



CANTERBURY REGIONAL COUNCIL
Kaunihera Taiao ki Waitaha

AGENDA|2019

Canterbury Water Management Strategy Regional Committee

Tuesday, 13 August 2019

.....
Time: 1.00 pm

Venue: Council Chambers

200 Tuam Street, Christchurch

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-Waiau) Carolyn Latham (Waimakariri) Benita Wakefield (Selwyn-Waihora) Les Wanhalla (Christchurch-West Melton) Rima Herber (Banks Peninsula) Ben Curry (Ashburton) Phil Driver (Orari-Temuka-Opihi-Pareora) Sandra Hampstead-Tipene (Upper/Lower Waitaki)
Christchurch City Council	Sara Templeton
District Council Representatives	Mayor Winton Dalley (North Canterbury) Councillor Nicole Reid (Mid Canterbury) Peter McIlriath (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

Table of Contents

Opening Karakia	Page no.
------------------------	-----------------

- | | |
|---|---|
| 1. Apologies | |
| 2. Conflicts of Interest | |
| 3. Minutes of previous meeting 11 June 2019 | 1 |
| 4. Matters arising | |

Items for discussion

- | | |
|---|----|
| 5. Climate Change Emergency (ECan)/Climate Change & Ecological Emergency (CCC) – what are they? | 7 |
| 6. CWMS Timeline – when and why did we start this journey? | 9 |
| 7. What does the draft targets report tell us? | 13 |
| 8. What did the Chairs & Deputy Chairs tell us?
(Watershed 2020 – key themes?) | 17 |
| 9. Zone Committee Representatives | 19 |
| 10. “Big Issue” – Collective Leadership | 21 |
| 11. Updates from Central Government Agencies | 23 |
| 12. Regional Infrastructure Work Programme | 27 |
| 13. Facilitator’s Update | 35 |
| 14. Any Other Business | |
| 15. Next Meeting – Tuesday 10 September 2019 | |

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 11 June 2019 at 1.00 pm

Contents

1. Karakia
2. Apologies
3. Conflicts of Interest
4. Minutes from the meeting held 9 April 2019
5. Matters Arising

Items for Discussion:

6. Protecting/Enhancing Biodiversity and Mitigating/Adapting to Climate Change
7. "Big Issues"
8. Fit for Future
9. Targets Report
10. Zone Committee Representatives
11. Updates from Central Government Agencies
12. Facilitator's Update
13. Any Other Business
14. Next meeting – Tuesday, 13 August 2019
15. Closing Karakia

Present

Community Representatives:	
Jane Demeter	Ross Millichamp
Vicky Southworth	
Zone Representatives:	
Carolynne Latham	Waimakariri
Les Wanhalla	Christchurch West-Melton
Ben Curry	Ashburton
Rima Herber	Banks Peninsula
Benita Wakefield	Selwyn-Waihora
Ted Howard	Kaikoura
Phil Driver	Orari-Temuka-Opihi-Pareora
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	Murray Doak, MPI

Absent

Rebecca Clements	Te Rūnanga o Ngāi Tahu
David Higgins	Ngā Rūnanga
Cole Groves	Community Representative

In attendance

Frances and Shireen Helps (presenting item 5 of the agenda)
John Benn (Department of Conservation)

Environment Canterbury: Lesley Woudberg (Team Leader Zone Facilitator), Dann Olykan (Team Leader CWMS), Mel Renganathan (Principal Strategy Advisor), Anita Fulton (Senior Strategy Advisor), and Elaine Greaves (Committee Advisor).

Welcome

In the absence of Hugh Logan, Ross Millichamp agreed to chair the meeting. Attendees were invited to state which group or organisation they represented. Ben Curry advised this would be the last meeting he would attend on behalf of the Ashburton Zone Committee.

Councillor Sara Templeton opened the meeting with a karakia.

1. Apologies

Apologies for absence were received and accepted from Hugh Logan, Cr Peter Scott, Hugh Canard, Nick Vincent, John Preece, and Sandra Hampstead-Tipene.

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 9 April 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 9 April 2019, as a true and correct record.

Ted Howard/Ben Curry
CARRIED

4. Matters arising

In relation to item 6.3 of the previous minutes (Infrastructure Working Group – Fish Screen) it was noted a letter had been sent to the Chair of Environment Canterbury requesting compliance of existing fish screens to continue to be a priority for Environment Canterbury's compliance and enforcement team.

Item 7 was taken at this time.

Items for Discussion

7. Fit for Future – Priorities for the Regional Committee

Refer to page 11 of the agenda.

Having accompanied the Chair to the recent Mayoral Forum, and in his absence, Caroline Hart (Senior Strategy Manager) provided an update on the Forum's consideration of the Fit for Future Project.

The Mayoral Forum noted the CE Forum's endorsement of the Regional Committee's advice and very quickly approved the proposed CWMS goals for 2025 and 2030. It agreed that Environment Canterbury would work with territorial authorities, Te Rūnanga o Ngāi Tahu, industry and community partners on a regional work programme to achieve the goals.

It was noted that some key pieces of work were still required around strategic implementation – in particular, leadership and accountability; resourcing and funding; monitoring, reporting and review; understanding and support for the CWMS.

Next steps included the Mayoral Forum requesting each council to formally note its decisions around the project, and Mayors Odey, Broughton and Dalley agreed to lead public communications on the project. Communication packages were being put together for that purpose and it was agreed good information needed to go out before the next annual plan processes of councils started.

The Canterbury Water Management Strategy Regional Committee:

- 1. Received the report back from the Mayoral Forum regarding the Fit for Future project.**

5. Protecting & Enhancing Biodiversity and Mitigating & Adapting to Climate Change

Refer to pages 7 to 8 of the agenda

Pohatu/Flea Bay land owners, Frances and Shireen Helps, apprised the Committee on what motivated them to protect and enhance their land environmentally; and the barriers they were now facing. Their conservation efforts over the past 30-40 years included protecting/regenerating native bush, waterways and indigenous species, monitoring and predator control programmes, including extensive penguin conservation. They were pursuing eight conservation goals to assist in achieving their ecological vision for their property by 2050.

Despite the many accolades received over the years, current legislation did not recognise their approach of balancing a working sheep and cattle farm with conservation values; and they now felt penalised by the government's proposed Climate Change Bill. They believed that, rather than being penalised, they should be rewarded for their work by way of carbon credits for regenerating native forest, or exemptions for certain types of properties.

The Helps acknowledged Environment Canterbury's supportive approach to their conservation work. They were also working closely with the Banks Peninsula

Conservation Trust by trying to show other farmers on the Peninsula how to work the natural biodiversity on their properties. Many farmers wanted to do good conservation work but were frustrated with central government's response to climate change by planting pines.

The timeliness of the presentation was noted for the whole of Canterbury. Committee members were encouraged to take the Helps' concerns on board when working in their local communities, in the hope of achieving better conservation results.

The Canterbury Water Management Strategy Regional Committee:

- 1. Received the presentation and thanked the Helps for their leadership and commitment to the conservation of biodiversity in the Banks Peninsula area.**

6. "Big Issues"

Refer to page 9 of the agenda

The Committee held a group discussion and provided feedback around land owner incentives, including what could be considered as incentives and how/who incentivises land owners.

The Committee's terms of reference stipulated it could provide advice to Environment Canterbury. However, it was suggested the Mayoral Forum may be an appropriate setting to provide advice to on ways the Committee considered land owners may be better supported and incentivised to do this important work; and overcome some of the regulatory boundaries that currently existed.

It was acknowledged that most farmers already undertook conservation work, as it was more intuitive for them – they wanted to take care of their land for future generations.

It was agreed that the Climate Change Bill was one area that could be used to promote incentives for land owners to enhance biodiversity on their properties.

The Committee also wished to consider providing advice about rules and policies affecting incentives for land owners when approaching implementation of the CWMS. Therefore, advice from this Committee about the approach to be considered (principles, empowerment, local communities, talking with local land owners) for implementation strategies was vital.

The Canterbury Water Management Strategy Regional Committee, by general consensus:

- 1. Agreed that the Chair condense the discussion and circulate it to members for feedback.**

8. 2019 Targets Report

Refer to page 13 of the agenda.

Dann Olykan (Team Leader, Strategy & Planning) presented his report on the initial draft CWMS Targets 2019 Report; and provided key points and dates to the Committee.

The Committee provided feedback on the document, noting it was important not to lose sight of the projects that had yet to be started. It was considered the process was

working, but we needed to be honest and report where we were not doing well, as well as success stories that could inspire others to make a difference.

The Canterbury Water Management Strategy Regional Committee agreed by general consensus that:

- 1. Vicky Southworth, Ross Millichamp, Jane Demeter; together with Ted Howard and Phil Driver (via Skype) meet as a task group to provide feedback to Environment Canterbury on the draft in early July 2019.**

The meeting adjourned between 3.20-3.42pm.

9. Update from Zone Committees

Refer to pages 15 to 20 of the agenda.

Zone Committee representatives spoke briefly to written updates on issues for each area, including what was/was not working well, identifying regional trends and gaps; and highlighting areas where the Regional Committee could add value.

A request was made for a more evenly-balanced future approach to be adopted to include reporting on urban issues, as well as farming-related issues.

The Canterbury Water Management Strategy Regional Committee:

- 1. Received the Zone Committee updates.**

10. Update from Central Government Agencies

Refer to pages 21 to 27 of the agenda.

A written update from the Ministry for the Environment focused on the three key objectives of the Essential Freshwater Programme. Some of the issues being considered in the development of the Revised National Policy Statement for Freshwater Management and proposed National Environmental Standard for Freshwater Management were also highlighted, including a progress report on mapping of vulnerability, risks and pressures in each catchment across the country. Public consultation on this work would begin in late July 2019, subject to Cabinet approval.

John Benn from the Department of Conservation spoke to a written update on activities around the CWMS water zones over the previous two months; including a project to protect the Bignose by installing a fish barrier and then removing brown and rainbow trout from a small tributary of Fork Stream in the Mackenzie Basin.

Staff from DOC and Environment Canterbury would be meeting to discuss rules around weed clearance during drain maintenance that can leave eels stranded on banks.

