 100ha can use up to 5ha of property for winter grazing without triggering a consent requirement; and										
	Between 101ha and 1,000 ha can use up to 5% of property size for winter grazing without triggering a										
	consent requirement; and										
	 greater than 1,000 ha can use up to 50 ha for winter grazing without triggering a consent requirement. 										
3.12	That Environment Canterbury runs an education campaign (including workshops) promoting good	ECan Regional	ECan Zone	0	0	0	0	0	0	0	
2.12	management practice, and proactively checks progress. The zone committee recommends that the Waimakariri sub-region plan boundary in Section 8 of Land and	Support	Deliverv		0) 0	0	0	0	
3.13	Water Regional Plan is amended to incorporate land bordering the Waimakariri River.	ECan Planning			1		ή "	١			
2 1/	That Plan Change 5 nutrient allocation zone rules for "red zones" are used as a foundation for managing	ECan Planning			0) 0	0	0	0	
3.14	nutrients across the whole Waimakariri Water Zone, combined with amendments to the permitted activity									0	
	winter grazing consent thresholds, and additional nitrate loss reductions in the Nitrate Priority Management Area described in other recommendations.										
3.15	That Environment Canterbury reflect in the Waimakariri section of the Land and Water Regional Plan the nitrate limits in the drinking water supply wells of Waimakariri Water Zone as set out in the table below 1.	ECan Planning		0	0	0	0	0	0	0	
	Private water supply well areas are shown in Map X5, appended.										
3.18	That Environment Canterbury reflect in the Waimakariri section of the Land and Water Regional Plan the nitrate limits in the streams and rivers of the Waimakariri Water Zone as set out in the tables below.	ECan Planning		0	0	0	0	0	0	0	

Reco	Text	Project Lead	Project	Current	Option A Low	"	-	Option B	Option C High		Notes
mmen			Contributor	funding per	WDC funding	WDC funding	Medium WDC	Medium WDC	WDC funding	WDC funding	
dation				annum (K)	(K) CAPEX	(K) OPEX	funding (K)	funding (K)	(K) CAPEX	(K) OPEX	
				19/20, 20/21			CAPEX	OPEX			
3.19		ECan Science		C	0	0	0	0	0	0	
	continue to be made in the understanding of the Waimakariri Water Zone groundwater system and its										
	connection with the Christchurch aquifer and spring-fed streams. The outcome of this work should be an updated assessment of the direction of travel and likely future nitrate concentrations provided to the										
	committee, partners and stakeholders in 2025. The key areas for improvement of understanding include:										
	a. Lag times between land use change and nitrate concentration changes in wells and spring-fed streams										
	b. Past and present rates of nitrate discharge to ground within the zone and trends in nitrate										
	concentrations										
	c. Transport pathways between land and key receptors such as spring-fed streams, community water supply wells and the Christchurch aquifer system, so that recharge zones can be defined with more										
	certainty										
	d. Nitrate attenuation										
	e. The effectiveness of actions (regulatory and non-regulatory) being taken.										
	f. Nitrate discharges to Ashley Estuary (Te Aka Aka)										
	g. Nitrate concentrations in private water supply wells										
2.21	That farming land use consents are granted to have common expiry dates to align with plan review stages.	FC C	50) 0		0	0	
3.21	That fairning faild use consents are granted to have common expiry dates to anghi with plan review stages.	ECan Consents	ECan		ή '		'l "		٥	١	
3.23	That Environment Canterbury continues to work with sector and research groups to encourage the further	FCan Science	Planning ECan		0	0) 0	0	0	0	
0.20	development and implementation of tools and techniques to reduce nitrate leaching.	20000	Regional				1				
			Support,								
			ECan Zone								
			Delivery								
3.24	That the Zone Committee support the investigation and assessment of on-the-ground actions to address	ECan Science,	ECan	() 0	0) 0	0	0	0	
3.24	nitrate issues (for example, Managed Aquifer Recharge, targeted stream augmentation, woodchip	ECan Strategy	Regional		ĺ		ĺ		Ĭ	Ĭ	
	bioreactors, wetland creation, and water storage), including:	and Dlanning	Support,								
	a. That Environment Canterbury undertake a zone-wide study to assess the feasibility, costs and measures	and manning	ECan Zone								
	required to implement appropriate actions (to be completed by the end of 2019) to inform the development of sub-catchment management plans.		Delivery								
	b. That the Waimakariri section of the Land and Water Regional Plan should be assessed to ensure that		Delivery								
	these activities are enabled where appropriate in the Waimakariri Zone.										
