Canterbury Water Management Strategy
Regional Committee
Membership

Chair
Hugh Logan

Community Representatives
Hugh Canard
Jane Demeter
Cole Groves
Ross Millichamp
Vicky Southworth

Zone Representatives
Ted Howard (Kaikoura)
John Preece (Hurunui-Waihora)
Carolyne Latham (Waimakariri)
Benita Wakefield (Selwyn-Waihora)
Les Wanhalla (Christchurch-West Melton)
Rima Herber (Banks Peninsula)
Phil Driver (Orari-Temuka-Opihi-Pareora)
Sandra Hampstead-Tipene (Upper/Lower Waitaki)
Barney Hoskins (Lower Waitaki)
Stuart Wilson (Ashburton)

Christchurch City Council
Sara Templeton

District Council Representatives
Mayor Winton Dalley (North Canterbury)
Councillor Nicole Reid (Mid Canterbury)
Peter McIlraith (South Canterbury)

Te Rūnanga o Ngāi Tahu
Rebecca Clements

Ngā Rūnanga
David Higgins

Environment Canterbury
Councillor Claire McKay
Councillor Peter Scott

Central Government Observer
Loretta Dobbs and Gwyn Morgan (MPI)
Nick Vincent (MFE)

Canterbury District Health Board Observer
Dr Alistair Humphrey

Members please note that lunch will be available at 12.30pm
# Canterbury Water Management Strategy
## Regional Committee

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## Closing Karakia
Minutes of the Canterbury Water Management Strategy Regional Committee held in the Council Chamber, Canterbury Regional Council, 200 Tuam Street, Christchurch on Tuesday 13 August 2019 at 1.04 pm

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1. Karakia
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3. Conflicts of Interest
4. Minutes from the meeting held 11 June 2019
5. Matters Arising

Items for Discussion:
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7. CWMS Timeline - when and why did we start this journey?
8. What does the Draft Targets report tell us?
9. What did the Chairs & Deputy Chairs tell us?
10. Zone Committee Representatives
11. Big Issue – Collective Leadership
12. Updates from Central Government Agencies
13. Regional Infrastructure Work Programme
14. Facilitator’s Update
15. Any Other Business
16. Next meeting – Tuesday, 10 September 2019
17. Closing Karakia

Present

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<td>Community Representatives:</td>
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<td>Les Wanhalla  Christchurch West-Melton</td>
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<td>John Preece  Hurunui/Waiau</td>
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<td>Barney Hoskins  Lower Waitaki</td>
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</table>
District Council Representatives:

Peter McIlraith: South Canterbury
Cr Nicole Reid: Mid Canterbury

Christchurch City Council:
Cr Sara Templeton

Environment Canterbury:
Cr Claire McKay

Canterbury District Health Board Observer:
Dr Alistair Humphrey

Central Government Observers:
Loretta Dobbs (MPI)
John Benn (DOC)

Absent

David Higgins
Cole Groves

In attendance

Environment Canterbury: Lesley Woudberg (Team Leader Zone Facilitator), Dann Olykan (Team Leader CWMS), Mel Renganathan (Principal Strategy Advisor), Anita Fulton (Senior Strategy Advisor), Dennis Jamieson (Project Leader, CWMS Infrastructure), Brett Painter (Project Leader, CWMS), Stephen Bragg, Brad Waldon-Gibbons (CWMS Tangata Whenua Facilitators), Irai Weepu (Tuia Team) and Elaine Greaves (Committee Advisor).

Karakia

Stephen Bragg opened the meeting with a karakia and introduced his colleague Brad Waldon-Gibbons. Brad have been appointed as Environment Canterbury Tangata Whenua Facilitator. Irai Weepu was also in attendance, having been appointed to the Tuia Team responsible for facilitating the delivery of the Kaitiakitanga Targets.

Welcome

Chair, Hugh Logan, Ross welcomed everyone to the meeting and thanked Ross Millichamp for chairing the previous meeting on his behalf.

the Chair welcomed Barney Hoskins as the new Lower Waitaki zone committee representative.

Stuart Wilson was also welcomed to the meeting as the new Ashburton Zone Representative replacing Ben Curry.

Benita and Les acknowledged the passing of Pere Tainui and George Tikao member of the Banks Peninsula and Selwyn Waihora zone committees.

The Chair also acknowledged the recent passing of Murray Rodger, a prominent fresh water advocate.
1. Apologies

Apologies for absence were received and accepted from Vicky Southworth, Jane Demeter, Cr Peter Scott, Rebecca Clements, Mayor Winton Dally and Nick Vincent; together with an apology for lateness from Cr Sara Templeton. Cr Claire McKay gave an apology for early departure from the meeting.

2. Conflicts of interest

The Register of Interests was circulated to members for updating and the Chair asked new and current members to complete the form as appropriate.

3. Minutes of the previous meeting 11 June 2019

Refer pages 1 to 6 of the agenda

The Canterbury Water Management Strategy Regional Committee:

Confirmed the minutes of the Regional Water Management Committee meeting held on 11 June 2019, as a true and correct record, subject to the following amendments:

Item 5, page 4 to include the following wording at the end of the second paragraph:

“It was agreed the Chair would draft a letter to Environment Canterbury on the regenerative plantings being undertaken by the Helps being acknowledged as part of the Government’s response to tackling Climate Change.”

Item 6, page 4 to include the following at the end of the final paragraph:

‘Details of today’s discussion would be provided to members of the Committee.’

Ross Millichamp/Ted Howard CARRIED

4. Matters arising

Clarification was sought around the process of the Mayoral Forum signing off on the Fit for Future Programme. The minutes noted each council would go back to their respective organisation and provide their own media release. Facilitator advised this information would be provided under item 7 of the agenda.

Items for Discussion

In the absence of Cr Sara Templeton, item 6 was taken at this time.

6. CWMS Timeline

Refer to pages 9 to 12 of the agenda.

Lesley Woudberg, Regional Committee Facilitator, presented the CWMS timeline for information noting it started in the drought in 1998. The Strategy was intergenerational, and implementation is only just beginning.
A key focus for the future was to continue working with communities. It was noted that although progress was being made, there was also a lot more to be done.

The Canterbury Water Management Strategy Regional Committee:

1. Received the CWMS timeline and noted the link between climate change (drought) and the CWMS.

Cr Sarah Templeton arrived at 1.35pm and was absent for items 1-4 inclusive and part of item 6.

5. **Climate Change Emergency (Environment Canterbury) and Climate Change & Ecological Emergency (CCC): What are they?**

   Refer to page 7 of the agenda

   Cr Claire McKay referred to the recent Declaration of Climate Change Emergency made by Environment Canterbury at its 16 May 2019 meeting. Environment Canterbury had long accepted the importance and urgency of addressing climate change for future generations and was factoring it into everything it did from helping communities to adapt to ensuring the organisation reduced its emissions wherever it could.

   Cr Templeton advised CCC’s purpose of declaring a climate change and ecological emergency was to ensure emissions were reduced. The city aimed to be carbon neutral by 2045. This will be a big programme of work and considered a core responsibility by CCC.

   The Facilitator asked committee members to consider climate change through the lens of water and robust discussion took place around the following:

   CCC was currently working on an integrated three waters strategy. There was acknowledgement of population increase over time and options to decrease demand were being explored. Issues around security, nitrates, salt water intrusion and piping water from the Alps in the future if needed, were being considered.

   CCC’s focus was also around addressing ecological impacts including turning the red zone into a carbon sink (once approved by the Minister) and greening the Port Hills and residential red zones with native plantings.

   A request was made for more information on the latest productivity report regarding the transition to a lower emission economy.

   It was agreed the above discussion could also be considered as discussion around agenda item 10 “Big Issues” – Collective Leadership.

   The meeting adjourned between 3.00-3.24pm.

7. **CWMS Targets Progress Report 2019**

   Refer to page 13 of the agenda

   The Committee considered an update highlighting several key points, together with background information and communication timeframes.
For ease of discussion, the Chair suggested the Committee focus on the targets where progress was slow. The Targets Report was about progress not about how well the targets were written.

Feedback on the report was noted by staff who advised the next step would be to finalise the Report with both the Regional Committee and Mayoral Forum comments included.

Feedback for future reporting included a request for a report on what ECan will do in response to the Targets Report.

The Canterbury Water Management Strategy Regional Committee:

1. Received the CWMS Targets Progress Report 2019.

2. Noted that the CWMS Targets Progress Report 2019 was presented to the Canterbury Mayoral Forum on 9 August 2019.

8. What the Chairs & Deputy Chairs told us: Watershed 2020 – Key Themes

Refer to page 17 of the agenda.