A link had been provided to the recent budget announcements across all government agencies for information.

Murray Doak from Ministry of Primary Industries provided a verbal update on activities, highlighting recent budget allocations, including those earmarked for assisting farmers such as the Sustainable Farming Fund (SFF). The SFF would consider projects from community level right through to pre-commercial projects.

The Canterbury Water Management Strategy Regional Committee:

1. Received the update from central government agencies.

11. **Facilitator's Report**

Refer pages 29 to 38 of the agenda.

An update was provided on meeting and event dates for the remainder of the year; progress on issues previously raised, central government initiatives, Environment Canterbury's decision to declare a climate change emergency; CWMS Regional Committee's field trip on 14 May 2019 and recent media stories from across the region.

Ben Curry was thanked for his representation on the Regional Committee and contributions to the Ashburton Zone Committee over the last ten years. The Facilitator noted it had been a pleasure to work together on some tough issues and acknowledged the professionalism and willingness to listen that Ben had shown during some difficult conversations.

The Canterbury Waste Management Strategy Regional Committee:

1. Received the Facilitator's report as read.

12. **General Business**

There was no general business for discussion.

13. **Next Meeting**

Tuesday 13 August 2019.

The meeting closed at 5.00pm with a karakia by Cr Sara Templeton.

Confirmed

Date _____

Chairperson _____

Agenda Item No: 5	Subject Matter: Climate Change Emergency (Environment Canterbury) Climate Change & Ecological Emergency (CCC) – what are they?
Report to: CWMS Regional Committee	CWMS - Target/s Areas
Report by: Elaine Greaves Committee Advisor	Date of Meeting: 13 August 2019

PURPOSE

Councillors Claire McKay (Environment Canterbury) and Sara Templeton (CCC), together with staff from both organisations, will lead a discussion regarding the above.

Agenda Item No: 6	Subject Matter: CWMS Timeline
Report to: Canterbury Water Management Strategy Regional Committee	CWMS - Target/s Areas All
Report by: Lesley Woudberg – Facilitator (ECan)	Date of Meeting: 13 August 2019

Purpose

To remind ourselves of where we have come from in order to inform our future actions.

Recommendation

That the Canterbury Water Management Strategy Regional Committee:

- 1. Notes the link between the climate change and climate change and ecological.**

Background

Ka mura ka muri *Walking backwards into the future*

Ka mua, ka muri is a Māori proverb that expresses a simple image of a person walking backwards into the future. It suggests that the past is clearly visible, but the future is not, that we have imperfect information for the road ahead, but also that this is a natural state of affairs.

Let us look back for clues to the way forward. The future comes out of the past but will not be identical to it. The only unchanging thing is change.

It is in this spirit that we pause, to take a look backwards to the start of the Canterbury Water Management Strategy, the progress that has been made the winds of change that have buffeted us along the way and how this common understanding will help us face future challenges.

Refer to the attached A3 timeline.

CANTERBURY WATER MANAGEMENT STRATEGY

LOCAL LEADERSHIP/LOCAL GOVERNANCE

Ka mura, ka muri

Look to the past to inform the way we move into the future

1989 Local Government Reforms
1991 Resource Management Act
1996 Ngāi Tahu Settlement
1997-98 NIWA begins Climate Outlooks

Timeline

TECHNICAL INVESTIGATIONS WATER QUANTITY	1998	.. in the beginning DROUGHT
	1999 2006	Canterbury Strategic Water Study 1999 Stage 1 Initial study of water availability issues in Canterbury (MFE funded) 2005 Stage 2 Identification of potential water storage sites (MPI funded) 2006 Stage 3 Multi-stakeholder review of water storage options (MPI funded) - New Beginnings https://www.youtube.com/watch?v=LTcrSW-W_MQ
DEVELOPMENT OF THE CANTERBURY WATER MANAGEMENT STRATEGY WATER QUANTITY, QUALITY LAND USE AND BIODIVERSITY	2008	Canterbury Water Management Strategy Canterbury Mayoral Forum took ownership <ul style="list-style-type: none"> Broadened scope - include water quality/land use + biodiversity Request extensive consultation process Endorsed an ECan targeted rate to fund the process Steering Group – Chaired by Bede O'Malley – Mayor Ashburton
	July-Aug 2008	Stakeholder Meetings <ul style="list-style-type: none"> Use and benefits of water, lead to draft principles
	April 2009	Brochure to all households in the region <ul style="list-style-type: none"> 10x public meetings (2x sessions each) 1100 submissions heard by the steering group
	Aug 2009	Draft Strategy released based on the Stage 4 Canterbury Strategic Water Study <ul style="list-style-type: none"> Vision and Principles, Targets, Zone Committee concept Written submissions sought
	Nov 2009	Final Strategy released Empowering Communities https://www.youtube.com/watch?v=EQxKkwz7bo&list=PLN9O2KsU5YyutdxrcWfHF42CyVWWXltjz&index=2 Working with Manawhenua https://www.youtube.com/watch?v=byU1xY3jgno&list=PLN9O2KsU5YyutdxrcWfHF42CyVWWXltjz&index=3
	Nov 2009 Feb 2010	Strategy endorsed by all councils TA/ECan Share responsibility/costs 2010/11 ECan Targeted Rate \$5.5 million



Situation in 2008

Contested science
Litigious – adversarial planning framework
Demand increasing – first in first served
Groundwater and stream flows decreasing
Nutrients increasing

THERE HAS TO BE A BETTER WAY!

Canterbury Water Management Strategy Vision, Principles, Approach and Targets

- Collaboration/consensus decision making
- Community and rūnanga involvement – zone and regional committees
- Parallel development
- Environment restoration
- More reliable water supply through storage
- Improved land management – nutrient and water efficiency

CWMS	July 2010	Final Targets endorsed by the Mayoral Forum <ul style="list-style-type: none"> After further consultation/negotiation with stakeholder groups and agencies – Targets agreed
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Land and Water Forum (LAWF) est Aug 2009

2010 Smart Phones become mainstream

May 2010 Commissioners appointed to ECan

Govt. requires commissioners to build on collaborative work of the CWMS

ESTABLISH STRUCTURE AGENDA SETTING	2010 2011	10 zone committees and the regional committee established <ul style="list-style-type: none"> Established under the Local Government Act Joint committees of TAs and ECan All committees developed Zone Implementation Programmes (ZIPs) 	
LEADERSHIP - COMMUNITY ENGAGEMENT GOVERNANCE – ZONE DELIVERY	2011 2019	Zone Committees Community leadership/governance Zone Implementation Programme Addendums (ZIPAs) Collaborative Planning https://www.youtube.com/watch?v=-BXuTSJnz1k&list=PLN9O2KsU5YyutdxrcWfHF42CyVWWXltjz&index=4 <ul style="list-style-type: none"> 2013 Selwyn-Waihora Mar 2014 Hinds Nov 2014 Wairewa Sept 2014 South Coastal Streams Dec 2016 Upper and Lower Waitaki ZIPAs under development <ul style="list-style-type: none"> Waimakariri Orari-Temuka-Opihi-Pareora 	Delivery 2014 ECan: Zone Delivery Pilot Hurunui-Waiiau 2016/17 ECan Restructure Operations Group into zone delivery teams 2017 ECan Quarterly reporting begins

"If you reach a consensus then we will base our draft RMA plan and Long Terms Plans on it." ECan Commissioners

National Policy Statement for Freshwater Management 2014

Canterbury Land and Water Regional Plan
Operative Dec 2016

Resource Legislation Amendment Act 2017



<p>MONITORING / MODELLING / REPORTING GOVERNANCE – DRIVING IMPLEMENTATION / COLLECTIVE LEADERSHIP ONGROUND ACTION</p>		<p>Zone Committee Community leadership – driving local action</p> <p>Zone Implementation Programmes Addendums (ZIPAs)</p> <ul style="list-style-type: none"> Dec 2018 OTOP Dec 2018 Waimakariri <p>CWMS 2019 Targets Report</p>	<p>LWRP Operative Plan Changes</p> <ul style="list-style-type: none"> PC1 Selwyn Waihora 1 Feb 2016 PC2 Hinds 12 May 2018 PC3 South coastal Canterbury 1 Sept 2017 PC4 Omnibus 11 March 2017 PC5 Nutrient Mgt and Waitaki 1 Feb 2019 PC6 Wairewa 1 Feb 2017 <p>LWRP Notified Plan Changes</p> <ul style="list-style-type: none"> PC7 Waimakariri, OTOP & Omnibus 20 July 2019 <p>Good Management Practice</p> <p>Farm Environment Plans & Audits</p> <p>Stock exclusion</p> <p>Mahinga Kai – ECan cultural land mgt advisers</p> <p>Fit for Future – CWMS 2025 & 2030 Targets</p> <p>Immediate Steps Biodiversity Fund</p> <ul style="list-style-type: none"> 510 projects 560 km fencing 2,100 ha protected More than 530,000 indigenous plants planted \$10.3 million <p>Pilot projects - examples</p> <ul style="list-style-type: none"> Managed Aquifer Recharge (Hinds) Targeted Stream Augmentation (Hinds & Selwyn) Electric Fish barrier (Bealey St) Denitrification wall (ESR) Floating wetlands (CCC) Wetland restoration (Ahuriri) 	<p>Resource Management Act Review 2019/2020</p> <p>National Policy Statement Freshwater Amendments 2019/20</p> <p>National Policy Statement Biodiversity Amendments 2019/ 2020</p> <p>3 Waters Review 2019/20</p> <p>Local Government Elections October 2019</p> <p>Central Government Elections 2020</p>
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Agenda Item No: 7	Subject Matter: CWMS Targets Progress Report 2019
Report to: CWMS Regional Committee	CWMS - Target/s Areas
Report by: Mel Renganathan, Principal Strategy Advisor - Water	Date of Meeting: 13 August 2019

Purpose

1. This paper provides the Regional Committee with an update on the Canterbury Water Management Strategy (CWMS) Targets Progress Report 2019.