4.1	In over-allocated Surface Water Allocation Zones, that Environment Canterbury uses the methods set out	ECan Planning	ECan	C	0	0	0	0	0	0	
	in Rec 4.2 to reduce and where possible eliminate the over-allocation by 2032.		Planning								

Reco	Text	Project Lead	Project	Current	Option A Low	Option A Low	Option B	Option B	Option C High	Option C High	Notes
mmer		,	Contributor	funding per	WDC funding					WDC funding	
dation				annum (K)	(K) CAPEX	(K) OPEX	funding (K)	funding (K)	(K) CAPEX	(K) OPEX	
			I	19/20, 20/21			CAPEX	OPEX			
4.2	That Environment Canterbury use the following suite of options to recover over-allocation, prioritising those options which reduce paper allocation.	_	ECan	· ·	0	0	0	0	0	0	
	a. Prohibit any abstraction, other than for community drinking water supplies, where a limit has, or would	ECan Consents Planning	Planning, ECan								
	be, exceeded. b. Enable the substitution of existing surface water or stream depleting groundwater takes with deep	i idiiiiig	Consents								
	groundwater in over-allocated catchments provided there is no increase in the rate of take or annual		Planning								
	volume.										
	c. In the case of site to site water transfers i. Prohibit the transfer of any unexercised water permit, and/or of any unused water from the previous 5										
	years, based on actual usage records.										
	ii. For transfers of water within over-allocated catchments 50% of the transferred water (rate of take and/or annual volume) is to be surrendered unless the water is to be used for a community water supply.										
	iii. Retain Land and Water Regional Plan Section 8 policy that there are no transfers of river water takes										
	within the Ashley River/Rakahuri catchment above State Highway 1 d. That Environment Canterbury identifies water										
	permits that have not been exercised in the past five years and works with consent holders to seek their										
	surrender.										
	e. Lapsed consents i. For any water permit that lapses, is surrendered, or expires and is not renewed, the rate of take and/or										
	annual volume is not reallocated										
	ii. Lapse dates on unexercised consents are prevented from being extended except where exceptional extenuating circumstances are demonstrated.										
	f. Past water use										
	i. The Plan Change includes policy direction that records of past water use are assessed and considered when determining an efficient allocation for replacement consents in accordance with Schedule 10										
	ii. That Environment Canterbury reports annually on how metered usage compares to consented										
	allocation within the Waimakariri Water Zone.										
	g. Region-wide policy in the Land and Water Regional Plan for reducing over allocation by adjusting the allocation on replacement consents applies throughout the whole of the Waimakariri Water Zone, not										
	only within the Ashley River/Rakahuri catchment.										
4.3	That Environment Canterbury applies LWRP requirements for partial restrictions and requires that pro- rata restrictions be applied to all surface water takes, and stream-depleting groundwater takes which	ECan Planning	ECan	0	0	0	0	0	0	0	
	require a minimum flow in the zone.		Consents Planning								
4.4	That Environment Canterbury adopt the methodology for classifying stream-depleting groundwater takes laid out in Schedule 9 of the Land and Water Regional Plan.	ECan Planning	ECan Science	C	0	0	0	0	0	0	
4 5	That Environment Canterbury remove B allocation blocks from all spring-fed rivers unless further	ECan Planning	ECan		0	0	0	0	0	0	
7.5	investigations indicate that sustainable B blocks can be supported.	Lean rianning	Consents			ľ	Ĭ	Ĭ		ľ	
			Planning								
4.6	That Environment Canterbury extend existing SWAZ and/ or introduce new SWAZ to ensure that there are no gaps in the environmental flow regime framework which manages the Waimakariri Water Zone.	ECan Planning	ECan		0	0	0	0	0	0	
			Consents Planning								
			I lallilling								
4.7	In currently under-allocated catchments, that Environment Canterbury cap the allocation at the currently	ECan Planning	ECan	C	0	0	0	0	0	0	
	allocated amount, so no further surface water can be allocated.		Consents								
4.8	That Environment Canterbury support water users to set up water user groups such that the available water resource can be best managed, particularly in times of restriction	ECan Zone	ECan Strategy		0	0	0	0	0	0	
Λ	Environment Canterhury investigate how takes for community synnlies (and hack-up synnlies) are	Delivery	& Planning,		0	0	0	0	0	0	
4.5	incorporated into the allocation block system, such that they do not unnecessarily impact on the reliability	ECan Strategy & Planning	Ecan Science								
1 10	of takes by other users. The zone committee will prioritise over-allocated catchments in its catchment management plan		ECan Strata							0	
4.10	programme and actively promote the use of non-statutory mitigations to offset the effects of over-		ECan Strategy & Planning,			0		0	0	0	
	allocation.	Committee	FCan Zone								
4.11	That Environment Canterbury ensure: a. The Plan Change to section 8 of the Land and Water Regional Plan (Waimakariri) includes policies and		ECan Science	0	0	0	0	0	0	0	
	rules that adequately provide for augmentation of water bodies, including the Cust River, for										
	environmental benefit.										