Deferred to next meeting.

9. Update from Zone Committees

Refer to page 19 of the agenda.

Updates were provided as follows:

Updates from each zone committee representative was received as well as a verbal report from the Rūnanga representatives meeting. Zone committee member also provided examples where they saw collective leadership demonstrated in their zones to achieve the CWMS. These were recorded on a whiteboard and will be reported in the Facilitator's Update at the next meeting.

The Canterbury Water Management Strategy Regional Committee:

1. Received the Zone Committee updates and noted the examples of “collective leadership”.

10. ‘Big Issue’ – Collective Leadership

Refer to page 21 of the agenda.

This item was covered under discussion of item 9 (zone committee updates).

11. Update from Central Government Agencies

Refer to page 23 of the agenda

DOC - the Committee considered an update from John Benn regarding activities around water management, together with key messages relating to nation-wide river restoration projects and upcoming work. Staff would be attending an Ashburton Lakes hui during August.
MPI – Loretta Dobbs advised workshops were being held at ECan on 26 and 27 August 2019 to promote its Sustainable Food & Fibre Futures Fund.

MFE – the Chair spoke to the update provided, advising an announcement would be due within the next month regarding the release of the Essential Freshwater consultation document. Once the document was released there would be a national roadshow to consult with a wide range of people.

The Canterbury Waste Management Strategy Regional Committee:

1. Noted the central government agencies updates.

12. Regional Water Infrastructure Work Programme 2018-2019

Refer to page 27 of the agenda

Dennis Jamieson, Project Leader, CWMS Infrastructure, spoke to a report regarding the Regional Water Infrastructure Work Programme 2018-19. It was noted people often considered information relating to urban projects was lacking. However, a lot of work was being undertaken by territorial authorities on their three waters infrastructure (stormwater, waste water and drinking water).

It was suggested that a similar diagram be produced for some of the other targets.

The Canterbury Waste Management Strategy Regional Committee:


2. Recognised the role infrastructure plays in the delivery of all the Canterbury Water Management Strategy Target areas.

13. Facilitator’s Report

Refer pages 35 to 51 of the agenda.

An update was provided on dates for meetings and events, progress on issues raised in previous meetings and recent media items.

It was noted there were two months between now and the local government elections and nominations closed at midday on Friday, 16 August 2019. For those intending to run as candidates, protocols were tabled for information. The Facilitator advised potential candidates to be aware they would be ‘wearing two hats’ but needed to be mindful of which hat they were wearing in certain situations (candidate hat vs committee member hat).

It was hoped that some of the actions noted from today’s meeting would be presented at the next meeting, together with updates on the Te Waihora Weed Strike Force, fish screen compliance work. There would also be a report on the actions from the 2019 Targets report. It was noted a presentation and discussion on research undertaken by Deep South and the Land and Water science challenge would be useful. Hugh Canard also wished to table a report from the Recreation & Amenity Working Group.

The Canterbury Waste Management Strategy Regional Committee:
1. Noted the Facilitator’s report.

14. General Business/Any Other Business

The Chair acknowledged that Sandra Hampstead-Tipene was stepping down from her role on the Upper/Lower Waitaki Zone Committee. On behalf of the Committee, the Chair thanked her for her time and supportive direction to given to the Committee’s work; and the way she had represented zones, rūnanga, iwi and Canterbury as a whole.

Sandra acknowledged recognition of her contributions from the Chair and the Committee, stating she had enjoyed all her time on the Regional Committee. She was still working on securing a Te Rūnanga o Ngāi Tahu representative.

13. Next Meeting

Tuesday 10 September 2019. It was noted there would be no meeting held in October due to the local body elections.

The meeting closed at 4.50pm with a karakia by Irai Weepu.

Confirmed

Date _______________ Chairperson _______________________________
**Purpose**

See attached correspondence to Zone and Regional Committee Chairs from Forest & Bird.

**Attachments**

Letter dated 19 August 2019 from Forest & Bird regarding conflicts of interest on the Zone Committees.

**Recommendation**

That the Canterbury Water Management Strategy Regional Committee:

1. Receive correspondence from Forest & Bird dated 19 August 2019 regarding conflicts of interest on Zone Committees and note its content.
Dear Committee Chair,

**RE: CONFLICTS OF INTEREST ON THE ZONE COMMITTEES**

1. As you will no doubt be aware the Auditor General has revoked the declaration made in 2018 (the 2018 declaration) relating to section 6(1) of the Local authorities (Members Interests) Act 1968. This was done as a result of legal proceedings lodged by Forest & Bird in the High Court.

2. I thought I would take this opportunity to advise you of Forest & Bird’s views of this issue. Please can you ensure that this letter is circulated to members of the committee that you chair?

3. Section 6(1) gives effect to the principle that those who take a public position should not use that position to advance their own pecuniary interests. It does this by prohibiting those with a pecuniary interest from participating in discussions or voting on matters where they have a pecuniary interest.

6 Member of local authority or committee not to discuss or vote on question in which he has pecuniary interest

(1) A member of a local authority or of a committee thereof shall not vote on or take part in the discussion of any matter before the governing body of that local authority or before that committee in which he has, directly or indirectly, any pecuniary interest, other than an interest in common with the public.

4. A failure to comply with s 6(1) is an offence.

5. The 2018 declaration provided an exemption from s 6(1) to those on the zone committees and the regional committee (the committees). The effect was that members of the committees were able to discuss and vote on matters where they had a pecuniary interest. It allowed shareholders in companies to discuss and vote on matters that directly touched their financial interests, such as the review of consent conditions. Directors and Chief Executives were able to participate in discussions and vote on matters critical to the companies they directed or managed.
6. Forest & Bird considered allowing such blatant conflicts of interest were not appropriate. This concern was exacerbated by the makeup of many of the zone committees, which did not reflect the community but instead were dominated by farming and irrigation interests. We considered this was a significant contributor, along with the loss of elected representatives and appeals to the Environment Court, to the recent drastic decline in water quality and quantity in Canterbury.

7. The revocation of the 2018 declaration means that s 6(1) applies in full. Committee members must not participate in discussions or vote on matters where they have a pecuniary and they can be prosecuted if they do.

8. Forest & Bird will remain vigilant. We will be reviewing committee agendas and minutes to determine if there have been any breaches. If we come across any breaches, we will refer these to the Auditor General with a request that they be investigated and, if proved, prosecuted.

Yours sincerely,

Nicky Snoyink
Forest & Bird Regional Manager
Canterbury/West Coast
Purpose

1. To provide the Committee with an opportunity to give feedback on the overall progress reported in the CWMS Targets Progress Report 2019 (previously distributed with the 13 August 2019 agenda) and provide guidance on priorities for the 2021 Report.

Recommendation

That the Canterbury Water Management Strategy Regional Committee:

1. Receive the report and provide feedback on the overall progress, and guidance on priority areas.

CWMS Targets Progress Report

2. Every two years Environment Canterbury completes a report to assess progress against the Canterbury Water Management Strategy (CWMS) Targets. The 2019 report has now been completed. The communication plan has been implemented and the report is available on Environment Canterbury’s website.

3. The CWMS Fit for Future project developed interim goals for 2025 and 2030. The next stage of this project is to engage with territorial authorities and other partners to build on the work programmes to deliver on the goals.

Role of the Regional Committee

The Regional Water Management Committee plays a key role in engaging with Environment Canterbury to ensure the 2-yearly Progress Reports provide an accurate and balanced assessment.

Regional Water Management Committee feedback is sought on:

- Are there targets that require more progress?
- How would this be addressed?
- Where are the data gaps, where should that data be coming from?
- How do we better use the data we have?
- What role can the Regional and Zone Committees play in future reporting?
- What could future Targets reporting look like?
Purpose

A report from the Fish Screen Working Group will be tabled at the meeting and provide an update on:

- Environment Canterbury’s compliance programme
- Irrigation NZ lead project
- NIWA research.
Purpose:
This paper brings the CRWC up to date with the off-committee work tasked to recommend a work programme to ensure that CWMS Recreation and Amenity Targets are met. It makes recommendations that it considers need to be actioned if the Targets for Recreation and Amenity are to be met.

Recommendations

That the Canterbury Regional Water Management Regional Committee:

1. Endorse the Three Year Work Plan.

2. Request Environment Canterbury to allocate sufficient funding to implement the above plan, noting that it should not be the sole funder of this project, and support in cash or in-kind should be sought from stakeholders and District Councils as appropriate.

3. Request Environment Canterbury to allocate suitably qualified staff resources and leadership to ensure the Three Year Working Plan receives Regional Council support across affected areas of land and water management, and that the appropriate progress is maintained and reported on.