Recommendation

That the Regional Committee:

1. **Receive the CWMS Targets Progress Report 2019.**
2. **Note that the CWMS Targets Progress Report 2019 was presented to the Canterbury Mayoral Forum on 9 August 2019.**

Key Points

2. The CWMS Targets Progress Report was presented to the Canterbury Mayoral Forum on 9 August 2019. The Mayoral Forum was asked to note the report and the communication timeframes to have the report made available to stakeholders and the community.
3. The Targets Progress Report 2019 highlights several key points:
 - The work of the CWMS is ground-breaking and demonstrates the strength that is provided through successful partnerships with stakeholders, effective engagement and community commitment.
 - Canterbury has made significant progress towards setting environmental limits through the Land and Water Regional Plan (LWRP) which sets limits that require farmers and other land users to 'hold the line' and not increase nitrate losses.
 - Zone Committees are now supported on the ground by Environment Canterbury Zone Delivery Teams working with community groups and individuals to facilitate change to protect and improve water quality and ecosystem health.
 - The Immediate Steps biodiversity protection and restoration programme continues to be an integral part of the CWMS supporting more than 510 projects (such as planting and fencing of waterbodies and waterways) totalling \$10.3 million.

- As tangata whenua, Ngāi Tahu are integral to the CWMS. The Tuia Joint Work Programme has resulted in changes in organisational culture, processes and engagement practices and improved relations and interaction with Ngāi Tahu, particularly at a rūnanga level.
 - Improvements have been achieved due to stricter and more targeted planning rules, more planting and fencing of streams, better effluent management, improved irrigation practices, biodiversity restoration projects, smarter technology and investment in on-farm systems, better on-farm training, improved compliance and monitoring, as well as the programme of industry agreed Good Management Practice (GMP) and the introduction of audited Farm Environment Plans (FEPs) for most farms in Canterbury.
4. The 2019 report uses the same structure and layout as the 2017 report for consistency.
 5. The commentary for each target focuses on achievement towards the 2020 goals but also references earlier goals where required – just as the 2017 report did. Minor changes have been made to some graphics to provide clearer links to progress towards targets.
 6. Changes from the Fit for Future Review project are not applied to the 2019 targets report and will be reported against in the 2021 targets report.

Background

7. An assessment of progress made against the CWMS Targets is made by Environment Canterbury every two years. This update is presented in a formal, written document which is provided to the Mayoral Forum, the Regional Committee and the 10 zone committees. Other stakeholders are also provided with the report and briefed if appropriate. The report is also uploaded to the Environment Canterbury website for public information.
8. The first draft of the attached document was provided to the Regional Water Management Committee on 4 June 2019 for their feedback. The final draft was provided to the Canterbury Chief Executives Forum on 22 July.

Communication timeframes

9. A communications plan for the Targets Progress Report 2019 has been prepared outlining key messages, timeframes for release of information and engagement with a range of key stakeholders and interested parties.
10. Key messages have been summarised in the executive summary of the CWMS Targets Progress Report 2019.
11. The proposed communications and stakeholder engagement timetable is provided in the table below.

DATE	ACTION
9 August	Mayoral Forum received the report
by 23 August	Hard copies of report and letter to: <ul style="list-style-type: none"> • Chairs of zone committees and regional committee • All Regional Committee members
by 23 August	Hard copies of report and letter to: <ul style="list-style-type: none"> • Rūnanga chairs • TRoNT
by 23 August	Hard copy and email letter with PDF of report from Chair of Mayoral Forum to: <ul style="list-style-type: none"> • Minister for the Environment, Minister for Conservation, Minister of Agriculture and Minister of Local Government • CEOs of Ministry for the Environment, Ministry of Primary Industries, Department of Internal Affairs, Department of Conservation, and Land Information New Zealand.
by 23 August	Email to all zone committee and regional committee members with link to web-page.
by 23 August	Report on Environment Canterbury website with contextual story including key highlights. Media release with link to report on website.
by 23 August	Canterbury territorial authorities and CDHB – email/letter from CEO Environment Canterbury: <ul style="list-style-type: none"> • link to website story emailed to CEs, communications managers, and key operational staff.
by 30 August	Advocacy groups: link to website story emailed to key contacts with letter outlining key findings and trends, including: <ul style="list-style-type: none"> • Fish & Game • Forest & Bird • Greenpeace • Environmental Defence Society
by 30 August	Stakeholder groups: link to website story emailed to key contacts with letter outlining key findings and trends.
by 30 August	Agribusiness groups and industry: link to website story emailed to key contacts with letter outlining key findings and trends, including: <ul style="list-style-type: none"> • Federated Farmers • Irrigation NZ • DairyNZ • FAR • NZ Pork • Beef + Lamb • HortNZ • Deer Industry • Fonterra • Synlait

Next steps

- The Targets Progress Report 2019 will be available on www.ecan.govt.nz and provided to all stakeholders by 30 August 2019.

Attachments

- The CWMS Targets Progress Report 2019 has been distributed separately with the agenda.

Agenda Item No: 8	Subject Matter: What did the Chairs & Deputy Chairs tell us: Watershed 2020 – Key Themes
Report to: CWMS Regional Committee	CWMS - Target/s Areas
Report by: Elaine Greaves Committee Advisor	Date of Meeting: 13 August 2019

Chair, Hugh Logan and Facilitator, Lesley Woudberg will speak to this item.

Agenda Item No: 9	Subject Matter: Zone Committee Reports
Report to: CWMS Regional Committee	CWMS - Target/s Areas
Report by: Elaine Greaves Committee Advisor	Date of Meeting: 13 August 2019

PURPOSE

Zone Representatives will provide an example of a project in their zone that demonstrates collective leadership (FFF strategic issue):

- What can we learn from these examples?
- How do we increase the number/scale of examples?
- How do we tell these stories?

Agenda Item No: 10	Subject Matter: 'Big Issue' – Collective Leadership
Report to: CWMS Regional Committee	CWMS - Target/s Areas
Report by: Elaine Greaves Committee Advisor	Date of Meeting: 13 August 2019

PURPOSE

Discussion around:

- How do we develop collective leadership?
- How do we inspire others?
- Who do we need to inspire?

Agenda Item No: 11	Subject Matter: Update from Central Government Agencies
Report to: Canterbury Water Management Strategy Regional Committee	CWMS - Target/s Areas All
Report by: John Benn (DOC) Murray Doak (MPI) Nick Vincent (MFE)	Date of Meeting: 13 August 2019

Purpose

1. To ensure the Regional Committee is informed about the initiatives and activities of central government agencies.
2. Reflect on how these initiatives and activities may influence the work of the Regional Committee.
3. Identify opportunities to help further drive the implementation of the Canterbury Water Management Strategy.

Recommendation

That the Canterbury Water Management Strategy Regional Committee:

1. **Notes the latest information provided by central government agencies.**

Report

Department of Conservation (DOC):
Update for the
Canterbury Regional Water Committee Meeting
(13 August 2019)
John Benn
CWMS Co-ordinator
Department of Conservation
Christchurch
jbenn@doc.govt.nz

DOC activities re: water management since the last Regional Committee meeting

Business as usual matters:

I have attended the monthly water zone committee meetings on behalf of DOC and Rachel Brown (Community Ranger, Mahaanui Office) continues to represent DOC, in developing a management plan for the Selwyn River, along with ECan, other stakeholders and interested parties.

In early July, DOC appointed Brad Edwards to a newly created position of River Restoration Ranger (Based in the Geraldine/Raukapuka Office). This position was established from funding in the 2018 Budget, as part of nation-wide river restoration objectives. Brad's role will focus on biodiversity and habitat restoration projects in the Rangitata River (mountains to the sea), and in the Lower Waitaki River (below the Waitaki Dam).

Key messages relating to the nation-wide river restoration projects are:

Freshwater funding from Budget 2018 will see DOC work collaboratively and in partnership with Treaty partners, regional councils, other government agencies such as MfE and MPI, existing community restoration groups, private landowners, Fish and Game, universities, science institutions, private business partners and local councils.

Restoring the ecological integrity of our river catchments will contribute to the long-term resilience of freshwater systems and the native species they support.

DOC will invest \$8 million of the Budget 2018 funds to support the ecological restoration of the priority river catchments over the next four years, ramping up to \$3.6m per year thereafter.

Priority river funding will put more staff on the ground and provide more technical expertise so DOC can work with partners and communities on the best ways to restore river catchments.

With our partners we will identify threats and pressures, and opportunities and activities for restoration.

Depending on the river catchment, restoration activities could include work with partners on habitat restoration, pest control, establishing water quality and quantity limits, addressing fish barriers, managing fishing pressures, creating ecological linkages and corridors, and safeguarding against climate change.

Partnerships will be the key to successful river catchment restoration. The new funding, on its own, won't deliver full ecological restoration at each of these catchments.

22 July: Janine Sidery (DOC Statutory Manager) attended the latest BRAG meeting at ECan, generally discussing progress to date.

29 July: Herb Familton and I (DOC) met with Paul Hulse and Ruth Sarson (ECan) to discuss the Milns Drain maintenance eel-kill issue and ways to resolve such occurrences. Was a positive meeting with a good outcome being met (new rules in Omnibus PC7).

DOC staff (including me) are working on the Department's submission for Proposed Plan Change 7 to the Canterbury Land and Water Regional Plan.

Upcoming work:

- Business as usual re: water zone meeting attendance and support/follow-up.
- The River Restoration Ranger officially commences his role on August 26th.
- DOC's submission on PC7 is due on September 12th.

- The hui scheduled for 31 July at the Arowhenua Marae, to discuss the Ashburton Lakes water quality was postponed. A new date has yet to be set.

Ministry for Primary Industries



02 August 2019

Good afternoon

“Every innovation starts with an idea, and often that’s the easy part – the challenge is bringing it to life.”

At the Ministry for Primary Industries, we’re committed to backing projects that will make a positive and measurable impact in the food and fibre sectors, from the paddock or ocean to the plate.

We’d like to invite you to a short workshop to discuss your project ideas with our team, to better understand how best we can partner with you. Our Sustainable Food and Fibre Futures (SFF Futures) programme can invest in small grants right up to multi-million dollar, multi-year partnerships, and all the exciting projects in between.