	b. Ngāi Tūāhuriri Rūnanga are actively involved in any decision-making with other relevant stakeholders regarding water used in the zone for augmentation purposes.										
		50	50	_	-	_	-	_		_	
4.13	The zone committee recommends that Environment Canterbury allocates resources to improve monitoring of permitted surface water irrigation takes for compliance with limits in the Land and Water	ECan Compliance	ECan Consents			0	0	0	0	0	
	Regional Plan.		Planning								

Reco mmen dation	Text	Project Lead	Project Contributor	Current funding per annum (K) 19/20, 20/21	Option A Low WDC funding (K) CAPEX	Option A Low WDC funding (K) OPEX	Option B Medium WDC funding (K) CAPEX	Option B Medium WDC funding (K) OPEX	WDC funding	Option C High WDC funding (K) OPEX	Notes
	and are to adopt the control of the	ECan Consents Planning	ECan Planning, ECan Science	C	0	C	o c	0	0	0	
	For the Ashley River/Rakahuri B and C blocks, that Environment Canterbury designate an allocation for mahinga kai enhancement purposes equal to 50% of the water available within the existing block system at plan notification. This allocation would be included in, and subject to, the prevailing management rules for that block (minimum flow and restriction regime).	ECan Planning	ECan Consents Planning, ECan Science	C) (C	0	0	0	0	
4.16	That Environment Canterbury adopt the minimum flow and allocation recommendations in Table 4.5	ECan Planning	ECan Consents Planning, ECan Science				0	0	0	0	
4.17	For the Cam River/Ruataniwha A block, that Environment Canterbury designate an allocation for mahinga kai enhancement purposes equal to 50% of the water available within the existing block system at plan notification. This allocation would be included in, and subject to, the prevailing management rules for that block (minimum flow and restriction regime).	ECan Planning	ECan Consents Planning, ECan Science	C		C	0	0	0	0	
		ECan Planning	ECan Consents Planning, ECan Science	C	0	C	o c	0	0	0	
	That Environment Canterbury, along with Ngāi Tūāhuriri, Waimakariri Irrigation Limited and other stakeholders, investigate the potential to create an enduring flow regime for the Cust River. This is to be given effect in the upcoming Waimakariri sub-regional plan change, as part of the minimum flow and allocation recommendations, detailed in Table 4.6, under Rec 4.18. The regime would provide for improved stream health and habitat availability, noting that: a. 230 L/s of allocation from the Waimakariri River is already reserved for such purposes in the Waimakariri River Regional Plan and b. Such a flow regime may result in an increased minimum flow.		ECan Science, ECan Strategy & Planning, Ngāi Tūāhuriri Rūnanga, Waimakariri Irrigation Limited				0	0	0	0	
4.22	That Environment Canterbury investigate a sustainable B allocation limit for the Cust River prior to plan notification.	ECan Planning	ECan Science	() ((0	0	0	0	
	That the Waimakariri Water Zone Committee proposes within the Kowai Groundwater Allocation Zone to: a. cap the current allocation volume, b. allow an extra 10% (based on current allocation volume) for additional groundwater takes that are not stream-depleting and c. provide an allocation for the substitution of existing surface water and stream depleting groundwater takes for non-stream depleting groundwater, provided i. the existing take is surrendered and ii. the new groundwater take is abstracted from the same property as the surrendered surface water or stream depleting groundwater take, and there is no increase in the proposed rate of take or annual volume.	ECan Planning	ECan Science	C		C	0	0	0	0	