4. Appoint at least three members to a working group to drive this project and ensure that the needs of Zone Committees are taken into account.

Introduction

Environment Canterbury has made progress in identifying and documenting the recreation values associated with salmon spawning sites, mahinga kai, inanga spawning sites, kayaking, jet-boating and swimming sites. However, it was acknowledged that more work was required to ensure that the full scope of recreation and amenity values were understood and recognised under the CWMS process. In 2018, a Recreation and Amenity Steering Group was formed to initiate and oversee the following scope of work:

1. The generation of a literature review of high-level fresh water-based recreation and amenity values in the Canterbury region

2. Identify key data gaps in both knowledge and provision for recreation and amenity values.
3. Identify a data set of common and key attributes across fresh water high level recreation and amenity values (no more than 10 attributes) for the purpose of creating a digitised Recreation and Amenity Dashboard.

4. Identify and examine the potential uses for this data and in doing so improve the relevance and effectiveness of proposed data collection, assimilation and dissemination methods.

5. Produce a high-level work plan for the next three years that will inform ongoing Environment Canterbury/CWMS activities with respect to Recreation and Amenity values and work towards progressing the CWMS targets.

**Action to date**

- **February 2016** - North Canterbury Fish & Game (Scott Pearson) and Whitewater NZ (Doug Rankin) presented to the CRWC about the lack of focus and limited information/analysis for the CWMS Recreation & Amenity Target / Second Order Priority when compared to other targets.

- An Initial Scoping Document was presented in November 2016 to the Recreation & Amenity Sub-Committee, outlining the scope of the problem such as the breadth of freshwater activities and information gaps. Along with a proposed pathway to rectify the situation.

- **February 2017** - A further meeting was held with members of the sub-committee, ECAN Staff and a Councillor (Tom Lambie).

- Workshop held with all major R&A stakeholders and facilitated by ECAN, with assistance from F&G and Whitewater NZ.

- Anita Fulton appointed to manage the project from 2017.

- Application made to the Annual Plan 2017/18 funding round by Fish and Game. Successful in gaining funding for a scoping report (approx. $50K) Councillor Cullinane indicated that funding was also tagged for the proposed Three Year Work Programme approximately $75K per year - but this was later refuted by ECAN Director Stefanie Rixecker.

- R&A Steering Committee Formed with Chair Ben Curry, Hugh Canard, Phil Clunies-Ross and Scott Pearson.

- Late 2017 - Recreation and Amenity Scoping Report RFPs sent out by Steering Committee in conjunction with Environment Canterbury.

- Recreation and Amenity Scoping Report produced by Visitor Solutions and peer reviewed by Otago University 2018/19, giving credibility to the report’s main findings and recommendations.

- November 2018 through to February 2019 R&A Steering Committee has two workshops to develop a draft Three Year Work Programme - strong request for designated ECAN staffer made by the Steering Committee.

- RWC meets and discusses the proposed Three Year Work Plan with ECAN strategists, including a GIS expert staffer - limited feedback received and an ambiguous request for more detail made to the Steering Committee.
May 2019 - Mounting concerns raised by Scott Pearson, on behalf of the Steering Committee over the lack of action with respect to acknowledgement of the proposed work programme especially Year One implementations and lack of funding/resourcing direction.

June 2019 ECan Strategist Dann Olykan indicates there is little motivation within ECan to fund or implement the programme, due to the esoteric nature of the issues and recommendations in the scoping report.

Ben Curry, the chair, departed the CRWC.

July 2019 Messrs Canard, Pearson and Clunies-Ross meet informally and decide to submit this report.

Our Understanding
It was the steering group’s collective understanding that ECan would support the work program as agreed upon by the steering group and ECan strategists. A three year roadmap was developed by the group, outlining achievable steps to progressing the projects aims and vision. In year one (2019) it was agreed that a preliminary study to consolidate available recreation data for the Waimakariri zone would take place. The aims of this pilot project were to identify the available data and information related to planning processes, GIS data sources and stakeholder relationships in the zone. Ultimately, the findings from this work will assist with the identification of information and process gaps, which will guide the work program during years two and three (2020 - 2021). In this later period, the generation of quantitative recreation data would be prioritised and analysed, before being used to guide strategic direction for recreation and amenity in Canterbury.

Where are we now?
The commissioned report by specialist consultants has proved of limited value in galvanising some useful action. It has value as a reference point, and because we can have confidence that its analysis is robust. The CRWC, however, and for that matter, ECan staff, are not experts in this field. Phil Clunies-Ross has expertise in mobile software and GIS applications. Scott Pearson and Hugh Canard have extensive experience in tourism and recreation, but none of the working group is a professional planner, and in any event our role is advisory, not executive. We started from the basis that ECan and its various community advisory groups lacked sufficient and appropriate data on which to base (water) management decisions. The working group remains of the view that all stakeholders need more data, and the right data. The right data means management information that can be acted on with confidence that any resources allocations are used wisely.

The report and our Three Year Work Programme is aimed at providing that data. The focus is on water, and where relevant, land, management at the Zone level.

The working group asked ECan to get a peer review of the report, and this was done by a qualified academic. To sum up, the report is academically robust, and the working group therefore has confidence in the Three Year Work Plan outlined.
Outcome Sought

The objective is to resource the CRWC and the Zone Committees with management information that ensures that the intermediate and final Recreation Targets of the CWMS in 2020, 2025, 2030 and 2040 are met.
CWMS Freshwater Recreation and Amenity – 3-year work programme

**CWMS Recreation and Amenity Opportunities targets:**

**Water based recreational opportunities:**
- *Maintain existing diversity and quality of water-based recreation sites, opportunities and experiences.*
- *A positive trend in the availability and/or quality of recreational opportunities in each zone.*
- *Restored at least one major fresh water recreational opportunity in each zone that was not currently available in 2010.*

**Freshwater Angling:**
- *A positive trend in the availability and/or quality of freshwater angling opportunities. An increase in freshwater angler numbers (or catch rates) assessed over a 5-year average.*
- *Restored fishing opportunities in most lowland streams in each water management zone.*

**Recreational Water Flows:**
- *Identified where environmental flows are not met or require change to meet recreational outcomes and implemented actions to rectify.*
- *Made progress towards achieving environmental flows.*
- *Achieve all environmental flows.*

**Recreational Water Quality:**
- *At least 80% of river bathing sites graded as suitable for contact recreation.*
- *Of the lake and river sites used for contact recreation, an increase in the percentage that meet recreational water quality guidelines.*

**Purpose:**
To progress achieving the freshwater recreation and amenity opportunities targets (goals) in the Canterbury Water Management Strategy.

**Vision:**
To have easily accessible real-time data that encourages the sustainable use of Canterbury’s freshwater recreation and amenity opportunities. To have reliable, up-to-date information on the values of freshwater recreation and amenity opportunities in Canterbury to support regional policies, plans and rules that consider water-based recreational opportunities.

**Aim:**
Develop a GIS-based dashboard/app (including attributes, places, times that foster increased recreation and amenity-based participation and improve the quality of those experiences through enhanced information access).

Update the comprehensive RiVAS inventory of value-based attributes and develop baseline usage data (user values categorised under R&A activity segments), including both existing and new R&A activities.

Use the value-attribute cluster themes identified in the Recreation and Amenity Scoping Report¹ to better understand and assess the relative importance (usage, experiential, resource and managerial elements) of these themes across all R&A activity segments.

Develop an online guidance tool for planners and other resource managers/decision makers who are responsible for managing, safeguarding and enhancing freshwater recreation and amenity values (refer to R&A Scoping Report framework/ actions)

Develop user-friendly access to generated information by providing an online R&A stakeholder interface (beyond the public dashboard noted above). Critical data, value attribute information and associated reports to be made available to stakeholders to enable informed input on associated resource management consents applications, land and water regional/sub-regional plans, annual and long-term council plans, as well as other local, regional and national resource management mechanisms.