SFF Futures is a gateway for farmers, growers, businesses, researchers (including Crown Research Institutes), industry organisations, and community groups to secure co-investment for projects that will make a positive and measurable impact in the food and fibre sectors. We are looking for projects that will enable benefits for these sectors and for New Zealand.

No matter how big or small, if you’ve got good ideas that will make a difference to the food and fibre sectors please come along to our workshop to talk one-on-one with our team (details below).

You’ll need to be able to explain how your idea could deliver sufficient benefits to New Zealand to justify SFF Futures investment, and how this investment support would enable you to be more ambitious and achieve more. This could include enabling a bigger impact in a shorter timeframe or approaching the project in a different way.

Please note that space is limited at each of our workshops, so please reserve your spot early. To RSVP, please contact us at SFF.Futures@mpi.govt.nz

When 27 August
Start time 9:30
Where Commodore Airport Hotel

Workshop programme

9.30am Meet and greet over a cuppa.

10:00am A short introduction to SFF Futures and the MPI team. Followed by a 15 minute Q&A

10.30am Workshop – assess emerging big ideas and potential; identifying barriers.

10.45am Feedback and summary session. Workshop closes.

11.45-12.45pm Short (15 minute) one-on-one sessions to discuss your specific idea/project.

Email us with your preferred time slot.
SFF.Futures@mpi.govt.nz

Ministry for the Environment

Essential Freshwater proposals discussion document.

Subject to Cabinet decisions the Ministry for the Environment is expecting to release the Essential Freshwater consultation document soon. Following the release of the document there will be a national roadshow to discuss the proposals. We will email the details of the roadshow when they are confirmed.

Agenda Item No: 12	Subject Matter: Regional Water Infrastructure Work Programme 2018 - 2019
Report to: Canterbury Water Management Strategy Regional Committee	CWMS - Target/s Areas All
Report by: Brett Painter (ECan Project Leader CWMS Assessments) Dennis Jamieson (ECan Project Leader CWMS Infrastructure)	Date of Meeting: 13 August 2019

Purpose

To report on the 2018 -2019 Regional Infrastructure Work Programme.

Recommendation

That the Canterbury Water Management Strategy Regional Committee:

- 1. Notes the Regional Water Infrastructure Work Programme 2018 – 2019.**
- 2. Recognises the role infrastructure plays in the delivery of all the Canterbury Water Management Strategy Target areas.**

Report

The Canterbury Water Management Strategy identifies infrastructure as a means to contribute to all CWMS target areas, not just the supply of water for irrigation and hydro-electricity. Infrastructure can also address future-proofing issues such as ecosystem support in a changing climate and water quality management through enhanced reliability and distribution efficiency.

Refer to the Annual Summary attached.

Portfolio	Canterbury Water Management Strategy
Programme Programme Manager	CWMS Infrastructure Caroline Hart
Project Leads	Brett Painter (Project Leader CWMS Assessments), Dennis Jamieson (Project Leader CWMS Infrastructure)
Endorsed by	Dann Olykan (Team Leader, CWMS)

Regional Water Infrastructure Work Programme

The CWMS identifies infrastructure as a means to contribute to all CWMS target areas, not just the supply of water for irrigation and hydro-electricity. Infrastructure can also address future-proofing issues such as ecosystem support in a changing climate and water quality management through enhanced reliability and distribution efficiency.

While the CWMS is a collaborative process involving all councils across Canterbury, infrastructure development is based on cooperation and coordination, while recognising the commercial goals of the parties involved. Infrastructure options are being considered and progressed with a vision for an integrated water infrastructure across Canterbury.

Environment Canterbury’s CWMS Infrastructure Team continues to facilitate the development of a regional infrastructure solution that aligns with all the targets of the CWMS and the recommendations in the zone and regional implementation programmes.

Regional Water Infrastructure Work Programme - Annual Summary

To provide updates regarding CWMS infrastructure activities and opportunities.

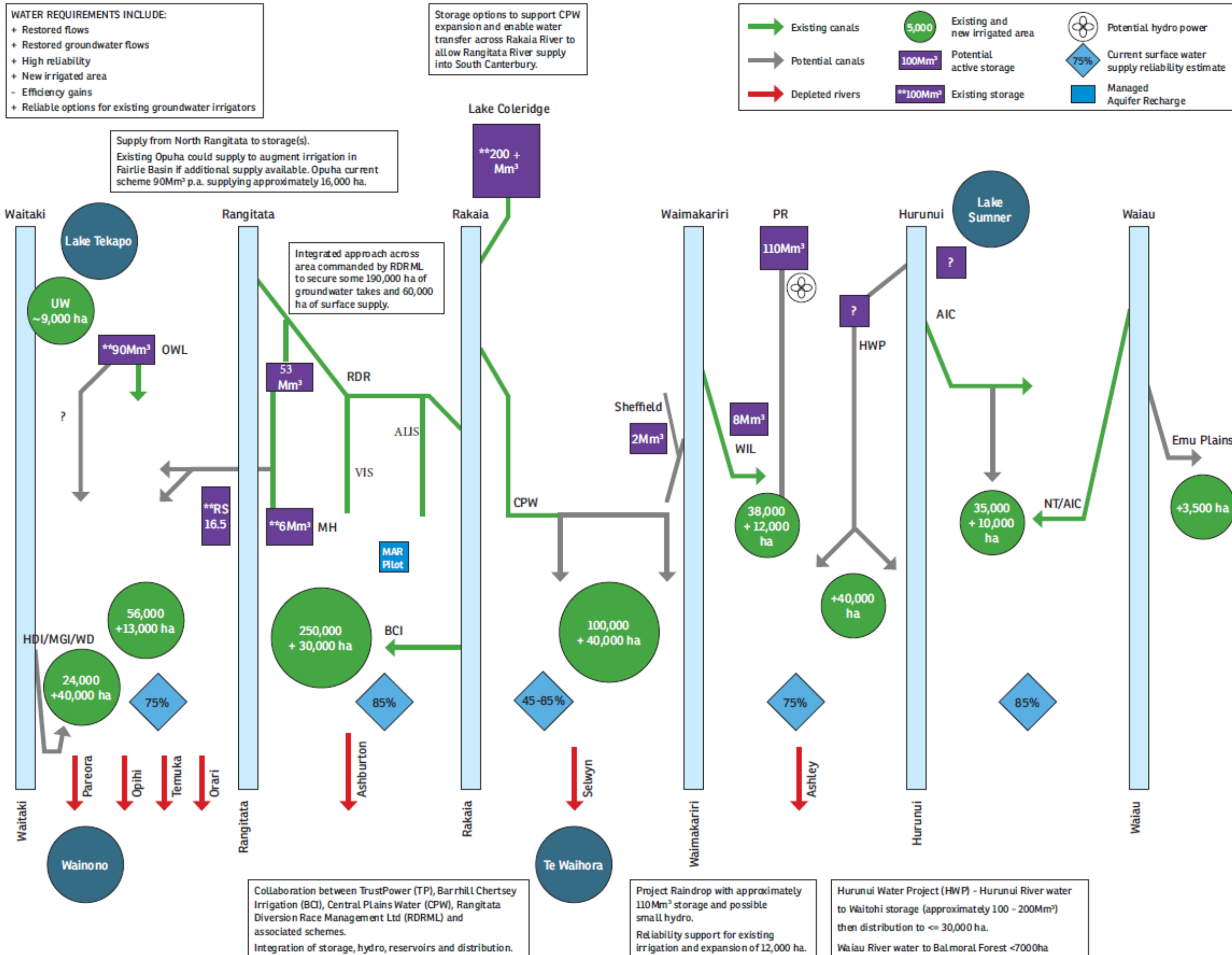
Node/Zone	Projects	Quarter 1: Update	Quarter 2: Update	Quarter 3: Update	Quarter 4: Update
1. HURUNUI-WAIAU/KAIKOURA	1) Amuri Irrigation Corporation (AIC).	<ul style="list-style-type: none"> Amuri Irrigation Corporation (AIC) considering HWRR Plan Change application for Glenrae (Zone B to Zone C) - on hold until December. 	<ul style="list-style-type: none"> Amuri Irrigation Corporation (AIC) considering HWRR Plan Change application for Glenrae (Zone B to Zone C) - on hold until December. 	<ul style="list-style-type: none"> Amuri Irrigation Corporation (AIC) pipeline project completed. Potential HWRR Plan Change application for Glenrae (Zone B to Zone C) now considered very unlikely in the near future, though could still feature in 2022 plan review considerations. 	<ul style="list-style-type: none"> Amuri Irrigation Corporation (AIC) - considering additional groundwater nutrient management options such as Managed Aquifer Recharge.
	2) Emu Plain (EP) 3) Hurunui Water Project (HWP)	<ul style="list-style-type: none"> Emu Plains Irrigation consent applications to divert, take & discharge are in process (working through technical issues). Hurunui Water Project extended Product Disclosure Statement (PDS) to end of September. Storage consent application in process. Waipara discharge consent application suspended until 23 October to allow for more consultation with Ngāi Tahu/Ngāi Tūāhuriri. 	<ul style="list-style-type: none"> Emu Plains Irrigation consent applications to divert, take & discharge are in process (proponents are currently providing additional analysis of water quality effects). Hurunui Water Project shareholders have voted unanimously to sell their project consents to Amuri Irrigation Company (AIC). AIC is working through this process. The project’s Waipara discharge consent application was heard on 23/24 October; the decision timeframe is unknown. 	<ul style="list-style-type: none"> Emu Plains Irrigation consent applications to divert, take & discharge are in process. Proponents currently providing additional analysis of water quality effects. Hurunui Water Project shareholders have voted unanimously to sell the project consents to AIC. AIC working through process, with a take-over proposal for HWP and AIC shareholders expected mid-March. 	<ul style="list-style-type: none"> Emu Plains Irrigation consent applications to divert, take & discharge are in process. Proponents still working on mitigations for water quality effects. Hurunui Water Project - AIC take-over proposal approved by HWP and AIC.
2. WAIMAKARIRI	4) Waimakariri Irrigation limited (WIL)	<ul style="list-style-type: none"> Waimakariri Irrigation Ltd: Wrights Road storage – Environment Court completed 19 June 2018. Awaiting decision. 	<ul style="list-style-type: none"> Waimakariri Irrigation Ltd: Wrights Road storage – Environment Court completed 19 June 2018. Awaiting decision. Targeted Stream Augmentation and Permeable Reactive Barrier trials are underway in the Silverstream/Kaiapoi River catchment. 	<ul style="list-style-type: none"> Waimakariri Irrigation: Wrights Road storage – awaiting Environment Court decision. Targeted Stream Augmentation and Permeable Reactive Barrier trials are underway (with promising initial results) in the Silverstream/Kaiapoi River catchment. 	<ul style="list-style-type: none"> Waimakariri Irrigation Ltd: Wrights Road storage - interim decision indicates consent will be granted if additional requirements are included in consent conditions. Updated documentation provided as requested. Targeted Stream Augmentation and Permeable Reactive Barrier trials are underway in the Silverstream/Kaiapoi River catchment - promising early results.
3. SELWYN-WAIHORA	5) Central Plains Water (CPW) 6) Targeted Stream Augmentation (TSA) 7) Near River Recharge (NRR) 8) Electric Fish Barrier	<ul style="list-style-type: none"> CPW: Sheffield Scheme up and running. Stage 2+ partly operational while completing commissioning. The Broadacres TSA project: Final habitat enhancements awaiting spring to dry naturally. Mudfish ready for transfer once habitat enhancements are complete. Selwyn/Waikirikiri Near River Recharge project: <ul style="list-style-type: none"> Stage 1 Off-take construction complete. Initial plantation valuation complete. Land valued at \$185,000 (36.7 ha) and tree Net Present Value at \$170,000 (27.0 ha woodlot). Current Emissions Trading Scheme (ETS) value of \$187,000. Initial recommendation (David Owen) is to not purchase ETS credits. Vendor currently undertaking their own valuations. Engineering design and costs ready for Council confirmation (as per Section 9, Work 	<ul style="list-style-type: none"> CPW: Sheffield and Stage 2+ schemes are now operational. Additional remedial work next winter (Downers). The Broadacres TSA project: Final habitat enhancements awaiting spring to dry naturally. Mudfish ready for transfer once habitat enhancements are complete. Selwyn/Waikirikiri Near River Recharge project: <ul style="list-style-type: none"> Stage 1 Off-take construction complete. Phase 2 Engineering costs and additional land purchase funding approved by Council on 8 November. Final land valuation assessment received and accepted on 21 November. Sale and Purchase documentation now being finalised. Te Taumutu Kaitiakitanga Portfolio have approved the proposed native planting concept and contractor. Consenting processes on-going. 	<ul style="list-style-type: none"> CPW: Stage 2+ scheme - additional remedial work required winter 2019. The Broadacres TSA project: habitat enhancement being finalised as spring nearly dry. Mudfish ready for transfer once habitat enhancements are complete. Selwyn/Waikirikiri Near River Recharge project: <ul style="list-style-type: none"> Land purchase – vendors have provided preliminary acceptance of Sale and Purchase documentation, with formal signed offer sent on 11 February. Consenting, construction planning / procurement and background monitoring on-going. Construction underway (11 February) on linked project to install Southern Hemisphere’s first electric fish barrier. 	<ul style="list-style-type: none"> Selwyn/Waikirikiri Near River Recharge project: Land purchased and cleared. Large mechanical components ordered. Construction contracting and land use consents nearly complete. Site blessing on 1 July. Haldon Springs Electric Fish Barrier: Project opened on 7 June. Final site works and certification still to be completed. Broadacres TSA: Temporary weir emplacement approved to enable downstream mudfish release prior to springs drying naturally. Construction and mudfish release planning on-going. The Waikirikiri/Selwyn River Plan Working Group presented a summary of their draft roadmap proposal to the Selwyn Waihora Zone Committee on 4 June. Water infrastructure projects featured strongly in this roadmap, with additional recommendations including performance monitoring of PC1, managing recreation impacts,