5.2	That the Waimakariri Water Zone Committee proposes within the Ashley Groundwater Allocation Zone to: a. cap the current allocation volume, b. allow an extra 10% (based on current allocation volume) for additional groundwater takes that are not stream-depleting and c. provide an allocation for the substitution of existing surface water or stream depleting groundwater takes for non-stream depleting groundwater, provided i. the existing take is surrendered and ii. the new groundwater take is abstracted from the same property as the surrendered surface water or stream depleting groundwater take, and there is no increase in the proposed rate of take or annual volume.	ECan Planning	ECan Science	C		C	o c	0	0	0	

Reco mmen dation		Project Lead		Current funding per annum (K) 19/20, 20/21	Option A Low WDC funding (K) CAPEX	Option A Low WDC funding (K) OPEX		Option B Medium WDC funding (K) OPEX		Option C High WDC funding (K) OPEX	Notes
	That the Waimakariri Water Zone Committee proposes within the Loburn Groundwater Allocation Zone to: a. cap the current allocation volume, b. allow an extra 10% (based on current allocation volume) for additional groundwater takes that are not stream-depleting and c. provide an allocation for the substitution of existing surface water or stream depleting groundwater takes for non-stream depleting groundwater takes, provided i. the existing take is surrendered and ii. the new groundwater take is abstracted from the same property as the surrendered surface water or stream depleting groundwater take, and there is no increase in the proposed rate of take or annual volume.	ECan Planning	ECan Consents Planning	C	C	C		0	0	0	
	That the Waimakariri Water Zone Committee proposes within the Cust Groundwater Allocation Zone to: a. cap the current allocation volume, b. allow an extra 10% (based on current allocation volume) for additional groundwater takes that are not stream-depleting and c. provide an allocation for the substitution of existing surface water or stream depleting groundwater takes for non-stream depleting groundwater, provided i. the existing take is surrendered and ii. the new groundwater take is abstracted from the same property as the surrendered surface water or stream depleting groundwater take, and there is no increase in the proposed rate of take or annual volume.	ECan Planning	ECan Science	C	C	o c			0	0	
	That the Waimakariri Water Zone Committee proposes within the Eyre Groundwater Allocation Zone to: a. cap the current allocation volume, and b. provide an allocation for the substitution of existing surface water or stream depleting groundwater takes for non-stream depleting groundwater, provided i. the existing take is surrendered and ii. the new groundwater take is abstracted from the same property as the surrendered surface water or stream depleting groundwater take, and there is no increase in the proposed rate of take or annual volume.	ECan Planning	ECan Science	C	C	C		0	0	0	
	That the Waimakariri Water Zone Committee propose to create a Lees Valley Groundwater Allocation Zone. Within the proposed Lees Valley Groundwater Allocation Zone: cap the current allocation volume, allow an extra 10% (based on current allocation volume) for additional groundwater takes that are not stream-depleting.	ECan Planning	ECan Science	C	C	C	(0	0	0	
5.7	That Environment Canterbury extend the Groundwater Allocation Zone boundaries further inland, to the edge of surface water catchment boundary.	ECan Planning	ECan Science	C	C	C) (0	0	0	
	That Environment Canterbury allocates resources to improve monitoring of permitted groundwater irrigation takes for compliance with limits in the LWRP. The proposed GAZ boundaries are shown on Map X4.	ECan Science	ECan Science				(0		
				305							TOTAL (\$K per year)
					450	1,550	500	2,100	2,100	3,500	Accumulative TOTAL (10 years)
					Option A	\$ 8.84	Option B	\$ 11.49 0.44%	Option C	<u> </u>	Rating impact per average rateable property- assuming CAPEX funded from rates, not loan % of rates increase (based on 2021 Financial Year)