**WHAT**

**YEAR 1**

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<th>WHAT</th>
<th>TASK</th>
<th>LEAD</th>
<th>PARTNER</th>
<th>FUNDING</th>
<th>BY WHEN</th>
<th>STATUS / NEXT STEPS</th>
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<tbody>
<tr>
<td>1. Consolidate recreation data for Waimakariri zone</td>
<td>Set up pilot project focusing on the Waimakariri zone</td>
<td>ECan</td>
<td>TLAs, recreational organisations/groups, regional tourism organisations</td>
<td>LTP Annual Plan funding 35% effort of R&amp;A contracted Resource Officer2 &amp; ECan Project Lead</td>
<td>X</td>
<td>All other Zones in progress by X</td>
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<td>2. Identity complementary gaps in existing GIS data</td>
<td>Undertake an information needs review</td>
<td>ECan</td>
<td>TLAs, DOC, Ngāi Tahu, NGOs</td>
<td>In-kind ECan GIS support, plus Technical Lead Team (TLT)¹ 20% effort of R&amp;A contracted person</td>
<td>X</td>
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<td>3. Identify gaps and information needs in planning (online planning guide)</td>
<td>Run a workshop(s) or interviews with ECan planning, consenting and associated resource management staff, as well as higher level managers and decision makers – using case study examples to assist.</td>
<td>ECan</td>
<td>TLAs, DOC, Ngāi Tahu, NGOs, consult with industry and other R&amp;A stakeholder groups</td>
<td>Resource Officer 30%, with technical lead support</td>
<td>X</td>
<td>Project work for the value-attribute cluster investigations and assessments will overlap with Year 2 and 3 outputs. Assessments to apply relative weightings against R&amp;A activity segment requirements e.g. flow needs for kayaking.</td>
</tr>
<tr>
<td>4. Secure access to existing external data e.g. rework RiVAS, telecoms, SPARC report, etc.</td>
<td>Improve information sharing initiatives and protocols within and between organisations</td>
<td>ECan/ industry development partner</td>
<td>R&amp;A stakeholder groups</td>
<td>Resource Officer 10% &amp; ECan Project Lead</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>


² The Recreation and Amenity contracted person is anticipated to be funded from the LTP pool based on a $75,000 per annum budget. For example, this would provide for a designated Resource Officer and also fund a Technical Lead Team (4 meetings).

³ Refer to Footnote 2.
5. Assess the suitability, safety and liability of available information to develop GIS application layers
   - SWOT analysis in relation to available GIS information
   - Consider issues of maintaining up-to-date information such as resourcing and the level of detail supplied
   
   | ECAN | Endorsement from R&A stakeholder groups | ECAN GIS support staff & ECAN Project Lead | x |

6. Engage with stakeholders and connect into CWMS/Regional Committee
   - Develop communication(s) that keep stakeholders informed
   - Maintain contact with the Regional Committee – at a governance level
   
   | ECAN | Input from R&A stakeholder groups | ECAN Project Lead, Resource Officer 5% | x |

### YEAR 2

7. Establish guidance on using Canterbury Maps and private applications

8. Partner to develop GIS-based dashboard and/or user driven app

9. Consolidate recreation data for remaining Canterbury zones

10. Identify any complementary gaps in existing GIS data for other Canterbury zones

11. Interpret value attributes into a planning context/expert panel/methodology for measuring perceptions and experiences/methodology to gather data, e.g. Waterwiki app

### YEAR 3

12. Use data to guide strategic direction in recreation and amenity

13. Research why recreation and amenity has lagged behind other CWMS Targets
   - Undertake comparison with DOC management plans for visitors/recreation

   | x | | | |
Purpose

To identify examples in each zone where projects are delivering on the CWMS Recreation and Amenity Targets.

Recommendations

That the Canterbury Water Management Strategy Regional Committee:

1. Notes the effort by multiple players to deliver on the CWMS Recreation and Amenity Targets.

2. Identifies the following challenges to deliver on the CWMS Recreation and Amenity Targets.

Report

Waimakariri Zone Committee

General

Sub-catchment Management Plans
Progress on these is still pending, with Environment Canterbury to provide further details on a possible template at the next meeting on 9th September.

Plan Change 7
Submissions close on 13th September. The ZC was concerned about the Te Aka Aka Protection Zone which was written into the draft plan post Environment Canterbury and Waimakariri District Council approval of the ZIPA, without any consultation with the ZC or the community. A public meeting was held on 27th August 2019 in the area to specifically discuss the protection zone along with some of the wider PC7 proposed rules for Waimakariri. There were significant concerns from the attendees regarding the lack of consultation and short timeframe for preparing a submission.

Recreation & Amenity Project
“Clean and Green Silverstream” is a holistic project looking to clean up the catchment of Silverstream, green the banks, and develop a recreational loop of 27km. The proposed loop runs from Kaiapoi through the Waimakariri River Park and across farmland to just below the spring-fed source of Silverstream. It then runs along the stream as it winds its way to the east
through farms and predominantly lifestyle blocks in the Clarkville area, through the Silverstream subdivision, before feeding into Kaiapoi River to the northwest of the township. Large reserves are already in place on parts of the stream.

Environment Canterbury and the Zone Committee are engaging with the community, landowners, local businesses, science organisations, councils and runanga to find ways they can build on the good work that has already been done in the area and improve recreational opportunities by providing links. In addition to enhanced recreational opportunities, the local community want to see reductions in Silverstream’s high nitrate levels, protection of springheads, and restoration of ecological habitat and mahinga kai. The Silverstream is a popular fishing waterway and hosts the Silverstream salmon hatchery.

The Silverstream Advisory Group planted 350m along the south bank of Silverstream to create ecosystems for tuna (eels) and kanakana (lamprey) in 2018, and Environment Canterbury have another two sites on the proposed loop about to be prepared for riparian and small forest planting in September. Other concurrent projects include the Silverstream infiltration trial (to reduce nitrates), a denitrification wall trial, wetland creation to filter contaminants, ongoing monitoring of saltwater intrusion into Kaiapoi River and a funding project to assist landowners to protect the first 500m downstream of Silverstream’s spring heads.

Carolyne Latham

Waimakariri Zone Committee representative
Carolyn Latham

Upper Waitaki Zone Committee
For the UWZC Rec Amenity project I am proposing the Love Your Lakes education and awareness campaign.

Shooting from the hip and in no particular order the key facts are:

- Massive increase in the use of the Mackenzie and Waitaki Lakes by recreational users and tourists, domestic and international. Mackenzie canals now the most fished water bodies in NZ, eclipsing Lake Taupo in 2018.
- Significant community concerns about the impacts of this significant increase in usage, some very visible signs include increases in rubbish and human waste, many reports of irresponsible behaviour from a broad cross section of users.
- With a lot of help from Kate Doran and ECAN, the ZC has been using a variety of methods to raise awareness and educate the public about the need to be responsible, methods include:
  - bumper stickers for boats, existing structures and vehicles
  - summer season information posters incorporating useful messages for specific areas, these posters are distributed around campsite ablution blocks, local businesses and notice boards, these posters also share water quality information and profile the ZC, area and other projects.
  - Fridge magnets issued to the managers of “book a batch” holiday accommodation
  - Social media (not 100% sure how this worked)
  - Presence at key community events, for example the annual Canal Clean-up run by the Kaiapoi Mens’ Shed
  - Competition with prizes, support from local businesses.
• While it is difficult to measure the success and impact of this initiative, anecdotally our lakes have not got noticeably worse in the last 3 years despite tourism numbers nearly doubling in the last 3 years. The campaign has certainly achieved a good profile over the summer, the iconography readily visible throughout the Zone.

Mat Baylis
Upper Waitaki Zone Committee Representative
Agenda Item No: 10

Subject Matter: Facilitator’s Report

Report to: Canterbury Water Management Strategy Regional Committee

CWMS - Target/s Areas

All

Report by: Lesley Woudberg, Team Leader, Environment Canterbury

Date of Meeting: 10 September 2019

Purpose

Provide the CWMS Regional Committee with information on:

- Dates for meetings and events
- Progress – issues raised in previous meetings
- Central Govt Updates
- Media
  - 2 September 2019 – School planting beautifies Selwyn Waihora Streams
  - 22 August 2019 – A piece of native forest receives protection
- Table – Projects from the zones that demonstrate “collective leadership”
- Annual Report – Weed Strike Force Te Waihora June 2019

Recommendation:

That the Canterbury Water Management Regional Committee:

1. Notes the Facilitator’s report.

Report

1. Dates, Meeting and Events

<table>
<thead>
<tr>
<th>Dates 2019</th>
<th>Meetings and Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 September</td>
<td>Regional Cmtt meeting</td>
</tr>
<tr>
<td>8 October</td>
<td>Workshop – CRIs Impact of Climate Change on Canterbury Water (TBC)</td>
</tr>
<tr>
<td>12 October</td>
<td>Local Govt Elections</td>
</tr>
<tr>
<td>12 November*</td>
<td>Field visit – Weeds and wetlands – Te Waihora Weed Strike Force</td>
</tr>
<tr>
<td>10 December *</td>
<td>Regional Cmtt Meeting or Working Groups (TBC)</td>
</tr>
</tbody>
</table>

*The zone committee meetings are indicative only, as the Council will need to form after the elections and re-establish the committee.
## 2. Progress - Issues Raised During Previous Meetings