Node/Zone	Projects	Quarter 1: Update	Quarter 2: Update	Quarter 3: Update	Quarter 4: Update
		<p>Programme), but request on hold until plantation purchase information is ready for discussion at the same time.</p> <ul style="list-style-type: none"> Modelling of effects on local groundwater complete (no effects identified) in response to Stage 1 MoU. Stage 2 MoU in draft form awaiting CPW response. Consent documentation and land sub-division processes on-going. Linked project to install Southern Hemisphere's first electric fish barrier. Currently confirming final design and local contractors. <ul style="list-style-type: none"> Sea level rise and Te Waihora catchment effects: latest sea level rise research (Antarctic contribution in particular) suggests increased rate and magnitude over IPCC 2013 forecast. Sea level effects Te Waihora opening levels and lower catchment groundwater levels. 	<ul style="list-style-type: none"> Linked project to install Southern Hemisphere's first electric fish barrier. Design and contractors confirmed. Consenting processes underway 		and additional research on key nuisance and toxic algae.
4. ASHBURTON ZONE	<p>9) Ashburton Hinds Managed Aquifer Recharge (MAR)</p> <p>10) Rangitata Diversion Race (RDR) Klondyke Storage</p> <p>11) Barrhill Chertsey Irrigation (BCI)</p> <p>12) Ashburton Zone Committee (AZC)</p>	<ul style="list-style-type: none"> Ashburton-Hinds Managed Aquifer Recharge (MAR) project (see attached presentation): <ul style="list-style-type: none"> Year 2 reporting now available: www.ecan.govt.nz/Hinds-MAR (Outreach tab) Construction underway or complete at 14 new small-scale infiltration sites, with testing complete on first 6. South Hinds Near River Recharge (now called Hekeao/Hinds River Project) preparing for opening/planting/blessing day on 23 September. The clean water plume from the Lagmhor Pilot site has continued to advance and can be identified close to the southern Tinwald springs. A new deep soakage system has recently been installed to increase recharge rates. RDRML consents (Klondyke storage, high-flow take, fish screen) appealed. ADC have circulated a draft Surface Water Strategy for feedback. 	<ul style="list-style-type: none"> Ashburton-Hinds Managed Aquifer Recharge (MAR) project <ul style="list-style-type: none"> Deep soakage system installed at Lagmhor pilot site. Recharge rates have increased, with commissioning on-going to fine tune. 10 of the 16 new small-scale infiltration sites are now operational. South Hinds Near River Recharge (now called Hekeao/Hinds River Project) is now operational. Cumulative supply to all sites now reaches the 0.5 m3/s current allocation. 4 m3/s total MAR allocation is expected to be required to meet community objectives. Higher than expected nitrate concentrations have been measured in areas not yet influenced by MAR water. New economic analysis for the MAR Business Case has concluded that on-farm and MAR requirements to meet Plan Change 2 nitrate concentration targets are likely to be more challenging than anticipated. A new funding application to the Provincial Growth Fund is through to the full application round and a new community trust (The Hekeao Hinds Water Enhancement Trust) is being set up to lead this project. New BCI 1.5M m3 storage pond at Akarana became operational on 28 October. RDRML consents (Klondyke storage, high-flow take, fish screen) have been appealed and are in mediation. 	<ul style="list-style-type: none"> Ashburton-Hinds Managed Aquifer Recharge (MAR) project <ul style="list-style-type: none"> Deep soakage system installed at Lagmhor pilot site. Recharge rates have increased (to 150 l/s max thus far), with commissioning on-going to fine tune. 11 of the 16 new small-scale infiltration sites are now tested. Stock water race delivery ceased where E. coli levels are generally unacceptable. Delivery swapping to piped / pond supply or site shut down. Hekeao/Hinds River Project delivery infrastructure has been upgraded / automated. DOC consultants are following up on a potentially unique co-habitation of two skink species at the site. Cumulative supply to all sites now reaches the 0.5 m3/s current allocation. 4 m3/s is expected to be required to meet community objectives. Higher than expected nitrate concentrations have been measured in areas not yet influenced by MAR water. New economic analysis for the MAR Business Case has concluded that on-farm and MAR requirements to meet Plan Change 2 nitrate concentration targets are likely to be more challenging than anticipated. A new funding application to the Provincial Growth Fund is through to the full application round for a 30-month project to conclude feasibility assessments. A new community trust (Hekeao Hinds Water Enhancement Trust) is being set up to lead this project, with final Trust document to be confirmed by MAR Governance Group on 22 February. Amendments to ADC's Water Strategy were confirmed on 19 December 2018, including clarification regarding current and potential use of currently allocated stockwater to MAR/TSA. Field trip from 0900 on 20 March available for ADC Councillors, Ashburton Zone Committee and ECan Councillors. RDRML consents (Klondyke storage, high-flow take, fish screen) in mediation. 	<ul style="list-style-type: none"> Hinds Managed Aquifer Recharge (MAR) project: <ul style="list-style-type: none"> Hekeao Hinds Water Enhancement Trust (HHWET) met for the first time on 31 May. 2018 average nitrate-nitrogen concentration for PC2 wells was 12.4 mg/l. Target by 2035 is 6.9 mg/l. Year 3 concluded with over 6 million m3 of clean water recharged (over 12 sites), up from 1.85 million m3 in Year 2 (just Pilot Site). PGF funding application has been held up but is now moving forward. Positive public meetings in April/May. Kahikatea wetland forest planted at Hinds Recharge site in April. RDRML consents: Appeals resolved for Klondyke storage and fish screen, but not high flow take.
5. SOUTH CANTERBURY	10) OTOB Sub-Regional Plan	<ul style="list-style-type: none"> OTOB Conceptual Infrastructure Design and Costing study: Project concluded late February 2018. Partial or full replacement of current groundwater consents. Technically feasible supply 	<ul style="list-style-type: none"> OTOB "New" water: Awaiting outcomes of OTOB ZIP, Rangitata Irrigation Scheme purchase process (expected to conclude early December) and RDRML consent appeals. RSIS purchase 	<ul style="list-style-type: none"> Rangitata South Irrigation Scheme (RSIS) purchased by scheme shareholders in late November 2018. This may potentially provide an alternative supply source for some OTOB 	<ul style="list-style-type: none"> Rangitata South Irrigation Scheme (RSIS) now owned by scheme shareholders. OTOB water user meeting on 4 June. Support for lower catchment switch to deep groundwater but