<table>
<thead>
<tr>
<th>ACTIONS FROM PREVIOUS MEETINGS</th>
<th>Who</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12 Dec 2017</strong></td>
<td><strong>Weed Strike Force</strong></td>
<td><strong>Interested in progress and alternatives to the use of chemical sprays</strong></td>
</tr>
<tr>
<td>Weed control Te Waihora</td>
<td></td>
<td>Presentation/discussion on progress – Lead agency DOC</td>
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<tr>
<td></td>
<td></td>
<td>Field trip scheduled 12 November</td>
</tr>
<tr>
<td><strong>11 Dec 2018</strong></td>
<td><strong>Water Usage Compliance Monitoring</strong></td>
<td><strong>Request report back to cmtt on progress second half of 2019, Info cmtt interested included grades for regionally significant takes, % of telemetered takes, trend info</strong></td>
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<tr>
<td></td>
<td></td>
<td>Update Scheduled TBC</td>
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<tr>
<td><strong>11 June</strong></td>
<td><strong>Biodiversity, freshwater goals and the Climate Change Bill</strong></td>
<td><strong>Ecan to consider this issue in its submission on the CC Bill</strong></td>
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<tr>
<td></td>
<td></td>
<td>Briefing on ECan and CCC climate change and ecological emergencies</td>
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<td></td>
<td>ECan and CCC</td>
<td>Done</td>
</tr>
<tr>
<td></td>
<td><strong>Provide advice on principles to incentives landowners</strong></td>
<td>Regional cmtt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scheduled TBC</td>
</tr>
<tr>
<td><strong>13 August</strong></td>
<td><strong>2019 Targets Report Actions</strong></td>
<td>ECan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scheduled 10 September</td>
</tr>
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<td></td>
<td><strong>Climate Change CRI briefings</strong></td>
<td>CRIIs</td>
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<td></td>
<td></td>
<td>Workshop scheduled 8 October</td>
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<td></td>
<td><strong>WaterShed 2020</strong></td>
<td>Regional cmtt</td>
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<tr>
<td></td>
<td></td>
<td>Scheduled 10 September</td>
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<td></td>
<td><strong>Projects demonstrating “collective leadership”</strong></td>
<td>Regional cmtt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Table of examples attached</td>
</tr>
</tbody>
</table>
3. Central Government

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>ETA</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Waters Review</td>
<td><strong>Progress update – August 2019</strong></td>
</tr>
<tr>
<td></td>
<td>In July, the Government approved a suite of regulatory reforms to help ensure safe drinking water, and deliver improved environmental outcomes from New Zealand’s wastewater and stormwater systems (a link to the joint announcement from the Ministers of Local Government and Health is available at: <a href="https://www.beehive.govt.nz/portfolio/labour-led-government-2017-2020/local-government">https://www.beehive.govt.nz/portfolio/labour-led-government-2017-2020/local-government</a>).</td>
</tr>
<tr>
<td>National Environmental Standard - Drinking Water</td>
<td>Expected 5 September</td>
</tr>
<tr>
<td>National Policy Statement Biodiversity Amendments</td>
<td></td>
</tr>
</tbody>
</table>

4. Media

**School planting beautifies Selwyn Waihora streams**

**Date:** 02 Sep 2019

Every year, parts of the Huritini/Halswell River return closer to their natural state, as more and more native plants begin to grow along its banks. It’s all part of a multi-group effort to restore some of Canterbury’s biodiversity in the water sources that flow into Te Waihora/Lake Ellesmere.

The effort is supported by the Selwyn Waihora Zone Committee, Te Ara Kākāriki Greenways Canterbury Trust, the Million Metres Streams Project and Enviroschools.

**Students take on guardianship for Huritini / Halswell River**

On August 28, students from Ladbrooks School spent the day planting natives on alongside a section of the Huritin Halswell River. They were joined by Iaean Cranwell and Fiona McDonald from the Selwyn Waihora Zone Committee.

Close to the riverbank, they planted pukio, tī kōuka, harakeke and toetoe, while further up the slope, they planted young kohuhu, mānatu, kowhai and totara seedlings.

It’s an area the students have assumed the role of kaitiakitanga / guardianship for, and they’re now in their third year of planting.

Previous years’ trees have now begun to establish themselves, restoring some native beauty along Old Tai Tapu Road, and this year, they’re extending the planting area further north.

Te Ara Kākāriki Kids Discovery Plant-out Coordinator Lou Drage says that it’s just one of 14 sites in the region where a nearby Enviroschool is conducting biodiversity restoration.
"This site is exciting as we’ve had landowners both upstream and downstream indicate they are interested in continuing the native corridor," Lou says.

"This will also stabilize the river bank, reducing sediment flowing into the waterway and providing shade for aquatic species".

**Teaching the importance of conservation**

The Kids Discovery Plant-out programme was recently awarded second place at the Canterbury Aoraki Conservation Board Awards. It’s a great acknowledgement of the collaboration between Te Ara Kākāriki and Enviroschools Canterbury.

Students also spent time learning about the importance of pest control, and how native planting can improve the entire ecosystem with Enviroschools Canterbury Facilitator Matt Stanford.

Matt shared a story about the symbiotic relationship between the kereru and karamu shrubs, and taught them how to take cuttings, which they can use to grow their own karamu seedlings.

He says that with few kereru venturing into the Selwyn plains it is up to us humans to source seed and propagate from cuttings.

“We hope one day karamu and a host of other fruiting native trees will be well established here, so that the kereru and other native birds and insects will return and use the planting site as a supermarket, spreading the seed far and wide," he says.

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**A piece of native forest receives protection**

**Date:** 22 Aug 2019

A 42-hectare remnant of the native forest that once covered Banks Peninsula has been protected and will continue to support native flora and fauna thanks to a farmer-led conservation effort.

Landowners Brent and Anna Fisher are preserving the native bush on their property, with support from the Banks Peninsula Conservation Trust, and funding from the World Wildlife Fund, Environment Canterbury and Christchurch City Council.

Only around one percent of the original forest area of Banks Peninsula remains, supporting a wealth of plant and animal biodiversity.
The Fishers own Silverstream Charolais and Hereford cattle studs and bought the land at Ataahua, near the eastern end of Lake Ellesmere/Te Waihora, seven years ago to expand their farming operation.

“We were always aware of the bush and it’s beautiful,” says Brent. “The previous owner had an ecological survey done by botanist Hugh Wilson and there’s a tōtara in there that apparently could be the biggest tōtara tree on Banks Peninsula.”

**Working with the trust to protect biodiversity**

When the Fishers bought the land, the bush block, tucked in the hills between Kaituna and McQueens valleys, was unfenced and stock could wander in, damage vegetation, disturb the waterway and sometimes be a challenge to muster.

They approached the Banks Peninsula Conservation Trust for help in fencing the important remnant off and a conservation covenant in perpetuity has been placed over the land, now known as Sally’s Bay, so it will be preserved and protected for all time.

“Initially we thought it might be about 25 hectares, but it ended up being 42 hectares. It was a lot bigger than we anticipated but once we got in there looking to see where you could fence and what was most practical, what we would gain from a farming point of view by grabbing some more, wasn’t very much at all so we went with it,” Brent says.

The trust managed the process, securing funding, contracting fencers, engaging land and ecological surveyors and providing the necessary legal support.

“We always wanted to do it but the two biggest constraints on farmers are time and money and to have someone come in and organise it, that was the beauty of it,” says Anna.

**Ensuring native species will continue to flourish**

The now fenced-off block contains extraordinary original remnant forest and expansive regenerating second-growth bush, with gorse acting as a nurse crop on the margins for native seedling to flourish under, says trust covenants officer Marie Neal.

“The emerging natives will out-compete the gorse in time and form a new forest canopy, killing the gorse in the process,” Marie says.

“The rate of native species regrowth in this favorable south-facing gully has been rapid and will be even faster now that stock has been excluded. Protecting the spring-fed waterway which runs through it will, in turn, reduce sediment reaching Lake Ellesmere/Te Waihora below it.”

**Protecting the forest for the future**

Included in the diverse flora are several ancient podocarps – kahikatea, tōtara and matai, a wide range of other trees (including pigeonwood, kōwhai, lancewood, titoki, fivefinger, broadleaf, fuchsia, lemonwood and mahoe), tree and ground ferns, native vines, orchids, mistletoes and other unusual ground covers.

“This covenant is an important biodiversity oasis and stepping stone in a vast surrounding pastoral landscape which will help to accommodate the increasing abundance and spread of native flora and fauna from other areas,” says Marie.
“It will provide food and shelter to encourage birds, invertebrates and lizards who will, in turn, facilitate the spread of valuable seeds to further areas.”

The Sally’s Bay block gives a clue to what Banks Peninsula was like before early settlers cleared the land.

“There are some beautiful species in there and it’s always nice just wandering amongst it – it’s like a different world under that canopy,” says Anna, who adds that she and Brent are now fencing off and planting other waterways on the farm at their own expense.

“We’re trying to protect the water that goes off this farm and into the lake.”

- Find out more about the work of the Banks Peninsula Conservation Trust.
## COLLECTIVE LEADERSHIP AROUND THE REGION

### Examples 13 August 2019

<table>
<thead>
<tr>
<th>ZONE</th>
<th>PROJECTS</th>
<th>PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaikoura</td>
<td><strong>Waiau Toa / Clarence River – weed and pest control</strong></td>
<td>ECan Mariborough DC DOC LINZ Bluff Station Muzzle Station Cloudy Range and smaller landowners in the catchment</td>
</tr>
<tr>
<td></td>
<td><strong>Catchment scale “Ki Uta Ki Tai”</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Funding:</strong> $90,000 over 5 years ECan Immediate Steps, $184,000 ECan Braided Rivers Fund, $240,000 DOC, ?? landowners</td>
<td></td>
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<tr>
<td></td>
<td><strong>Project:</strong> 2014, work began on the development of a collaborative Weed and Pest Management Plan for the catchment.</td>
<td></td>
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<tr>
<td></td>
<td><strong>Protects and enhances</strong> braided river, wetlands, dryland ecosystems and threatened species</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Fencing waterways on dairy farms</strong></td>
<td>Landowners Dairy NZ Fonterra Federated Farmers ECan Kaikoura District Council</td>
</tr>
<tr>
<td></td>
<td><strong>Zone scale</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Funding:</strong>?? Landowners, Dairy NZ, Fonterra</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Project:</strong> All lowland waterways on dairy farms fenced – achieved :) 24 farms, 37km fencing</td>
<td>“Canterbury farmers were the first to complete the plans. Their efforts were rewarded by Environment Canterbury commissioner David Bedford: he had quipped at a water zone committee meeting that if all the Kaikoura farmers had their plans in place by May 31 (2016) he would shout them wine from his own vineyard.”</td>
</tr>
<tr>
<td></td>
<td><strong>Protect and enhances</strong> lowland waterways</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Biodiversity group</strong></td>
<td>Landowners</td>
</tr>
</tbody>
</table>

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*Links for more information:*  
### Hurunui Waiau

Formation of the Hurunui Biodiversity Group by private landowners. A Zone Committee representative has been asked to present at the next field trip. Leadership from the bottom up, hopefully soon to include a wider group.

**Wetland group**

The ZC has established a Wetlands Working Group which will consider barriers to uptake of wetlands conservation and restoration from a landowner perspective, how these barriers can be removed and incentives provided. After the initial meeting, we will consult with and involve a range of landowners and interested parties to come up with solutions.

### Waimakariri

**Denitrification Wall Trial**

**Tributary scale**

**Funding:** ??

**Project:** 25-meter-long wall, is a world first, having never been tested in a fast-flowing gravel aquifer system before. Woodchip mixed with gravel removes nitrate from the groundwater that passes through the wall. Carbon from the woodchip provides a food source for bacteria that then convert the nitrate into the harmless di-nitrogen gas (N2), which makes up 80 per cent of the air we breathe. Initial results show nitrates dropping from 7.1mg/l to 0.5mg/l

**Reduce diffuse nitrates** entering waterway

**Next Generation Farmers**

**Zone scale**

**Funding:** ?

Landowners


[https://spark.adobe.com/page/Tbo9IrXPA66bO/](https://spark.adobe.com/page/Tbo9IrXPA66bO/)
<table>
<thead>
<tr>
<th>Project: established in response to new plan changes and rules (Plan Change 7) affecting 350 farmers in the Waimakariri district. It aims to help convey information between local and regional councils, industry organisations, farmers and the wider community.</th>
<th>Raise awareness of implications of Plan Change 7 and the need for change.</th>
</tr>
</thead>
</table>
| Christchurch West Melton | Nitrates & Health – Danish Study  
National scale  
Funding: none to date  
Project: to prompt the Ministry of Health to prioritise NZ research to identify any connection between nitrate levels and colorectal cancer risk.  
Contribute to global science on the effects of nitrates and human health | Zone Committee  
Christchurch City Council  
ECan  
Local Government NZ  
Canterbury District Health Board |
| Stormwater Super Hero  
Zone scale  
Funding: < $20,000  
Project: Raise awareness of the connection between stormwater and Christchurch rivers and act to reduce litter and contaminants entering waterways.  
Raise awareness and prompt behaviour change | Zone Committee  
ECan  
Community groups  
| Banks Peninsula | Waka-ora Healthy Whakaraupō/Lyttelton Harbour  
Catchment scale | Te Hapū Ngāti Wheke  
Te Rūnanga Ngā Tahu  
ECan  
Christchurch City Council |
| **Funding:** | > 300,000 | **Lyttleton Port Company**  
**Landowners**  
**Community groups** |
| **Project:** | *Restore the ecological and cultural health of Whakaraupō/Lyttelton Harbour as mahinga kai from the mountains to the sea.* The Plan outlines actions to achieve the vision based on principles of change making, collaboration and providing a foundation that can be used for future generations. |
| **Healthy catchment, healthy harbour health people** |

| **Selwyn Waihora** | **Electric Fish Barrier**  
**Species specific**  
**Funding:** ?? | **ECan**  
**DOC**  
**Fonterra**  
**Landowners**  
**Selwyn Waihora Zone Committee** |
| **Project:** | Installation of an electric trout barrier to allow the Canterbury mudfish population to expand and stop predation by trout. Result will result in habitat growing from 880m² to 8,000m² in the Waikirikiri/Selwyn R catchment. The project took 5 year from idea to installation. |
| **Protection** from predators |