Node/Zone	Projects	Quarter 1: Update	Quarter 2: Update	Quarter 3: Update	Quarter 4: Update
	11) Hunter Downs Water (HDI) 12) Kurow-Duntroon Irrigation Scheme 13) Rangitata South Irrigation Scheme (RSIS)	<p>options and pipeline identified, but none are currently considered financially feasible. Follow up meetings have taken place with local/regional/national governors, OTOP Zone Committee and local shareholders. Lower catchment alternatives are deep groundwater and local storage of currently consented groundwater. New Temuka consent assessment concluded that the catchment is significantly over allocated. No 'spare' Opuha system water.</p> <ul style="list-style-type: none"> Recent OTOP-related climate research suggests: <ul style="list-style-type: none"> o OTOP has highly variable climate due to geography; o Continued declining snowpack due to temperature rate increasing with elevation; o More regular intense rainfall events and river freshes; o Faster sea level rise than previously thought, with impacts on lower catchment ground/surface water and infrastructure (e.g., Seadown Drain area). Hunter Downs Irrigation scheme progressing despite withdrawal of Crown Irrigation Investments Fund from scheme. PDS issued 10 August 2018. 	<p>(remaining shares) by shareholders confirmed on 27/11. New scheme operator is Downers. Further meetings planned to discuss OTOP options.</p> <ul style="list-style-type: none"> Kurow-Duntroon Irrigation scheme is expecting to start construction early 2019 on an ~18-month construction programme. Hunter Downs Irrigation scheme not progressing following insufficient investor funding. Draft protocol ready for Wainono. 	<p>groundwater users. On-farm storage is still a strong option for other groundwater users.</p> <ul style="list-style-type: none"> Kurow-Duntroon Irrigation scheme began construction in early 2019 on an ~18-month construction programme. Hunter Downs Water (HDW) scheme will not proceed in its current form due to lack of investor funding. 	<p>importance of integrated rather than individual upper catchment solution.</p> <ul style="list-style-type: none"> Kurow-Duntroon Irrigation scheme began an ~18-month construction programme in early 2019.
6. REGION WIDE	14) Fish Screens 15) Funding opportunities 16) Three Waters Review 17) Braided River Flow regimes 18) Climate and weather impacts	<ul style="list-style-type: none"> Fish Screen Working Group in place between multiple organisations to provide information to assist private sector to develop options for non-compliant/ineffective current systems. "Future Food Group" has Provincial Growth Fund application in the queue. Concerns about current low flows and general flow regimes in alpine and lower plains rivers influenced by infrastructure from multiple parties. 	<ul style="list-style-type: none"> Fish Screens - Industry focus assisted by compliance programme and aligned concerns (impact of infrastructure on fisheries) in Otago, Waikato and elsewhere. "Future Food Group" has Provincial Growth Fund application in the queue. Three waters. General theme is the need for "Good Infrastructure Practices". Prioritisation matter for the organisations with the infrastructure to work through with Central Government. CWMS input to all 3 waters coordinated with ECan regulatory and Science groups. Water use efficiency. Ongoing indications that there is a large potential to use water more efficiently in irrigation. Water balance model is being developed by ECan science for the Rakaia to give insights into the flow regime resulting from current infrastructure - diversions, abstractions, storage etc. Wide range of stakeholders concerned about both compliance and "outcomes" related to modified flow regimes in Rakaia and other rivers. 	<ul style="list-style-type: none"> Rakaia Water Balance project underway to understand flow regime in Rakaia. External concerns about flow, biological and geomorphological changes in braided rivers - Rakaia and Rangitata Rivers in particular. Evolution of electricity system may lead to changes flow/level variability in waterbodies with hydroelectric infrastructure. Fish Screen Working Group progressing -. Offer of \$105K to match industry funds for information to complement 2007 guidelines from MPI. Fit for the Future process further reinforcing the need for more rigour in water use practices. Three Waters input over role clarity, need for good practices and non-regulatory/ regulatory coordination. 	<ul style="list-style-type: none"> Climate: <ul style="list-style-type: none"> o Climate update and role of water infrastructure for climate adaptation presented to Selwyn Waihora Zone Committee in March and three Hinds MAR community meetings in April / May. o Timaru District Council and Hurunui District Council providing case studies (Pareora River and Hanmer Springs) for consideration in "Deep South" research challenge on risks that future droughts might pose to our drinking water supply systems. o El Niño Southern Oscillation (ENSO) is returning to neutral conditions following a mild El Niño event. Interdecadal Pacific Oscillation (IPO) may have moved into a positive phase following 20 years in negative phase. Historically, a positive IPO phase means increased El Niño dominance for New Zealand and increased acceleration of global temperature. Fish screening <ul style="list-style-type: none"> o Irrigation NZ is leading an MPI Sustainable Food and Fibre Futures ("SFF") fund supported project concept (\$170K) to provide information to improve Fish Screen practices. This work is coordinated with the active ECan Operations programme via CME and Consents. "Understanding Rakaia/Coleridge flows" processes continuing. <ul style="list-style-type: none"> o Initial data has been acquired from Trustpower and is ready for the next stage of engagement with interested parties. Three waters infrastructure. <ul style="list-style-type: none"> o CWMS activities (infrastructure and Zone) are geared to encourage adoption of "Good Infrastructure Practices" by TA's and coordinated with regulatory ECan activities. Stormwater quality improvement is proving the most progressive including kahikatea wetland forests in CCC stormwater detention basins.

Data Sources	Document	Peer Review	Meeting
Q1	https://punakorero/groups/CWMS/WaterInfra/Council_InfrastructureUpdate20Sept2018.docx	Brett Painter, Dennis Jamieson	Annual report presented at Regional Water Committee on 13 August 2019
Q2	https://punakorero/groups/CWMS/WaterInfra/Council_InfrastructureUpdate30Nov2018.docx	Brett Painter, Dennis Jamieson	
Q3	https://punakorero/groups/CWMS/WaterInfra/Council_InfrastructureUpdate15Feb2019.docx	Brett Painter, Dennis Jamieson	
Q4	https://punakorero/groups/CWMS/WaterInfra/Council_InfrastructureUpdate21Jun2019.docx	Brett Painter, Dennis Jamieson	

Regional Water Infrastructure – vision for integration



Agenda Item No: 13	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: 13 August 2019

Purpose

Provide the Regional Committee with information on:

- Dates for meetings and events
- Progress – issues raised in previous meetings
- Media
 - 2 July – How clean is our drinking water? (attached)
 - 9 July – Small changes have big impact (attached)
 - 20 July – Plan Change 7 *Land and Water Regional Plan* notified
<https://ecan.govt.nz/get-involved/news-and-events/2019/plan-change-7-and-plan-change-2-what-you-need-to-know/>
 - 24 July – Weeding project targets 40,000 ha (attached)
 - 31 July – Mayors walk the talk on water
 - 1 August - Waimate prepares for water meters (attached)

Recommendation:

That the Canterbury Water Management Regional Committee:

1. **Notes the Facilitator's report.**

Report

Dates, Meeting and Events

Dates 2019	Meetings and Events
13 August	Regional Cmtt meeting
1st week Sept	Fish Screen Working Group mtg Option ½ day Field visit (TBC)
10 September	Regional Cmtt meeting
8 October	Regional Cmtt Working Groups (TBC)
12 October	Local Govt Elections
12 November	Regional Cmtt meeting (TBC) Option Field visit – drinking water protection zones (TBC)
10 December	Regional Cmtt Working Groups (TBC)

1. Progress - Issues Raised During Previous Meetings

ACTIONS FROM PREVIOUS MEETINGS		Who	Status
12 Dec 2017	Weed Strike Force Weed control Te Waihora	Interested in progress and alternatives to the use of chemical sprays	Presentation/discussion on progress – Lead agency DOC Scheduled 10 Sept
11 Dec 2018	Water Usage Compliance Monitoring	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	Update Scheduled Nov 2019
11 June	Biodiversity, freshwater goals and the Climate Change Bill	Ecan to consider this issue in its submission on the CC Bill	Ecan submission https://ecan.govt.nz/get-involved/news-and-events/2019/submission-on-climate-change-response-zero-carbon-amendment-bill/
	Briefing on ECan and CCC climate change and ecological emergencies	ECan and CCC	Scheduled 13 August
	Provide advice on principles to incentives landowners	Regional cmtt	Scheduled 10 September

2. Central Government

INITIATIVE	ETA
3 Waters Review	<p>Progress update – August 2019</p> <p>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: https://www.beehive.govt.nz/portfolio/labour-led-government-2017-2020/local-government).</p> <p>A new regulatory framework for drinking water will include:</p> <ul style="list-style-type: none"> an extension of the regulatory coverage to all drinking water suppliers, except individual household self-suppliers; a multi-barrier approach to drinking water safety, including mandatory disinfection of water supplies, with exemptions only in appropriate circumstances;
National Environmental Standard - Drinking Water	