| **Near River Recharge** |

| **Ashburton** | **Managed Aquifer Recharge**  
**Catchment scale**  
**Funding:**  
**Project:**  
**Improve water quantity and quality** | |
| **Managed Aquifer Recharge**  
**Catchment scale**  
**Funding:**  
**Project:**  
**Improve water quantity and quality** |
<table>
<thead>
<tr>
<th>OTOP</th>
<th>Winter Grazing Campaign</th>
<th>Landowners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neighbourhood scale</td>
<td>Beef &amp; Lamb NZ</td>
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<tr>
<td></td>
<td>Funding: &lt;$10,000</td>
<td>ECan</td>
</tr>
<tr>
<td></td>
<td>Project: Farmer-led workshops to encourage farmers to plan ahead for winter grazing to reduce run-off into waterways and protect damage to soils.</td>
<td>Dairy NZ</td>
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<td></td>
<td>Reduce adverse effects of winter grazing</td>
<td>AgResearch</td>
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<tr>
<td></td>
<td>Bats – habitat protection</td>
<td>ECan</td>
</tr>
<tr>
<td></td>
<td>Species specific</td>
<td>DOC</td>
</tr>
<tr>
<td></td>
<td>Funding: &lt;$20,000</td>
<td></td>
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<tr>
<td></td>
<td>Projects: Protect the habitat of the long-tailed bat, reduce the threat from pests and rising aware of the bat's existence in South Canterbury. Maintain likely bat roost trees, installing aluminium rings around trees to stop predators climbing up, trapping, installing roost boxes, planting native trees to provide succession, fencing stock out, hosting 2x busloads of people to experience the bats at night.</td>
<td>Port Blakely – Raincliff Forest</td>
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<td></td>
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<td>Local landowners</td>
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<td></td>
<td></td>
<td>Local businesses (NetCon, Ullrich Alluminium)</td>
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<tr>
<td></td>
<td></td>
<td>Pleasant Point community</td>
</tr>
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<td></td>
<td>Protects habitat, reduces threats and raises awareness of a threatened species</td>
<td></td>
</tr>
<tr>
<td>Upper Waitaki</td>
<td>Dobson &amp; Hopkins Valley – weed control</td>
<td>ECan</td>
</tr>
<tr>
<td></td>
<td>Catchment scale</td>
<td>DOC</td>
</tr>
<tr>
<td></td>
<td>Funding: $73,000 over 3 years</td>
<td>LINZ</td>
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<tr>
<td></td>
<td>ECan Immediate Steps – further resource contributions from partners</td>
<td>Glen Lyon Station</td>
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<tr>
<td>Project</td>
<td>control of priority weeds crack willow and Russel lupins. Other weeds targeted buddleia, alder, elderberry, contoneaster, gooseberry, floering currant, raspberry and hops.</td>
<td>Protects and enhances: braided rivers, wetlands and dryland ecosystems.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
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<tr>
<td>Robust Grasshopper (Brachaspis robustus) – protecting habitat</td>
<td>Species specific</td>
<td></td>
</tr>
<tr>
<td>Funding: $43,000 since 2015 ECan Regional Braided River Fund</td>
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<td></td>
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<tr>
<td>Project: Research to understand behaviour and threats to the robust grasshopper (found only on riverbeds and terraces in Tekapo, Pukaki and Ohau catchments) and develop management techniques. Initial funding attracted further research funding and for the successful case for the “Tekapo Triangle” habitat protection area.</td>
<td></td>
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</tr>
<tr>
<td>Increase understanding that has led to 440ha (Tekapo Triangle) of habitat being transferred from LINZ to DOC to protect habitat, development of tools and techniques for management and predator control.</td>
<td></td>
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</tr>
<tr>
<td>ECan</td>
<td>University of Canterbury</td>
<td></td>
</tr>
<tr>
<td>DOC</td>
<td>LINZ</td>
<td></td>
</tr>
<tr>
<td>Wainono</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Te Waihora – weed strike force</td>
<td></td>
</tr>
<tr>
<td>Lake scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding: approx $200,000 per annum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project: controlling weeds (esp. crack and grey willow) on lake margin of Te Waihora. Project now joined with DOC 1 Billion Trees project to plant natives on sites that has had willow control or on-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOC</td>
<td>ECan</td>
<td></td>
</tr>
<tr>
<td>Te Waihora Co-Governance (Ngāi Tahu, ECan, SDC, CCC, DOC)</td>
<td></td>
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<tr>
<td>Volunteers (Te Ara Atawhai, a collaborative training programme between Ministry Social Development and DOC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selwyn Waihora zone committee</td>
<td></td>
<td></td>
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<tr>
<td>Regional Committee (approx $100,000 per annum for 3 years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ngāi Tahu</td>
<td>Co-governance – Te Waihora</td>
<td></td>
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<tr>
<td>-----------</td>
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<td></td>
</tr>
<tr>
<td>Rūnanga are around the table</td>
<td>Papatipu Rūnanga</td>
<td></td>
</tr>
<tr>
<td>Regional scale</td>
<td>ECan</td>
<td></td>
</tr>
<tr>
<td>Funding: Water management ECan (total budget $32 million) TAs, landowners, industry, researchers etc??</td>
<td>District councils</td>
<td></td>
</tr>
<tr>
<td>Rūnanga representatives are part of the collaborative zone committee process</td>
<td>Christchurch City Council</td>
<td></td>
</tr>
</tbody>
</table>

Going willow control is required to future proof sites against re-invasion

Lake edge and wetland biodiversity and ecosystem health
Agenda Item No: 11  
Subject Matter:  
Te Waihora- Weed Strikeforce Annual Report at June 2019

Report to:  
Canterbury Water Management Strategy Regional Committee  
CWMS - Target/s Areas

Report by:  
Elaine Greaves, Committee Advisor  
Date of Meeting:  
10 September 2019

Purpose
To provide a copy of the Te Waihora Weed Strikeforce Annual Report at June 2019 for information.

Attachments

Recommendation
That the Canterbury Water Management Strategy Regional Committee:

Te Waihora/Lake Ellesmere

Weed Strikeforce
Annual Report

for Environment Canterbury
from Gary Boyd
Department of Conservation,
Mahaanui District
June 2019
1. **Purpose**

The purpose of this report is to report to ECAN on work completed during the 2018/2019 season. The report will include the list below.

- GPS track log for all work completed during the 2018/2019 season
- A breakdown of work completed in each management block including concentrations of chemical applied
- Volunteer hours
- Staffing
- Contractor work
- One Billion Trees
- Financial
- Outcomes
- Recommendations

2. **GPS track logs for 2018/2019 season**

Staff working on the project record all their field work using the tracking feature on their GPS. An overview picture of their work effort for the 2018/19 is shown below in Figure 1.

![Figure 1: Track logs for 2018/19](image)
3. **Management Blocks**

In the ‘Weed Strikeforce Operational Work Plan 2018-2021’ the lake margin is divided into the blocks listed below. For each of the blocks where management occurred over the year, I have provided an aerial photo showing the track logs and described the target weeds and work undertaken to control them.

<table>
<thead>
<tr>
<th>Block Name</th>
<th>Operational Action/ method</th>
<th>Weeds located and controlled</th>
<th>Chemical name and totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 3 – Kaituna Lagoon</td>
<td>Control/ground control</td>
<td>Crack willow, purple loosestrife</td>
<td>Roundup Ultra Max – 1.3L</td>
</tr>
<tr>
<td>Block 8 – Yarrs Flat</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, gorse, blackberry, phalaris, beggars tick</td>
<td>Gallant Ultra – 150ml Roundup Ultra Max – 260ml Gallon – 720ml</td>
</tr>
<tr>
<td>Block 9 – True Right of Ararira River</td>
<td>Liaison with owner/ground control</td>
<td>Grey willow, crack willow, gorse, blackberry, elder, yellow flag, phalaris</td>
<td>Grazon – 480ml Lion – 2L Roundup Ultra Max – 130ml Gallon Ultra – 25ml</td>
</tr>
<tr>
<td>Block 11 - Rotopapa</td>
<td>Liaison with owner/ground control</td>
<td>Grey willow, crack willow, gorse, elder, blackberry, yellow flag, phalaris</td>
<td>Grazon – 720ml X-tree basal – 8L Roundup Ultra Max – 1.69L Lion – 16L Gallon Ultra – 175ml</td>
</tr>
<tr>
<td>Block 12 – Rennies Bay</td>
<td>Liaison with owner/ground control</td>
<td>Grey willow, crack willow, hawthorne, gorse, broom, elder, blackberry</td>
<td>Roundup Ultra Max – 1.52L X-tree basal – 196L Lion – 5L Grazon – 8L</td>
</tr>
<tr>
<td>Block 13 - Wards</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, gorse, elder, blackberry</td>
<td>Grazon – 1.28L Roundup Ultra Max – 720ml</td>
</tr>
<tr>
<td>Block 14 - Williams</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, hawthorne, gorse, elder, blackberry, sweet brier</td>
<td>Lion – 79L Grazon – 4.8L Roundup Ultra Max – 160ml Vigilant gel – 1600g</td>
</tr>
<tr>
<td>Block 18 – Boggy Creek</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, gorse, elder, blackberry, yellow flag, phalaris</td>
<td>Grazon – 4.8L X-tree basal – 40L Roundup Ultra Max – 130ml Gallon Ultra – 50ml</td>
</tr>
<tr>
<td>Block 24 – Harts Tramway South Raupo</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, beggars tick</td>
<td>Lion – 20L</td>
</tr>
<tr>
<td>Block 27 - Lakeside</td>
<td>Control/ground control</td>
<td>Grey willow, crack willow, gorse, elder, blackberry</td>
<td>Lion – 69L Grazon – 5.12L Roundup Ultra Max – 520ml</td>
</tr>
<tr>
<td>Buffer Zone – Outside Management Blocks</td>
<td>Surveillance, liaison with owner/ground control</td>
<td>Grey willow</td>
<td>Lion – 19L X-tree basal – 100L</td>
</tr>
</tbody>
</table>
Block 3 – Kaituna Lagoon

Total work hours - 56
Area controlled – 9ha
Priority weed - purple loosestrife.
Plants were found on the banks of Prices Culvert and scattered throughout. Flower heads were cut and bagged before the plant was treated with Glyphosate.

Low numbers of small crack willow trees were also treated.

Block 8 – Yarrs Flat

Total work hours - 128
Area controlled – 65ha
Priority weed - grey willow and phalaris.
No adult or juvenile grey willow remain but seedlings continue to occur, however seedling numbers have dramatically reduced from previous years. A low number of adult grey willow have been identified in a neighboring property and liaison with the landowner is underway.
All known historic locations of phalaris and yellow flag iris were visited with surveillance of the surrounding area undertaken to look for any new infestations. Phalaris was found at most historic locations but no new infestations found. Yellow flag iris now appears to be absent. Small numbers of beggar’s tick were found near the Ararira River mouth, within the same location as observations from 2016/17. There is likely to be a seed bank at this location and continued monitoring will occur. Low numbers of gorse, elder and blackberry found within the crack willow understory.