	<ul style="list-style-type: none"> • stronger obligations on water suppliers and local authorities to manage risks to sources of drinking water; and • strengthened compliance, monitoring and enforcement of drinking water regulation. • While regional councils will remain the primary regulators for the environment, there will be stronger central oversight of wastewater and stormwater regulation, including: • requirements for wastewater and stormwater operators to report annually on a set of national environmental performance measures; • national good practice guidelines for the design and management of wastewater and stormwater networks; and • monitoring of emerging contaminants in wastewater and stormwater and coordinating national responses where necessary. <p>A new dedicated water regulator will be established to oversee the regulatory regime. The regulator will have a range of responsibilities and functions, including sector leadership; standards setting; compliance, monitoring and enforcement; capability building; information, advice and education; and performance reporting. The scope, roles and institutional form of the regulator (including whether to include regulation of all three waters within a single regulator, or separate entities) will be the subject of further Cabinet consideration in September this year.</p> <p>The majority of these reforms will be implemented through a Water Services Bill. The Government is aiming to introduce this Bill by the end of the year, with possible enactment by mid-2020. The legislation will include transitional arrangements to allow water suppliers to adjust to the regulations, with support from the new regulator, if necessary.</p> <p>Full details about these decisions are available in the Cabinet paper and associated Regulatory Impact Assessment 'Strengthening the regulation of drinking water, wastewater and stormwater' (below). Further information about the next steps for three waters reform is available in the Cabinet paper 'A plan for three waters reform' (also below).</p>
National Policy Statement – Freshwater Amendments	TBC
National Policy Statement – Biodiversity Amendments	TBC
Resource Management Act Amendments	<p>24 July 2019 Comprehensive overhaul of the RMA</p> <p><i>Hon David Parker</i></p> <p><i>Environment</i></p> <p>The Government has today launched a comprehensive overhaul of the Resource Management Act (RMA) to cut complexity and costs and better enable urban development, while also improving protection of the environment.</p> <p>Environment Minister David Parker said that close to 30 years after it was passed the country's main law managing built and natural environments was not working as well as intended.</p> <p>"It is unacceptable for this cornerstone law to be underperforming in a country that values protection of the environment while properly housing its people," David Parker said.</p>

	<p>“Our aim is to produce a revamped law fit for purpose in the 21st century that will cut complexity and cost while better protecting our environment. “While not the sole cause of the housing crisis, planning rules are partly to blame. Environmental outcomes have been disappointing. Freshwater quality has been going backwards.”</p> <p>Amendments to the RMA since 1991 have added complexity. “It’s close to twice its original length, making the RMA more and more unwieldy to interpret, and hampering its effective implementation.”</p> <p>There had also been too little spatial planning in and around growing urban areas.</p> <p>“We need to create a system that better enables economic growth within environmental limits and which aligns the economy with the environment. Further ad hoc patch-ups and work-arounds are not the answer. We need a thorough overhaul of the law.”</p> <p>David Parker said a reform project initiated by the Environmental Defence Society with input from Infrastructure NZ, the Property Council and the Employers and Manufacturers Association (Northern) had highlighted the need for change and how to address it.</p> <p>“The review needs to address urban development, environmental bottom lines, and effective – but not overly complex – participation, including by Māori.”</p> <p>Also in scope is whether the crucial Part 2 – or its equivalent – should sit in the RMA or in a separate piece of law. Part 2 sets out the principles and purposes of the RMA and sets the objective of “sustainable management”. “Subsequent legal cases have helped clarify what it means. We will take care not to unnecessarily discard those legal precedents,” David Parker said.</p> <p>The overhaul will be led by a panel chaired by retired Appeal Court Judge Tony Randerson, who brings extensive legal and resource management expertise to the task.</p> <p>It is expected to produce a proposal for reform, including drafts of key legislative provisions, by mid-2020.</p> <p>Meanwhile, the Government will press ahead with work to improve freshwater quality and urban development, protect highly productive land and indigenous biodiversity, and reduce waste, because these are urgent and cannot wait for the comprehensive reform plan.</p> <p>David Parker said a Bill to amend the current RMA will be introduced in the next few months to address urgent issues, pending the comprehensive rewrite.</p>
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3. Media

Mayors Walk the Talk on Water

31 July

Selwyn’s mayor Sam Broughton and other Canterbury mayors have reconfirmed their support for working together on looking after the region’s water resources.

In a refresh of the Canterbury Water Management Strategy (CWMS), members of the Canterbury Mayoral Forum have confirmed their support for the strategy. The forum also adopted new goals to improve and manage water in Canterbury and charged Environment Canterbury to work with councils and partners to find solutions for those goals.

Broughton says the CWMS is an outstanding example to the rest of the country of a united, regional approach to managing water.

Under the CWMS, 10 local zone committees with council, community and rununga members provide recommendations to Environment Canterbury on how to best address issues at a local level. These can result in local rules in the form of plan changes that control certain activities in order to deliver the results the community requires.

The Selwyn Waihora Zone committee has been a driving force behind several key projects, Broughton said.

"The whole province working together is helping us to make a significant difference in improving water systems in Canterbury and protecting them for the future. We have seen some big projects in Selwyn to support our district, but it's important to work together on such an important and precious resource as water."



How clean is our drinking water?

Standards largely met for people served by large supplies but glass not so full for others, stocktake reveals

Jamie Morton science

A new stocktake has revealed drinking water supplies in some of New Zealand's main centres have failed to meet a key safety standard.

The Ministry of Health's latest drinking-water report assessed all networked supplies serving more than 100 people between July 2017 and June 2018.

It found 97.7 per cent of 3.8 million people were getting water that met bacteriological standards – up 1.5 per cent on the previous year. But there was a big variation when it came to size of supplies.

Standards were met for 95 per cent of people served by large supplies, but only 76.8 per cent on medium supplies – and just 57.5 per cent of those using small supplies.

Among the nine large supplies that fell short were Dunedin, Ōamaru, Napier, Whanganui, Blenheim and Rotorua East.

The standards were set according to microbiological “maximum allowable values” which, if exceeded, could expose people to pathogens such as *E. coli* that cause acute illness. Those most at risk of infection included infants and young children, the sick, and the elderly.

Further, 7.5 per cent – or roughly 288,000 people – received drinking water that wasn't adequately monitored for these standards, and 8700 were getting water that wasn't monitored at all.

More than 34,000 people were getting water with an “excessive” number of transgressions involving *E. coli*.

“The presence of *E. coli* in water indicates that the water has been contaminated with faeces and inadequately treated, or may result from contamination of the water during post-treatment distri-

bution to the community,” the report found. “In either case, the presence of *E. coli* means that other faecal pathogens could be present ... that pose a threat to public health.”

Following a tightening of requirements for secure bores after more than 5000 people fell ill in Havelock North's 2016 gastro outbreak, there was a jump in supplies failing to meet protozoal standards. Under these standards – which monitored the effectiveness of treatment used to remove or inactivate cryptosporidium – the number of compliant supplies fell from 83.1 per cent to 74.8 per cent.

Supplies that failed to meet those requirements included Christchurch Central, Napier, urban Hastings, Gisborne, Levin, Blenheim, Timaru, Queenstown and Wānaka.

The report also pointed to ongoing problems with a large proportion of the 493 small supplies covered.

Meanwhile, 84.7 per cent of those people were receiving water that complied with legislative requirements, while 99.3 per cent were serviced by a supply that now had a water-safety plan in place.

About 98.9 per cent of people were drinking water that met chemical standards, with fluoride the most commonly used, and serving 2,232,000 New Zealanders.

“Overall, conclusions from the report are that most New Zealanders receive safe drinking water,” said the ministry's director of public health, Dr Caroline McElnay.

“However some people, usually those in rural areas or smaller supplies, can't always access water of the same standard. This needs to change.

“The ministry has written directly to those suppliers

required to have a water-safety plan and who are still failing to comply with the act.”

The Government was continuing to push through 51 recommendations that stemmed from an inquiry following the Havelock North outbreak: “Work is well under way to continue to drive the improvements we need for drinking-water supply, both in the short and long term.”

Michael Baker, a professor of public health at the University of Otago in Wellington, said too much of the picture was still missing.

About 20 per cent of the population wasn't covered by the report – and it didn't account for the increased risk that sub-standard smaller supplies posed to tourists or holidaymakers from the cities: “This ... really does need additional effort to understand.”

Another problem, he said, was that the report didn't address the mounting problem of nitrates in water – something linked to colorectal cancer and other health risks.

“There is very little testing for nitrates ... I understand that less than 1 per cent of supplies are actually monitored for it.

“That's based on testing from quite a few years ago that suggested it wasn't a major problem, but since then, there has been increasing knowledge that low and intermediate levels of nitrates in drinking water are associated with adverse health outcomes.”

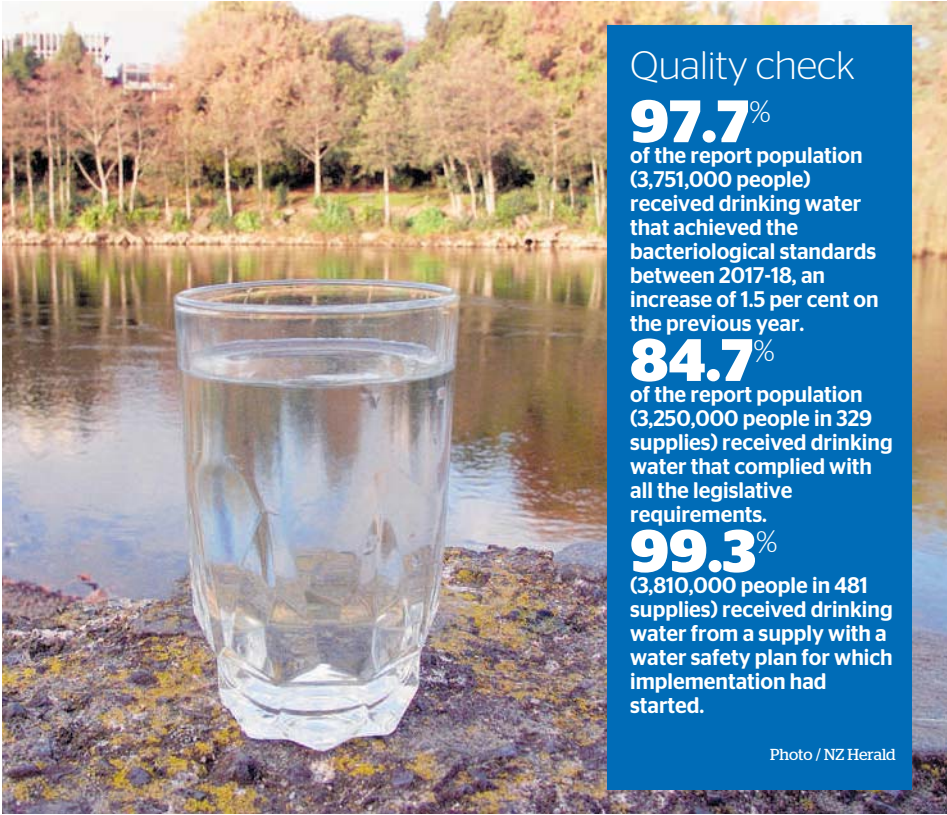


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09 JUL, 2019

Small changes have a big impact

Ashburton Guardian, Canterbury



Page 1 of 5

Small changes have a big impact

Small tweaks to farming operations and Government's climate change rules could have major spin-offs.

By LINDA CLARKE

Phill and Jos Everest say they're not perfect farmers, but they are among the early adopters of environmentally-friendly technology and practices that could help New Zealand agriculture reduce its greenhouse gas emissions.

And they're happy to share what they have learnt.

The couple converted their 273ha Flemington Farm into a dairy farm a decade ago and are one of three Mid Canterbury farms being monitored by DairyNZ for their greenhouse gas and nitrogen loss mitigation.

The Everests, 10km down Fords Road, are on heavy soils, with the herd moved to a run-off block in Carew for winter grazing. The other monitor farms are on different soils.

Phill said the couple cared about the environment and were prepared to try things. They have discovered small changes on farm can have an impact and they want to share their learnings.

Changes they have made

include adding chicory and plantain to their pasture, culling not-pregnant cows from the herd in autumn and ensuring they have capacity for 50 days of storage in their effluent pond.

All three farms in the DairyNZ project are in the Hinds plains catchment, where farmers must reduce their nitrate losses by 36 per cent by 2035.

And, like all farmers, they are mindful that agriculture may need to reduce its methane emissions by up to 47 per cent by 2050 to meet Government targets around climate change.

Continued on page 4



09 JUL, 2019

Small changes have a big impact

Ashburton Guardian, Canterbury



Page 2 of 5



Flemington farmer Phill Everest checks the pasture.

PHOTO ASHBURTON GUARDIAN

From page 3

They acknowledge they are a fairly recent conversion and are in a position financially to introduce changes. As a result they are already close to the N leaching target but have conversely high N₂O emissions.

Their modelling projections prepared by DairyNZ show that with their low level changes they will reduce N leaching and greenhouse gas emissions by 5 per cent, but profitability will fall by 4 per cent. If they build on their current work and adopt new practices over the next five years, they will reduce N leaching by a further 10 per cent, greenhouse gas emissions by 9 per cent and improve profitability by 13 per cent.

Their effluent system includes a weeping wall

that separates solids from liquids and they have recently discovered that adding a stirrer to their effluent pond to introduce oxygen could lead to it releasing less methane into the atmosphere.

They have had access to some smart scientists on their journey and both sides say continued learning from each other is essential. And on-farm management is crucial. They have been prepared to change their ways.

Their environmental practices include the efficient use of water, which comes from two bores. Water is used to cool the milk in the shed, then used for stock drinking water and the surplus is recycled for washdown and ultimately applied to pasture through the centre pivots.

Phill says most modern sheds use water efficiently this

way, but some of the district's oldest milking sheds will require some upgrading.

The Everests keep a close eye on soil temperature and soil moisture. If the temperature isn't above 5 degrees at 9am and rising then no N is applied as the grass won't be growing.

Their pasture has come under close scrutiny over the years. They have included Italian hybrid ryegrass (mixed with perennial ryegrass) that grows at a lower soil temperature and they have been adding plantain seeds with their fertiliser over recent years.

Phill says it is time for the Government to revisit its stance on genetically-modified or gene-edited plants.

"If I had a plant that would keep more nitrates out of the ground through a different root structure, and be more



09 JUL, 2019

Small changes have a big impact

Ashburton Guardian, Canterbury



Page 3 of 5

efficient with water, it would be better for all New Zealanders and the farming sector.”

The couple say this sort of gene-editing will be vital if New Zealand farmers are to produce food while having less impact on the environment.

They’re not talking about mixing frog DNA with plant DNA to make the plant stronger, they’re talking about selecting parts of a plant’s own DNA to make it stronger.

They have also kept a holistic view of their farming operation, aiming for happy cows, happy people and a healthy environment.

Some of their changes have meant changing the way they manage animals and pasture, like making sure the herd moves onto the ryegrass-chicory-plantain pasture before the plantain gets bitter or the chicory too mature.

They have also learned that the longer a cow stays in the herd, the more efficient it is. Cow longevity and in-calf rates are important to keep cows in the herd longer and less replacement heifers are required.

Phill says the average lactation of a milking cow in New Zealand is five years, but his top producing cow is 10 years old and happy.

“We have had a total focus on MS production in cow selection but things are changing. It is about how to get them in calf and how long they last in the herd.

If we can reduce the number of replacements and keep cows longer, we reduce our N losses and greenhouse gas because we

have more productive cows.”

A high producing cow can excrete 70 per cent of N ingested, while a dry cow can excrete 90 per cent.

Empties are now culled in

February/March so they are not urinating on or compacting pastures ahead of the late autumn/winter challenge which is the most significant risk period for N loss.

There has been an increased focus on winter feed options that leach N. Fodder beet is preferred to kale, though it needs more careful management.

The Everests have also planted 2000 natives recently as shelterbelts, though that is nothing in the Government’s eyes as shelter belts only qualify for carbon credits if they are over 10m wide.

The total planting area is 7ha on Flemington Farm, all in shelter belts.

Phill said while farmers were doing their best to tweak and change systems, Government needed to reconsider some of its rules, like including shelter belts, to engage more farmers.

The couple were visited by scientists from the New Zealand Agricultural Greenhouse Gas Research Centre recently and say the two-way discussion was valuable, and part of their continued learning curve.

DairyNZ new systems and co-development lead Virginia Serra said the Everests were among 30 partner farms in the Hinds and Selwyn district trying more environmentally-friendly practices.

“We are assessing what the current situation is, what changes have already been made and assessing some more options for the future. We model what impact that will have on the farm.”

She said DairyNZ had a webpage devoted to the partner farm programme and was planning extension activities for farmers that included field-days and ways to share information.



09 JUL, 2019

Small changes have a big impact

Ashburton Guardian, Canterbury



Page 4 of 5



Left – Phill and Jos Everest have planted 7ha of their dairy farm in natives for shelter.



09 JUL, 2019

Small changes have a big impact

Ashburton Guardian, Canterbury



Right – Phill and Jos Everest, and Hank the labrador, are preparing for a busy calving season.

ASHBURTON GUARDIAN



24 JUL, 2019

Weeding project targets 40,000ha

Timaru Herald, Timaru Canterbury



Page 1 of 1



The Dobson Valley where there will be a \$100,000 project to rid the area of a wide variety of invasive weeds such as crack willow, russel lupin, alder, elderberry, gooseberry, flowering currant, raspberry and hops.

Weeding project targets 40,000ha



Environment

Matthew Littlewood

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A major pest and weed control programme covering 40,000 hectares of South Canterbury high country will be launched in spring.

The project, which will focus on Dobson Valley and Hopkins River below the confluence with the Dobson, is to receive more than \$75,000 from the Canterbury water management strategy's immediate steps fund.

The move has been described as "vital" by Environment Canterbury's biodiversity officer Robert Carson-Iles.

"It ticks all of the required boxes," Carson-Iles said of the three-year project.

"It's one of those projects where the horse hasn't yet bolted and there is much we can do to protect the area."

Carson-Iles said the 40,000ha area included parts of Glen Lyon Station.

"The leaseholders have been very helpful throughout the preparation for this project.

"They're involved not because they have to be, but because they understand this is a great project for the environment."

Carson-Iles said a survey was carried out in February to identify the distribution of all known invasive weeds in the project area that have a capacity to alter ecosystems.

The key species identified were crack willow, russel lupin, buddleia, alder, elderberry, cotoneaster, gooseberry, flowering currant, raspberry and hops.

"There is going to be a chal-

"It's one of those projects where the horse hasn't yet bolted

..."

Robert Carson-Iles, ECan

lenge in removing these invasive species and replanting with natives," Carson-Iles said.

"The challenge is the scale and variety of the different weed species. Once the seedlings for these invasives spread, it's very difficult to get rid of them.

"It's about getting on top of them as soon as possible, and doing it in a way that ensures they don't resurface."

Carson-Iles said the Department of Conservation, Land Information New Zealand and Glen Lyon Station have also committed to supporting this project.

All told, it would cost more than \$100,000, with the bulk of the work being done in the first year.

"It's a properly collaborative effort. It's still a largely natural ecosystem compared to a number of places. We've got an opportunity to secure the place for the future," he said.



01 AUG, 2019

Waimate prepares for water meters

Timaru Herald, Timaru Canterbury



Page 1 of 1

Waimate prepares for water meters

Al Williams

Water meters are being weighed up for Waimate as the district council faces increasing compliance costs.

A report to the council’s infrastructure committee meeting on Tuesday said universal water metering “is the one tool that can have significant impacts on both water demand and losses”.

In his report, council water and waste manager Paul Roberts said council needed to reconsider water metering at some point in the future.

“Furthermore, a change in charging structure can also dramatically reduce consumption.”

Roberts told councillors: “I believe it’s [water metering] a fairer system.

“Those who want to have lush green

lawns all year round have to pay.”

Waimate mayor Craig Rowley backed Roberts’ comments.

“The first thing we have to consider is that water is valuable,” Rowley said.

“We are going to start a big education campaign about possible metering but the first thing we need to do is make sure our system is up to scratch.

“It’s not just drinking water but waste water, it’s a whole big conversation, people need to be aware that it is something we are looking at on a regular basis.”

Deputy mayor Sharyn Cain said: “Water is a very valuable resource but there is a cost to providing that water.”

Following the meeting, Rowley said water metering tied in with increasing compliance costs.

“Water is becoming more expensive.

“The most important thing is that we have our own infrastructure in place,” he said.

“We are looking for a fair and equitable scheme.”

Rowley said council was preparing its infrastructure for the introduction of water meters.

In May 2018 it was revealed Waimate ratepayers looked set to fund a \$7.4 million water treatment upgrade to get in line with drinking water standards after councillors voted unanimously to proceed with a staggered treatment upgrade programme in which the water supplies where the treatment upgrades are the lowest risk and cost, will be upgraded in years one and two of the 2018-2028 Long Term Plan (2018/19 and 2019/20).