**Block 9 – True Right of Ararira River**

![Image of Block 9](image)

Total work hours - 158  
Area controlled – 21ha  
Priority weed - grey willow and phalaris.  
Grey willow was restricted to the spring heads adjacent to the Ararira River. These were areas where previous control has occurred, but high numbers of adult and juvenile plants remained.  
In the understory, increasing numbers of elder and blackberry were present.  
Phalaris was absent at most historic locations, apart from two small infestations found adjacent to the Ararira River.
Block 10 – Selwyn Delta

Total work hours - 114  
Area controlled – 206ha  
Priority weed - grey willow, phalaris and yellow flag iris.  
Grey willow was found in low numbers but scattered across the site. Most adult and juvenile plants have been treated previously. Several juvenile and young adult plants were found in northern section of this block, regenerating within an area that had previously been aerial controlled. Phalaris and yellow flag iris were present in low numbers and found at most historic locations. Gorse, elder and blackberry were found underneath previously treated willow trees.

Block 11 – Rotopapa

Total work hours - 108  
Area controlled – 244ha  
Priority weed - grey willow, phalaris and yellow flag iris.  
Grey willow was found at scattered locations on the lake margin and many previously treated plants were regenerating. A dense willow block in the northern section of this management block had high numbers of willow regenerating or willow that had not successfully died after previous treatment.
Crack willow, gorse, elder and blackberry were also in high numbers within areas of previous treatment. Large infestations of phalaris and yellow flag iris were present, likely due to little control in previous years.

**Block 12 – Rennies Bay**

![Map of Block 12 – Rennies Bay]

Total work hours - 328  
Area controlled – 107ha  
The priority weed - grey willow.  
After a successful liaison with the landowners we began treating large areas of mature grey willow. The grey willow was present in low lying areas where stock had been excluded. Little or no previous control of grey willow had occurred at these locations, therefore mature grey willow was in high numbers. An understory of gorse, hawthorne, elder and blackberry was also treated where possible.

**Block 13 – Wards**

![Map of Block 13 – Wards]

Total work hours - 48
Area controlled – 5ha  
Priority weed - grey willow.  
Initial surveillance and control of grey willow has started but more extensive work will be carried out during 2019/20.

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**Block 14 - Williams**

Total work hours - 524  
Area controlled – 7ha  
Priority weed - grey willow.  
Block 14 contains extensive mature grey willow forest. In the southern section of this block thinning of the grey was preferred over full control, to aid the healthy understory of native vegetation. Identification of female grey willow followed by treatment was carried out during September and October of 2018. In the northern sections of Block 14 full control of grey willow has started and work will continue during the winter of 2019.  
Understory weeds such as elder and blackberry are also being controlled.

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**Block 18 – Boggy Creek**

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Page 50 of 56
Total work hours - 160
Area controlled – 72ha
Priority weed - grey willow, phalaris and yellow flag.
Seedling and juvenile grey willow numbers were found to be in very high numbers wherever there was suitable habitat. Only a small number of adult grey willow present in central and northern sections of this management block.
Surveillance of phalaris and yellow flag was undertaken but appear to now be absent at this site.

Block 24 – Harts Tramway South Raupo

![Image of Harts Tramway South Raupo]

Total work hours - 64
Area controlled – 0.5ha
Priority weed - grey willow.
Work began on full control of grey willow on the lakeside of the boardwalk and next to the bird hide. This will be part of on-going work into 2019/20.
Two beggars tick plants were found next to the boardwalk and subsequently surveillance was undertaken to find more. No further plants were found but the site will be continually monitored.

Block 27 – Lakeside

![Image of Lakeside]
Total work hours - 392
Area controlled – 17ha
Priority weed - grey willow.
Grey willow control commenced within the southern sections of this block and within the ecologically sensitive baumea area. In these areas grey willow is in high numbers and of varying stages of growth. Starting in June of 2019, mature grey willow within the northern sections of this block was treated. Work will continue here through winter, with the intention of slowing down the spread of grey willow in the remainder of this management block.

Other Works – Roadside and areas immediately adjacent to management blocks

Total work hours - 200
Area controlled – 41ha
Priority weed – grey willow
Grey willow was controlled within the immediate buffer zone of the northern and western management blocks. Control mostly occurred on roadsides but also on private property where permission had been sought from the landowner. Within these areas control is being restricted to grey willow, with the intention of slowing down reinvasion.

4. Volunteer hours

All volunteer hours were conducted by Te Ara Atawhai, a collaborative training programme between the Ministry of Social Development and the Department of Conservation. The programme is targeted at long term unemployed and those interested in outdoor activities and pursuing a career within conservation. Te Ara Atawhai helped with willow control at Wards, Lakeside and Yarrs Flat for a total of 136 hours. Te Ara Atawhai also spent 80 hours on woody weed control at Williams.

5. Staff

Gary Boyd – Ranger manager/supervisor
Steve Searle – Ranger Field supervisor
Peter Owen – Ranger Field
Chris Reich – Ranger Field

6. One Billion Trees (1BT)

From February 2019 the Te Waihora 1BT and Weed Strikeforce projects were led by one team. This joining of two projects has allowed us to maintain 4 full time employees year-round. Benefits include site familiarisation, upskilling and savings on recruiting/training new staff every 6 months.
All 1BT sites selected have either previously had willow control or on-going willow control is required. Native plantings are a form of future proofing against re-invasion of willow and therefore the two projects are complementary.

Figure 2: Planting in willow understory at Yarrs Flat

Figure 3: Planting in willow understory at Williams
7. Contractor work

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Description of work</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christchurch Helicopters 2001 LTD</td>
<td>Aerial photo points, site familiarization and planning.</td>
<td>$1,155.00</td>
</tr>
<tr>
<td>Lifestyle Block Services LTD</td>
<td>Spraying of gorse, willow and blackberry at Boggy Creek Wildlife Management Reserve.</td>
<td>$5,000.00</td>
</tr>
<tr>
<td>Keystone Ecology LTD</td>
<td>Drill and fill treatment of willow at Williams Wildlife Management Reserve.</td>
<td>$23,487.20</td>
</tr>
</tbody>
</table>

8. Outcomes

2018/19 planned work was completed in all management blocks except for blocks within Harts Creek and Block 20 – Giltrap. Block 20 (Giltrap) was selected for aerial control but this has been postponed until later in 2019 due to pilot scheduling.

Management blocks 21, 22, 23 and 25 within Harts Creek Wildlife Management Reserve have been postponed until the completion of a more detailed control strategy – currently being worked on by Wildland Consultants.

The management blocks situated on the northern shore between and including Yarrs Flat and Rennies Bay have had near full control of all woody weeds as well as phalaris, yellow flag iris and beggars tick control. Some crack willow has been strategically left at Yarrs Flat and Rennies Bay for shelter and habitat.

Full control has been successfully achieved in these blocks, in part because we have been able to undertake all the necessary follow up control required. Regular follow up work has allowed the treatment of any missed plants and plants where the original herbicide treatment has not been fully effective.

Work was undertaken in a selection of management blocks along north western shore. These blocks included 13, 14, 18, 24 and 27. The management blocks were selected for their ecological significance and threat level from invading grey willow.

Full control of all woody weeds has taken place in Block 18 (Boggy Creek), while full surveillance and good starts on ground control have taken place at the remaining blocks.

Due to high reinvasion rates of grey willow, a decision was made to control grey willow wherever possible in the immediate buffer zone of the management blocks. Control was mostly conducted on roadsides and in some cases on private property, with the owner’s permission.

Phalaris and yellow flag iris were controlled together at all known historic locations. The intention was to conduct three rounds of control, 8 weeks apart. After the second round a decision was made...
to not conduct a third round due to low numbers and successful control of these weed species in the first two rounds.

9. Recommendations

- Drill and fill treatment of mature grey willow forest at Williams Block and Lakeside during winter months.
- Female grey willow identification and treatment at several key sites where a healthy understory of natives exist – Williams, Lakeside, Harts Creek.
- Continue to progress southwards down the western shore of Te Waihora with full control and surveillance in each management block.
- Begin to implement ground control work at Harts Creek – following recommendations from Wildlands plan.
- Conduct aerial control in Block 20, 21, 22 and 23. Aerial control to occur early in season to allow follow up ground control to take place within 3 year project.
- Revisit all known phalaris and yellow flag iris locations and conduct three rounds of control if necessary.
- On-going surveillance and ground control at all previously visited management blocks to manage reinvasion of all weeds – particularly grey willow.

![Figure 4: Before and after image of willow control on roadside adjacent to Rennies Bay.](image-url)
Appendix 1: Detailed costs of project (all invoices/receipts available on request)

Appendix 2: Spray diary – information containing date of spraying, concentrations of chemical applied, staffing and locations.